



HIV ECONOMIC ANALYSIS

How We Can Help PEPFAR Countries

- Setting priorities and goals to avert the spread of HIV and mitigate its impact.
- Using computer models to explore different scenarios in an effort to strategically plan the appropriate mix of interventions and funding levels needed to achieve desired results.
- Identifying gaps in human and financial resources, and advocating for mobilization of additional resources where necessary.
- Monitoring resource mobilization and service coverage to evaluate whether programs are reaching stated goals.
- Preparing costed action plans, which facilitate implementation and aid in securing resources from internal sources and external donors (because they can clearly show how investments are to be used and what the expected impact will be).
- Assessing the cost-effectiveness of various approaches.
- Understanding the current and future socioeconomic impact of HIV on the country, district, or organization.

Sound economic analysis can help countries set priorities, target scarce resources where they are most needed, and reduce waste and inefficiency—thus enhancing the ability to scale up programs and achieve results in support of the President’s Emergency Plan for AIDS Relief (PEPFAR). The USAID | Health Policy Initiative, Task Order 1, has extensive experience to helping policymakers and program managers understand the resources required to mount an effective response to the epidemic as well as how get the most out of HIV investments. HPI focuses on three approaches that form part of a results-based planning process: using computer models to address resource allocation issues, estimating resources needed, and costing interventions.

USING MODELS TO ADDRESS RESOURCE ALLOCATION ISSUES

AIDS Impact Model (AIM). AIM explores the consequences of the HIV epidemic by estimating the number of people living with HIV, new infections, AIDS deaths, and AIDS orphans by age and sex. AIM is continually updated with the latest data and is used by UNAIDS to prepare the country, regional, and global HIV estimates presented in its reports on the global epidemic.

Goals Model. By linking cost and intervention effectiveness data, Goals enables stakeholders to assess how different interventions and resource allocation patterns affect the achievement of HIV program goals. Thus, planners can make strategic decisions about what interventions to adopt and the level of resources to allocate to each intervention. The model also assesses what can (and cannot) be achieved with available resources. Countries such as China and South Africa have increased the amount of resources available for specific interventions. Others have made changes to program goals and targets to ensure they could be more realistically met within the specified budgets and timeframe. In Ghana, for example, the Goals results were instrumental in getting agreement from diverse stakeholders on targets for universal access, understanding the dynamics of funding and impact, and preparing realistic budgets and goals that reflected GAC’s priorities. We have also adapted Goals to different types of epidemics, and it is increasingly being used to help with planning at the local level as in China, Indonesia, and Vietnam.

Capacity Module. Human resource limitations are increasingly recognized as a primary barrier to HIV program scale-up and quality improvement. The Capacity Module within the Goals Model projects the number of staff of various types needed to meet HIV/AIDS program targets for specific interventions. By comparing current and anticipated staffing needs, the module also identifies human resource gaps. The findings can inform decisions about how to address the gaps: for example, by hiring and training new staff, improving staff performance, task shifting, or adopting alternative staffing patterns. We are currently pilot-testing the module in Yunnan and Guangxi provinces of China.

TB/HIV Goals. We are developing a TB/HIV Goals Model to enhance planning and resource allocation for tuberculosis (TB) control, with particular attention to TB/HIV interactions. National program efforts targeting TB and HIV are both undermined if policymakers and planners do not adequately address the inter-relationships of the two epidemics. The model will help decisionmakers understand the costs and impacts of various approaches to TB and TB/HIV programs. Plans are underway to pilot-test the model in Ukraine.

Additional planning tools include the **PMTCT Model**, which evaluates the costs and benefits of various interventions to prevent transmission of HIV from mother to child; **HIV Vaccine**, which can help estimate the resources needed to roll out an HIV vaccine, when an effective vaccine is developed; and **Condom Requirements**, which forecasts commodities required to meet HIV prevention and family planning needs, focusing on at-risk groups.

UNDERSTANDING RESOURCE NEEDS

We have worked at the global, national, and decentralized levels to help policymakers and program planners understand the resource requirements to achieve broad program goals. Much of this work is based on our **Resource Needs Model**, which calculates the resources needed for an expanded HIV response.

