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PROCUREMENT STRATEGIES FOR HEALTH COMMODITIES

AN EXAMINATION OF OPTIONS AND MECHANISMS WITHIN THE COMMODITY SECURITY CONTEXT

July 2006

This publication was produced for review by the United States Agency for International Development. It was prepared by the DELIVER project.

DELIVER
No Product? No Program. Logistics for Health

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The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

DELIVER
DELIVER, a six-year worldwide technical assistance support contract, is funded by the U.S. Agency for International Development (USAID).

Implemented by John Snow, Inc. (JSI), (contract no. HRN-C-00-00-00010-00) and subcontractors (Manoff Group, Program for Appropriate Technology in Health [PATH], and Crown Agents Consultancy, Inc.), DELIVER strengthens the supply chains of health and family planning programs in developing countries to ensure the availability of critical health products for customers. DELIVER also provides technical management of USAID's central contraceptive management information system.

Recommended Citation
Rao, Raja, Peter Mellon, David Sarley. 2006. *Procurement Strategies for Health Commodities: An Examination of Options and Mechanisms within the Commodity Security Context*. Arlington, Va.: DELIVER, for the U.S. Agency for International Development.

Abstract
The inability of country programs to procure essential medicines effectively and efficiently is a key barrier to commodity security—*the right of every person to obtain and use health commodities when and where they need them*. The challenge, as with many public health objectives is, at least in part, financial: inadequate funding to purchase essential medicines for growing populations that do not have the means to access private health care or pay subsidized public sector prices. Often overlooked, however, is the need to build effective procurement systems to enable programs to select, forecast, and quantify needs; identify suppliers; manage the tender and bidding process; maintain transparency and accountability; ensure quality products; and manage and monitor performance.

For program managers, technical assistance providers, donors, and policymakers, this paper describes the key elements of a procurement management system for health commodities—from product selection through the bid management process to the receipt of goods—and the type of human and organizational capacities needed to carry out these functions. The analysis also examines the range of available purchasing and financing strategies and options to support and strengthen health commodity supply chains.

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ACRONYMS

ACAME	*Association Africaine des Centrales d'Achats de Médicaments Essentiels*
ACT	artimicinin combination therapy
ARV	antiretroviral
ART	antiretroviral therapy
ASA	autonomous supply agency
CCM	country coordinating mechanism
CCSS	Costa Rican Social Security Fund
CENEBAST	Central de Abastecimiento del Ministerio de Salud (Chile)
CIDA	Canadian International Development Agency
CMS	central medical store
CS	commodity security
DFID	Department for International Development (United Kingdom)
DGFP	Directorate General of Family Planning (Bangladesh)
DP	direct purchasing
EC	European Commission
ECDS	Eastern Caribbean Drug Service
EHSP	essential health services package
EMEA	European Agency for the Evaluation of Medicinal Products
EML	essential medicines list
FDA	Food and Drug Administration
GAVI	Global Alliance for Vaccines and Immunization
GCC	Gulf Cooperation Council
GDF	Global Drug Facility
GFATM	Global Fund to Fight AIDS, TB, and Malaria (or the Global Fund)
GOJ	Government of Jordan
GMP	good manufacturing practice
HPSP	Health and Population Sector Program
IBRD	International Bank for Reconstruction and Development
ICB	international competitive bidding
ICRC	International Committee of the Red Cross
IDA	International Dispensary Association
IDA	International Development Association
IGFs	internally generated funds
IPPF	International Planned Parenthood Federation
IRP	international reference price
ISO	International Standards Organization

JFDA	Jordan Food and Drug Administration
JICA	Japan International Cooperation Agency
JSI	John Snow, Inc.
KEMSA	Kenya Medical Supplies Agency
KMA	Kenya Medical Association
KfW	*Kreditanstalt fur Wiedraufbau*
LAC	Latin American and Caribbean
LICB	limited international competitive bidding
LFA	local funds agent
LIB	limited international bidding
LMD	Logistics Management Division
LMIS	logistics management information system
MCH	maternal and child health
MOH	ministry of health
MOHFW	Ministry of Health and Family Welfare (Bangladesh)
MOHP	Ministry of Health and Population (Egypt)
MSD	Medical Stores Department (Tanzania)
MSF	*Médecins Sans Frontières*
NAPCO	National Pharmaceutical Company (Tanzania)
NCB	national competitive bidding
NDC	non-drug consumable
NGO	nongovernmental organization
NHA	National Health Account
PAHO	Pan American Health Organization
PATH	Program for Appropriate Technologies in Health
PP	pooled procurement
PSD	Procurement and Supply Division (Ghana)
PSF	*Pharmaciens Sans Frontières*
PSM	procurement and supply management
QA	quality assurance
RDF	revolving drug fund
RH	reproductive health
SBD	standard bidding document
SDP	service delivery point
SPARHCS	Strategic Pathway to Reproductive Health Commodity Security
STG	standard treatment guideline
SWAp	sector-wide approach
TB	tuberculosis
TRIPS	Trade-Related Aspects of Intellectual Property Rights
UEOMOA	*Union économique et monétaire ouest-africaine*
UN	United Nations
UNFPA	United Nations Population Fund

UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VEN	vital, essential, nonessential
WHO	World Health Organization

ACKNOWLEDGMENTS

The authors wish to express their appreciation for the persons who took considerable time out of their daily schedules to provide detailed comments that have greatly strengthened the utility of this paper. At JSI/DELIVER, we thank Lisa Hare, Carolyn Hart, Miguel Jaureguizar, Leslie Patykewich, and Mimi Whitehouse, who helped us struggle through earlier drafts by identifying omissions and reminding us of the complexity of the procurement process and its relevance to the supply chain, commodity security, and the broader public health policy environment. The authors also acknowledge the guidance provided by external reviewers: Henk den Besten, IDA Solutions; Alan Bornbusch, Office of Population and Reproductive Health at the United States Agency for International Development (USAID); Todd Dickens, Program for Appropriate Technologies in Health (PATH); Hanne Bak Pedersen, United Nations Children's Fund (UNICEF); and Sangeeta Raja, the World Bank.

We also thank the World Bank and the World Health Organization (WHO) for supporting the development of analysis, research, and quality standards in procurement management and strategies to increase access to medicines, upon which we based much of this work.

Finally, we thank USAID for providing financial support for this effort through the DELIVER project.

EXECUTIVE SUMMARY

BACKGROUND

Routine, efficient procurement for health programs requires specialized knowledge of and expertise in essential medicines and consumables, and the markets where quality products can be obtained. It involves careful selection of products and development of specifications, accurate forecasting, precise tender preparation, and a capacity for testing (equipment, protocols, and procedures). It also involves sustained and adequate financial resources, the willingness and ability to maintain a transparent process, and strong skills in contract management. Efficient procurement is even more complicated to achieve in the absence of supportive national and international public health policies, such as those involving commodity financing; global trade and patent protection issues; the decentralization of health services; national essential medicines policies; and the enforcement of laws and regulations that support transparency and accountability. Within this context, the procurement of pharmaceuticals by and for public sector health programs has become an inherently complex process that involves the coordination of numerous government agencies, international funding sources, suppliers, and manufacturers.

Several different procurement mechanisms and purchasing and financing options are available to address these constraints. The use of internally generated funds (IGFs) (such as taxes and tariffs), for example, provides countries with a range of procurement options, including the use of private third party suppliers or national manufacturers and direct purchasing from United Nations (UN) agencies. Moreover, the development of procurement capacity in low-income countries is also increasing the use of self-managed tendering by ministry of health (MOH) purchasing departments. This development has been promoted in part by the substantial increase in the number of countries using IGFs and World Bank loan credits and grants to purchase health commodities. These grants and loans, provided on favorable terms, are filling the financing gap as the level of traditional donor support remains stagnant or decreases and where recipient country revenue remains inadequate. The consequence of this trend is a greater reliance on and need for adequate procurement capacity on the part of recipient countries.

OBJECTIVE

The primary objective of this paper is to describe and provide analysis to program managers, technical assistance providers, donors, and policymakers of the key elements of a procurement management system for health commodities—from product selection through the bid management process to the receipt of goods—and the type of human and organizational capacities needed to carry out these functions.

The paper also examines the range of available purchasing and financing strategies and options to support and strengthen health commodity supply chains. Examples from several countries are used to highlight current practices, recurring challenges, and the array of choices faced by public sector programs and procurement agencies.

SUMMARY OF MAIN POINTS

Following is a summary of the main points presented in this paper:

- Effective procurement is an important step in any health commodity logistics system (see section 2.0). It is dependent on the routine availability of logistics data (e.g., rate of consumption and stock levels) and the capacity to select products and to forecast and quantify needs. It also links manufacturers and suppliers to in-country supply chains and, ultimately, to clients.

- The principles and practice of an effective public sector health commodity procurement system (see section 3.0) must include the following:

  1. *Select* the most cost-effective and safest essential medicines.
  2. *Forecast and quantify* needed purchase volumes.
  3. Ensure adequate *financing* for the purchase of essential medicines.
  4. Identify qualified *suppliers.*
  5. Manage *the tendering, bidding, award, and contracting process.*
  6. Maintain *transparency and accountability* in all transactions.
  7. Ensure *good-quality, safe commodities*.
  8. Monitor the performance of the range of processes involved in *procurement management.*

- In many countries, government purchasing units function as part of the MOH procurement and distribution agency. The increasing capacity and efficacy of these units make them ideal contributors and managers of a public sector procurement strategy (see section 4.0).

- In addition to the government procurement unit, three other *public sector procurement models* are the central medical store (CMS), autonomous supply agency (ASA), and a centrally managed parastatal organization. All three models operate under commercial business practices. However, the ASAs and parastatals operate outside the MOH organizational structure and are accountable to an independent board of directors. The differences between these two models are subtle. Parastatals are usually owned or controlled in part by government while ASAs, as the name implies, operate with greater autonomy and often manage donor procurement funds and products (see section 4.0).

- A fourth public procurement model, *decentralized procurement*, usually but not always has a negative effect on procurement efficiency. Without the scale and bulk purchase quantities of centralized systems, the prices of products procured through municipal health authorities, hospitals, and health centers are often much higher. Explicit strategies are required to address procurement in a decentralized setting (see section 4.0).

- Several *alternative procurement* agents are available to complement and support public sector procurement, including UN agencies (e.g., the United Nations Population Fund [UNFPA], UNICEF); international organizations (e.g., *Médecins Sans Frontières* [MSF]; the International Committee of the Red Cross [ICRC]); low-and non-profit procurement agents (e.g., International Dispensary Association [IDA] and *Mission Pharma*); international nongovernmental organizations (NGOs); and private for-profit companies (see section 4.0).

- The wide range of health commodities that governments must procure to address essential health services results in the use of multiple procurement options (see section 5.0). The World Bank, other lending institutions, and donors have found that, in most cases, program needs and interests—including lower prices—can be best realized through international competitive bidding (ICB). Another procurement method that can be used is limited international competitive bidding (LICB), in which select bidder criteria are established. National competitive bidding (NCB) is traditionally used to solicit proposals from national suppliers. Direct purchase is also an option when only one supplier is available or when direct purchasing is conducted through UN agencies or Global Fund to Fight AIDS, TB, and Malaria (GFATM) designated suppliers (for HIV/AIDS products).

- Another option, pooled procurement, has the potential to lower unit costs through volume purchasing. It can take many forms—from an agreement among individual countries in a region to conduct group contracting to pooled financing and buying on behalf of a formal grouping of countries (see annex 1B.)

- Similar to the range of options and mechanisms available to conduct procurement, there has been an increased diversification in funding sources to support the purchase of drugs, contraceptives, and medical consumables (see section 6.0). The sources of financing often determine the range of procurement channels open to ministries of health. The U.K. Department for International Development (DFID), for example, often contracts with private third party procurement agents or UNFPA to purchase contraceptives for public sector programs. Simultaneously, it may provide direct budgetary support to governments, enabling them to conduct international tenders for other essential medicines. Other options, examined at length in section 6.0, include multilateral bank loan credits, internally generated revenues (e.g., taxation and tariffs), and revolving drug funds (RDFs). Over the past decade, there has also been an increase in the number of third party financing sources. These multilateral funds include the Global Drug Facility (GDF), the Global Alliance for Vaccines and Immunization (GAVI), and GFATM.
- The capacity to effectively procure and to manage the procurement process is essential to commodity security (CS)—the *right of every person to obtain and use health commodities when and where they need them*. Service providers—including health clinic workers, laboratory staff, and dispensing pharmacists—cannot fulfill their obligations to clients without procurement and supply chain systems that distribute essential medicines and consumables to clients (see section 7.0). To ensure that products are there when clients need them, selection, forecasting and quantification, and financing must be in place, including all contributory functions of essential procurement management.
- An ideal procurement model does not exist. A combination of purchasing options, financing sources, and procurement management mechanisms is usually required to support CS; these are largely dependent on country circumstances (see section 7.0). To develop a feasible model, many possibilities must be considered: the in-country environment, including available sources of funding; accessibility of that funding compared with overall need; existing capacities; rules and regulations governing public sector procurement; and the long-term goal of the country or program.

1.0 INTRODUCTION: PUBLIC HEALTH CONTEXT

Transparent, efficient, and robust logistics and procurement management in the public health sector are prerequisites for achieving public health goals. During times of diminishing resources in most areas of public health, combined with an increased demand for accountability and transparency in government and the move toward anticorruption initiatives, policymakers, donors, and citizens are demanding more effective use of public resources. The keys to developing any good procurement system are an understanding of the mission and goals of the organization and the requirement to meet the needs of those it serves. Critical to the success of this process are the roles played by local public health policymakers and other health partners—including donors and financing agencies—and the overall structure and relationships between them.

