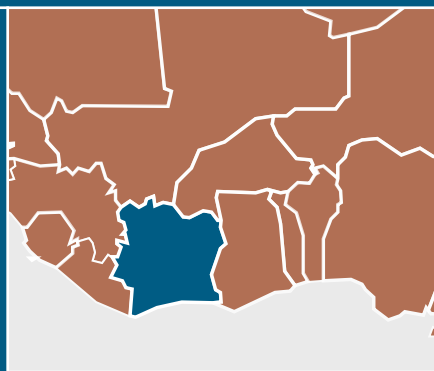


November 2013

COSTING DATA USE GUIDE



*for Providing Key HIV
Services to Female
Sex Workers (FSW)
and Men Who Have
Sex with Men (MSM)
in Côte d'Ivoire*

This publication was prepared by Annie Chen and Andrew Koleros of the Health Policy Project.

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ABBREVIATIONS

AIDS	acquired immune deficiency syndrome
ART	antiretroviral therapy
CSO	civil society organizations
DIC	drop-in center
FSW	female sex worker
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HTC	HIV testing and counseling
HIV	human immunodeficiency virus
MARP	most-at-risk population
M&E	monitoring and evaluation
MSM	men who have sex with men
NGO	nongovernmental organization
PEPFAR	United States President's Emergency Plan for AIDS Relief
PLHIV	people living with HIV
PLS-PHV	National Program to Fight HIV/AIDS for Key Populations
STI	sexually transmitted infection
VCT	voluntary counseling and testing
TWG	Technical Working Group
UNAIDS	Joint United Nations Program on HIV and AIDS
USAID	United States Agency for International Development

BACKGROUND

Despite a decrease in HIV incidence, over the past 10 years, the number of AIDS-related deaths in Côte d'Ivoire has continued to climb (UNAIDS, 2011). While national HIV prevalence ranges from 2.7 percent to 3.4 percent, prevalence among key populations, including sex workers (SWs) and men who have sex with men (MSM), is significantly higher because these groups also face significant challenges when accessing HIV prevention, treatment, care, and support services.

In response to this need, in 2008 the government of Côte d'Ivoire established the National Program to Fight HIV/AIDS for Key Populations (PLS-PHV), with a mandate to strategically coordinate national HIV treatment, prevention, care, and support services for MSM and SWs.

Obtaining country-specific cost data for HIV services related to key populations was identified as an important step to ensuring strategic allocation of available financial resources. Toward this effort, the Health Policy Project (HPP), funded by the United States Agency for International Development (USAID) and the United States President's Emergency Fund for AIDS Relief (PEPFAR), formed a study team to estimate the unit costs associated with a minimum package of HIV services for female sex workers (FSWs) and MSM. In addition to technical experts from HPP, the study team included representatives from USAID, PEPFAR, PLS-PHV, and the most-at-risk populations (MARPs) technical working group (GTT).

The study team examined the following key questions:

- What is the cost of providing one key HIV service one time (service contact) to an FSW or MSM?
- What is the current average cost of delivering one key HIV service one time to an FSW or MSM based on the proportion of services currently being used (average contact)?
- What is the cost of reaching one FSW and one MSM for one year with a comprehensive package of services?
- What are the variations or cost components driving these costs
- What would be the cost implications of changes in service utilization, both in terms of the types of services used and the frequency with which they are accessed?

The study analyzed unit cost (defined as the cost of delivering each of the services included in the comprehensive service package one time to one FSW and one MSM), associated cost drivers, and the differences in unit cost projections as the program is brought to scale.

The study team also outlined three potential scenarios of key population service packages. These scenarios considered: 1) changes in service delivery scale-up over time, 2) changes in the proportions of services being used, and 3) changes in the number of contacts per year for each service.

The final study report, *Estimation du Coût Unitaire du Paquet Minimum de Services Lies au VIH pour les PS et les HSH en Côte d'Ivoire Avant-Project*, provides comprehensive information for national policymakers, program planners, and other key stakeholders on the costs of targeted services for FSWs and MSM in Côte d'Ivoire.

To support the use of the analysis and cost data presented in the final study, the HPP study team also identified the need to develop a companion user guide to provide policymakers and program planners

with a practical, stepwise approach to using data for decision making and evidence-based HIV programs, services, and policies, that address the needs of people living with HIV (PLHIV), MSM, and FSWs in Côte d'Ivoire.

APPROACH

Using a stepwise approach with accompanying tables and worksheets, the guide first explains the importance of calculating average costs using data analysis presented in the larger study. Next, it explains how to determine and use program reach to estimate annual unit costs for HIV programs. Finally, the reader is shown how to project programmatic and national annual costs for FSWs and MSM.

WHO SHOULD USE THIS GUIDE?

This guide is for program planners, policy, and decisionmakers, and civil society organizations that advocate for and work with FSWs and MSM in programs related to HIV and AIDS. This includes Ministry of Health (MOH) national and county health officers; strategic information and monitoring and evaluation (M&E) officers; health service providers; community health workers; nongovernmental organizations (NGOs); and civil society organizations (CSOs).

ASSUMPTIONS AND LIMITATIONS

This guide does not make recommendations regarding the best mix of HIV treatment, prevention, care, and support services to meet the local and national HIV and AIDS epidemiology, context, and circumstances. Instead, it draws upon key findings from the original study and provides details on how the study results can be used to inform decision making to address the needs of key populations within Côte d'Ivoire's national HIV program.

