



## Policy Brief

# HIV & AIDS Commodity Security



Participants at a conference on the importance of commodity security in Ghana, 2004.

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**HACS is a holistic approach that brings together multiple programs, cross-cutting issues, and functions to meet the demands in the provision and use of HIV and AIDS commodities.**

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## The Global HIV and AIDS Situation

Significant progress has been made over the past 20 years to combat HIV and AIDS. The annual number of deaths has declined from 2.2 million in 2005 to 2 million in 2007 due in part to increased access to HIV treatment.<sup>1</sup> There have been notable declines in HIV prevalence rates in Kenya, Rwanda, Uganda, and Zimbabwe; however, the infection rate continues to increase in other regions and countries.

In the past decade, financing for HIV interventions has increased sixfold. Recently, an increasing number of global partners have focused funding on strengthening the health system. The 2008 round of Global Fund grants set aside 20 percent to strengthen areas such as supply chain systems and investing in and developing human resources.<sup>2</sup>

The combination of increased funding for HIV commodity financing and strengthened supply chains for these commodities has enabled countries to significantly scale up numbers of people receiving antiretroviral treatment (ART). Globally, the number of people on ART in low- and middle-income countries has increased tenfold, as depicted in Figure 1 below. However, the number of new infections still outpaces the increase of people on ART by 2.5 times.<sup>3</sup> To build on the progress that has been made and make inroads into reversing the course of the pandemic, the global effort still requires substantial resources, including some that are specifically dedicated to financing drugs and improving health systems and supply chains.

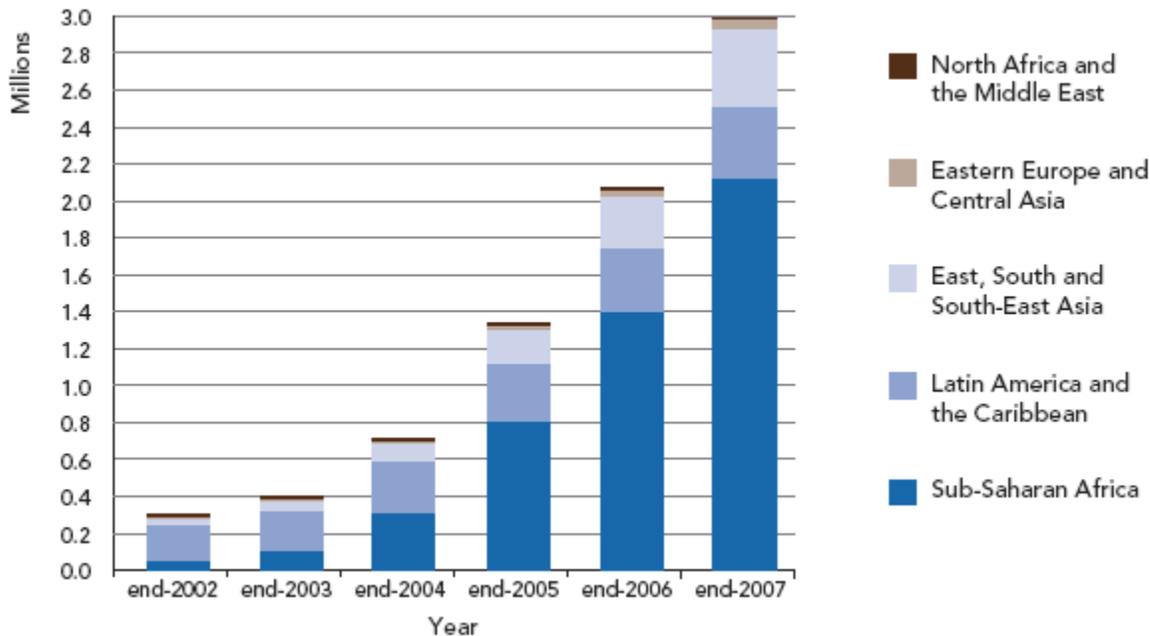


<sup>1</sup> UNAIDS 2008 report on the global AIDS epidemic.

<sup>2</sup> Global Fund to Fight AIDS, Tuberculosis and Malaria. Press release. 12 November 2008.

<sup>3</sup> UNAIDS 2008 report on the global AIDS epidemic.