1.1 THE CHALLENGE

Inadequate availability of and access to essential health commodities are major barriers to the delivery of essential health care in developing countries. A recent survey in Nepal found that the availability of 32 selected essential reproductive health (RH) commodities in public sector outlets was less than 25 percent (Rao and Thapa 2005). In a companion study in Nicaragua, only 20 percent of these medicines were available to public sector clients (PATH 2005). Efforts to address this challenge have focused on seeking additional and diversified funding sources and procurement channels. These efforts are essential. Adequate funding to purchase commodities and functional procurement mechanisms are prerequisites for any program. However, these efforts have resulted in a more complex procurement environment involving more choices and requiring greater coordination. They have increased the burden on existing systems already struggling with limited human and organizational capacity. In this context, it is therefore crucial to understand how to strengthen procurement management systems and untangle the combinations of options and strategies available to public health sector procurement programs.

Procurement—*the process of obtaining services, supplies, and equipment in conformance with applicable laws and regulations* (USG 1996)—takes place locally, nationally, and internationally among a number of public, private, national, and local entities. The procurement process is inherently complex because it involves the coordination of MOH agencies, funding sources, suppliers, and manufacturers. In low-income countries, the process is often constrained by limited human resources, inadequate financing, an absence of information on prices and suppliers, a lack of awareness of government and donor regulations, overlapping systems, and unsynchronized or outdated rules and guidelines. These constraints can contribute to delayed shipments, high prices, and, ultimately, reduced access to essential medicines for consumers. The lack of capacity to select, forecast, and quantify product requirements, and to manage the procurement process, disrupts the distribution of health commodities to the client. In this context, commodity security cannot be strengthened unless procurement functions are made more effective.

The procurement of pharmaceuticals is unique when compared with procurement of other commodities or capital goods. Pharmaceuticals, which provide both therapeutic and curative value, contribute to decreased morbidity and mortality. Pharmaceutical supply systems are also susceptible to corruption *because* they are highly regulated. Powerful government regulatory authorities can make discretionary decisions in selecting products and suppliers that circumvent statutory regulations (Cohen 2006).

Historically, many countries received a steady distribution of donor assistance for pharmaceutical procurement in the form of donated essential medicines for specific disease prevention programs and bilateral aid. Increasingly, donor and lending assistance is being channeled through health sector-wide approaches (SWAps) and direct budgetary support to national treasuries, which places procurement decisions with recipient countries.

PROCUREMENT AND ACCESS TO MEDICINES

Fully one-third of the world's population does not have access to essential medicines (WHO 2000). In Sub-Saharan Africa and South Asia the figure is closer to 50 percent (WHO/WTO 2001). The problem is in part financial. The combination of donor support, multilateral loans, country financing, and out-of-pocket expenditures is inadequate to meet the growing need among poor populations for essential medicines, including contraceptives and other RH products. On closer examination, the inability of country programs to procure medicines effectively and efficiently is also a major cause of poor access. Procurement agencies in parts of the world where access is low are paying many times more than standard international reference prices for essential medicines, which effectively reduces product availability in clinics and hospitals (HAI 2006).

Despite this shift to direct financing, government expenditures on pharmaceutical procurement in low-income countries (as a percentage of total government expenditure on health) decreased from 22 to 16 percent from 1990 to 2000 (WHO 2004b).

Another factor that increases the complexity in the purchasing environment has been the use by ministries of health of financing from the World Bank's International Development Association (IDA).[1] These grants and loans, which are provided on favorable terms, are helping to fill the financing gap as the level of traditional donor support remains stagnant or decreases, and where recipient country revenues remain inadequate. The consequence of this trend is a greater reliance on and need for adequate procurement capacity on the part of recipient countries. Multilateral loans and grant support come in the form of financing, not products. It is therefore incumbent on recipient countries to establish the procurement capacity to regularly purchase large quantities of essential medicines to support the growing demands of their populations.

Increased mobilization of donor, lender, and in-country resources for essential medicines procurement is an important step for governments to symbolize commitment to access. Despite possessing 85 percent of the world's population, low- and middle-income countries account for only 9 percent of total global consumption of pharmaceuticals (WHO 2004b). These figures suggest a substantial inequity between need and access. This gap is exacerbated by the growing demand caused by population increases, greater awareness and knowledge on the part of those populations, and the increased attention and resources channeled to current public health crises (e.g., HIV/AIDS).

The response to this challenge must be twofold: (1) countries must increase and diversify their sources of funding by examining and seeking out the growing number of available options; and (2) countries must develop organizational and human capacity to conduct the procurement of health commodities in an increasingly complex financing and purchasing environment. The purchasing mechanism option that is selected may not be limited to a public sector managed model, in which an MOH conducts the process from product selection to contract management. In certain circumstances, contracting with a private third party procurement agent or a UN agency may be more cost-effective.

1.2 OBJECTIVE

The objective of this paper is to describe and provide analysis to program managers, technical assistance providers, donors, and policymakers on the key elements of a procurement management system for health commodities—

1. The International Development Association and International Bank for Reconstruction and Development are multilateral credit facilities used by the World Bank. Both mechanisms provide low-interest loans, interest-free credit, and grants to developing countries.

from product selection through the bid management process to the receipt of goods—and the type of human and organizational capacities needed to carry out these functions. The paper also examines the range of available purchasing and financing strategies and options to support and strengthen health commodity supply chains. The examples from several countries highlight current practices, recurring challenges, and the array of choices faced by public sector programs and procurement agencies.

What the paper does not attempt to do is provide an in-depth examination of each element of procurement management or offer detailed, prescriptive guidance on which strategies and options should be undertaken. It is not a procurement manual that instructs program managers and technical assistance providers with a stepwise approach to conducting procurement. Rather, it describes the technical aspects of procurement management and demonstrates how procurement affects and is affected by the public health policy context.

1.3 ORGANIZATION OF THE PAPER

The following sections provide descriptions and analyses of the key steps in public sector procurement management, and how these steps relate to the pharmaceutical supply chain and, therefore, influence commodity security. The effects of decentralization, government procurement policies, and issues around full supply and essential medicines policies are treated as contextual and are policy issues that influence the procurement function. Practical examples noted in text boxes throughout the paper illustrate how countries are addressing the issues and options. Procurement mechanisms, purchasing, and financing options are also discussed in detail, providing readers with a selection of potential strategies for consideration when working in the field. The principles of an effective procurement system, discussed in sections 3.0 and 7.0, are the conceptual framework of the analysis and are referenced throughout the paper. Specifically, the paper is organized as follows:

- Section 2.0 places procurement management within the supply chain context and demonstrates how procurement and logistics are dependent on each other.
- Section 3.0 describes the practical elements of the procurement management process, from selection to monitoring and system management.
- Section 4.0 reviews procurement mechanisms, including public procurement models and the selection of third party agents.
- Section 5.0 examines the benefits and constraints of different purchasing options and strategies (e.g., competitive bidding, direct purchasing, and pooled procurement).
- Section 6.0 looks at current trends in financing for medicines and consumables, and discusses a range of options and opportunities for public sector programs, including multilateral bank loan credits, revolving drug funds, bilateral funding, and third party sources.
- Section 7.0 focuses on the implications of procurement management on commodity security. It underscores how routine and efficient procurement is a precondition that enables distribution of commodities through the supply chain to clients. It further describes the importance of procurement management in a broader, multisectoral commodity security framework.
- Conclusions and analysis are offered in section 7.0, asking the question, *Is there an ideal procurement model?* The section reviews and details the core principles of an effective procurement system. It then examines the key elements and possible advantages and disadvantages of the procurement mechanisms, purchasing options, and financing sources discussed in the previous sections. The paper concludes with a summary of key considerations for procurement planning.

2.0 SUPPLY CHAIN CONTEXT

Adequately forecasting, financing, procuring, and delivering health commodities—the four pillars of a logistics system—are prerequisites to achieving commodity security. Procurement is a vital step in that system and a vital function in supply chain management, which is the array of processes that link manufacturers, even producers of raw materials, all the way to end users of their products.

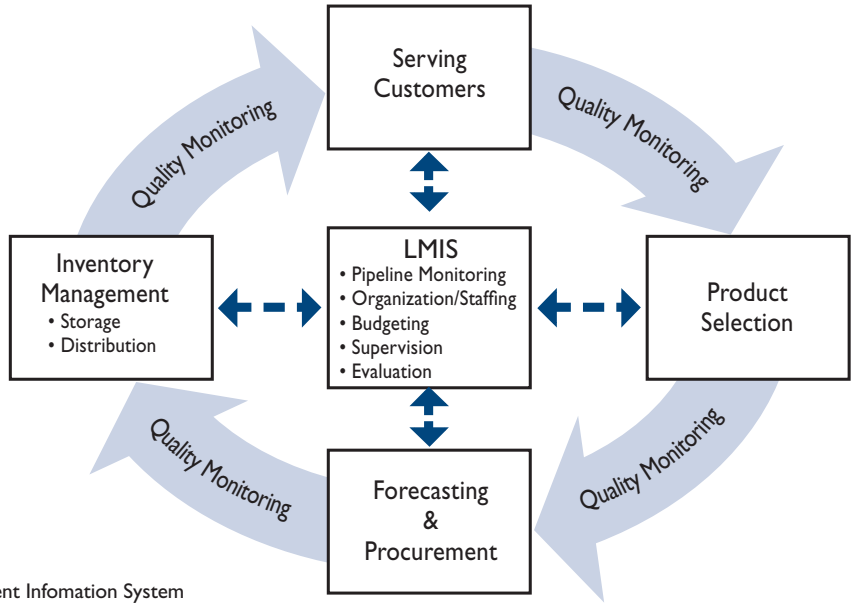
2.1 LOGISTICS CYCLE MANAGEMENT: SERVING CUSTOMERS

To understand the role of procurement in ensuring that commodities are available to customers, it is necessary to understand the logistics cycle. Depicted in figure 2.1, it places *serving customers* at the top of the cycle, because the logistics cycle starts and ends with the client, customer, or beneficiary.

2.1.1 SELECTION, FORECASTING, QUANTIFICATION, AND PROCUREMENT

The first step—*product selection*—is to ensure that the right product to meet the needs of the customers is selected. Criteria for the selection of the right products must be clear and based on quality, effectiveness, and affordability. In many cases, selection decisions do not include the right products necessary for an effective treatment regimen. Selection guidance is provided through WHO's model standard treatment guidelines (STGs) and list of essential medicines (WHO/UNFPA 2005). Strategies for selection, however, may vary when there are resource limitations. In Ethiopia, a policy objective of the essential health services package (EHSP), for example, states that all citizens have the right to a set of essential health services. As a result, a parallel policy commitment to the full supply[2]

Figure 2.1. Logistics Cycle



LMIS: Logistics Management Infomation System

2. This classification refers to products for which the program and financing arrangements are made to ensure uninterrupted availability at the service delivery points. Ensuring full supply is also dependent on other core logistics functions, including forecasting, procurement, inventory control, ordering, and receiving, among others, to ensure that the supply pipeline is full at all times.

of health commodities to effect those services will be required if the EHSP is to meet its objective. The national essential medicines list (EML) contains additional medicines and non-drug consumables considered essential by the MOH, but public sector resources are usually insufficient to keep all of those products in full supply.

The product selection process in most countries is based on the recognition that the resources required to achieve a supply of all products in adequate quantities are unattainable when financing is limited. It is necessary, therefore, to prioritize products and to maintain adequate stocks and supply levels of those most likely to translate into optimum performance of the health system. A vital, essential, nonessential (VEN) classification system can be used as part of a selection strategy to determine which drugs have the greatest therapeutic value and should receive priority in the selection process. After the list of products has been established, the requirements must be *forecasted* and *quantified.* That means estimating the quantities needed to treat the number of patients seeking services according to STGs. The next step is to quantify the actual amounts to be procured, taking into account quantities in stock and on order, additional quantities needed to ensure adequate stock levels and buffer stocks, and available financing. Following selection, forecasting and quantification, and resource identification, commodities are *procured* to ensure the timely delivery of shipments, the clearance of products through customs, and the final quality control checks. Effective procurement involves the following steps:

- *Financing* the purchase of supplies,
- *Preparing* the bid and tender documents,
- *Managing the tendering and bidding* process,
- Maintaining *transparency and accountability* in all transactions,
- Ensuring *good-quality, safe products*, and
- *Monitoring the performance* of suppliers and the range of processes involved in the procurement system (FPLM/JSI 2000a; WHO 1999c).[3]

2.1.2 INVENTORY MANAGEMENT AND LOGISTICS MANAGEMENT INFORMATION SYSTEMS

After the product arrives in-country, it enters the *inventory management and distribution system*; this includes all the storage facilities and transport links at the various levels throughout the system. Adequate storage and inventory control is a challenge—many drugs expire before they can be used, or they are used irrationally. Eventually, and at the right time, the products reach the service delivery point, which might be a health facility, laboratory, or community health worker.

Finally, at the point of delivery to the customer, there is *product use.* Availability of health commodities alone does not ensure quality of care. Drugs must also be rationally prescribed and dispensed; and clients, especially providers, must be aware of the treatment guidelines for the products. *Rational prescribing and use* of drugs is a major challenge, even where STGs and EMLs exist. Physician training in rational prescribing is gaining ground but is still not widespread.

