

***Allocating resources to effectively fight HIV/AIDS requires comprehensive information on national HIV/AIDS-related expenditures. The NHA HIV/AIDS subanalysis is a tool that clearly illustrates current expenditures and provides information that can be used to improve resource planning, thereby increasing a country's ability to combat the HIV/AIDS epidemic.***

## Using the National Health Accounts Subanalysis to Track Resource Flows for HIV/AIDS

### *Introduction*

Many low- and middle-income countries face increasing pressure to expand health care services to combat a growing burden of disease – and to do this as limited, even declining, and unreliable public funding forces rationalization of service delivery systems. This situation often is exacerbated by the demands that HIV/AIDS places on health systems and the need to set up a system response appropriate to the country situation and its epidemic evolution.

To meet these needs, global initiatives, national governments, and local organizations have mobilized to increase the envelope of resources available to advance the response to the HIV/AIDS epidemic. Given the need to scale up comprehensive packages of HIV/AIDS prevention, care, and treatment services, governments have proposed national policies and strategies aimed at removing barriers to access to services. Many programs are exploring alternative ways to allocate resources efficiently and effectively to prevent spread of the virus, treat those who have the disease, and mitigate the impact of the pandemic. However, selecting the most appropriate option for resource allocation demands comprehensive information on national HIV/AIDS-related expenditures and program reach. Unfortunately, many countries lack this information.

Dramatic levels of funding for HIV/AIDS programs are now available from a growing number of international sources such as the Global Fund to Fight AIDS, Tuberculosis and Malaria, the U.S. government's President's Emergency Plan for AIDS Relief (PEPFAR), the 3 by 5 Initiative of the World Health Organization (WHO), and the

World Bank's Multi-Country HIV/AIDS Program (MAP), as well as private sector contributions.

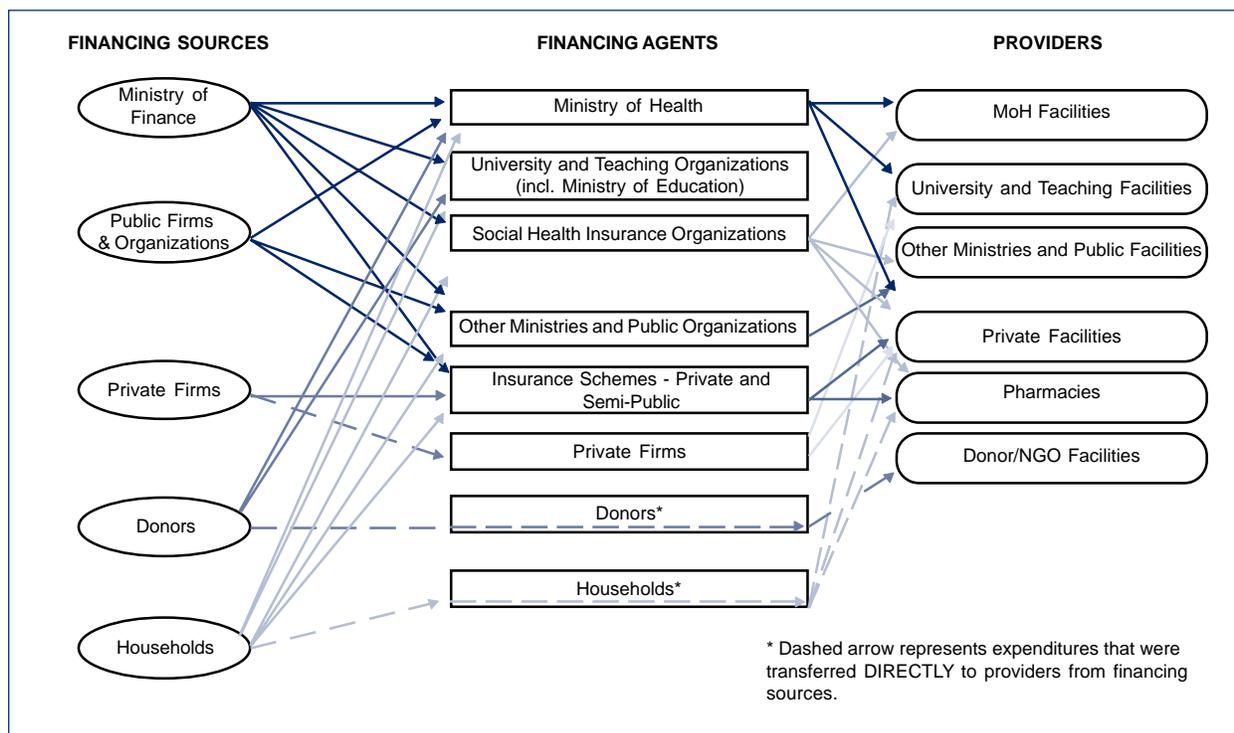
This influx of funding raises concern about the potential administrative burden placed upon countries and organizations that receive the financing: Will they be able to allocate the new resources toward the most effective HIV/AIDS interventions and to measure the impact of the new funding on reversing the momentum of HIV/AIDS – a requirement of many of the aforementioned initiatives? Will they be able to track the resources in a way that promotes transparency and accountability? Will these efforts displace or reduce resources meant for other diseases?