High-quality data on the cost of providing key services to the community are essential in planning programs and policies and projecting the effectiveness of service delivery mechanisms.

Limitations of the HPP unit cost analysis include considerable variation in unit costs for service contacts depending on various factors used in the research protocol of the study. Unit costs are sensitive to changes in three dimensions: 1) changes in the level of services over time, 2) changes in the proportion of services used, and 3) changes in the number of contacts per year for each service.

The data collection team developed and used the same unit cost questionnaire at each site, but the quality and completeness of data were not the same across sites. Some of the data were based on estimates or indexes emerging from interviews with experts, rather than direct observation. Given the limited time available at each site, the team was not always able to collect data on the indirect costs included in interventions for target populations such as cost of utilities, maintenance and repair, and transport.

Finally, the research team conducted a sensitivity analysis on the unit cost estimates to determine how changes in service delivery over time could affect costs. In scenarios where services doubled, unit costs per contact were reduced to incorporate possible reductions in unit costs achieved through economies of scale.

IMPORTANCE OF CALCULATING AVERAGE COST OF DELIVERING SERVICES

Understanding the average cost of delivering services to one client for one year is essential to supporting the strategic allocation of resources for HIV programs and services for key populations. To calculate this indicator, program planners need to decide what types and combinations of services they will provide to MSM and FSWs, and the extent of program reach (i.e., approximately how many times they will make contact with each client). Having accurate size estimates of key populations can assist program planners by helping them understand the magnitude of need for HIV services and extent of program reach, which help determine projections of national costs. The steps required to arrive at the average cost are outlined below.

Step 1: Determine a Standard Service Package for HIV Prevention

The first step in costing is to determine the standard service package. In other words, program planners need to identify what services are available for one MSM or FSW and at what intensity over the course of one year.

There are a number of global resources available to help program planners determine the best possible HIV prevention, treatment, care, and support service packages. For example, the World Health Organization (WHO) and the Joint United Nations Program for HIV/AIDS (UNAIDS) recently published a set of guidelines, *Prevention and Treatment of HIV and Other Sexually Transmitted Infections for Sex Workers in Low- and Middle-Income Countries*.

The most appropriate package of services addresses the local context in which services will be provided. Côte d’Ivoire’s MARP Operational Plan Framework 2011–2013 provides country-specific guidelines to inform a minimum package of services for FSWs and MSM. Table 1 highlights some of these services.

Table 1. Types of Services

HIV Prevention Interventions	
Outreach contact	A one-on-one or small group meeting with a peer educator or outreach worker in a community setting, including the provision of information, education, and communication (IEC) materials and prevention commodities such as condoms and lubricants.
Event of mass awareness	An event in a community setting led by outreach workers that includes both safe sexual education components, with the provision of IEC materials and prevention commodities such as condoms and lubricants, and an entertainment component such as a dance, a film, or other social gathering.
HIV testing and counseling (HTC fixed)	A service provided in a fixed community setting, including an educational component with the provision of IEC materials and prevention commodities such as condoms and lubricants, and an HTC component.
Community mobile HIV testing and counseling (HTC mobile)	An outreach service provided by a mobile unit in the community, including an educational component with the provision of IEC materials and prevention commodities such as condoms and lubricants, and a voluntary HTC component.

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HIV Prevention Interventions	
Diagnosis and treatment of STIs	A service provided in a fixed community setting, including STI testing and treatment as well as IEC materials and prevention commodities such as condoms and lubricants.
Services for PLHIV	
Pre-ART services	A service provided in a fixed community setting, including a complete medical history and physical examination with laboratory tests to confirm HIV infection, CD4 count, blood test and urine assays, chest radiography for the diagnosis for tuberculosis, and screening for other signs and symptoms that define the eligibility for ART.
ART services	A service provided in a fixed community setting, including regularly scheduled visits, provision of ART, and care and treatment of opportunistic infections.
Psychological services for PLHIV	A service provided in a fixed community setting to reduce stigma and discrimination, including psychosocial support services such as counseling, spiritual support, peer support groups, and advocacy events.
Home care for PLHIV	A service provided in a client's residence to support PLHIV by providing nutritional support, distribution of materials to promote better hygiene, and psychosocial support.
Capacity building for PLHIV	A service provided in a community setting, including workshops, meetings, and other activities aimed at strengthening the capacities of PLHIV for business management skills and income-generating activities.

Step 2: Determine Program Reach

Once a standard service package has been determined, the next step is to define program reach, which is the number of contacts made with each client. Each client will likely receive many services and make contact with the program several times throughout the course of a year. For this reason, program planners need to determine a reasonable number of service contacts for each service offered. For example, it is important to determine how many times a given service should be offered to and would be utilized by one FSW during one year. To determine effective program reach, program planners should have access to robust M&E systems that collect routine data and link optimal program exposure and intensity to health outcomes. If M&E data are of poor quality or unavailable, program planners will need to rely on historical information from past intervention efforts. Program reach should also take into consideration financial feasibility and resource constraints.

Using **Worksheet 1, Columns B1 and B2**, planners can adjust the number of contacts/visits per year for FSWs and MSM, respectively, for a given intervention. To illustrate this exercise, as part of the costing study, the HPP team analyzed how an increasing number of contacts per year impacted costs for a given service. For example, outreach contact and events of mass awareness calculations varied among 4, 6, 10 and 12 contacts per year, whereas mobile and fixed HTC varied among 1, 2, 4, and 6 visits. See the full report for more information regarding the change in costs per contact.