In the center of the cycle, the *logistics management information system (LMIS)* drives the entire process. Logistics data inform program managers which products are needed, how much is needed, and when and where they are needed. This can be accomplished only through regular and accurate reporting and monitoring from each level of the system. In many countries, procurement quantities have been based on incomplete data on past use. Ideally, data should be derived from an LMIS. Alternatively, STGs can be used to develop forecasts using morbidity and demographic data. Failure to use logistics, demographics, or patient service data results in repeating past mistakes

3. Section 3.0 covers the components of effective procurement in more detail.

in commodity quantifications year after year. These situations may be aggravated if procurement procedures do not allow for an open and transparent tendering system when purchasing drugs, or if expensive brand-name products are bought instead of generic equivalents.

Even if the above points are addressed, the logistics cycle requires skilled human resources and systems for *quality monitoring* that must be in place throughout the cycle.[4]

2.1.3 POLITICAL LEADERSHIP

The logistics cycle must be supported by an effective *policy and legal framework,* addressed at the national level. Program managers, technical assistance providers, and even donors must understand and articulate how each component in the cycle affects health service delivery and specific objectives that policymakers care about, including decentralization, cost recovery, commodity security, and program expansion (FPLM/JSI 2000b). Political leadership is a necessary instrument to establish a legal and regulatory framework that supports commodity availability, including affordable prices, tariff exemptions for essential medicines, adequate financing, sound supply chain management, and transparent procurement mechanisms.[5]

4. See section 3.6 and the textbox in section 3.2

5. Much has been written about drug selection, rational use, and logistics systems. The MSH/ WHO manual (1997) is a leading reference on how to manage drug supply in developing countries. Also see WHO (2004b) publication for strategies to promote equitable access. The FPLM/JSI publication (2000b) emphasizes the critical function of logistics on "program impact, service quality, and cost-effectiveness." This reference book is a guide to forecasting and quantifying needs for family planning and HIV/AIDS programs.

3.0 PROCUREMENT MANAGEMENT

The procurement process begins with *selection* and *forecasting and quantification* of product requirements. It includes the development of exacting product specifications, identification of financing, and a budget process to secure that financing. As figure 3.1 illustrates, the process must then successfully orchestrate a number of additional functions: the preparation of tender documents; management of the bidding process; preparation, award, and management of the contract; quality assurance processes to ensure that only products that meet requirements are accepted for delivery of the contract; and the management and monitoring of each function in the process. Figure 3.1 shows the key steps in each function.

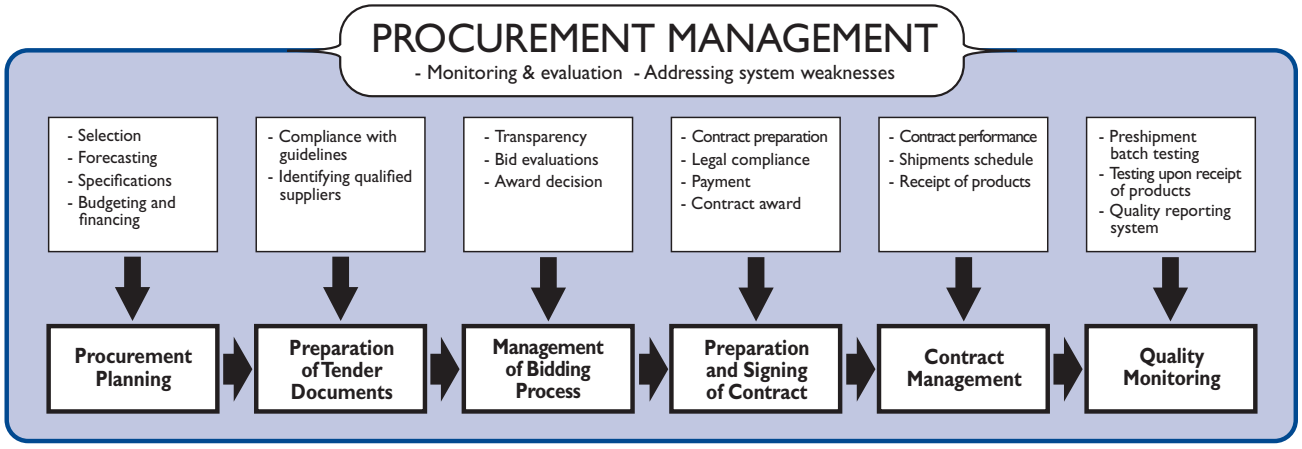
3.1 PROCUREMENT PLANNING

The procurement process begins with determining which products to order, estimating needs, quantifying purchases, and ensuring that financing is available.

3.1.1 SELECTION AND FORECASTING

The procurement process begins with *product selection*. Recognizing that the financial resources and system capacity required to achieve a full supply of all products in an EHSP or EML are often inadequate, decisions must be made to determine which products should be given priority. Decisions on procurement quantities and shipment schedules are based on forecasts and quantifications that are done using logistics information, demographic data, and health service statistics. In several countries where the DELIVER project has worked—including Bangladesh, Egypt, Jordan, and Nepal—forecasts for contraceptives were developed using consumption data provided by an LMIS. These forecasts usually are conducted annually and used to make procurement decisions. By comparison, in countries where LMIS data are generally limited or nonexistent (e.g., Mali, Ethiopia), forecasting capacity is weak and program staff are forced to rely more on the use of demographic and service statistics data to estimate consumption, forecast need, and quantify requirements (JSI/DELIVER 2004).

Figure 3.1. Procurement Process



3.1.2 PRODUCT SPECIFICATIONS

After products are selected, detailed product specifications should be developed by program staff with a specialized knowledge and expertise in pharmaceuticals, in coordination with a logistics or procurement unit. These experts should be involved throughout the process to ensure that all product details are developed correctly.

Failure to develop accurate specifications can result in the procurement of unsuitable products. A set of precise and clear specifications is a prerequisite for tenderers or bidders to respond realistically and competitively to the requirements of the purchaser. Factors to consider include: (1) using the generic version of the product name to ensure that a wide range of suppliers can compete; (2) size, units, quantity, and intended use; (3) product properties, such as stability, shelf life, and storage temperature; (4) packaging, packing, and marking, including dosage size, dose package, labeling, and printed materials; (5) regulatory requirements; and (6) applicable standards and required certifications (Woodle, Dickens, and Fox 2003). Specifications for products that have previously been successfully procured are generally used as a starting point for new procurements. A recent DELIVER survey identified various methods used to develop product specifications in USAID priority countries. A theme common to all approaches is the inclusion of program staff. The following summarizes the process in select countries (JSI/DELIVER 2004):

- *Egypt:* The Logistics Unit prepares technical specifications. Typically, the product specifications have been in circulation for years and need only be reviewed by experts in the particular field. Recently, the specifications for family planning products were developed with technical assistance from DELIVER.
- *Ghana:* The Procurement and Supply Division in the MOH works with each program unit (e.g., maternal and child health [MCH] and tuberculosis [TB]) to develop specifications.
- *Jordan:* The Contraceptive Specification Committee, with members representing the Logistics Unit in the MCH Department, the Jordan Food and Drug Administration (JFDA), the Reproductive Health Program, and others, are responsible for developing contraceptive product specifications.
- *Mali:* A commission establishes product specifications for all essential medicines; the commission meets semiannually and includes representatives from all technical departments of the MOH.
- *Nepal:* Program managers prepare specifications and quantify the needs in collaboration with the Logistics Management Division (LMD). In some cases—for example, malaria drugs—a technical subcommittee is assigned.
- *Nicaragua:* The Directorate of Health Resources directs all drug and non-drug consumables. A technical unit in the directorate works with program staff to prepare the specifications.

3.1.3 BUDGETING AND FINANCING

To maintain the procurement cycle, it is essential that adequate financing is available for the purchase of quantities that have been forecasted and quantified. Financing arrangements should be secured well in advance of planned procurements to avoid product stockouts and to reduce emergency shipments. Using previous procurement pricing data and current international reference prices (IRPs) (MSH 2004), in addition to the forecast (and quantification, in instances of non-full supply products), a budget estimate is developed for the quantities of product required. For example, for contraceptives in Egypt, the Logistics Unit provides the budget estimate to the Undersecretary of Population and Family Planning, who reviews the forecasted contraceptive requirements budget against the entire package of resource support that is available. The Undersecretary uses the budget estimate to support his budget discussions with the Minister of Health, Ministry of Planning, and Ministry of Finance. During the budget discussion period, which takes place over several months, the Undersecretary of Population and Planning serves as an advocate and champion for fully funding Ministry of Health and Population (MOHP) contraceptive procurement requirements (Ainsworth and Dickens 2004). While commitment of a budget line item is crucial, treasury management of public finances often involves the quarterly disbursement of public funds

to line ministries. This situation can undermine the government's ability to attain procurement economies of scale, as it limits the amount of funds available at any one time.[6]

3.2 PREPARATION OF TENDER DOCUMENTS

The preparation of tender documents requires a detailed knowledge of and compliance with government, lender, and donor procurement procedures. Issues that need to be addressed in the bidding documents include product specifications, language, use of brand and generic equivalents, price adjustment, pricing, currency, transport and insurance, terms of method payment, and bid security.[7] The World Bank, for example, publishes procurement guidelines and standard bidding documents for recipient countries and programs using International Bank for Reconstruction and Development (IBRD) and IDA loan credits (World Bank 2000, 2004). To ensure transparency and cost-effectiveness (and to allow for the release of loan funds), these guidelines must be followed when preparing the bidding documents. The DELIVER project's technical assistance in Bangladesh has focused on increasing the capacity of procurement staff to comply with these guidelines. Previously, the procurement time line (product selection to delivery) took up to two years to manage, because staff were not trained to apply stringent World Bank guidelines under the Health and Population Sector Program (HPSP). To avoid such delays, those preparing the tender must fully understand the relevant government and donor regulations and requirements, and communicate these requirements to potential suppliers in the tender documents. These documents should also be based on effective business practices and provide details on contract performance expectations and payment arrangements. A set of clear-cut, rational, and concise tender documents is a critical component for the successful execution of procurement responsibilities.

PREQUALIFYING BIDDERS

The World Bank procurement guidelines recommend that countries prequalify suppliers as part of the tender preparations. Prequalification of suppliers helps ensure that effective and safe pharmaceuticals are procured to keep substandard products from appearing in medicine outlets. The DELIVER procurement survey completed in 2004 indicated that prequalification varies across countries. For instance, in Mali and Tanzania bid acceptance is limited to prequalified suppliers, but in Bangladesh and Nicaragua it is not.

The WHO maintains an updated list of prequalified manufacturers and medicines. The current list includes 103 manufacturers of generic and brand-name medicines. The standards are based on the quality, efficacy, and safety of products, as well as manufacturer compliance with good manufacturing practice (GMP). At the time of this writing, the WHO Prequalification Project included only medicines related to HIV/AIDS, TB, and malaria. If the products to be purchased are not part of the WHO list of prequalified products, the purchasing organization must conduct its own prequalification of both the manufacturing site and the individual products.

Most donors, the World Bank, and international financing sources (e.g., GFATM) require that manufacturers of pharmaceuticals procured with their funds be prequalified by WHO or other recognized regulatory bodies. Manufacturers already certified by the U.S. Food and Drug Administration (FDA) and the European Agency for the Evaluation of Medicinal Products (EMEA) are usually included on the WHO list without undergoing additional screening (WHO 2006b).

3.3 MANAGING A TRANSPARENT BIDDING PROCESS, EVALUATION, AND CONTRACT AWARD

In awarding contracts through a transparent tendering process, governments have an important opportunity to influence health outcomes and promote public health. The use of competitive procurement processes for awarding

6. Section 6.0 discusses funding sources that governments are increasingly using to finance their essential medicines and contraceptives.

7. Using IBRD loans and IDA credits, borrowers can choose to include a bid security requirement in the tender documents to increase the likelkehood of receiving responses from only qualified and well-intentioned bidders. Following the award and contract signature, these funds are returned to unsuccessful bidders. The compliance with bid security has proven a major obstacle to the procurement process.

contracts will promote transparency, accountability, and economic efficiency. A transparent bidding process will encourage qualified suppliers to respond to the tender, increase competitiveness, and, therefore, help obtain the lowest prices. In Nicaragua, for example, the bid-opening proceedings are open to bidders as part of national legislation. Methods of payment and specific conditions of the contract are determined before bids are reviewed. The technical specifications are designed by specialized working groups. After the bids are received, they are reviewed by a committee in the presence of an administrative coordinator, financial and legal advisors, and other invited experts.

In Bangladesh, Nicaragua, and other countries, formal written procedures and explicit criteria should be developed to evaluate and award contracts. A procurement or tender committee made up of a cross-section of stakeholders should be established to publicly open bids, and the results of its decisions should be made available to the public. Post-award negotiations are typically not accepted as standard practice under ICB[8] procedures or development bank lending regulations. In instances in which such negotiations occur, notably in procurements when IGFs are used or in direct purchasing, all negotiation activities as well as the establishment of contracts should be conducted in a way that could withstand external scrutiny. Transparency ensures that those tasked with managing procurement are responsible for their actions and decisions, and for the resulting outcomes. Transparency also provides assurance that the procurement processes are appropriate and that policy and legislative obligations are met.

USING TECHNOLOGY TO MANAGE THE TENDER AND BIDDING PROCESS

Both Chile and Costa Rica have started using the Internet to promote e-commerce-led procurement. This approach increases competition by providing information to more suppliers and helps clarify the process. The Chilean case is particularly instructive in this respect. The *Central de Abastecimiento del Ministerio de Salud* (CENABAST), Chile's public health sector procurement agency, works through www.Chilecompra.cl. All bids to provide the public sector with goods and services are centralized on this platform, which is a transparent mechanism through which all documents and information relative to the bidding process are made available. The platform also helps to make the results of the bidding transparent. Several other bidding-related processes may also be done electronically.

The Costa Rican Social Security Fund (CCSS) makes procurement information available at www.ccss.sa.cr. In the future, this site will provide price and procurement data to help ensure accountability and to reduce the amount of staff time spent responding to audits.