Financial indicators to track resource use and link it to health outcomes therefore must be an integral component of a monitoring and evaluation strategy. In addition, clarifying expenditures and resource needs will build an understanding of the burdens that providing HIV/AIDS services places on health systems, specific programs, households, and individuals. The National Health Accounts (NHA) framework is an effective way to track HIV/AIDS resources and produce data on key financial indicators.

### *Methodology*

Implemented in more than 60 middle- and low-income countries, NHA is an internationally recognized framework for measuring total (public, private, and donor) health expenditures in a given country. NHA methodology tracks the flow of funds through the health sector, from funding sources, through financing agents, to providers and functions (Figure 1).

Figure 1: NHA Shows the *Flow of Funds*



In addition to illustrating total national health care spending patterns, the NHA framework has been adapted to enable “subanalyses” that can be used to capture data on a specific disease by breaking down expenditures on related individual services and disease areas (such as HIV/AIDS interventions).

As with the general NHA, subanalysis data are compiled in tables that organize the flow of HIV/AIDS funds from the sources of financing, passing through the institutions that manage the funds, to the providers of services, the types of services delivered, and the beneficiaries of those services. In describing the flow of HIV/AIDS funds, NHA reveals not only how much is spent on HIV/AIDS but also the types of services the population uses – prevention, treatment of opportunistic infections, antiretroviral (ARV) treatment, etc. – and how those services are financed – by government funds, donor grants, or out-of-pocket payments by households. By disaggregating HIV/AIDS expenditures in this manner, the NHA subanalysis provides policymakers, program managers, and donors with a clear picture of the envelope of resources being spent on HIV/AIDS as well as how the money is being spent by the various payers, from the national to the household level. Further analysis has, in some countries, produced

information on HIV/AIDS expenditures by socioeconomic status, geographic grouping, and/or gender, allowing for an assessment of the financial burden of the disease on different subpopulations.

In implementing a subanalysis, the U.S. Agency for International Development (USAID)-funded Partners for Health Reform *plus* Project (PHR *plus*) uses a methodological approach that adheres closely to the *Guide to Producing National Health Accounts* (also known as the *Producers’ Guide*).<sup>1</sup> This approach allows for international comparability while simultaneously offering flexibility for a country to tailor the subanalysis to its national policy priorities and state of the epidemic.

The HIV subanalysis entails collecting data on HIV/AIDS service utilization and expenditures by reviewing budget records and other secondary sources. It also requires additional data collection to determine allocation factors and to capture expenditure information that is not available from secondary sources. Generally, country subanalyses will at a minimum need primary data on expenditures by people living with HIV/AIDS (PLWHA).

<sup>1</sup> WHO, World Bank, and USAID. 2003. *Guide to Producing National Health Accounts*. Geneva.