**Figure I: Number of people receiving ARV drugs in low- and middle-income countries, 2002–2007**



Source: UNAIDS 2008 report on the global AIDS epidemic

Supply chains have played and will continue to play a critical role in the response to the global HIV and AIDS challenge, through ensuring an uninterrupted supply of HIV and AIDS commodities to people who need them. In addition to an efficient and effective supply chain to deliver these commodities, many other components, such as strong leadership, sustainable financing, and human resources need to function together for HIV and AIDS commodity security (HACS) to exist. These components are interdependent and must all be strengthened in order to have a successful national HIV and AIDS program. None of these components alone can guarantee that countries will have a full supply HIV and AIDS commodities, or reliable supply chains to deliver them to all the patients who need them.

## HIV and AIDS Commodity Security

### What does HIV and AIDS Commodity Security Mean?

HACS is a situation *where patients and service providers can choose, obtain, and use quality HIV and AIDS commodities when and where they need them.* HACS mirrors the multi-sectoral effort needed to support the numerous elements that make up HIV and AIDS programs. Just as the supply chain depends on several elements—forecasting,



**Ghana** was the first country to create a national HACS strategic plan, beginning the process in 2005. The strategy was developed through a multi-sectoral and coordinated approach to address how HACS could be used in HIV prevention and treatment programs. The strategic plan exists under and complements Ghana’s National Strategic Framework II (2006–2010) in the effort to follow the “Three One’s” principles of:

- *One HIV and AIDS Action Framework* that provides the basis for coordinating the work of all partners;
- *One national AIDS coordinating authority* with a broad-based multi-sectoral mandate for HIV/AIDS overall policy and coordination; and
- *One country-level monitoring and evaluation system.*

The strategic plan addresses four elements of the HACS framework: (1) procurement and logistics management, (2) financing, (3) quality, and (4) policy and coordination. These were identified as the priority areas needing specific attention, while the other HACS elements already had existing strategies to address these issues.

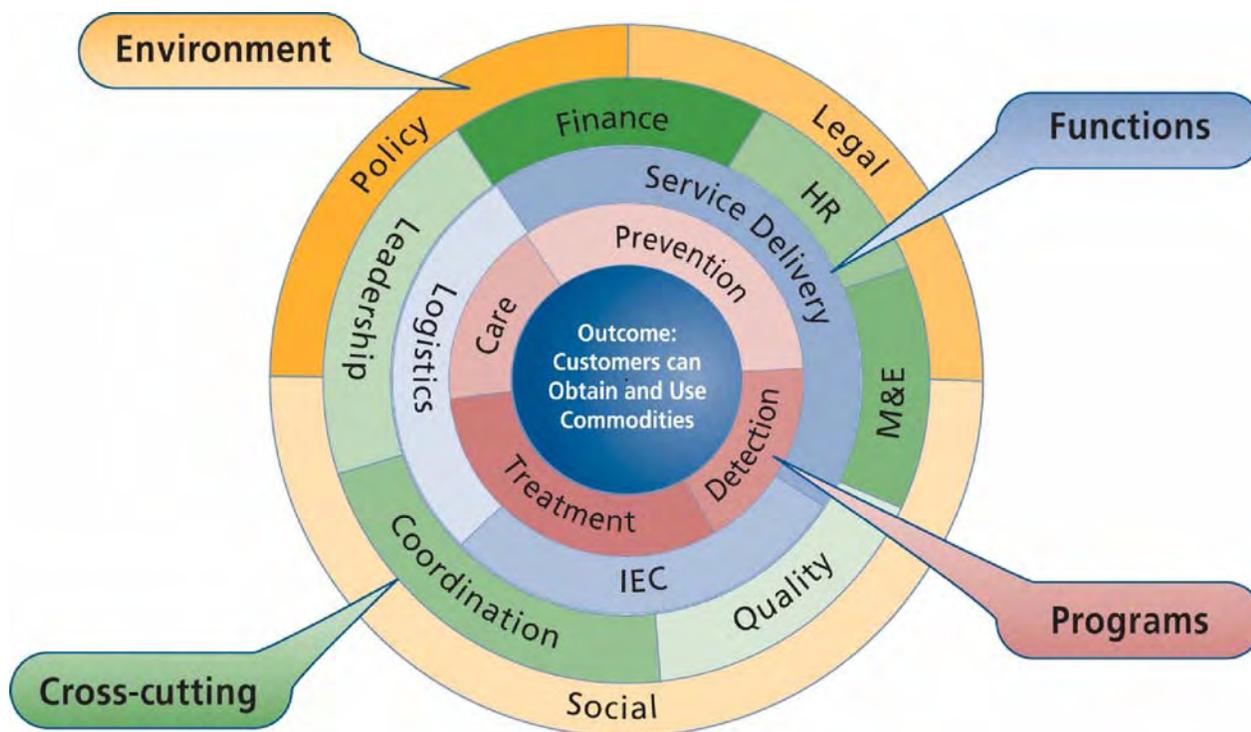
quantification, procurement, storage, and distribution—to be effective, HACS is a holistic approach that brings together multiple programs, cross-cutting issues, and functions to meet the demands in the provision and use of HIV and AIDS commodities. The HACS process is a way to integrate the existing efforts and programs into a common framework from which to work. As with any program, focusing on one component alone will not yield commodity security.