Lending institutions have established strict guidelines for contract awards. The World Bank, for example, mandates that recipient countries use only one criterion for awarding procurement contracts: the lowest price (World Bank 2004). Other requirements (e.g., quality, volume, delivery schedule, and terms of trade) are included in the bid document; only suppliers that meet all the contractual requirements of the bid document are evaluated for the lowest price.

Negotiations before contract award are also prohibited under World Bank and European Commission (EC) procurement guidelines. These guidelines maintain a fair and open process. Also, if suppliers knew that they would have to renegotiate the price after the contract was awarded, they would be unlikely to offer their lowest price but rather would inflate the price so they would have room to decrease it during negotiation. The following sections offer illustrative guidelines relating to the review of bids and proposals, and criteria for selecting a contractor.

3.3.1 REVIEW OF BIDS

Guidelines relating to the review of bids are as follows:

- All bids or proposals should be evaluated by the same criteria to ensure equity, impartiality, and transparency. The tender requirements—including quality, supplier capacity, and financing terms—should be included in the bid documents at the time of release.

8. See section 5.0 for a description of ICB and other purchasing options.

- All bids or proposals that meet the requirements should be evaluated and ranked.
- Bids and proposals that do not qualify should be rejected and not evaluated.
- Bids and proposals should then be evaluated based on the lowest price.
- If it is a policy to give preference to national companies, the nature and extent of the preference should be stated in the initial invitation to tender or request for proposals

3.3.2 MINIMUM CRITERIA FOR CONSIDERATION

Following are the minimum criteria for consideration:

- The program or agency has sufficient financial resources to meet any monetary obligations associated with the contract.
- The bidder has the necessary organizational capacity to comply with the terms and conditions of the contract and carry it out.
- The bidder provides references or some other indication that it has performed satisfactorily under similar contract terms in the past.
- Increasingly, manufacturers should be asked to meet good manufacturing practice (GMP) criteria and appropriate International Standards Organization (ISO) standards.

3.4 PREPARING, AWARDING, AND SIGNING THE CONTRACT

Following a successful tendering and selection process, it is important to draw up what can be generically described as a supply agreement to reflect the outcome of the tender. This is a formal contract that details the terms of the award based on *specifications, quality, quantity, service or outcome expectations, and price.* Signing a contract makes the relationship between purchaser and vendor legally binding. Should any disputes arise later, the contract will serve as the basis to examine the agreed-upon terms. Ambiguities in or omissions from the contract create the potential to compromise programs or projects. In practice, signing a contract often takes longer than expected. Although standard bidding documents issued by lenders (e.g., the World Bank) can be considered watertight from the perspective of what is demanded and the performance criteria; suppliers and, in some cases, purchasers may be unsure about the possible ramifications of certain sections of the contract. This is where experts from the organizations' legal department will need to be included in the process to clarify the situation. In many cases, even when the wording seems clear, suggestions from legal advisors may necessitate further negotiation between supplier and purchaser.

A payment schedule is normally part of the contract to which both parties are legally bound. Payments usually follow common international practices of approximately 30 percent advance payment on contract signing, 30 percent on delivery, and 40 percent on final acceptance. As a rule, no negotiations are allowed on changes to specifications or price. However, disagreements between supplier and purchaser are not uncommon and usually center on the method of payment, total funds due, and the timetable for delivery.

3.5 CONTRACT MANAGEMENT

When a contract has been signed, those charged with managing it (i.e., the procurement department) must exert their fiduciary responsibilities to ensure that the terms of the contract are met and the purchaser's interests are protected. However, a contract is not a one-sided document; as a legal instrument, it seeks to ensure that both parties benefit from its conditions. It is incumbent on the procurement department to monitor contract perfor-

mance and identify any irregularities or nonperformance indicators. It is also usually the duty of the purchaser to monitor contract follow-up. This may include ensuring that the—

- shipment schedules are established and monitored;
- the shipping and delivery schedules are met;
- customs clearance is handled appropriately;
- necessary taxes, duties, and levies are paid;
- inspection and testing are completed;
- quality control procedures are conducted; and
- product is delivered to the port of entry.

One of the challenges in managing this process is product registration. In World Bank–funded procurements, products do not have to be registered in the recipient country before contract award (World Bank 2004). Registration with drug control authorities is often lengthy and cumbersome, and can delay shipment and receipt of goods. Following these steps, payments are made to the supplier when the terms of the contract have been met, the goods have been supplied, and the price charged is according to the contract. Contract closeout is the final aspect of contract management. Other issues, such as subsequent claims relating to nonperformance by either party to the contract, should be based on information and records kept by the procurement department.

PROCUREMENT MANAGEMENT IN JORDAN

In March 2004, at the request of USAID/Amman and the POLICY project, DELIVER began providing logistics assistance to help the Ministry of Public Health/Jordan adapt its procurement and logistics management system in support of the joint reproductive health action plan and in preparation for a phaseout of USAID-funded contraceptives. The team recommended that contraceptive procurement be conducted through the General Supplies Department, working closely with the Logistics Unit. Subsequently, a contraceptive specification committee was established and assigned responsibility for developing technical specifications for the contraceptives to be procured by the Government of Jordan (GOJ). On the basis of information obtained from the key agencies involved in the procurement process and the activities followed for procuring Depo-Provera, a summary checklist, designed to help manage the procurement system and its major activities, was drafted (see annex 3).

As a result, the first contraceptive product phased over to GOJ was Depo-Provera, which was procured by the General Supplies Department in 2005. In 2006, GOJ will purchase approximately 2.4 million condoms as part of the continuation of the phaseout plan. However, at this point, the program is exposed to two areas of risk: (1) inadequate capacity to test condoms to ensure that they meet acceptable quality assurance (QA) requirements, and (2) the questionable ability of the planned procurement process (local tendering) to obtain competitive prices that would support and strengthen the long-term financial sustainability of the program.

3.6 ENSURING QUALITY PRODUCTS

Inspection and quality assurance activities play an important role in logistics management systems. All health goods should be subjected to inspection and testing at procurement and at various points in the distribution system. Mechanisms should be in place for assessing and monitoring product quality prior to shipment and, upon receipt, by visual inspection and, when warranted, by laboratory testing.

The WHO (WHO 1999c) has developed four steps that constitute a product quality assurance system:

- Selecting reliable suppliers of pharmaceuticals and non-drug consumables
- Using existing quality assurance mechanisms, such as GMP and the WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce (WHO 1996)
- Establishing a system to report poor quality, expired, or otherwise defective products
- Performing regular pre- and post-shipment testing

Selecting suppliers that have a record of providing high-quality products in previous procurements is the key to

ensuring the receipt of quality products. Nevertheless, pre-shipment batch testing should be conducted. This is especially important for programs using new suppliers whose products were recently registered with drug authorities and have not been used in the country. Post-shipment batch testing should also be considered if the capacity is available.

3.7 MANAGING AND MONITORING THE PROCUREMENT CYCLE

The procurement process requires the coordination and management of numerous individual steps that must be orchestrated chronologically to achieve a successful end result: the on-time delivery of high-quality health commodities at a competitive price. Managers should remain informed on the status of each step. The process of a single procurement is lengthy. Lead times from selection to delivery can be from 12 to 30 months. Program managers should routinely monitor and evaluate the effectiveness of each step in the procurement process (from selection to the receipt and inspection of products) to determine what actions, if any, need to be taken to maintain the system. This may include establishing baseline indicators and milestones for each step in the procurement process (see figure 3.1). A formal mechanism should be established that consistently evaluates the efficacy of each component and ongoing functions, including order status and inventory management.

Key steps and processes to be monitored include the following:[9]

- planning the procurement,
- preparing bid documents,
- advertising the procurement,
- issuing tenders,
- evaluating tenders,
- awarding the contract, and
- monitoring shipment.

3.8 RESULTS OF EFFECTIVE PROCUREMENT MANAGEMENT

Managing the procurement process efficiently through sound policy, legislation, staff capacity development, supervision, and adequate guidelines ensures that institutions will do the following:

- *Comply with government policies and legislation.* Often, the primary purpose of such policies and legislation is to foster economy and efficiency in the use of public funds. The state and its subsidiary structures are obliged under domestic law and various international agreements to transact procurement in a fair, transparent, and nondiscriminatory manner. A public procurement system that meets these objectives will also have the potential to contribute to the creation of a sound business environment in the country.
- *Enhance service delivery*. Government procurement objectives will not be achieved simply by developing procurement legislation. Although a legislative system provides the rules, it does not determine procurement policies, strategies, or performance. For good service delivery, the responsibility for procurement should lie clearly with the individual procuring entities managing the process.
- *Add value to programs and projects.* Good governance within programs and projects requires that public procurement processes support national laws and regulations. These relate to issues of accountability to establish clear

9. A procurement management checklist developed by Ainsworth and Dickens (2004) is included as annex 2.

PULLING IT ALL TOGETHER: GHANA'S PROCUREMENT PROCESS

- The Procurement and Supply Division (PSD) works with the program directors from each vertical program to select products, prepare forecasts, and quantify needs.
- Ghana uses IGFs from a revolving drug fund, World Bank credits, and donor sources to pool financing in a common basket as part of its SWAp to procure essential medicines, including drugs to combat TB, antiretrovirals (ARVs), and non-drug consumables (NDCs). The decision to use basket funding was made because there was no consistency in the procurement process. Ghana received donations from an array of donors that followed different rules and regulations. To increase efficiency and cost savings, it was necessary to harmonize the procurement process across all sectors in an acceptable way for all donors.
- For each tender, the MOH develops a World Bank standard bidding document (SBD); the procurement office advertises the tender offer through print and electronic media. The SBD includes the schedule of requirements, the special conditions of tender that refer to products, all rules and procedures for bidding and bid opening, and the criteria for choosing a winning bidder. Additionally, the SBD specifies terms and conditions for the contract between the purchaser and the winning bidder.
- On the day of the bid submission deadline, a public opening of bid documents is held; the names of the bidding companies and their prices are announced. Before the deadline, suppliers submit technical and financial proposals. The bid evaluation committee, made up of members of the Procurement Unit and other MOH staff, reviews the technical proposals first. The committee checks manufacturer/supplier compliance with all regulations set forth in the bidding document. Noncompliant bids are discarded. Financial proposals of the remaining bidders are then opened. The contract is usually awarded to the lowest bidder, although the committee must present its final recommendation to the MOH Procurement Committee, which approves the recommendation and formally awards the contract.
- The PSD conducts a post-tender evaluation; a committee reviews the commercial characteristics of the supplier to ensure that manufacturers have given valid authorization and that bids are signed properly.
- Audits of Ghana's procurement process are conducted annually. In December 2003, Ghana passed a public sector procurement law that translates standard procurement procedures into domestic law.

lines of responsibility in decision-making structures, professionalism to improve individual and system performance, transparency to ensure that procedures and policies are understood and accepted by procuring entities, and competition to attract high-quality national and international partners committed to meeting government needs through contracts.

4.0 PROCUREMENT MECHANISMS

The capacity to manage the procurement process varies among and within countries; thus, a number of different procurement methods have evolved as alternatives to traditional public sector procurement management. The use of private third party suppliers, UN agencies, and international NGOs has expanded in countries where the capacity for public sector management does not exist and when private management is simply considered more cost-effective and efficient. To balance cost containment and quality assurance requires a detailed knowledge of the market, operational stability, financial autonomy, and management capacity, all scarce assets in health sectors where resources are already stretched. A balanced combination of long- and short-term purchasing capacity is usually required, with the responsibility for drug procurement split among partners, each with a different area of expertise. While using third party agents takes procurement execution out of the hands of the public sector, it is still important to manage the procurement agents to ensure contract compliance, acceptable performance, and good governance.

4.1 EXAMPLES OF PUBLIC PROCUREMENT

The essence of public procurement is a system that encompasses the key elements of procedures, standard documents, guidelines, and regulations, and an appropriate legal framework. Drug supply management for the public sector was traditionally managed through an internal vertical system that involved centralized management of both procurement and logistics. Because of the poor performance of such centralized systems, many countries are exploring alternatives.

4.1.1 CENTRAL MEDICAL STORE

A central medical store should serve the public through the selection, procurement, storage, sale, and distribution of good-quality, safe, and cost-effective pharmaceuticals and health commodities for use in the diagnosis, treatment, and prevention of disease. In a number of countries, the CMS is part of a broader procurement and distribution unit. The procurement function is often set apart in a separate purchasing department or procurement unit, with the CMS managing the warehousing and distribution only. In Ghana, for example, the MOH's PSD has management responsibility for both the CMS and a separate Procurement Unit that purchases essential medicines, consumables, and capital goods for the MOH. In this model, a procurement unit for health sector goods completes the bidding and tendering process directly or manages third party procurement agents acting on its behalf. This model does not preclude contracting out some components of the supply chain, such as transportation. One of the main drawbacks of the CMS model is the potential for political interference and the lack of accountability and performance resulting from high staff turnover.

The following are some of the functions and services of this model:

- procurement, warehousing, and distribution of medicines and medical supplies;
- quality assurance of medicines;
- drug information services; and
- training in materials management.