Highlights of work using the Resource Needs and related models include:

- In the lead-up to the 2001 United Nations General Assembly Special Session on HIV/AIDS (UNGASS), our team contributed to an analysis of resource needs that suggested \$9.2 billion would be needed annually by 2005 to scale up the HIV response.
- As part of PEPFAR planning, we used the Resource Needs Model to show what could be achieved with increased U.S. investments for HIV. The findings were among the data that helped policymakers establish PEPFAR's 2–7–10 goals and recommend \$15 billion in funding over five years. Our current workplan calls for meetings with OGAC to discuss how we can use economic analysis to inform the decisionmaking for PEPFAR's upcoming reauthorization.
- We have also led the way in estimating resource needs for specific sectors. For example, men who have sex with men (MSM) are among the most at-risk populations in Asia and the Pacific, and reaching them with prevention services is essential for controlling the spread of HIV in the region. We compiled the limited data available to assess current MSM HIV expenditures as well as resources required to reach MSM with a package of recommended prevention services. The study has become a key advocacy and planning document for increased HIV resources for most at-risk groups in the region. In addition, we have extensive experience in assisting countries to plan programs and estimate service delivery costs for meeting the needs of orphans and vulnerable children (OVC). Using the OVC Cost Model, with UNICEF support, our team has worked with stakeholders in 15 countries of sub-Saharan Africa to set national priorities, prepare different cost scenarios for budgeting and mobilizing resources, and build collaborative in-country teams to implement activities.

HPI's Areas of Expertise

- ✓ HIV and AIDS estimates
- ✓ Socioeconomic impact studies
- ✓ Service coverage surveys
- ✓ Resource requirements
- ✓ Human resource needs
- ✓ Cost-effectiveness
- ✓ Cost-benefit analysis
- ✓ Costing
- ✓ Strategic planning
- ✓ Resource allocation
- ✓ Resource gap analyses
- ✓ Participatory planning approaches
- ✓ Capacity building
- ✓ Advocacy for resource mobilization
- ✓ Monitoring and evaluation

COSTING ACTION PLANS

Once goals and interventions are determined, country teams need to design the concrete action plans that will operationalize HIV programs. Implementation can be improved by creating a costed action plan. “Costing” refers to the delineation of the real costs associated with each aspect of implementing an intervention. Costing is more than simply preparing a budget—as budgets often do not consider real costs, might allocate funds where they are not needed, or fail to provide sufficient funds for particular activities. Costing helps avoid waste and inefficiency and can identify resource shortfalls.

Highlights of our costing work include:

- **Costing of national and decentralized plans.** We have costed national action plans (e.g., OVC National Plan of Action in Kenya) and are working with in-country partners to improve resource planning at the regional and district levels—a critical next stage as countries increasingly decentralize decisionmaking and healthcare systems. For example, Indonesia has a National HIV/AIDS Strategy (2003–2007), but it lacked an action plan, estimates of resource needs, performance targets, and guidance on how to implement the strategy. The country’s National AIDS Commission (NAC) sought our assistance in preparing a new strategic action plan for 2007–2010. Partnering with the NAC Costing Team, we used the Resource Needs Model to prepare a costed plan. By costing the plan, the NAC was able to set priorities, effectively target resources, and develop a more realistic national implementation plan. As part of this process, we prepared scenarios for 19 high-priority provinces.
- **Costing of new strategies.** Male circumcision (MC) has shown potential as an intervention to reduce HIV risk among men. In the coming fiscal year, PEPFAR will devote increased funding for MC programs in the focus countries. We recently completed groundbreaking studies on the impact and human, financial, and commodities requirements for scale up of MC programs in Lesotho, Namibia, Swaziland, and Zambia. As a result, the World Health Organization (WHO) has recommended that our approach be used as the standard costing methodology for MC. Based on this work, we are developing an MC Decisionmakers’ Tool that will enable decisionmakers to understand the cost and impact of MC under different scenarios, such as the pace of scale-up, different provider combinations, or targeting specific age groups.

Bringing the various types of information together—on the socioeconomic impact of the epidemic, the cost-effectiveness of different approaches, the resource needs and gaps, and the consequences of the failure to act—we have helped country teams improve resource allocation, strengthen commitment and mobilize additional resources, and build local capacity in evidence-based planning and decisionmaking.

RECOMMENDED RESOURCES

- Goals Model (*includes Resource Needs Model and Capacity module*)
- AIDS Impact Model (*includes PMTCT Model*)
- *Costing Male Circumcision in Lesotho, Swaziland, and Zambia: Implications for the Cost-Effectiveness of Circumcision as an HIV Intervention.* (September 2007). Individual country reports also available.
- *HIV Expenditure on MSM Programming in the Asia-Pacific Region* (September 2006)
- *Socioeconomic Impacts of and Resources Required for HIV and AIDS* (ASEAN) June 2007

For More Information

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