Step 3: Calculating Average Annual Unit Cost

Once the standard service package and program reach are defined (Steps 1 and 2 above), the unit cost of providing a service package to one client for one year can be calculated using the formula below. This calculation is repeated for every intervention to project annual unit costs by intervention for FSWs or MSM.

On **Worksheet 1**, to calculate the Average Annual Unit cost for FSW (**Worksheet 1, Column P**):

$$\begin{aligned} \text{Column P (Average annual costs for reaching 1 FSW)} = & \\ & (\text{Intervention 1 in Column A1} * \text{Intervention 1 in Column B1}) + \\ & (\text{Intervention 2 in Column A1} * \text{Intervention 2 in Column B1}) + \\ & (\text{Intervention 3 in Column A1} * \text{Intervention 3 in Column B1}) + \dots \end{aligned}$$

On **Worksheet 1**, to calculate the Average Annual Unit cost for MSM (**Worksheet 1, Column H**):

$$\begin{aligned} \text{Column H (Average annual costs for reaching 1 MSM)} = & \\ & (\text{Intervention 1 in Column A2} * \text{Intervention 1 in Column B2}) + \\ & (\text{Intervention 2 in Column A2} * \text{Intervention 2 in Column B2}) + \\ & (\text{Intervention 3 in Column A2} * \text{Intervention 3 in Column B2}) + \dots \end{aligned}$$

When added together, this equation will allow program planners to project annual costs for one client:

$$\begin{aligned} \text{Column P (for FSW) or H (for MSM) (Average annual costs for reaching 1 client)} = & \\ & \text{Intervention 1 in Column A1 (Cost per intervention) * Intervention 1 in Column B1} \\ & \text{(number of contacts per year) +} \\ & \text{Intervention 2 in Column A1 (Cost per intervention) * Intervention 2 in Column B1} \\ & \text{(number of contacts per year) +} \\ & \text{Intervention 3 in Column A1 (Cost per intervention) * Intervention 3 in Column B1} \\ & \text{(number of contacts per year) +} \dots \end{aligned}$$

Step 4: Projecting National Annual Costs for Key Populations

To project national annual costs, program planners should obtain accurate size estimates of the populations of interest, which can be very challenging. Key populations such as FSWs and MSM are highly stigmatized and often face hostile social, political, and legal environments that discourage them from self-identifying. The hidden nature of these groups makes population estimates difficult and has led to important gaps in data. While there are currently no accurate size estimates for FSWs or MSM in Côte d'Ivoire, varied estimates have been reported (see table below).

Population	City Name	Size Estimation of FSW	Year
FSW	Abidjan	6,000	2000
	Aboisso	289	2004
	Bouake	1202 (95% CI 1128–1279)	2010
	Daola	497	2004
	San Pedro	1916 (95% CI 1809–2030)	2010
	Korhogo	347	2001
	Yamoussoukro	1160 (95% CI 1053–1287)	2010

Source: Vuylsteke, B., H. Vandenhoudt, et al. 2010. "Capture Recapture for Estimating the Size of the Female Sex Worker Population in Three Cities in Côte d'Ivoire and in Kisumu, Western Kenya." *Tropical Medicine & International Health* 15(12): 1537–1543; Vandepitte, J. 2006. "Estimates of the Number of Female Sex Workers in Different Regions of the World." *Sexually Transmitted Infections* 82(Suppl 3): iii18–iii25.

Once program planners have obtained an estimate of their overall population size they must determine their program target or the percentage of the total key population in need of services that they aim to reach. For example, multiplying the total FSW or MSM population in need of services by the program target percentage, yields the total number of FSWs or MSM the program aims to reach per year.

Worksheets 2 and 3 can be used at the programmatic or the national level to project aggregated costs of providing services to FSWs and/or MSM, respectively, for 12 months. Interventions are subdivided into biomedical and behavioral interventions to allow variability in the size and scale of different types of interventions.

To use **Worksheet 2** to calculate the aggregated cost of providing HIV prevention packages or treatment, care, and support service packages for FSWs for one year at **the programmatic or national level**, the total unit costs for FSWs are generated from Worksheet 1, Column P (see equation below). The "Number of FSWs" for the programmatic level is the estimated number of FSWs projected to be in the program. The "Number of FSWs" for the national level is the national size estimation for the FSW population in Côte d'Ivoire. For treatment, care, and support service packages, the "Number of FSWs" for the national level is the national size estimation for the HIV-positive FSW population. The desired percentage of coverage represents the amount of FSWs expected to be reached by an intervention. For example, a biomedical intervention of ART may not reach 100 percent of its target population (HIV-positive FSWs) because of loss to follow-up or difficulty in identifying FSWs for treatment. In many instances, the desired percentage of coverage accounts for leakage in the program, feasibility concerns, and resource constraints.

Aggregated costs per year for FSWs =

Total unit costs for FSWs (Worksheet 1, Column P) * Number of FSWs (*Number of estimated FSWs projected to be in the program or national size estimation for FSWs*) * Desired % of coverage

To use **Worksheet 3** to calculate the aggregated cost to provide HIV prevention packages or treatment, care and support service packages for MSM for one year at the **programmatic or national level**, the total unit costs for MSM are generated from Worksheet 1, Column H (see equation below). The “Number of MSM” for the programmatic level is the estimated number of MSM projected to be in the program. The “Number of MSM” for the national level is the national size estimation for the MSM population in Côte d’Ivoire. For treatment, care, and support service packages, the “Number of MSM” for the national level is the national size estimation for the HIV-positive MSM population. The desired percentage of coverage represents the amount of MSM expected to be reached by an intervention. For example, a biomedical intervention of ART may not reach 100 percent of its target population (HIV-positive MSM) because of loss to follow-up or difficulty in identifying MSM for treatment. In many instances, the desired percentage of coverage accounts for any leakage in the program, feasibility concerns, and resource constraints.