While a stand-alone subanalysis is valuable, *PHRplus* recommends that, whenever possible, disease-specific subanalyses be done within the context of a general sector-wide NHA estimation. Much information on HIV/AIDS can be obtained from the primary and secondary data collection done in a general NHA estimation, which helps to place a country's HIV/AIDS spending patterns within the context of overall health spending. *PHRplus* has traditionally worked with country institutions, such as the ministry of health, to build capacity of the core NHA team while promoting the inclusion of a broad range of stakeholders in the NHA estimation process. This approach increases the likelihood that the estimation will be appropriately tailored to the HIV/AIDS situation in the country and that it will deliver results that are relevant to domestic policymaking. Furthermore, it promotes use of NHA findings by various stakeholders and enhances the prospects for routine production of the NHA HIV/AIDS subanalysis.

HIV/AIDS expenditures have been tracked using the NHA methodology in Latin America and the Caribbean by the World Bank- and Joint United Nations Program on HIV/AIDS (UNAIDS)-funded Regional AIDS Initiative for Latin America and the Caribbean (SIDALAC) and in countries in the East, Central, and Southern Africa region by *PHRplus*. Thus far, half of the Global Fund countries and 11 of the 14 PEPFAR countries have completed NHA estimations.

*PHRplus* continues to solidify and enhance the HIV/AIDS subanalysis methodology through its consultations with HIV/AIDS and NHA experts in countries in sub-Saharan Africa, the Commonwealth of Independent States, and the Latin America and Caribbean region. Furthermore, the project collaborates with SIDALAC and a number of agencies that have been instrumental in promoting work in this field, such as USAID, WHO, and UNAIDS.

### Setting Boundaries for HIV/AIDS Expenditures

The HIV/AIDS subanalysis closely follows the framework of the NHA methodology, which calls for carefully defining expenditure boundaries used in a NHA analysis, to ensure that results are internationally comparable.

A boundary delineates which activities are captured in a NHA analysis. From the universe of all expenditures, the NHA framework sets parameters of *direct health* expenditures, which are entirely or primarily associated with health care; and *health-related* expenditures, such as medical research, which contribute to health care but overlap with other disciplines.<sup>2</sup> For international

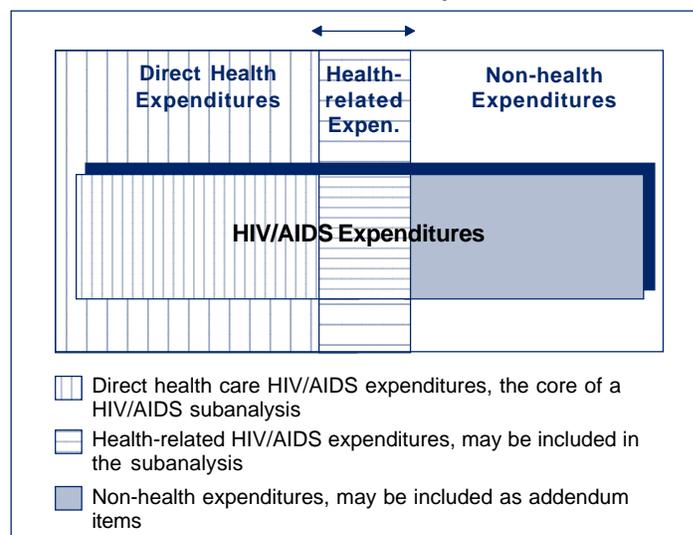
comparability, a country must include health-related capital formation in its estimate of total expenditure on health; the extent to which other health-related expenditures are included is left to the discretion of the country. By definition, non-health expenditures are not included in a country's NHA analysis.

Like general NHA estimates, the HIV/AIDS subanalysis focuses on capturing health care expenditures directly associated with health (Figure 2). The following criteria are suggested for delineating direct HIV/AIDS health expenditures:

- ▲ The activity is primarily intended to contribute positively to the health status of persons living with HIV/AIDS in the time being studied
- ▲ The activity is intended to prevent the spread of HIV/AIDS.<sup>3</sup>

Health-related HIV/AIDS expenditures, such as training of health personnel to administer HIV/AIDS tests and capital formation for new laboratories, may be included.