The framework was introduced in 2006 and since then has been used by many countries as a model for tackling the numerous pieces that must be addressed to ensure HACS. Countries have adapted the HACS framework and have introduced and implemented the process to fit their needs.

## The HIV and AIDS Commodity Security Framework—what is it composed of?

Figure 2 presents the framework as a series of four rings representing the different elements to achieve HACS. The framework can be understood by starting at the center and moving outward. At the center is the critical outcome of HACS that should inform all strategies: that customers can obtain and use commodities whenever and wherever they are needed. The HACS approach looks at the role of each successive “ring” to see how programs, functions, cross-cutting issues, and the environment facilitate or inhibit achievement of the outcome.

**Figure 2: HIV and AIDS Commodity Security Framework**



### 1) Programs

The next ring consists of the programs that are included in a comprehensive HIV and AIDS strategy. These are categorized by their primary purpose—namely prevention, detection, treatment, and care—but can be reorganized to match a country’s existing structure. Within these categories, a wide range of commodities are required for achieving commodity security. More details about the programs and commodities are provided below.

## ***Prevention***

When considering the commodities used for prevention, policymakers should consider two major prevention activities: HIV infection prevention and opportunistic infection (OI) prevention. These activities can be done through initiatives such as condom promotion, prevention of mother-to-child transmission (PMTCT), and blood safety programs. The following commodities are included:

- male and female condoms.
- Contraceptives.
- HIV test kits.
- antiretroviral (ARV) drugs for PMTCT.
- pharmaceuticals for OI prophylaxis (e.g., co-trimoxazole and isoniazid).

## ***Detection***

For both OIs and HIV, two main commodity groups are involved in detection: diagnostic agents and laboratory supplies. Detection involves the initial screening and diagnosis of HIV and OIs in patients, as well as monitoring the status of HIV-positive patients. The following commodities are included:

- HIV test kits.
- commodities for testing OIs (e.g., tuberculosis (TB), pneumonia, fungal infections).
- CD4 count tests.
- viral load tests.
- hematology, biochemistry, and microbiology tests.
- laboratory consumables (e.g., gloves, blood collection devices).

## ***Treatment***

Treatment refers to ART as well as the treatment of OIs. HIV-positive patients are susceptible to numerous infections that require a variety of therapeutic regimens. When planning for commodity requirements for treatment programs, policymakers should consider the list of more than 100 essential products that are needed to treat conditions in HIV-positive individuals. These commodities include—

- ARV drugs.
- drugs for treating OIs (e.g., TB, pneumonia, fungal infections, digestive system disorders).

## ***Care***

In HIV programs, care involves commodities that are needed for the ongoing management of conditions related to HIV infection or treatment, rather than for the prevention or treatment of HIV directly. Commodities needed for care include those needed for hospice services, such as pain control drugs. Commodities for care include—

- pain control drugs and related supplies.
- drugs for supportive treatment for secondary infections, such as sexually transmitted infections.
- drugs to manage side effects.



To improve the use of logistics data for decision making in HIV and AIDS programs in **Kenya**, LMIS data from facilities are aggregated and analyzed by a computerized system at the central level. These LMIS data include consumption, stock on hand, current patient statistics, regimens used, and number of HIV tests conducted. During regular partner meetings, the analyzed information is presented in a way that enables policymakers to address technical issues, identify funding gaps, and advocate for increased resources. The use of LMIS data for decision making has helped to reduce stockouts, overstocks, and duplication in HIV and AIDS commodity procurement.