Aggregated costs per year for MSM =

Total unit costs for MSM (Worksheet 1, Column H) * Number of MSM (*Number of estimated MSM projected to be in the program or national size estimation for MSM*) * Desired % of coverage

ESTIMATING MARPS PROGRAM COSTS FOR NATIONAL HIV & AIDS STRATEGIC PLAN AND MARP OPERATIONAL PLAN

The costing data provided by the *Estimation du Coût Unitaire du Paquet Minimum de Services Lies au VIH pour les PS et les HSH en Côte d’Ivoire Avant-Project* study also prove useful for national planning exercises. Once the MARP GTT and other relevant government entities have defined a standard service package, developed an operational definition of program reach, and conducted relevant population size estimates, they can use the data to update the costing for future versions of the National HIV & AIDS Strategic Plan, the MARP Strategic Framework, and the MARP Operational Plan.

However, when updating the costing, program planners should be mindful to avoid double costing when scaling up cost projections to the national level. Program planners will need to separate costs that are specific to the MARP program from those that are generally subsumed in the overall cost of running the health sector and are centrally budgeted by the Ivoirian Ministry of Health. This is particularly relevant for facility-based services, because FSWs and MSM are likely to access the same service packages as those provided to the general population. For example, the cost of direct staff time (nurses, counselors, and other medical professionals) are not included in the costs of each service in this study because these medical professionals are not full-time MARP HIV program staff members; they spread their time across many different clinical services which are budgeted centrally by the Ivoirian Ministry of Health. On the other hand, sensitivity training and training for staff on how to best provide targeted services to FSWs and MSM would be a program cost specific to the MARP HIV program.

Similarly, the cost of condoms is currently included as a direct cost component within the cost of an outreach service contact, as condom distribution was part of all outreach contacts included in the study.

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However, condoms are currently centrally procured by the Ivoirian Ministry of Health for the country, and not disaggregated by the risk groups to whom they are distributed. In this context, the relative cost of condoms should be removed from the overall cost for outreach service contacts at the national level because the government has covered this proportional cost through a separate procurement mechanism. To help isolate the costs directly attributed to the MARP HIV program and avoid double costing, program planners can refer to the costing by cost category data outlined in Annex 2 of the main study report, which has been reproduced here as Annex D.

DISCUSSION

This guide summarizes key findings from the original study and provides policymakers and program planners with a practical, stepwise approach to using cost data for decision making and evidence-based HIV programs, services, and policies that address the needs of PLHIV, MSM, and FSWs in Côte d'Ivoire. Using Worksheets 1–3, the guide 1) explains the importance of calculating average costs using data analysis presented in the larger study; 2) makes recommendations on determining a standard service package for HIV prevention; 3) explains how to determine program reach; 4) describes how to use program reach to estimate annual unit costs for HIV programs; and 5) demonstrates how to estimate programmatic and national annual costs for FSWs and MSM in Côte d'Ivoire.

High-quality data on the cost of providing key HIV services are essential in planning evidence-based programs. However, they are only one of many components necessary to provide adequate HIV treatment, prevention, care, and support services that address local and national HIV contexts and circumstances. This guide does not make recommendations regarding the best mix of HIV interventions. However, targeted service packages that combine biomedical, behavioral, and structural interventions should be designed for each population based on the local context and culture as well as the characteristics and epidemiology of the population.

Obtaining and using country-specific cost data for HIV services is an important step to ensuring the strategic allocation of available financial resources for national HIV treatment, prevention, care, and support services for MSM and SWs. Adequately budgeting health and prevention commodities and the identification of measures to strengthen M&E systems necessary for the national key populations program provides a way to effectively monitor and evaluate the cost and cost-effectiveness of program elements.

ANNEX A. WORKSHEETS

Worksheet 1: Annual Unit Costing Worksheet

SERVICE	UNIT COSTS (F CFA)		Program Reach (# Contacts/Visits per year)		Average Annual Unit costs, by intervention	
	Weighted Unit Costs for FSW	Weighted Unit Costs for MSM	FSW	MSM	FSW	MSM
	A1	A2	B1	B2	P	H
HIV Prevention Interventions						
Outreach contact	4,920	5,881			P=A1*B1	H=A2*B2
Event of mass awareness	4,840	5,683			P=A1*B1	H=A2*B2
Community mobile HIV testing and counseling (HTC mobile)	8,589	11,246			P=A1*B1	H=A2*B2
HIV testing and counseling (HTC) fixed	6,417	7,426			P=A1*B1	H=A2*B2
Syndromic STI diagnosis	6,353	6,925			P=A1*B1	H=A2*B2
Etiological diagnosis of STIs	6,659	7,126			P=A1*B1	H=A2*B2
Syndromic treatment of STIs	7,016	7,766			P=A1*B1	H=A2*B2
Etiological treatment of STIs	6,883	7,219			P=A1*B1	H=A2*B2
Services for PLHIV						
Pre-ART service	28,343	29,657			P=A1*B1	H=A2*B2
ARV service	20,664	20,086			P=A1*B1	H=A2*B2
Care and treatment of opportunistic infections	7,272	8,614			P=A1*B1	H=A2*B2
Counseling	5,007	5,560			P=A1*B1	H=A2*B2
Peer support groups	9,493	5,395			P=A1*B1	H=A2*B2
Spiritual support	5,017	6,812			P=A1*B1	H=A2*B2
Home care	6,462	6,138			P=A1*B1	H=A2*B2
Nutritional support	14,461	13,442			P=A1*B1	H=A2*B2
Income generating activities	19,761	20,523			P=A1*B1	H=A2*B2
Capacity-building interventions	9,719	13,120			P=A1*B1	H=A2*B2