**Figure 2: Expenditure Boundaries of a NHA HIV/AIDS Subanalysis**



<sup>2</sup> For further information please refer to the following: WHO, World Bank, and USAID. 2003. *Guide to Producing National Health Accounts*. Geneva; and OECD. 2000. *A System of Health Accounts (Version 1.0)*. Paris.

<sup>3</sup> Ideally, individuals whose health care expenditures are targeted in this subanalysis are those who have been tested positive for HIV, with a confirmation test. However, such information may not always be available. Recognizing the lack of testing in some regions of the world, the NHA HIV/AIDS subanalysis allows for flexibility, while adhering to the internationally endorsed definitions of HIV/AIDS used for surveillance purposes.

In addition, because some countries feel they need to track *non-health* expenditures associated with HIV/AIDS, such as funding for a program to reduce the social stigma associated with AIDS, PHR*plus* has adapted the HIV/AIDS subanalysis to incorporate these non-health “addendum items” into the overall uniformity of the NHA framework.

## Classifications

In accordance with the *Guide to Producing National Health Accounts*, the HIV/AIDS subanalysis modifies the International Classification for Health Accounts (ICHA) approach, to include financing sources, financing agents, providers, and functions.

*Financing sources* are entities that fund HIV/AIDS care. They answer the question: “Who pays for HIV/AIDS care?” Examples are ministries of finance, donors, and households. In the internationally accepted classification approach, “financing sources” are denoted by the code *FS*.

*Financing agents* play an intermediary role; they receive funds from financing sources and use them to pay for/purchase the services and goods related to HIV/AIDS care. They answer the question: “Who manages and organizes HIV/AIDS funding?” This category is important because financing agents often decide how the funds are used, that is, they have programming responsibilities. Examples are ministries of health, national AIDS control programs, and insurance companies. For classification purposes, “financing agents” are denoted by the code *HF*.

*Providers* are the end users of funds; they deliver health services. They answer the question: “Where does the money go?” Examples are private and public hospitals, clinics offering care for sexually transmitted infections (STIs), and volunteer and community health workers. For classification purposes, “providers” are denoted by the code *HP*.

*Functions* refer to the HIV/AIDS services and medical goods that providers deliver, using the funds that the other dimensions allocate to them. They answer the question: “What was actually produced?” Information about this dimension is perhaps the most critically sought from a policy perspective. Function categories include curative, long-term nursing, palliative, and preventive care; goods such as ARV drugs and other medicines; and administration. For classification purposes, “direct health functions” are denoted by the code *HC*, and “health care-related functions” are denoted by the code *HCR*.

The flexibility of ICHA allows for the creation of subcategories to accommodate a country’s unique HIV/AIDS entities, services, and activities. For example, under the broad category *HC.1 Services of Curative Care*, the subcategory *HC.1.3 Outpatient Curative Care* can be detailed further to include *HC.1.3.7 ARV Treatment* (Figure 3).

## Data Collection

PHR*plus* recommends a country-tailored approach to collecting data on HIV/AIDS health expenditures. The types of primary and secondary data that are needed will vary from country to country and on the nature of the HIV/AIDS epidemic itself. This said, in order to obtain a comprehensive picture of the flow of funds for HIV/AIDS, the NHA team will need to determine appropriate, feasible, and cost-effective ways for capturing expenditure information on the following entities:

- ▲ Households living with HIV/AIDS
- ▲ Providers of HIV/AIDS services including hospitals, clinics, offices of physicians, pharmacies, and, if deemed appropriate, traditional healers
- ▲ Donors
- ▲ Non-governmental organizations (NGOs)
- ▲ Relevant government entities such as the ministry of finance, ministry of health, and perhaps a multisectoral AIDS committee
- ▲ Insurance companies
- ▲ Employers

Data collection on household spending for HIV/AIDS will be done through the implementation of a targeted survey among people living with HIV/AIDS. Potential respondents will be identified through their key points of entry into the health care system. These vary depending on the nature of the epidemic within a given country. For example, in the context of a generalized epidemic, individuals living with HIV/AIDS may be identified at clinics and hospitals offering voluntary counseling and testing (VCT) services and through associations of people affected by the disease. In a concentrated epidemic, where the disease is contained within certain high-risk groups such as intravenous drug users or commercial sex workers, individuals living with HIV/AIDS may be more easily identified at drug treatment clinics, NGOs providing prevention services, or STI clinics. Although gathering information on household out-of-pocket