4.1.2 AUTONOMOUS SUPPLY AGENCY

An ASA is a central store managed by an autonomous agency that reports to the government or is managed by a private firm under government contract. The ASA model is similar to the CMS model but usually operates with different financing mechanisms, such as a revolving drug fund (RDF) and different governance structures. An example of an operational ASA is the Medical Stores Department (MSD) in Tanzania, which has its own legal framework, incorporated in the Medical Stores Tender Board Act No. 13 of 1993. After the Tanzanian National Pharmaceutical Company (NAPCO) was liquidated in 1997, most of its functions were taken over by the newly formed MSD, which today is the major procurement, warehousing, and distribution body in Tanzania. This was a way to bring strong procurement management into the public sector and satisfy the demands of stakeholders for a more effective and efficient use of public resources. Under its mandate, MSD can contract with outside agencies (NGOs) to procure on its behalf; it uses ICB procedures and economies of scale to achieve competitive prices for pharmaceuticals and other health commodities. There is a risk element in the governance and accountability of ASAs. Good oversight and auditing, along with performance monitoring and evaluation, are minimum requirements.

ASA VS. PARASTATAL: WHAT'S THE DIFFERENCE?

In 2000, Kenya moved toward transforming its central and regional medical supply stores into a parastatal organization: Kenya Medical Supplies Agency (KEMSA). Other governments are divesting themselves of parastatals and replacing them with autonomous authorities or boards that function largely on commercial principles. One example is the MSD in Tanzania, formed in 1993. Thus, KEMSA is a parastatal and MSD is an autonomous government agency. Parastatals were theoretically designed to maximize financial revenues for government treasuries. ASAs, although similar in structure to parastatals, are not-for-profit organizations, with MSD, for example, operating an RDF. In addition, autonomous government agencies are usually allowed to manage donor funds for procurement, which may include certain importation privileges, such as exemption from duties and taxes.

4.1.3 CENTRALLY MANAGED PARASTATAL

A parastatal organization is a company or agency owned or controlled wholly or partly by the government. Public procurement by parastatal organizations is regulated by the specific laws that establish these organizations; in addition, the parastatal promulgates its own financial and procurement regulations and claims certain autonomy. However, despite the autonomy these companies claim to have, they are often subject to political influence. Since the mid-1990s, many Sub-Saharan African countries have established divestiture strategies for privatizing or liquidating their parastatals, mainly for economic reasons. An example of a functioning parastatal in the field of pharmaceutical and health commodities procurement and distribution is the Kenya Medical Supplies Agency (KEMSA) [defined in box above]. This parastatal functions with a board of directors and includes representation from the Kenya Medical Association (KMA). KEMSA's mandate includes the procurement, warehousing, and distribution of health commodities. Currently, it operates a cash-and-carry *pull system* for health commodities on behalf of the public sector. Generally, parastatals make their own decisions on procuring health commodities, ideally based on price and quality. This includes the selection of generic versus branded products.

4.1.4 DECENTRALIZED PROCUREMENT

A decentralized approach to public procurement is often part of wider health sector reforms intended to increase local accountability for service delivery and management. Decentralization is characterized in most countries by regional, district, or local health facilities financing and by the direct placement of orders with a public sector national supply authority or private sector suppliers (e.g., retailers and wholesalers). Procurement contracts can be managed centrally, regionally, or locally in such a system.

Decentralization can increase accountability for services to local populations because sub-national government bodies (regions, districts, and communities) are compelled to pay greater attention to local health needs. However,

without procedures and methods to procure commodities in sufficient quantities, decentralized systems may pay much higher prices than those paid in centralized procurements. In addition, mechanisms and regulations to ensure adherence to transparent procurement practices are much more difficult to enforce when multiple government bodies are simultaneously conducting commodity procurements. In Ethiopia, for example, the health system is decentralized, with regions, districts, and hospitals responsible for a significant portion of essential medicine procurement. A joint UNICEF/JSI assessment conducted in August 2005 concluded that, in many parts of the country, neither the capacity nor available staff existed to conduct cost-effective procurement (UNICEF/JSI 2005).[10] Conversely, while a decentralized system may not be able to obtain the lowest unit prices, it may improve availability. For example, in Ghana, health facilities can purchase supplies from local pharmacies and wholesalers if the regional warehouse is stocked out, thereby maintaining availability of key products. Of course, this creates another risk: the uncertain quality of the product being purchased.

MAKING PROCUREMENT WORK IN DECENTRALIZED ENVIRONMENTS

Chile's health management system is decentralized. District health offices have latitude to purchase from anyone who can give them the best service or price. The fact that all the districts continue to use CENABAST points to the quality of its service and its attention to client needs. CENABAST's independence has allowed it to maintain management autonomy separate from political considerations and to adopt a business management style without the constraint of civil service staff terms and conditions. The Chilean health reform, implemented since the early 2000s, has given more autonomy to public health facilities, including the ability to choose where and from whom they buy drugs and supplies.

Even where decentralized systems are in operation, most central governments use a number of mechanisms to decrease the burden of procurement management on facilities where little capacity exists. For example, the government may negotiate tenders and pricing structures, leaving individual facilities to make their own purchasing decisions (e.g., through the commercial sector, an NGO provider, or a centrally managed supplier). Both centralized and decentralized procurement carry elements of risk, particularly in under-resourced environments. For these systems to function adequately, sound procurement policy and adherence to regulatory guidelines governing their operation are required.

4.2 ALTERNATIVE PROCUREMENT AGENTS

A number of different types of procurement agents can be used. The channels considered here are government procurement agencies, international agencies, specialized procurement firms, and international NGOs.

4.2.1 GOVERNMENT PROCUREMENT AGENCIES

Government procurement agencies for health commodities exist in most countries as part of the MOH. Until the mid-1990s, MOH budgets were chronically underfunded, with limited spending on essential medicines. The capacity of staff in these procurement agencies was often undermined by civil service turnover, political interference, and weak governance and accountability. Many countries (e.g., Bangladesh, Ghana, Nepal, Tanzania, and Jordan) have sought technical assistance to strengthen their government procurement capacity for health goods through focused attention on training, documentation of procedures, and development of tools to help workers implement sound procurement practices.

4.2.2 INTERNATIONAL AGENCIES

UNICEF, WHO, UNFPA, and ICRC are among the main channels used for importing pharmaceuticals and NDCs. These organizations have procurement framework contracts in place, making them attractive to programs

10. Current system redesign efforts focus on pooling local government funds to the central level to obtain lower prices.

DRUG DONATIONS

The issue of drug donations is complex and often politically sensitive. Donated products that have not been identified in the procurement and supply chain management process can be disruptive to the supply system. WHO and other major organizations have commented extensively on donations of drugs and nondrug consumables, and have produced guidelines on how this process should be managed (e.g., WHO 1999a&b). Often drug donations do not match a country's needs—shipments are expired or close to expiry and quantities are either too great or too small. Some international NGOs, such as Médecins Sans Frontières (MSF), have reported that NGOs and recipient governments spend substantial funds disposing of drug donations that, for multiple reasons, were unsuitable for a country's requirements. This was a particularly problematic issue in Bosnia-Herzegovina, where MSF found 17,000 tons of expired or otherwise unusable donated drugs in 1997 (MSF 1999). In another example, antimalarial drugs were recently donated to the Palestinian Authority despite the fact that there is no malaria in the West Bank or Gaza.

Pharmaceutical companies have strict policies in place for donations. Depending on their commitments and marketing strategies, these donations are often the result of public pressure and the desire to develop long-term profitable markets in developing countries. Donated medicines are associated with significant economic and health service costs related to the following:

- registration with drug regulatory authorities;
- payment (by provider or recipient) of customs duties, taxes, and levies;
- sorting and relabeling;
- disposal of expired, excess, and unwanted stock; and
- disposal of drugs that are not compatible with the country's standard treatment guidelines.

that are looking to decrease lead times. These organizations also maintain prepositioned supplies in regional warehouses to respond to emergency situations. UN agencies may not participate in competitive bids. To accept orders, the supply departments of these agencies require advance payment, which can be covered by their headquarters, by other donors, or by a legal entity, such as a health ministry that is the owner and represents the users and beneficiaries of the procured drugs. International agencies typically charge a percentage fee based on the value of the procurement to cover handling and administrative costs.

4.2.3 SPECIALIZED PROCUREMENT FIRMS

These organizations specialize in supplying low-cost, generic pharmaceuticals to poor countries. They include the International Dispensary Association (IDA), Mission Pharma, IMRES, and MSF, which specializes in emergency drug supply. These firms are based in Western Europe and are, therefore, licensed to operate by regulatory authorities that demand compliance with GMP, which may reassure potential buyers about the quality standards they follow. These firms maintain large stocks of essential, widely used medicines, which allows them to respond to emergency orders. For such orders, *Pharmaciens Sans Frontières* (PSF) is the best-known supplier. Public sector procurement departments, bilateral donors, and NGOs also use third party private procurement agents to manage the process and supply products at an agreed-to contractual price. Two commercial groups, both based in the United Kingdom, are often used: Crown Agents Consultancy, Inc., and Charles Kendall. Procurement fees can range from 5 percent to 10 percent (in addition to product and shipping costs) for these and other agents.

4.2.4 INTERNATIONAL NGOS

Sometimes through a joint purchasing mechanism but more often autonomously, joint ventures of NGOs have been established to supply drugs to entire regions. The International Planned Parenthood Federation (IPPF), for

example, conducts regular procurements to supply its member associations worldwide, taking advantage of bulk purchasing to lower costs. Accurate data on the total volume of products and financial support provided by NGOs are unavailable. NGO support varies by country, and receipt and distribution of products is often conducted through local counterparts using parallel (to the public sector) distribution systems.

5.0 PURCHASING OPTIONS

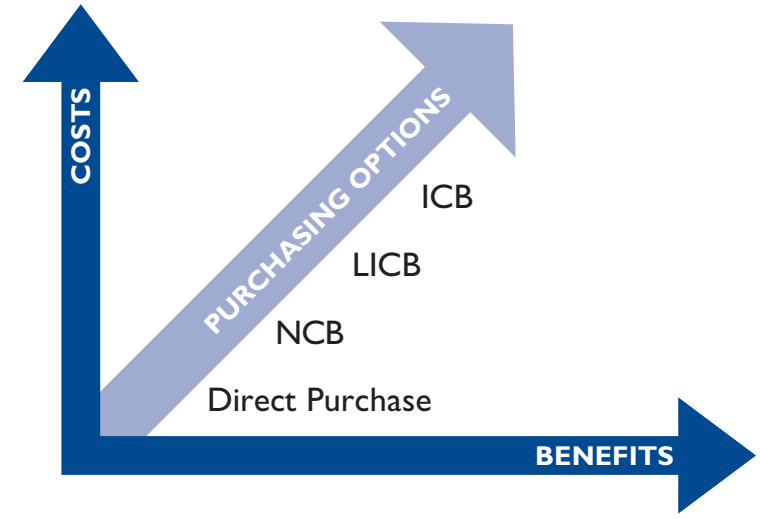
The *costs* and *benefits* associated with the array of purchasing options available to public sector supply management programs must be considered in the context of existing program capacity, current program demands, and long-term procurement policy objectives. Purchasing options involving greater time commitments for tender preparation, advertising, bid management, and the selection of qualified suppliers (e.g., ICB) will usually yield greater *benefits*, including lower unit prices (through competition) and greater assurance of quality products owing to diligent efforts in selecting qualified suppliers.

However, *institutional costs*—which are associated with managing quality assurance testing, lead times related to the competitive bidding process, and training and maintaining skilled procurement staff—will be greater. Figure 5.1 shows the relationships among these factors. ICB is usually the best way to obtain the lowest possible prices, but it requires the management of a complex set of procurement procedures (e.g., preparing tender documents, advertising, and evaluating potentially numerous bids). LICB gives a better guarantee for the quality of drugs, provided the purchaser knows the market and transactions are transparent, particularly in the pre-selection of qualified suppliers. However, reducing competition may lead to higher unit prices. NCB limits competition to local suppliers, thereby decreasing the costs associated with bid advertisement and evaluation. However, this option can lead to higher prices from reduced competition and raises questions about product efficacy and safety from unqualified manufacturers. Direct purchasing (DP) may be the least complex and (institutionally) costly approach, but the benefits of lower prices and quality assurance may not be achieved. DP may be appropriate for small amounts of drugs, for a drug produced only by a specific company, or for an emergency. However, DP is increasingly being used for large volumes when programs are forced to purchase innovator brands for antiretroviral therapy (ART) and artimisinin combination therapy (ACT).

Pooled procurement (not illustrated in figure 5.1), is highly complex and costly, with a commensurate gain in benefits derived from bulk purchasing. These characteristics, however, are dependent on the model of pooled procurement that is adopted (see discussion in section 5.5).

The relationship among the complexity, costs, and benefits of purchasing options may not apply to the use of some international agencies (see sections 4.1.2 and 5.4). This includes UN-based procurement services in which, in many instances, unit costs are contained through bulk purchasing, institutional costs are reduced through outsourcing, and benefits are derived through the procurement of products from WHO-prequalified manufacturers.

Figure 5.1. Comparative Costs and Benefits of Purchasing Options



Despite the costs and benefits inherent in each option, the wide range of medicines and NDCs that countries must procure, and the multiple financing sources that are used in the process, result in the use of a combination of purchasing options. Many coun-

tries—including Bangladesh, Malawi, Tanzania, Ghana, and Ethiopia—use World Bank loan credits and grants to procure essential medicines, contraceptives, and NDCs. Those funds, as outlined in World Bank procurement guidelines, are generally used to support ICB. Simultaneously, however, other financing sources, including internally generated revenues and bilateral donor funding—often in the form of direct budgetary support—are used for DP, NCB, and pooled procurement. The donor community, led by the World Bank, supports the transparency and competitiveness of ICB in most instances. The following section describes these purchasing options. Section 6.0 describes how sources of financing influence these options.