## 2) Functions

### ***Supply Chain***

The supply chain is an essential component of an HIV and AIDS program, as it ensures that commodities are delivered to where they are needed. A strong, functioning, adequately resourced supply chain has the capacity to select, forecast, quantify, procure, distribute, and store commodities, and has a sound logistics management information system (LMIS).

Product selection should be done in a rational manner following standard treatment guidelines and testing algorithms. Products should be on the national essential medicines list or other standardized list using international standards to select drugs, laboratory commodities, test kits, and other consumables. Each country will make selections to fit its needs; however, standardization is an important factor to keep in mind to prevent the proliferation of drugs, laboratory equipment, and reagents, and to minimize deviation from standard operating procedures.

For laboratory commodities, standardization of tests, techniques, and equipment facilitates the ability of programs to pool and procure commodities when the same products are selected. It also facilitates a rational and efficient decision-making process for product selection, forecasting, quantification, and storage.



During a 2008 laboratory standardization workshop in **Botswana**, participants recommended that a standardization policy be added to the laboratory policy as one step to improve availability of laboratory supplies. Standardization would reduce the number and variety of commodities to be managed, thereby reducing complexity and paving the way toward a more efficient supply chain in Botswana.

The quantification of commodities should take into consideration the scale-up plans of HIV and AIDS programs and the capacity of the service delivery system. The quantification of HIV and AIDS products will need to be informed by as many data sources as possible, including accurate logistics data that include stock on hand, consumption, and tracking of shipments.

### ***Service Delivery***

The ability of clients to choose, obtain, and use commodities also depends on the service delivery system. Service provider skills dictate the quality of care given to clients and their ability to understand their responsibilities in using ARV drugs properly. Similarly, service providers working with HIV test kits, running laboratory services, and performing diagnostics must also work within certain standards and procedures. This requires an HIV and AIDS program to have established, disseminated, and provided training on—

- standard operating procedures.
- dispensing protocols.
- monitoring and supervision of dispensing practices.
- universal safety precaution guidelines.

All of these guidelines play a role in ensuring that commodities are dispensed and used properly in the right quantities and dosages. This facilitates better predictability in supplying commodities, leading to more accurate forecasting and planning within the supply chain. With standard procedures, there can be better provision of equitable services and provision of consistent care and case management.

### ***IEC***

Information, education, and communication (IEC) are essential for both the client and service providers. Client education on availability of ART services and options is important for proper use of and adherence to ARV drugs. Proper drug usage can be aided through the timely dissemination of standard treatment guidelines (STGs) to service providers so they understand current country guidelines such as

drugs or regimens that are being phased in or out, and new formulations or strengths of existing products. Modifications in STGs and how well they are followed by service providers have an impact on the consumption of and demand for commodities, affecting the supply chain's ability to provide the right amount of HIV and AIDS products in a country.

### 3) Cross-cutting Issues

The next ring addresses cross-cutting issues. These include the leadership required to guide the process, coordination among all partners, adequate financing for the commodities and services associated with supporting an HIV and AIDS program, the capacity and availability of human resources to provide the services of each of the functions, monitoring and evaluation of systems, performance and progress, and ensuring that quality measures are in place.

#### *Financing*

Financing for commodity security requires funds to—

- procure all commodities needed for prevention, care, and treatment.
- disseminate and train on STGs, testing algorithms, and laboratory standards.
- support supply chain functions such as transportation, warehousing, and testing of products entering the country.
- train service providers on both service delivery and logistics responsibilities.

#### **Global Fund financing—Linking HIV and AIDS and reproductive health**

The Global Fund has increased its emphasis on making linkages between reproductive health services and HIV and AIDS programs to improve disease outcomes. If countries are able to show better integration of programs such as HIV prevention and family planning and then link this to demonstrate the number of HIV infections prevented, then Global Fund financing will support the procurement of condoms. If Global Fund grants can be used to finance condoms, this can free up other funds to purchase other commodities, such as HIV and AIDS commodities. This will require coordination and advocacy at the country level to integrate HIV and reproductive health services as well as coordination among Global Fund stakeholders, principal recipients, and for country coordinating mechanisms to keep this in mind when writing their proposals.