**Figure 3: NHA Financing Agents x Function Table for HIV/AIDS Subanalysis**

| Functions               |                                                     | Financing Agents* |                          |                       |             |                                   | Total |
|-------------------------|-----------------------------------------------------|-------------------|--------------------------|-----------------------|-------------|-----------------------------------|-------|
|                         |                                                     | HF.1.1.1.1        | HF.1.1.1.3               | HF.1.2                | HF.2.5.1    | HF.2.3.2                          |       |
|                         |                                                     | MoH               | Other Ministries/ Depts. | Social Security Funds | Parastatals | Households (government employees) |       |
| HC.1.1                  | Inpatient Curative Care                             |                   |                          |                       |             |                                   |       |
| HC.1.3                  | Outpatient Curative Care                            |                   |                          |                       |             |                                   |       |
| HC.1.3.5                | STI Management                                      |                   |                          |                       |             |                                   |       |
| HC.1.3.6                | OI Treatment and Monitoring (TB)                    |                   |                          |                       |             |                                   |       |
| HC.1.3.7                | ARV Treatment                                       |                   |                          |                       |             |                                   |       |
| HC.4.1                  | Clinical Laboratory                                 |                   |                          |                       |             |                                   |       |
| HC.4.2                  | Diagnostic Imaging                                  |                   |                          |                       |             |                                   |       |
| HC.5.1.1.1 + HC.5.1.2.1 | ARV Drugs                                           |                   |                          |                       |             |                                   |       |
| HC.5.1.1.2 + HC.5.1.2.2 | OI Drugs (TB)                                       |                   |                          |                       |             |                                   |       |
| HC.5.1.3                | Other Medical Non-durables (e.g. condoms)           |                   |                          |                       |             |                                   |       |
| HC.6.1.1                | PMTCT Treatment                                     |                   |                          |                       |             |                                   |       |
| HC.6.3.1                | Voluntary Counseling and Testing (VCT)              |                   |                          |                       |             |                                   |       |
| HC.6.3.2                | Blood Safety                                        |                   |                          |                       |             |                                   |       |
| HC.6.3.4                | Information, Education, Communication Program (IEC) |                   |                          |                       |             |                                   |       |
| HC.6.3.5                | STI Prevention Program                              |                   |                          |                       |             |                                   |       |
| HC.6.3.7                | Condom Distribution Programs                        |                   |                          |                       |             |                                   |       |
| HC.7                    | Health Admin & Insurance                            |                   |                          |                       |             |                                   |       |
| HCR.1-5                 | Health Care Related Functions                       |                   |                          |                       |             |                                   |       |
| <b>Column Total</b>     |                                                     | 0                 | 0                        | 0                     | 0           | 0                                 | 0     |

\* The list of financing agents displayed here is not intended to be comprehensive.

expenditure for HIV/AIDS has usually meant the administration of a targeted survey, in some high-prevalence countries the data may be obtained through the addition of expenditure questions to ongoing nationally representative household surveys that include HIV biomarkers (such as the demographic and health surveys conducted by MEASURE DHS+). As a general rule, to minimize cost and to institutionalize the process of data collection, the team should look for ongoing and regularly administered surveys to which a few questions on HIV/AIDS spending can be added. Conducting surveys on PLWHA should be done with caution and careful preparation. In this regard, the country subanalysis team should respect certain guidelines and ethical principles, in line with the existing UNAIDS recommendations as well as international principles in bioethics.<sup>4</sup>

### *The Policy Impact of the HIV/AIDS Subanalysis*

The NHA subanalysis for HIV/AIDS provides country governments with information needed to review overall HIV/AIDS-related expenditure patterns and improve resource planning to fight the HIV/AIDS epidemic. It also permits the tracking of service utilization and out-of-pocket health expenditures by people affected by HIV/AIDS, including at-risk subpopulations in countries where the epidemic is still concentrated in those groups. Country governments can use the NHA subanalysis to allocate resources in the most efficient and effective way to prevent the spread of the disease, treat those affected, and mitigate the impact of the epidemic.