5.1 INTERNATIONAL COMPETITIVE BIDDING

The purpose of ICB is to provide the recipient with a wide range of choices in selecting the best tender/bid offer from competing suppliers/contractors and to give to all prospective tenderers/bidders from eligible source countries adequate, fair, and equal opportunity to bid on goods and works that are being procured. The large potential pool of suppliers fosters an environment favorable to lower prices. Competition, in contrast to a monopoly, encourages bidders to operate more efficiently, enabling them to offer lower prices. ICB is usually one of the conditions placed on a borrower under donor-financed loans. The lender requires its borrowers to observe certain guidelines or procedures in preparing tender/bidding and contract documents; advertising tender/bidding invitations; and accepting, opening, and evaluating tenders/bids. In addition, draft tender/bidding documents, tender/bidding evaluation reports, and proposed awards of contract are usually subject to prior review and approval by the lender. The competitiveness offered by ICB must, however, be weighed against the potential for longer lead times necessitated by tender advertisement, bid review, and GMP inspections during the bid adjudication process. The failure to demand GMP compliance in a bidding document may make bid price comparisons difficult if some bidders are in compliance and some are not. LICB may be preferable if only GMP manufacturers and suppliers are invited to bid.

5.2 LIMITED INTERNATIONAL COMPETITIVE BIDDING

LICB is typically open only to prequalified suppliers. It may be an appropriate method of procurement when the number of suppliers is limited (e.g., vaccines) or when purchasers want to limit the number of bidders to expedite the procurement process. It can also be used for smaller procurements that do not justify full ICB. In this method of bidding or tendering, bids are solicited from a list of potential suppliers that is broad enough to ensure competitive prices. Domestic preferences are not applicable. This method of bidding is well suited to emergency or urgent situations, when lead times must be kept to a minimum, and for specific categories of commodities, such as pharmaceuticals or products with short shelf lives, or those with specific quality or quantity requirements. Because potential suppliers are prequalified, purchasers know that the supplier can meet the specific requirements in the tender documents.

5.3 NATIONAL COMPETITIVE BIDDING

NCB is used for public procurement within the country requesting the commodities or services. NCB is the most appropriate way to procure commodities that, by their nature or scope, are unlikely to attract foreign competition. For example, foreign suppliers will probably not be interested if contract values are small or the required commodities are available in-country at prices below those of the international market. NCB is typically associated with small procurement volumes, when the administrative or financial burden involved clearly outweighs the advantages of ICB.

5.4 DIRECT PURCHASING

DP is a procurement method based on comparing price quotations usually obtained from a single or up to three suppliers. DP is also known as *shopping;* it is generally used for procuring items that cost less than a predetermined value on an order-by-order basis. Quotations should be sought from registered vendors or suppliers, and the award

should be made to the supplier that offers the best quality and meets the specifications at the lowest price. DP is often carried out by national and local government agencies to resupply commodities from private vendors when health facilities are out of stock and supplies are unavailable from a CMS or other central supply agency. In these cases, the purchase amounts are below a regulated maximum, allowing the purchaser to avoid a competitive tender.

At the national level, DP is often done through UN agencies. World Bank IBRD and IDA procurement guidelines allow recipient countries to conduct a direct purchase, for example, of contraceptives from UNFPA, and vaccines, mosquito nets, and cold chain equipment from UNICEF without initiating a competitive tendering process. UNICEF's Supply Division provides procurement services to a range of public sector and NGO programs. These services, which include supplies and related management services, are offered in close collaboration with UNICEF country and regional offices. The value of UNICEF procurement services in 2005 was US$287 million (UNICEF 2006). In 2004, UNFPA procured $39 million in contraceptives financed by third parties[11] (UNFPA 2006). Similarly, GFATM recognizes the memorandums of understanding signed between a number of ARV manufacturers and the Clinton Foundation HIV/AIDS Initiative (CHAI). The manufacturers have agreed to provide low-cost drugs to GFATM recipient countries. Countries that receive GFATM grants can make direct purchases through these manufacturers (already WHO-prequalified), bypassing the competitive bid process.

5.5 POOLED PROCUREMENT

Pooled procurement of health commodities offers the potential to lower unit costs through volume-driven low prices and efficiencies in the procurement process. Some additional benefits include lowering costs through centralized QA testing of bulk volumes and improving the reliability of the supply. Many pooled procurement mechanisms include a pooled finance component that can increase financial resources for commodity supply through donor and country contributions. Pooled procurement can take many forms, ranging from informed buying (primarily an information-sharing mechanism) to central contracting, which centralizes tendering, contracting, and purchasing. The administrative burden increases as the process moves along the continuum, as do the potential benefits.

Each pooled procurement model entails different levels of cost, benefit, and complexity. Informed buying is the least costly and complex option, but it has fewer potential benefits than the other options. Central contracting with pooled finance, at the other end of the spectrum, creates more complexity and cost but provides the greatest potential benefits.

An earlier study documenting experience with these models indicates that the outcome depends on a number of specific factors for each model (Abdullah et al. 2004). Options requiring less investment, such as informed buying and coordinated informed buying, still require a legal and policy framework that allows for the sharing of procurement data between countries. More complex models, such as group contracting and pooled financing, require harmonized drug registration and a commitment on the part of countries to sole source purchases and pool finances into a third party procurement fund to gain the potential savings from bulk purchasing.[12]

The Pan American Health Organization (PAHO), WHO's regional office in the Americas, operates a type of pooled procurement. The program is based on a revolving fund but should not be confused with in-country revolving drug funds (RDFs) for drug cost recovery programs. The PAHO fund uses pooled financing for the bulk purchase of vaccines. Forty-one PAHO member states and territories, including 12 Commonwealth countries in the Caribbean, obtain their vaccines from this source. The basic concept is one of bulk purchasing with economies of scale that make the pricing very affordable. Each country can access the fund and place its order—a major benefit is that there are no interruptions to the supply. As this type of revolving fund setup is viewed as a system of pooled procurement, it has been proposed as a mechanism to lower the cost of ARVs for Commonwealth countries.

11. UNFPA undertakes third party procurement of contraceptives, medical equipment, and other supplies when a national government, donor, or other party elects to outsource procurement services.

12. See annex 1 for a detailed summary of pooled procurement mechanisms that have been or are currently in operation, including the requirements of each model.

6.0 FINANCING OPTIONS

The increased diversification of funding sources witnessed in the late 1990s did not mark the end of traditional bilateral assistance. Initially at least, new donors such as *Kreditanstalt fur Wiedrafbau* (KfW), DFID, the Japan International Cooperation Agency (JICA), and IPPF continued to provide in-kind contributions. This began to change in 1996, as countries started to use World Bank loans to buy contraceptives and essential medicines. Countries had to take responsibility for their procurement processes, sometimes appointing procurement agents to manage commodity purchases. This trend accelerated in the late 1990s with the adoption of the SWAps and health reforms that used pooled basket funding arrangements rather than relying on bilateral donor support. Under SWAp arrangements, bilateral donors are now increasingly funding the purchase of medicines through budgetary support to the government rather than by providing in-kind donations or specific line item funding for supplies.

This section examines each of the main financing sources used by governments to procure essential medicines and NDCs, and the impact of those sources on procurement options. Each choice a government makes comes with specific rules and regulations. Public sector decision makers can expect to continue to use a patchwork of sources to purchase a variety of drugs, contraceptives, and medical consumables.

FINANCING TRENDS FOR CONTRACEPTIVES

Historically, developing country governments have not taken full responsibility for contraceptive procurement, because bilateral donors provided contraceptives as in-kind donations. For example, in 1990, USAID and UNFPA funded 91 percent of global contraceptive donations, taking direct responsibility for the entire procurement process and delivery to the central stores in partner countries. UNFPA estimates that donors supported approximately 40 percent of contraceptive requirements in recipient countries. This pattern began to change in the 1990s, as USAID graduated several middle-income countries from receiving contraceptive donations and an increasing number of countries began to use IDA loan credits to replace decreasing bilateral donations.

In USAID phaseout country programs—including those in Colombia, Chile, Costa Rica, Brazil, Mexico, Turkey, and Morocco—the countries had to develop procurement capacity to supplant the phaseout of USAID contraceptives (Sarley, 2006). In Ghana, Nepal, Bangladesh, Burkina Faso, Tanzania, and many other countries, USAID maintains contraceptive support to public and social marketing programs. However, as is the case with the Latin American and Caribbean (LAC) and middle-income phaseout countries, procurement capacity continues to grow as these programs increasingly rely on loan credits.

6.1 BILATERAL DONOR FUNDING

The source of financing for health commodities often dictates and narrows the range of procurement choices available to countries. Direct bilateral donor financing and procurement of health commodities on behalf of recipient governments eliminate the necessity to build in-country procurement capacity. In this arrangement, donors typically use commodity forecasts and quantifications from MOHs; outside technical agencies then conduct procurements through internal mechanisms. USAID, for example, procures and delivers contraceptives to central stores or ports of entry using its own funding and distribution network. DFID often contracts directly with third party procurement agents to purchase commodities on behalf of recipient countries. Bilateral donors often contact UN agencies, including UNICEF and UNFPA, to conduct procurements through direct fund transfers from donors.

6.2 MULTILATERAL BANK LOAN CREDITS AND GRANTS

The use of development bank loan credits and grants—principally from the World Bank's IDA mechanism—has enabled recipient countries to acquire essential medicines using various procurement methods and mechanisms. Country procurement units can and do use UN agencies such as UNICEF, UNDP, and UNFPA, as well as ICB/LICB, to purchase health commodities through this source. In Bangladesh, for example, IDA credits provided the opportunity to generate economies of scale in procuring contraceptives. Through technical assistance, procurement capacity in the Directorate General of Family Planning (DGFP) in the Ministry of Health and Family Welfare (MOHFW) was strengthened. The benefits of this capacity building meant that, with the high volume of condoms and pills purchased, the DGFP was able to obtain unit prices significantly lower than international reference prices; for example, US$0.07 and $0.11 per cycle of pills compared with US$0.23 per cycle for commodities procured by the Canadian International Development Agency (CIDA) and KfW in 2000 (JSI/DELIVER 2005).

DIVERSIFYING FINANCING SOURCES

The array of available financing sources and purchasing mechanisms used by recipient countries to procure commodities indicates that many options are currently available. In Ghana, for example, a portfolio funding approach is used to procure a wide variety of health commodities. The World Bank and health sector basket funds from various donors, including DFID, are used to conduct ICB by the MOH procurement unit for essential medicines, while monies from those same sources are also transferred directly to UNFPA for contraceptive procurement.

UNFPA is a designated prequalified supplier under World Bank lending guidelines, enabling the Ghana MOH to use loan funds to make direct purchases through the UN agency. The MOH also provides internally generated funds to the UNFPA contraceptive procurement account.

In general, procurements conducted using IBRD and IDA loan credits from the World Bank must conform to one of the procurement methods specified in their guidelines. There are, however, exceptions. The World Bank allows a margin of preference for products manufactured in the recipient countries. World Bank credits may be used if it can be determined that the total contract cost would not be large enough to attract international bidders or it can be proven that quality products are domestically available below international reference prices (World Bank 2004). Recipient countries may also choose LICB or limited international bidding (LIB), which is ICB by direct invitation from the borrower—not through public solicitation. Borrowers must justify LIB on the grounds that there are a limited number of suppliers (in this case, domestically) or other *exceptional reasons* (World Bank 2004).

6.3 INTERNALLY GENERATED REVENUE

Public sector drug financing accounts for 10 percent to 50 percent of government health budgets in low- and middle-income countries (WHO 2004a,b). The use of these revenues is growing increasingly important as countries attempt to narrow the shortfall for commodity financing caused by decreasing bilateral support and the emergence of new priorities, including ARVs for HIV/AIDS programming. In Nepal, the MOH has established a budget line item for contraceptive procurement, which it has committed to increasing at an annual rate of 8 percent. The net result of the use of these internal funds has been to encourage the growth of local procurement capacity and increase funding for additional procurements by using smaller manufacturers of generic commodities that multilateral procurement agencies have overlooked. The use of internally generated funds (IGFs), though bound by the laws and regulations of the country, often provide greater autonomy and choice among the range of purchasing options and procurement mechanisms. IGFs have been used by procurement units in Ghana, Nepal, and Tanzania to conduct NCB and international and domestic direct purchases of essential drugs and ARVs. Quality is the outstanding issue or trade-off. Many of the manufacturers selected by countries using IGFs are not prequalified by WHO or other stringent regulatory agencies (e.g., the U.S. FDA and the EU's EMEA).

6.4 REVOLVING DRUG FUNDS

Cost recovery systems for medicines have been introduced in many countries over the past 20 years. RDFs are a cost recovery mechanism that is part of a strategy for enhancing sustainable access to essential drugs and other health commodities, where the main focus is usually on providing generic drugs. The start-up process requires initial funding or seed capital, which in most cases comes from a donor. The underlying premise of the system is that the sale of drugs to the population should generate enough income for new purchases and stock financing, and should cover operating costs. For an RDF to be viable, there must be a complete understanding of drug requirements to quantify procurements and ensure availability at health facilities. The management of RDFs is usually tasked through the procurement unit, with further local oversight by each facility participating in the scheme. These agencies must be financially stable and must operate similarly to commercial wholesalers. This kind of financing of drug and health commodities procurement will be successful only if the process can generate low procurement and end-user prices.

6.5 INTERNATIONAL FUNDS

Third party financing sources for health commodities have proliferated in recent years. The GDF, GAVI, and the Global Fund have arisen to address the global imbalance between need and financing for health commodities. The Global Fund, for instance, solicits, manages, and disburses funds for HIV/AIDS, TB, and malaria programming to recipient countries. While each Global Fund recipient is required to develop and submit a procurement and supply management (PSM) plan, the countries, not the Global Fund, are responsible for conducting the procurements with GFATM funds. Options available to recipients of Global Fund grants include ICB conducted by the recipient country's procurement unit, direct contracting through a CHAI approved supplier, use of a specialized UN agency, and selection of a third party procurement agent that adheres to ICB rules and regulations.