Source: République de Côte d'Ivoire. 2012. *Estimation du Coût Unitaire du Paquet Minimum de Services Lies au VIH pour les PS et les HSH en Côte d'Ivoire Avant-Projet.*

Worksheet 2. Aggregated Cost to Provide HIV Prevention Package for FSW for 1 Year

Intervention	Total Unit costs, by intervention (P from Worksheet 1)	Number of FSWs reached	Desired % coverage	Aggregated costs per population
Biomedical Interventions A for FSW	A (\$)	B	C (%)	$D1 = A * B * C$
Behavioral Interventions A for FSW	A (\$)	B	C (%)	$D2 = A * B * C$
Structural Interventions A for FSW	A (\$)	B	C (%)	$D3 = A * B * C$
Aggregated cost to provide HIV prevention package for FSW for 1 year = $D1 + D2 + D3$				

Worksheet 3. Aggregated Cost to provide HIV Prevention Package for MSM for 1 year

Intervention	Total Unit costs, by intervention (H From Worksheet 1)	Number of FSW Reached	Desired % coverage	Aggregated Costs per population
Biomedical Interventions B for MSM	A (\$)	B	C (%)	$D4 = A * B * C$
Behavioral Interventions B for MSM	A (\$)	B	C (%)	$D5 = A * B * C$
Structural Interventions B for MSM	A (\$)	B	C (%)	$D6 = A * B * C$
Aggregated cost to provide HIV prevention package for MSM for 1 year = $D4 + D5 + D6$				

ANNEX B. RESOURCES FOR PROGRAM IMPLEMENTERS

Best Practices for Using Costing Data to Develop HIV and AIDS Programs for Key Populations

The most effective HIV and AIDS program “is dependent on the ability of program managers and providers to identify needs in the communities they serve and to understand the extent to which their programs address these needs” (Judice, 2007). Below are seven steps, developed by USAID’s MEASURE Evaluation project, that guide program implementers on how to use costing data to improve HIV and AIDS programs (Judice, 2007).

- 1. Identify Questions of Interest by defining program success and mapping client flows and program outcomes**
Work with a diverse group of stakeholders to define program success and map measurable program outcomes to allow consideration of the most important HIV program components and costs for MSM and FSWs.
- 2. Prioritize key Questions of Interest in the program**
Ensure that program activities align with the program’s key questions and goals to prioritize the top activities and necessary costs to offer the most exigent HIV services to MSM and FSWs.
- 3. Identify costing data needs and potential sources**
Identify needs for routine and non-routine costing data for HIV programs and whether costing data is of sufficient quality to establish strategic plans for HIV programs.

Transform data into information

Isolate the key program activities and calculate the aggregated costs for the HIV and AIDS program.

Interpret information and draw conclusions

Analyze the costing information for the HIV and AIDS program by describing the costing data in terms of your specific program activities. Invite key stakeholders to discuss why your program has or has not achieved its programmatic goals to develop solutions for HIV program improvement.

- 4. Craft solutions and take action**
It is essential to involve “service providers, M&E or data specialists, health administrators” and MSM and FSW populations in the process for providing relevant and actionable solutions to existing HIV and AIDS programs for key populations (Judice, 2007).
- 5. Continue to monitor key indicators**
It is likely that HIV program unit costs will change over time with changes in the HIV epidemic in Côte d’Ivoire, cost of drugs and commodities, increased risk of multidrug-resistant HIV and co-infections, and changes in the procurement of HIV drugs and commodities for services to key populations. It is important to modify unit costs to address these changes as programs evolve over time.

Resources for Program Implementers

The resources listed below provide additional guidance for national program planners, donors, and other stakeholders seeking to plan and budget for MARP-specific HIV program and services.

1. WHO, UNODC, UNAIDS. 2012. *Technical Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users*, 2012 revision. Available at http://www.who.int/hiv/pub/idu/targets_universal_access/en/index.html

Description: A tool developed by three United Nations (UN) agencies—the World Health Organization (WHO), the United Nations Office on Drugs and Crime (UNODC) and the Joint United Nations Programme on HIV/AIDS (UNAIDS), this document provides technical guidance to countries on monitoring efforts to prevent and treat HIV infection among people who inject drugs (PWID) and for setting ambitious but achievable national targets for scaling up toward universal access.

2. WHO. 2013. *Implementing Comprehensive HIV/STI Programmes with Sex Workers: Practical Approaches from Collaborative Interventions*. Available at http://www.who.int/hiv/pub/sti/sex_worker_implementation/en/index.html

Description: This tool offers practical advice on implementing HIV and STI programs for and with SWs, including community-led interventions, and examples of promising practices from around the world that may support efforts in planning programs and services.