NHA also is a useful tool where international donors require a country to have systems for program implementation, financial reporting, and program monitoring and evaluation. The NHA

<sup>4</sup> Council for International Organization of Medical Sciences (CIOMS). 2002. *International Ethical Guidelines for Biomedical Research Involving Human Subjects*. Geneva: WHO.

framework is particularly useful in clarifying expenditures on HIV/AIDS because it provides data that are sufficiently disaggregated to allow for assessment of performance by HIV service area (e.g., VCT, ARV therapy, and prevention of mother-to-child transmission). Further, because disease-specific subaccounts such as HIV/AIDS are frequently implemented within the context of broader sector-wide NHA, the tool is well suited to measure additionality – the concept that assistance made through the Global Fund “*not replace or reduce* other sources of funding, either those to fight against AIDS, tuberculosis and malaria or those that support public health more broadly.”<sup>5</sup>

The following examples illustrate how the NHA subanalysis impacts a country’s HIV/AIDS policy and programs.

Rwanda’s experience shows how NHA HIV/AIDS information has been used for policy purposes: Given the severe impact of HIV/AIDS on the population – a 1997 Ministry of Health survey identified approximately 11 percent of the adult population as HIV positive – the government of Rwanda felt it needed to have a better understanding of the sources and distribution of health care funds so that it could design effective and financially sound HIV/AIDS interventions. The first NHA HIV/AIDS subanalysis in 1998 showed that only 10 percent of all health expenditures in the country went toward prevention and treatment of the disease. Moreover, while donors financed more than half the health sector, only 1 percent of their funds went toward HIV/AIDS services and programs. Households were the primary financiers of HIV/AIDS services, providing 93.5 percent of total HIV/AIDS funding; donors provided 6 percent while the government contributed less than 1 percent. Revelation of the financial burden on households and the paucity of donor funds led the donor community to increase its contribution

to the fight against HIV/AIDS in Rwanda by tripling its assistance from \$0.5 million in 1998 to \$1.5 million in 2000. Additionally, NHA enabled the Ministry of Health to design and implement policy interventions targeted at improving the financing of prevention activities and increasing access to basic health care services for people living with HIV/AIDS.

Lack of comprehensive national-level data on the flow of HIV/AIDS resources increases the risk of misallocating funds or suspension of funding: The Global Fund recently withdrew support to three recipient organizations in Ukraine, because they were not meeting implementation targets for HIV/AIDS treatment and prevention. This marks the first time that the Fund has halted disbursement of grants to a project it supports. In making its announcement, the Fund emphasized that it “relies on local ownership and planning to ensure that new resources are directed to programs on the frontline of this global effort, reaching those most in need. The Fund has a performance-based approach to grant-making – where grants are only disbursed if progress has been measured and verified...to ensure that funds are used efficiently...”<sup>6</sup> In this context, the use of the NHA subanalysis as part of a national monitoring and evaluation strategy would help ensure that donor-funded efforts provide transparency in the flow of funds and therefore contribute to those in need.

The National Health Accounts subanalysis is a useful tool for health system management and policymaking. Increasingly, NHA is becoming institutionalized in many countries and conducted on a routine basis that could provide meaningful baseline and trend data to assess progress toward national priorities in the fight against HIV/AIDS as well as toward the goals of various global initiatives. Its review of expenditure patterns allows for improvements in resource planning, thereby increasing the government’s ability to effectively address the HIV/AIDS epidemic.

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<sup>5</sup> [www.theglobalfund.org/en/about](http://www.theglobalfund.org/en/about). Accessed 10 June 2004.

<sup>6</sup> Global Fund to Fight AIDS, Tuberculosis and Malaria. 30 January 2004. “The Global Fund Acts to Secure Results for its Programs in Ukraine.” Press Release. The Global Fund Media Center. [www.theglobalfund.org/en/media](http://www.theglobalfund.org/en/media).