Source: USAID | DELIVER PROJECT. 2008. *Policy Brief: Global Fund Financing of Condoms and Contraceptive Security*. Arlington, Va.: USAID | DELIVER PROJECT, Task Order 1



The government of **Honduras** has leveraged the use of Global Fund monies to ensure the availability of ARV drugs in the country. Six of the 20 adult and pediatric ARV drugs currently procured and used in Honduras are not on the National Essential Medicines List (NEML) yet, and therefore cannot be procured with government funds. However, the GOH has allowed the current Global Fund principal recipient, the Cooperative Housing Foundation (CHF) purchase these pharmaceuticals as part of the GOH commitment with the national program, even though these products are not listed on the NEML. CHF has committed to procuring all quantities needed of these six ARV drugs as well as additional quantities of other ARVs on the NEML as approved in the Global Fund procurement and supply plans for the three years of the project, May 2008 through April 2011. The government of Honduras still provides approximately 80 percent of the funding for procurement of ARV drugs for the National HIV and AIDS Program, with the balance covered by CHF.

Mobilizing resources is one of the biggest challenges and priorities for many countries. The long-term commitment required by countries to support clients for the remainder of their lives is a unique aspect of HIV and AIDS, requiring sustainable financing for a wide range of products and services. Countries are using their national resources and other global financing mechanisms such as Global Fund, UNITAID, President's Emergency Plan for AIDS Relief (PEPFAR), and donor funding to finance the purchase of HIV and AIDS commodities.

## ***Coordination and Leadership***

Implementation of an HIV and AIDS program requires coordination among numerous stakeholders and programs, including the private sector and nongovernmental organizations, in some countries. This coordination needs effective and strong leadership to manage competing priorities and coordinate resources, interventions, and workplans. Many countries are making efforts to link HIV and AIDS, reproductive health, and other related services (e.g., TB, outpatient clinics) to increase the number of access points for clients to receive HIV and AIDS information, services, and commodities. This requires increased dialogue among these stakeholders to integrate activities, as well as leadership to develop national strategies. This coordination also requires developing training programs to allow health workers to provide a range of services to clients in an integrated environment. Many countries have created coordinating bodies and committees, ranging from broad HIV and AIDS coordinating bodies (see Zambia text box) to technical working groups to address specific topics.



In **Zimbabwe**, the Ministry of Health and Child Welfare has established the Procurement and Logistics Sub-Committee (PLS). This committee is co-chaired by the Logistics Sub-Unit of the AIDS and TB Programme and the Department of Pharmacy Services. The purpose of the PLS is to actively coordinate procurement and logistics functions with international and local organizations involved in supporting and providing HIV and AIDS services in Zimbabwe. Partners gather every month to coordinate and collectively manage HIV and AIDS pipelines to ensure that there are no stockouts, expiries, or other logistical problems. It is also a platform to share experiences and ideas in the proper management of commodities and oversee the overall security for HIV and AIDS commodities.

## ***Human Resources***

In many countries, the lack of adequate, skilled health workers is one of the major challenges in achieving commodity security. Because health workers are essential in making sure commodities are delivered and used properly, they must have sufficient training, counseling skills, on-the-job training, and regular supervision and feedback. Capacity is necessary for running the laboratory and administering the tests related to HIV and AIDS treatment and prevention. In order for staff to provide commodities to clients and for facilities to have stock, people need to be in place to manage the logistics system and deliver the commodities. In addition to human resources at the facility level, another key element is the human resources required to manage the logistics system as a whole effectively

and efficiently. In Zimbabwe, the Ministry of Health and Child Welfare has created the Logistics Sub-Unit (LSU) as part of the AIDS and TB Programme. The LSU is responsible for the overall management of the logistics system and for identifying and implementing improvements to the supply chain, as well as routine activities such as supervising facilities, forecasting and quantification, and reviewing and approving resupply quantities for facilities. By having an adequately staffed LSU, the government has created a structure through which good supply chain management practices can be institutionalized.

## ***Monitoring and Evaluation***

Monitoring and evaluating the systems, programs, activities, and progress of an HIV and AIDS program is essential. Managers need accurate, routine data to—

- measure outcomes.
- diagnose problems or issues.
- make adjustments if there are problems with implementation.

Part of monitoring and evaluation is the feedback given from higher levels to lower levels as part of good information-sharing practices. Monitoring and evaluation can help inform the level of quality in programs, services provided by health workers, and the efficiency of the supply chain.