GFATM FINANCING FOR HIV/AIDS COMMODITIES

The Global Fund to Fight AIDS, TB, and Malaria provides grants to country coordinating mechanisms (CCMs), which are country-level partnerships that develop and submit grant proposals to GFATM. The CCMs elect one or more principal recipients, who are legally responsible for the implementation of the grant, a major part of which is to procure antiretrovirals, drugs for TB and malaria, and related commodities.

The terms are similar to those offered by the World Bank: To use GFATM monies, ICB mechanisms must be followed, with exemptions for sole sourcing; for example, by using prequalified manufacturers approved through CHAI or designated UN agencies. A local funds agent (LFA) is established to monitor compliance and disburse funds to the principal recipient.

7.0 CONCLUSIONS

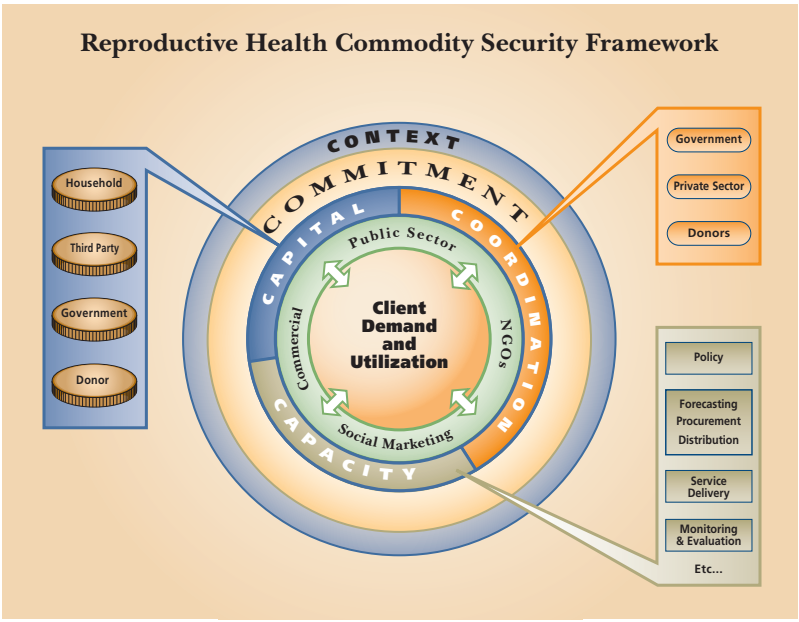
7.1 IMPLICATIONS FOR COMMODITY SECURITY

The overarching goal of commodity security is to ensure that quality health products are routinely available and accessible to clients at prices they can afford. A well-functioning public sector supply chain, necessary to distribute products to service delivery points (SDPs)—and therefore to clients—can only be achieved if a reliable procurement process is in place. The clients' ultimate ability to access safe and affordable commodities is greatly compromised without the internal capacity to conduct procurement efficiently and on time or the means to contract the process to a third party, and the financial resources to cover the costs of procuring the needed products.

As government programs increasingly assume the procurement function for health commodities, the local capacity to conduct efficient, transparent, and timely procurements will increasingly affect CS. Clinic workers, dispensing pharmacists, and laboratory technicians, for example, cannot fulfill their functions without the reliable operation of procurement systems and supply chains that deliver the commodities to service providers and customers. To ensure that health systems have adequate quantities of supplies, routine and coordinated procurement—often for multiple supply programs—must be conducted.

Figure 7.1 shows a reproductive health commodity security framework that DELIVER, other technical agencies, and donors have used for CS assessments and strategic planning. The framework shows that the procurement function plays a critical role in ensuring capacity to make health commodities available. The framework is the basis for the Strategic Pathway to Reproductive Health Commodity Security (SPARHCS) (Hart et al. 2004). This tool uses a multidisciplinary approach to demonstrate that CS requires the establishment of a complex set of multi-sector relationships and actions. It illustrates how political commitment, financing, and service delivery; as well as forecasting, distribution, and procurement capacity; must be put in place to ensure that products are available.

Figure 7.1. Commodity Security Framework



The framework has been adapted to focus on the specific approaches and priorities in numerous countries. Some countries, for example, focus more on capital mobilization and coordination, while assessments in other countries have determined that large gaps exist in procurement and supply chain management. The framework has also been adapted to address CS for other product categories. A similar HIV/AIDS commodity security framework is presented as a series of concentric circles (DELIVER 2006). This framework depicts key procurement management functions that must be addressed to achieve CS for HIV-related supplies. Procurement of ARVs, for example, is full of uncertainty (e.g., changing prices and suppliers, new drugs) and is a complex and resource-intensive process. As new suppliers and products emerge, the task of ensuring the quality of each supplier and product becomes increasingly costly in terms of human and financial resources. Compounding this issue, most countries deal every day with a complex web of procurement systems, consisting of multiple procurement agents buying varied HIV/AIDS commodities under the auspices of multiple vertical or donor programs (DELIVER, 2006).

7.2 WHAT IS AN IDEAL PUBLIC PROCUREMENT MODEL?

To strengthen commodity security, what is the right mix of procurement mechanisms, purchasing options, and financing sources, and how can the process be managed effectively? One ideal model does not exist. A combination of purchasing, financing, and procurement management mechanisms is usually required, depending on country circumstances. These circumstances include the sources of funding, availability of that funding compared with overall need, existing capacities, rules and regulations governing public sector procurement, and the long-term goal of the country or program. If the majority of funding for the program's contraceptive requirements is through direct budgetary support and loan credits, for example, it is incumbent on the program to develop procurement capacity within a CMS, ASA, or parastatal organization with sufficient capacity and oversight to conduct reliable and transparent procurements. Countries that rely more heavily on financial support from multiple bilateral donors—and are limited by insufficient human capacity and infrastructure—may choose to contract procurement services to third party agents. In other cases, ICB may not be an option, as is the case in many LAC countries. Rules and regulations designed to protect local suppliers force public sector programs to purchase commodities from local agents, often at much higher prices than they would have paid in the international market.

In all the various models and combinations of models, however, certain consistent principles should be followed. Table 7.1 identifies these principles and the rationale underlying their importance.

7.3 EXAMINING CHOICES: PROCUREMENT MECHANISMS, PURCHASING OPTIONS, AND FINANCING SOURCES

To devise effective public sector procurement management systems, technical assistance providers, program managers, and donors must consider a range of choices. Recent trends in essential medicine financing, with emphasis on SWAps and direct budgetary support, focus attention on public agencies to manage the process. However, the capacity may not exist in these agencies to support a public procurement model. Such agencies should examine alternatives for the short and medium term while building long-term, sustainable capacity. The primary consideration at the center of these choices is, *What combination of procurement models can help routinely and efficiently deliver safe and effective essential medicines to clients?* To help answer this question, the following tables list the key elements, advantages, and disadvantages of the procurement mechanisms, purchasing options, and financing sources discussed in this paper.

7.4 KEY CONSIDERATIONS FOR PROCUREMENT PLANNING

The evidence and examples discussed in this paper indicate that a number of steps must be taken to ensure good procurement outcomes. The preceding sections described the full range of requirements and principles of effective public sector procurement and the advantages and disadvantages of the various, often complementary, mecha-

TABLE 7.1. PRINCIPLES AND RATIONALE OF AN EFFECTIVE PROCUREMENT SYSTEM

Principle	Rationale
1. ***Select*** the most cost-effective and safest essential medicines.	Product selection ensures that the right product that meets the needs of the customers is purchased. There must be clear criteria for the selection of the right products based on their quality and effectiveness in treatment, disease burdens, and affordability. National essential medicines lists and essential service package plans contain medicines and non-drug consumables that are considered vital for programs. Decisions about product selection are made by public health policymakers, not procurement officers, but procurement officers or agents must be aware their role in fulfilling public policy.
2. ***Forecast and quantify*** needed purchase volumes.	Needed requirements must be forecasted and quantified. That means forecasting the quantities needed to treat a given number of patients or cases of illness according to past consumption, standard treatment guidelines, and available financing, and calculating the additional quantities needed to ensure adequate stock levels and buffer stocks. Again, this is most often done by program technical staff, not procurement agents, but effective procurement must be based on reliable quantification of requirements.
3. Ensure adequate ***financing*** for the purchase of essential medicines.	Adequate financing for the purchase of quantities forecasted and quantified is essential to implement the procurement process. Financing arrangements should be secured in advance of planned procurements to avoid product stockouts and to minimize emergency shipments. Again, the responsibility for arranging financing may not fall to the procurement agency, but to execute purchasing contracts effectively, it must be aware of all the financial details.
4. Identify qualified ***suppliers***.	Use of public funds demands that spending demonstrates value for money, while ensuring quality and safety. This requires a review of products and prices from the range of available suppliers; product shipment conditions, and evaluation of product quality. Bulk purchase is a key way to obtain economies of scale in delivery and lower unit prices.
5. Manage the ***tendering, bidding, award, and contracting process***.	Management of this process should be transparent to ensure good governance and attract quality suppliers. Formal written procedures and explicit criteria should be developed to evaluate and award contracts. A procurement or tender committee made up of a cross-section of stakeholders should be established to publicly open bids, and the results of its decisions should be made available to the public.
6. Maintain ***transparency and accountability*** in all transactions.	The procurement process should be transparent, clearly following defined guidelines and published criteria for selection. This encourages rational and open decision- making and procurement decisions that can be clearly understood by an outside party.
7. Ensure ***good-quality, safe*** commodities.	Effective quality assurance is important to safeguard public safety and ensure that effective products are procured. In addition to assessing the quality of products tendered, both physical and laboratory testing should be conducted from random sampling of each batch or shipment prior to delivery and again upon receipt.
8. Monitor the performance of the range of processes involved in ***procurement management.***	The process should be as smooth and efficient as possible and managed carefully, from initial product specification to product delivery in-country to ultimate use. This requires pre- and post-shipment procurement management to ensure that supplier quality standards and shipment issues are addressed.

nisms, options, and sources. The following are key points for program managers, donors, and technical assistance providers to take away from this analysis:

- Procurement staff need to be given specialized training in procurement best practices, particularly in World Bank procurement procedures.
- The MOH should consider the use of procurement agents, particularly while staff are being trained to follow multiple regulations and guidelines established by funding agencies.
- Funding sources should be coordinated by the MOH and earmarked and disbursed in a timely manner to ensure that economies of scale can be achieved through public procurement.

TABLE 7.2. PROCUREMENT MECHANISMS: CONTRACTED PROCUREMENT AGENTS

Procurement Agents	Key Element	Advantages	Disadvantages
International Agencies (UNICEF, UNFPA, and IDA)	Conduct their own international procurement with framework contracts with prequalified and selected suppliers. Purchase commodities for many countries and can thereby obtain scale economies. Provide procurement services for fee.	- High-quality commodities. - WHO prequalified suppliers. - Can obtain low international prices. - Efficient means of direct purchase using World Bank and donor funds. - Relatively low management requirements for MOH. - Often easier to modify delivery schedules.	- Advance payment usually required. - Delivery tends to be to the central warehouse, with customer responsible for clearing the goods through customs and the port. - Still requires MOH coordination.
Specialized Commercial Firms	Commercial procurement agencies can undertake procurement contracts with clear performance criteria for a fee.	- Familiar with ICB and LICB requirements. - Contract performance criteria help ensure responsiveness and professionalism. - Have short lead times.	- Have higher procurement charges. - Still requires MOH oversight. - May be general procurement agents without specialized pharmaceutical expertise.
International NGOs	Not-for-profit specialist pharmaceutical procurement agencies can undertake procurement contracts with clear performance criteria for a fee.	- Specialist knowledge of pharmaceutical sector and drug procurement. - Knowledge of ICB and LICB requirements. - Contract performance criteria help ensure responsiveness and professionalism.	- Procurement charges can still be high and may be higher than those of for-profit firms. - Still requires MOH oversight.

INNOVATION IN PROCUREMENT MANAGEMENT

Innovation in procurement has the potential to bring about improved value through the use of new procurement methods that address the major risk areas in procurement. Globally—and particularly in a climate of budgetary constraints and human resource issues—careful consideration should be given to the potential of alternative delivery models, as international public sector organizations are examining cost containment for procurement.

In the public procurement sector in the United States and Europe, many health service procurement organizations are looking at e-procurement to deliver benefits in line with international objectives for best practice. These benefits include increased efficiency and cost savings, and a system that minimizes risk. Traditionally, through ICB and NCB processes, competitive sealed tenders are normal practice. For the necessary change to happen, these methods must be available on the Internet, on e-procurement platforms. Strategies developed on value-for-money programs have shown that e-procurement can deliver major savings while maintaining data security. However, e-procurement must be seen as an enabler, building on sound procurement practices and processes and supported by appropriate organizational structures.

The technology alone cannot deliver a solution or save an ailing procurement system. International experience has shown that the fundamental benefits of e-procurement are tied directly to changes in strategic sourcing, business processes, user behavior, and relationships with suppliers. The key challenge is, therefore, to build the capacity necessary to support a reengineering of underlying public sector procurement processes.