3. WHO. 2013. *Consolidated Guidelines on the Use of Antiretroviral Drugs for Treating and Preventing HIV Infection*. Available at <http://www.who.int/hiv/pub/guidelines/arv2013/download/en/index.html>

Description: In this document, WHO provides consolidated guidelines that address the use of ARV drugs for HIV treatment and prevention across all age groups and populations, based on the broad continuum of HIV care.

4. UNAIDS. 2011. *Resource Kit for Global Fund HIV Proposals – Round 11*. Available at <http://www.unaids.org/en/ourwork/programmebranch/programmeeffectivenessandcountry-support-department/aideffectivenesscountrycapacitydivision/resourcekit/>

Description: In an effort to support high-quality proposals to the Global Fund to Fight AIDS, Tuberculosis and Malaria, the WHO and UNAIDS developed a resource kit with numerous technical briefs including those covering key populations (e.g., SWs, MSM, and transgender people) and a toolkit for targeted pools (i.e., MARPs).

5. Koleros, A. 2012. *Unit Cost of Providing Key HIV Services to Female Sex Workers and Males Who Have Sex with Males: Ghana*. Washington, DC: Futures Group, Health Policy Project.

Description: The *Unit Cost of Providing Key HIV Services to Female Sex Workers and Males Who Have Sex With Males: Ghana* constitutes the main study report on which this data use guide is based. It includes complete, detailed study results and costing data.

6. PEPFAR. 2011. *Technical Guidance on Combination HIV Prevention*. Available at <http://www.pepfar.gov/documents/organization/164010.pdf>.

Description: As part of PEPFAR's overall prevention strategy, this guidance document addresses prevention programs for MSM.

7. UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance. 2010. *Guidelines on Estimating the Size of Populations Most at Risk to HIV*. Geneva: WHO and UNAIDS. Available at http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2011/2011_estimating_populations_en.pdf.

Description: This document provides guidance on how to conduct population size estimate studies to measure and understand MARPs.

8. UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance. 2011. *Guidelines on Surveillance Among Populations Most at Risk for HIV*. Geneva: WHO and UNAIDS. Available at http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2011/20110518_Surveillance_among_most_at_risk.pdf.

Description: This document provides guidance on how to develop and maintain HIV surveillance among populations most at risk for HIV to both improve the overall understanding of countries' HIV epidemics and their responses.

9. WHO. 2011. *Prevention and Treatment of HIV and Other Sexually Transmitted Infections among Men Who Have Sex with Men and Transgender People: Recommendations for a Public Health Approach*. Available at www.who.int/hiv/pub/guidelines/msm_guidelines2011/.

Description: Primarily designed for use by national public health officials and managers of HIV and AIDS and STI programs, NGOs (including community and civil society organizations), and health workers, these guidelines provide recommendations for regional and country partners on appropriate interventions designed to address the needs of MSM and transgender people.

10. WHO. 2012. *Prevention and Treatment of HIV and Other Sexually Transmitted Infections for Sex Workers in Low- and Middle-Income Countries: Recommendations for a Public Health Approach*. Available at http://www.who.int/hiv/pub/guidelines/sex_worker/en/index.html.

Description: Primarily designed for use by national public health officials and managers of HIV and AIDS and STI programs, NGOs (including community and civil society organizations), and health workers, these guidelines provide technical recommendations on effective interventions for the prevention and treatment of HIV and other STIs among sex workers and their clients.

ANNEX C. RESOURCES FOR NATIONAL POLICYMAKERS

Best Practices for Promoting Costing Data Use to Improve HIV Programs

Costing data is one of many data streams used in strategically improving HIV and AIDS programs for MSM and FSWs. Building the capacity of decision makers to use cost data to inform policy development, resource allocation, and strategic planning holds the potential to develop of responsive and effective HIV and AIDS programs for MSM and FSWs. Program planners and policymakers must “understand the current response to the epidemic—what was being done by national agencies and partners, and the degree to which their activities were addressing the problem” to use costing data to develop improved HIV programs for MSM and FSW (USAID, 2012).

The concurrent use of costing data to inform strategic planning and budgeting for HIV and AIDS programs for key populations is an essential component for improving these programs. Below are seven best practices for promoting and institutionalizing use of costing data for informed decisionmaking, adapted from USAID’s MEASURE project in Rwanda (USAID, 2012).

- 1. Commit to using evidence for strategic planning**
By focusing on various streams of data needed to develop the best HIV and AIDS programs for key populations, in addition to costing data, managers and implementers can develop evidence-based programs.
- 2. When using costing information for decision-making for HIV programs, engage a broad range of stakeholders in the planning processes**
By involving a full range of stakeholders, from government officials and private-sector health managers to members of key populations, HIV strategic plans can be coordinated and relevant to address their most exigent HIV and AIDS risk factors and health needs.
- 3. Improve data availability and quality**
High-quality costing data on HIV and AIDS programs for MSM and FSWs that are complete, up to date, and easily available to HIV and AIDS program planners for key populations is are vital to ensure the use of costing data during the decision-making process
- 4. Facilitate strong participation in coordinating groups and mechanisms**
Strong administrative support to facilitate joint planning and accountability, and the involvement relevant stakeholders and development partners reduces overlap and increases the opportunity for efficient and coordinated HIV and AIDS programs for MSM and FSWs.
- 5. Use an integrated approach by combining traditional information gathering, modeling, capacity building, and knowledge management to support the institutionalization of data use**
Governments and HIV and AIDS programs need current, dependable, and relevant data; modeling to identify programmatic needs and solutions; and capacity building to ensure that costing data are up to date, relevant, and usable for HIV and AIDS programs.