## **Quality**

Policymakers and program managers must ensure that services and products are of good quality. Quality logistics management should ensure product quality by complying with regulations for commodities entering the country, and ensuring that the product quality is not compromised throughout the in-country supply chain. Mechanisms include adhering to global standards for products by purchasing prequalified ARV drugs or other commodities from registered manufacturers and suppliers, and ensuring that standard operating procedures and conditions for storage and distribution in the in-country supply chain are clearly defined and favorable for promoting product quality.

## **4) Environment**

The outer ring emphasizes the policy, legal, and social climates that comprise the environment within which commodity security can or cannot function effectively. The environment, including the national policies, political conditions, and regulations set by the government, influences all of the other HACS elements. For example, if a country establishes a policy that all HIV care and treatment will be free to anyone who requires commodities or services, this will influence the rest of the HACS elements, such as human resources, financing, coordination, and supply chain.

## **Policy and Legal**

Having supportive policies can greatly facilitate the achievement of HIV and AIDS commodity security. National policies should outline the structure and funding required for HIV and AIDS programs, and have specific funding allocated for procuring HIV and AIDS commodities. One issue many countries are grappling with is product and/or brand proliferation. Since changing policies can be a slow process, national drug policies often have not kept up with the rapid pace of HIV and AIDS program scale-up. This requires putting in place policies and guidelines to harmonize and standardize treatment practices and commodities.

In some cases, policies exist that act as barriers to achieving commodity security. These include restrictive policies regarding the registration of ARV drugs, duties that influence the prices of commodities, or cumbersome procurement processes to procure HIV and AIDS commodities. The absence of policies can also be harmful. For instance, a lack of guidelines ensuring the equitable treatment of HIV and AIDS clients and prevention of provider bias, can have negative consequences on commodity security.

## **Social Environment**

The social and economic environment is a major influence on commodity security, in which income levels, education, and cultural views play a role in the prevention and treatment of HIV and AIDS. Minimizing stigma can facilitate people's ability to access HIV and AIDS services. Having adequate social support and counseling can increase adherence. The HIV and AIDS situation and social and economic context in a country influence each other, with the fall in life expectancy and productivity creating a weak economic environment.



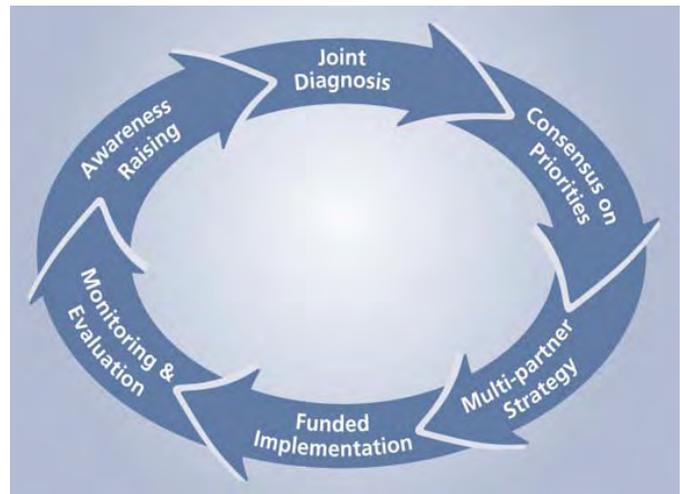
One of the benefits of standardization is the reduction in the number of products to be managed in the supply chain. Performing a laboratory test requires equipment, reagents, and consumables. Standardization can facilitate efficiency in the supply chain by reducing the number of commodities to be forecasted, quantified, selected, stored, and distributed. **Malawi** is currently revising its national-level policies to enable standardization of its national laboratory system. Currently, more than 300 products are required to perform all laboratory tests. To reduce this number further, one policy recommendation would be to allow the specification of preferred brands when procuring equipment and products, thereby exempting laboratory equipment from current procurement laws. Discussions with the procurement unit have been positive and the next step is amendment of the procurement policy and approval by the Ministry of Health.

## How do you implement the HACS process?

HACS is a flexible process, so there are many options available for when and where the implementation of HACS can begin. One approach is to conduct a HACS assessment and disseminate the results to raise awareness and generate additional political support for HACS. Another entry point is to engage stakeholders prior to a HACS assessment to solicit their feedback on the elements they would like to see receive more attention. This offers the opportunity to identify priorities and issues, to design the assessment to meet their expectations, as well as gain their buy-in into the process.