TABLE 7.3. PROCUREMENT MECHANISMS: PUBLIC SECTOR

Public Sector Models	Key Element	Advantages	Disadvantages
Central Medical Store (CMS)	Government-owned and controlled warehouse entity may also house the procurement unit.	- Public sector capacity is strengthening. - Potential to coordinate forecasts/quantifications based on consumption data with purchase volumes.	- Potential for political interference in funds disbursement and bid selection. - Typically governed by civil service employment conditions, diluting accountability and scope to improve performance.
Parastatal	Government-owned nonprofit procurement service may operate under commercial business practices.	- Integrates procurement with distribution system. - Promotes efficiencies in public procurement.	- More prone to political interference than an ASA. - May still be handicapped by civil service employment procedures.
Autonomous Supply Agency (ASA)	Nonprofit, independent procurement service may operate under commercial business practices.	- Less potential for political interference. - Integrates procurement with distribution system. - Promotes centralization of financial resources. - Promotes commercial business practices.	- Multiple mandates (procurement, distribution, RDF management) may result in longer lead times. - Still requires government oversight and can lead to problems if this is weak. - Potential conflict between public health goals and commercial imperatives.
Decentralized Procurement	Multiple, independent budget centers procure in limited quantities for individual regions, districts, and municipalities.	- Local control of procurement decisions. - Understand local needs. - Greater accountability to local clients.	- Higher prices. - Greater human capital costs. - Inadequate capacity at lower levels. - Difficulty in enforcement of regulations.

- Public sector decision makers should ensure that procurement policies and regulations are in place to create an environment that encourages international competitive tendering.
- Procurement agencies should review international reference prices, where it is possible to exchange information with neighbors, to allow more informed buying.
- UN agencies (e.g., UNFPA and UNICEF) can act as procurement agents to allow access to international prices, particularly where regulations are a constraint. Performance should be monitored and managed, as with any procurement agent, to ensure the advantages of lower prices and on-time delivery.
- Tender documents should include the provision of generic equivalents (where applicable), while ensuring proper quality and drug safety standards.
- Procurement decisions should be transparent and free from political interference.
- Use of the Internet to publicize procurement opportunities and document procurement decisions can help improve governance by putting procurement decisions under public scrutiny.
- Use of regional and international quality standards and laboratories can offset the cost of quality control.

TABLE 7.4. PURCHASING OPTIONS

Option	Key Element	Advantages	Disadvantages
ICB	Price competition can exist among a wide variety of potential suppliers.	- Potential for low prices through competition. - Acceptable method under World Bank and donor procurement guidelines.	- Requires more substantial human resources and procurement management expertise. - More administratively complex. - Longer lead times. - Suppliers may need prequalification, adding to lead time.
LICB	Price competition can exist among a more select group of invited potential suppliers.	- Familiar, qualified suppliers. - Potential for low prices through limited competition.	- May overlook better qualified suppliers and lower prices in bid invitation.
NCB	Price competition can be restricted to national suppliers and manufacturers.	- More convenient for smaller bids unlikely to interest international suppliers. - Lower delivery costs.	- Higher prices are more likely. - Greater potential for lower quality, less effective products.
Direct Purchasing	Procurement can be based on limited and often single price quotations.	- Short lead times. - More efficient and less time-consuming. - Potential for good price and quality from purchase through UN and international agencies. - Familiar with supplier.	- Potential for higher prices because of absence of competition. - Depending on supplier, may not qualify for use of World Bank or donor funds.
Pooled Procurement	Bulk purchasing can be done through joint contract negotiations among countries in a region or among sub-national purchasers.	- Lower prices through bulk purchasing. - Enhances regional cooperation and information sharing. - Decreases national management burden when conducted through third party secretariat. - Quality assurance costs divided among participants.	- Often cannot use loan credit or donor funds for central contracting. - Numerous national political and regulatory barriers. - Maintain fund capitalization.

7.5 PROCUREMENT IN CONTEXT

In addition to describing the steps to conduct procurement effectively and efficiently (see section 3.0), this paper has attempted to explain how procurement fits into the following contexts:

- The overall context of *public health policy*—the commitment by a government to its people to provide certain services and products to prevent disease, promote health, and improve lives (see section 1.0).
- The context of the *logistics* activities that comprise state-of-the-art supply chain management—the actions and functions that move goods from manufacturers to end users (see section 2.0).
- The *commodity security* context that is a desired and essential feature of quality public health services—making and keeping critical products available, affordable, and accessible to those who need them (see section 7.1).

As public health practitioners, we encourage the idea that procurement is a special discipline that requires specific expertise, but we also contend that procurement is not a discrete activity. Procurement is an essential link in the public health supply chain and to be most effective—to provide the best value for money and have the most

TABLE 7.5. FINANCING OPTIONS

Mechanism	Key Element	Advantages	Disadvantages
Bilateral Donors	Assistance can be granted to recipient countries in the form of in-kind donations, financing to third party procurement agents, or direct budgetary support.	- Additional financing increases the resource envelope and can fund pharmaceutical procurements that otherwise would not happen.	- Absence of long-term funding commitments. - Highly sensitive to the donor's political environment. - Project-based support can add to administrative burden on recipient countries. - Budget line item support can come with conditionality. - Aid may be tied to suppliers from the donating country.
Multilateral Funding Agencies (e.g., World Bank)	Low-interest loans and grants can be provided to recipient countries and typically dispersed for procurement of medicines through a sector-wide approach.	- Substantial loan and grant amounts enable large-volume purchases. - Procurement regulations help ensure quality, price, and transparency. - Encourages countries to build public sector capacity.	- Complex procedures and reporting requirements. - Long lead times if public sector procurement management capacity is inadequate.
Internally Generated Funds	Government taxation and cost recovery revenue can be appropriated for medicine procurement.	- Increases flexibility in selecting purchasing options. - Demonstrates political will and ownership. - Makes policymakers accountable to constituents and program implementers accountable to public policymakers.	- May not promote transparency. - Subject to political interference. - Requires substantial advocacy and sustained political commitment.
International Funds	International financing instruments can be designed to address disease-specific commodity gaps.	- Brings focus, attention, and substantial financing to major disease burdens. - Provides for flexible procurement and funding disbursement. - Compels country stakeholders to work together to develop coordinated financing proposals.	- Requires strong in-country coordinating mechanisms to develop proposals and manage flow of funds. - Support for procurement and supply management capacity building is often inadequate and/or overlooked.

impact—the connections between procurement and the functions that precede and follow it in the logistics cycle must be understood and strengthened.

In the current environment, public sector supply agencies face an array of purchasing options, mechanisms, and financing sources (see sections 4.0, 5.0, and 6.0). This fact both complicates and increases the influence of the procurement function. With the HIV/AIDS pandemic and the emergence of new and resurgent diseases adding to the age-old challenges of public health, there has never been a more important time to be in the business of procuring health products, and it has never been more necessary to do it well.

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ANNEXES

ANNEX 1. SUMMARY OF POOLED PROCUREMENT MECHANISMS

A. SUMMARY OF POOLED PROCUREMENT AND POOLED FUNDING EXAMPLES

	ECDS	PAHO Vaccines RDF	ACAME	GCC	GAVI	GDF (TB)	Global ATM
Category	Central contracting	Central contracting	Group contracting	Group contracting	Pooled funding – Central contracting	Pooled funding – Central contracting	Pooled funding
# of commodities	59 in 1st cycle; 420 more recently	11	5 (under pilot test)	32 in beginning; 1,127 in 2001	(Under-used) vaccines	1st line TB drugs	--
# of countries or members	9 countries	24 countries initially, 35 in 2002	3 countries participated in pilot test; 12 attend meetings	6	- 13 countries supported 1st year; - 60 in 2002	- Stop TB Partnership - 46 orgs. funded (2004)	Various (93 countries supported in 1st and 2nd round)
Cost Saving	Up to 52% over unit cost (15-88% per country tender)	Up to 80% of price of vaccine	7 % - 27% over unit price (pilot test only)	30% over unit price	[need more info]	30% for treatment course	--
Financing of Procurements	- Initial cash contribution of 1/3 of each country's pharmaceutical budget - Eastern Caribbean Central Bank pays suppliers directly and is reimbursed by countries upon delivery of products	- $1 million initial capitalization, plus donations since - Countries reimburse PAHO RDF once they receive commodities - 3% service charge collection in excess of $100,000 is capitalized to procurement fund	- Each country has contract with supplier (under pilot)	- By individual country	- Donations, fund raising, with lion share from Bill & Melinda Gates Foundation - $ 1.1 billion by 2002	- $10 million initial funding from Canadian IDA - Funding raising from Stop TB partnership	- Donations from countries, foundations, individuals; $1.5 billion in 1st and 2nd round
Financing of Mechanism	15% admin fee	3 % service charge, donations	- Membership fees from members, currently 500,000 CFA (about $900) - $4,000 initial grant from WHO - Minimal, partial support from UEOMOA for defraying meeting costs meeting. - Tendering fee of 100,000 CFA (pilot)	[need more info]	- Fund raising, donations - Longer term financing options being considered (e.g., put options, securitization, IDA loan buy-down)	- Funding raising from Stop TB partnership - WHO provides office and support - United Nations Development Programme Inter-Agency Procurement Services Office for procurement	As above.

B. CRITICAL REQUIREMENTS FOR POOLED PROCUREMENT OPTIONS

	Informed Buying	Coordinated Informed Buying	Group Contracting	Pooled Finance/ Central Contracting
Supportive Policies and Legal Mechanisms				
• Legal/policy mechanism for information sharing	✓	✓	✓	✓
• Independent representative secretariat for the procurement			✓	✓
• Clear understanding of the costs, benefits, and obligations for each country and possible need for a transfer mechanism			✓	✓
• Good governance and accountability for funds flow			✓	✓
• Supportive policies and a legal mechanism for jointly negotiating (outsourcing negotiation) of prices and selection of suppliers			✓	✓
Reliable forecasting, procurement, and distribution systems				
• In-country capacity to computerize/standardize supplier and price information	✓	✓		
• Reliable supply chain management including forecasts of national commodity needs and national distribution systems			✓	✓
• Similarity and transparency of procurement policies and procedures			✓	✓
• Ensure supply chain does not lengthen with central contracting				✓
Reliable financial support				
• Financial commitment by participating countries and funding partners			✓	✓
• Evidence of reliable payment of suppliers by countries				✓
Commitment to sole source				
• Political will including willingness to sole source				✓
Common language and currency				
• Common language			✓	✓
• Convertible currencies among participating countries			✓	✓
Harmonizing drug registration, essential drug list, suppliers, and standard treatment guidelines				
• Establish a unique regional drug registration standard policy and procedure			✓	✓
• Existence of similar EDLs and STGs			✓	✓
• Adequate in-country QA capacity			✓	✓

Source: Adapted from Onyango 2003.

ANNEX 2. PROCUREMENT MANAGEMENT CHECKLIST

Procurement Process Checklist **Procurement No.** _____

Procurement Package Start Date _____

Estimated Completion Date	***Activity (responsibility)***	***Completion Date***
_____	1. Initiate procurement process (*logistics unit*)	
	a. Identify product	a. _____
	b. Conduct pipeline analysis	b. _____
	c. Prepare specifications	c. _____
	d. Determine order quantity	d. _____
	e. Develop delivery schedule	e. _____
	f. Develop budget estimate	f. _____
_____	g. Preliminary health sector budget discussions	g. _____
	h. Health sector budget approval	h. _____
	i. Determine funds available for contraceptives	i. _____
_____	j. Transmit requirements to Purchasing Department	j. _____
	2. Issue tenders (*purchasing department*)	
	a. Tender documents prepared	a. _____
_____	b. Tender Advertised	b. _____
_____	c. Public tender opening	c. _____
	3. Evaluate tenders (*decision committee*)	
	a. Decision committee formed	a. _____
	b. Technical evaluation	b. _____
	c. Product registration confirmed	c. _____
	d. Financial evaluation	d. _____
	e. Review and approval of selection	e. _____
_____	f. Final approval	f. _____
	4. Award Contract (*purchasing department*)	
	a. Prepare and release contract	a. _____
	b. Performance security obtained	b. _____
_____	c. Contract signed	c. _____
_____	d. Payment account opened	d. _____

5. Monitor shipment (*logistics unit*)

Shipment Number	Estimate Shipping Date	Quantity	Actual Shipping Date	Date Shipping Documents Received	Date Shipment Arrived Port	Date Inspection Completed	Date Testing Completed	Date Cleared Customs	Date Shipment Received Warehouse

6. Contract/file closeout (*purchasing department*)

	a. Contract file closed	_____
_____	b. Logistics procurement file closed (*Logistics Unit*)	_____

ANNEX 3. PROCUREMENT ACTIVITIES

JORDANIAN MINISTRY OF HEALTH PROCUREMENT ACTIVITIES FOLLOWING PHASE-OUT OF USAID SUPPORT FOR CONTRACEPTIVES

PROCUREMENT OF INJECTABLES – 2005

#	*Activity*	*Year 1*												*Year 2*					
		Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	July	Aug
1	Initiate Procurement Process																		
a	Identify product																		
b	Conduct pipeline analysis																		
c	Prepare specifications																		
d	Determine order quantity																		
e	Develop delivery schedule																		
f	Develop budget estimate																		
g	Preliminary health sector budget discussion																		
h	Health sector budget approval																		
i	Determine funds available for contraceptives																		
j	Transmit requirements to purchasing																		
2	Issue Tenders																		
a	Tender documents prepared																		
b	Tender advertised																		
d	Public tender opening																		
3	Evaluate Tenders																		
a	Decision Committee formed																		
b	Technical evaluation																		
c	Product registration confirmed																		
d	Financial Evaluation																		
e	Review and approval of selection																		
f	Final approval																		
4	Award Contract																		
a	Prepare and release contract																		
b	Performance security obtained																		
c	Contract signed																		
d	Payment account opened																		
5	Monitor shipments																		
a	Supplier manufacturing time																		
b	Logistics monitoring shipments																		
6	Contract closeout																		
a	Contract file closed																		
b	Logistics procurement file closed																		

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