6. **Establish and maintain cooperative relationships with key agencies and donors working in the country**
7. **Create strong feedback loops and common platforms to make data easily available to all stakeholders**
Information sharing and data dashboards allow various stakeholders to access HIV costing data.
8. **Apply the data demand use cycle repeatedly to ensure results**
Kenya has various stakeholders, agencies, and groups involved in providing HIV and AIDS services to MSM and FSWs in Côte d'Ivoire. The data demand and use cycle of costing data demand, collection, analysis, availability, and use is an important for program planning and M&E for HIV and AIDS programs for MSM and FSWs.

Resources for National Policymakers

1. Baral S., C. H. Logie, A. Grosso, A. L. Wirtz, and C. Beyrer. 2013. "Modified Social Ecological Model: A Tool to Guide the Assessment of the Risks and Risk Contexts of HIV Epidemics." *BMC Public Health* 13: 482. Available at <http://www.biomedcentral.com/1471-2458/13/482>

Description: This article is useful for guiding assessment of risks of HIV in key populations as HIV program and national health policy implementers develop the best HIV prevention package for MSM and FSWs.

2. Kim, J. Y., P. Farmer, and M. Porter. 2013. "Redefining Global Health-care Delivery." *The Lancet* 382(9897): 1060–1069. Available at [www.doi.org/10.1016/S0140-6736\(13\)61047-8](http://www.doi.org/10.1016/S0140-6736(13)61047-8)

Description: This resource provides a care delivery value chain for HIV and AIDS care delivery in resource-poor settings.

3. Judice N. 2007. *7 Steps to Use Routine Information to Improve HIV/AIDS Programs*. Chapel Hill, NC: USAID/MEASURE. Available at http://www.cpc.unc.edu/measure/publications/ms-09-38/at_download/document

Description: This resource can guide HIV program planners in how to best use data to improve HIV and AIDS programs.

4. USAID. 2012. *Improving Demand for and Use of Data Strengthens HIV/AIDS Programs in Rwanda*. Available at http://www.cpc.unc.edu/measure/publications/sr-12-66/at_download/document

Description: This resource can help program and national health policymakers determine how to best use costing data to strengthen HIV and AIDS programs.

5. USAID, PEPFAR, HPP, amfAR, Planned Parenthood, and IPPF. 2013. *Advancing Country Ownership: Civil Society's Role in Sustaining Public Health*. Available at http://www.healthpolicyproject.com/pubs/226_AdvancingCountryOwnershipCivilSocietealth.pdf

Description: This resource provides a checklist for engaging and building capacity with civil society organizations.

6. WHO. 2013. *Guide to Conducting Programme Reviews for the Health Sector Response to HIV/AIDS*. Available at <http://www.who.int/hiv/pub/toolkits/hiv-response-guide/en/index.html>

Description: This guide assists countries in planning and managing program reviews that enable assessment of the health sector response to HIV and improve their performance by describing the principles and processes for reviewing programs and providing a checklist of key review questions in main intervention areas.

ANNEX D: DETAILS ON COSTING METHODS AND ANALYSIS

Unit Costing Method

The HPP team designed a mixed methods study consisting of primary and secondary data collection and analysis to estimate the average national financial cost to the provider for delivering the comprehensive package of services to one FSW and one man who has sex with men for one year in varying scenarios of service use and intensity. The team examined the costs of service delivery staff time (program managers, paid personnel, and administrative staff); supplies (prevention commodities, IEC materials, and other supplies); and capital costs such as equipment. The approach considered a representative service delivery model for the intervention.

A purposive sample of 22 intervention sites operated by nongovernmental organizations (NGOs) and 4 public hospitals was selected, reflecting a representative sample of regional and operational variation within the country. A standard questionnaire was developed to collect data from the sample of intervention sites. The questionnaire was pre-tested at one site and then used to train data collection teams. Data collectors interviewed local program officials, administered the questionnaire, and reviewed program and NGO documents at each intervention site. At each site, data were collected on the time service providers spent with each client, the various stages of the intervention, and resources used. Respondents also provided information on management functions, including time allocation and resources used. Throughout the data collection period, the local consultant gathered information from central sources on resource use and prices, as well as a variety of local sources.

Inputs were first analyzed according to type of cost. Inputs were categorized as follows: labor (NGO personnel and administrative staff), supplies (prevention commodities and other consumables), and capital costs, such as equipment. To adjust for inflation, all costs reflect constant 2010 prices. Based on unit cost estimates for each service, the team conducted scenario analyses to estimate program reach under varying program conditions.

The study yielded findings on the national average unit cost to deliver each service included in the comprehensive service package one time to one FSW and one man who has sex with men (unit cost per service contact). The most direct indicator of national costs was an average cost for reaching one client with one service one time across the intervention sites included in this study, weighted by the number of clients served at each site. Application of the weighted average yielded costs ranging from 4,856 F CFA for a service contact for HIV education and awareness and 8,697 F CFA for HIV testing and counseling services in a drop-in center. The study also showed that indirect costs were the most important cost category, accounting for approximately 85 percent of the total cost price.

The study team conducted a sensitivity analysis on unit cost estimates to determine how changes in service delivery over time could affect costs over time. The unit cost per service contact is estimated to decline by between 36 and 50 percent in scenarios where the services are doubled the following year. The weighted average cost for a service provided to a member of the target population based on current use of services is estimated at 8,893 F CFA. To project weighted unit costs for reaching a man who has sex with men or FSW for one year with a package of services, the team developed three scenarios based on varying service delivery mechanisms, service utilization projections (at current levels of use in the scenario and the use of the minimum package of services), and number of contacts per year of service use. Comparing these projections, the unit costs of community-based services are expected to decrease by nearly 25 percent in scenarios where the service is increased for target populations.