After the assessment has been conducted, the findings must be shared, and consensus should be built around the issues identified, which will inform the development of a strategic plan. Countries can choose at which entry point to start developing a HACS strategy, so as to build upon existing activities to improve HACS while formalizing needed interventions to address the problems identified from the assessment. Figure 3 shows the different stages to implementing the HACS process.

**Figure 3: Steps to Implementing HACS**



Source: Hare, L., Hart, C., Scribner, S., Shepherd, C., Pandit, T. (ed.), and Bornbusch, A. (ed.). 2004. *SPARHCS: Strategic Pathway to Reproductive Health Commodity Security. A Tool for Assessment, Planning, and Implementation*. Baltimore, MD: Information and Knowledge for Optimal Health (INFO) Project/Center for Communication Programs, Johns Hopkins Bloomberg School of Public Health.



Conducting a five-year national quantification of ARV drugs was the entry point into the HACS process for **Nigeria**. Coordination between the Government of Nigeria, the Global Fund, UNITAID, the U.S. Government, and the Clinton Foundation was necessary to quantify the long-term national needs and mobilize financial resources. A workshop brought together all of the major HIV and AIDS stakeholders to discuss and for the first time, reached consensus on assumptions for a five-year projection. A number of financing scenarios were generated, and the costs associated with these scenarios were disseminated to the Minister of Health. The Minister provided his commitment and leadership to mobilize resources for filling the funding needs for ARVs, and also requested that a similar intervention take place for HIV test kits and laboratory equipment. Quantifying these requirements will help stakeholders to understand the long-term financial requirements for procuring these products to ensure commodity security, essentially continuing the HACS process in Nigeria.

## Conclusion

Having a continuous supply of commodities is essential to support a national HIV and AIDS program to prevent HIV infections and treat HIV patients—the ultimate goal of HACS. Commodity security requires a wide range of products—from laboratory consumables to ARV drugs—and an effective supply chain to deliver the products to those who need them. It also requires a number of other elements to be addressed in the health system, such as strong leadership to create supportive policies and to ensure that there is sustainable financing. Having skilled health workers to provide services is necessary to serve the client as

well as to monitor and evaluate the system and coordinate programs. The HACS framework can be used to guide a country's effort to address the HIV and AIDS challenge.



**Zambia** is implementing the HACS process in a systematic, multistep manner involving key cooperating partners that has been fully supported by the MOH. The Directorate of Clinical Care and Diagnostic Services and the Drug Supply Budget Line Manager have been leading the process and were the drivers in deciding to improve HACS in Zambia. The process started with an awareness-raising workshop to introduce the HACS concept and generate commitment for HACS. This was closely followed with an HACS situational analysis identifying the major policy, programmatic, and functional challenges in the country. The assessment findings were used to inform a four-day collaborative and highly participatory strategic planning workshop with input from Zambian experts and technical representation from the HIV/AIDS community. The workshop participants decided on the priority issues, developed strategic objectives and activities to operationalize the strategy as well as indicators to measure progress, and identified the implementing organization that would oversee specific activities. Recognizing that one of the key factors to implementation is a fully funded strategic plan, the HACS coordinating committee (HACS/CC) developed budgets for each of the plan's activities. As a result, the strategic plan is a comprehensive, detailed document that addresses all of the HACS programs, functions, environment, and cross-cutting issues, and includes a monitoring evaluation section. The HACS/CC was formed to lead and provide technical guidance over the process and has the following responsibilities:

- Technical input—Serve as a resource to coordinate technical, policy, and advocacy efforts.
- Policy Support—Help steer the process by increasing the political will and financing commitments from the GRZ and partners that will mandate and motivate stakeholders.
- Support and Participation—Ensure that partners fully participate and commit to implementation of the HACS strategic plan.
- Accountability and Performance Measurement—Linking impact indicators with strategic initiatives that are carefully designed, evaluated for costs, and carried out.
- Program Integration—Ensure that the HACS strategic plan is integrated within existing strategies and efforts.

Furthermore, a Commodity Security Coordinator has been hired and will be placed within the MoH as the key member within the HACS/CC Secretariat to oversee the development, implementation, and management of the HACS strategy. This is one of the first countries to hire a position specifically for commodity security demonstrating Zambia's strong commitment and leadership towards combating HIV and AIDS.

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