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Other important findings included the importance of adequately budgeting health and prevention commodities when estimating unit costs and the identification of measures to strengthen M&E systems necessary for the national MARP program to effectively monitor and evaluate the cost and cost-effectiveness of program elements.

Unit Costing Tables

These tables are reproduced from Appendix 1 of the main study report, *Unit Cost of Providing Key HIV Services to Female Sex Workers and Males Who Have Sex with Males*. They can help program planners isolate the costs directly attributed to the MARP HIV program and avoid double costing. For each main type of input, the table describes the method and sources for estimating quantities of inputs, prices, and unit costs. The inputs are grouped into categories of 1) direct costs per visit; 2) other direct costs associated with service delivery; and 3) Indirect costs associated with service delivery at the intervention site

Direct Costs per Visit

Quantities	Sources	Comments	Prices	Sources	Comments
Staff Time					
Average number of minutes each program staff member directly provides services to the typical client, by type of service	Interviews with program staff	Reported by average times, may not reflect real resource use Reported average times do not incorporate downtime and may underestimate true resource cost	Calculated per minute of compensation for categories of salaried staff Calculated per contact per staff member receiving motivation	Salary scales provided from the central level and motivation costs provided by intervention sites	Compensation includes salary and benefits
IEC Materials					
Average quantity used per service contact Price per item multiplied by average quantity of items used in a service contact	Program interviews with staff		Price of item used	Central-level data, inclusive of design and production costs	
Prevention Commodities					
Average quantity distributed/sold per service contact Price per item multiplied by average quantity of items distributed/sold in a service contact	Program staff interviews		Price of item used	Estimates by authors based on international and local prices	

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Quantities	Sources	Comments	Prices	Sources	Comments
Other Consumables and Other Supplies					
Average quantity used per service contact Price per item multiplied by average quantity of items used in a service contact	Program staff interviews		Price of item used	Estimates by authors based on international and local prices	
Laboratories					
For each test, quantity for one client For each test, price per test *average number of tests per client * percent of clients getting tested; calculated separately for HIV-positive and HIV-negative individuals	National HTC Guidelines		Cost per laboratory test	National Cost Quantifications, NACP 2011	

Other Direct Costs Associated with Service Delivery

Quantities	Sources	Comments	Prices	Sources	Comments
Staff Time (Professional Non-Client Time)					
Number of professional staff and percentage of non-client time spent on MARP program in a year	Program staff interviews		Calculated per minute of compensation for categories of staff	Salary scales provided from central level	Compensation includes salary and benefits
Vehicle Costs					
	Program staff interviews		Replacement cost of item, straight-line depreciation by useful life	Price estimates by authors based on local prices; useful life set by authors using international standards	

Quantities	Sources	Comments	Prices	Sources	Comments
Program Equipment					
	Program staff interviews		Replacement cost of item, straight-line depreciation by useful life	Price estimates by authors based on local prices; useful life set by authors using international standards	
Physical Site Costs (Drop-in Centers)					
Number of square meters of physical space used in MARP program	Measured at each DIC		Cost per square meter based on rental cost of equivalent commercial space; yearly cost per square meter * number of square meters	Authors' estimates based on information from local property valuation experts	
Staff Training					
Fixed quantity of training costs per intervention site	Program staff interviews		Total yearly amount spent on trainings/ MARP service contacts		
Program Running Costs					
Total yearly cost/MARP service contacts			Annual costs for DIC as a whole	Program staff interviews	

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Indirect Costs Associated with Service Delivery at the Intervention Site

Quantities	Sources	Comments	Prices	Sources	Comments
Staff Time (Administrative Non-Client Time)					
Number of administrative staff and percentage of non-client time spent on MARP program in a year	Program staff interviews		Calculated per minute of compensation for categories of staff	Salary scales provided from central level	Compensation includes salary and benefits
Office Equipment					
Number and type of equipment used in each visit type; yearly depreciated replacement cost * use in MARP program as percentage of total use by NGO/MARP service contacts	Program staff interviews		Replacement cost of item, straight-line depreciation by useful life	Price estimates by authors based on local prices; useful life set by authors using international standards	
Physical Infrastructure of Administrative Site					
Number of square meters of physical space used in MARP program	Measured at each intervention site		Cost per square meter based on rental cost of equivalent commercial space; yearly cost per square meter * number of square meters	Authors' estimates based on information from local property valuation experts	
Transport Costs					
Total yearly cost * MARP usage as proportion of total NGO usage/MARP service contacts			Annual transportation costs for NGO	Program staff interviews	
Public Utilities					
Total yearly cost * MARP usage as proportion of total NGO usage/MARP service contacts			Annual costs entire NGO	Program staff interviews	

Quantities	Sources	Comments	Prices	Sources	Comments
Maintenance and Repair (Office Equipment)					
Total yearly cost * MARP usage as proportion of total NGO usage/MARP service contacts			Annual costs entire NGO	Program staff interviews	
Indirect Costs per Service Contact for General Program Support					
Total support costs allocated to MARP program/total number of service contacts	FHI360, WAPCAS, GAC, 2011; Authors' calculations		Total annual MARP support costs	FHI360, WAPCAS, GAC, 2011	

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