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**A Strategic Framework for  
Setting Priorities for  
Research, Analysis, and  
Information Dissemination  
on Health Sector Financing  
and Sustainability in Sub-  
Saharan Africa**

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## Foreword

Health financing and sustainability in the health sector are key factors influencing overall sustainable development in sub-Saharan African countries. The health status of any country's population correlates directly with the productivity of its work force. Treatable but untreated diseases not only sap the productivity of workers but also too often they rob countries of their most valuable resources—their children. High child mortality and morbidity rates unnecessarily lessen the contributions of future generations to their countries' development. These problems are particularly acute in sub-Saharan Africa, which has the highest child mortality rates and the lowest life expectancy, of any region in the world.

This strategic framework document presents cost-effective approaches to address health problems in sub-Saharan Africa. Even with the current limited resources available to ministries of health, the majority of Africa's serious public health problems can be addressed through a package of essential clinical and educational services, offered at the district hospital level and below. But it is far from clear how governments can muster the political will necessary to reallocate scarce financial resources away from large hospitals in urban areas, and reduce waste and inefficiencies that compromise existing health delivery systems. The strategic framework examines these questions in detail, provides lessons learned concerning difficult problems, and concludes with priority topics for further research and analysis. To reach these conclusions, the strategic framework has benefited from an in-depth review of existing literature and documentation as well as the advice of expert consultative group meetings in the U.S. and Africa.

This document's findings are very much in accord with USAID's underlying philosophy of promoting sustainable development. The organization and equitable distribution of health services are often closely intertwined with the services of other sectors, including education and water and sanitation, for which many countries are also experimenting with decentralization and cost-recovery programs. Sound health financing and delivery systems also provide the structural basis for effective family planning programs. Only if the long-term goals of African health systems are addressed—in terms of structural organization and development of financial and human resources—can these systems become truly sustainable and cope effectively with the health problems of their people.

## Executive Summary

This strategic framework document is the result of a detailed investigation of issues related to health financing and sustainability of the health sector in sub-Saharan Africa. Throughout this investigation, the ultimate goal has been to define priorities for research, analysis, and dissemination activities in the subject area. An extensive review of existing literature and documentation forms the basis of the strategic framework, complemented by a series of individual interviews and consultative group meetings held in Washington, D.C., and Dakar, Senegal.

As intended, the strategic framework raises questions and points out areas where research and experimentation is most needed. The document focuses on four broad policy areas: (1) allocative and technical efficiency; (2) resource mobilization; (3) equity; and (4) institutional issues. The document reviews in detail each of these areas ("Review of the Major Issues") and presents a summary of the major points ("Lessons Learned"). The strategic framework concludes with a statement of priority topics for future research and analysis activities. As a result of this process, USAID's Africa Bureau is financing research projects that address several of these topics. However, funding constraints limit USAID to a small portion of the proposed research and analysis activity. The list of topics, developed in collaboration with other donor organizations and African ministries of health, is also of interest to African governments and a wide range of donor institutions supporting the health sector in sub-Saharan Africa.

Many sub-Saharan African countries are putting into place cost-recovery systems for health services. As this document demonstrates, some lessons have been learned concerning different systems of resource mobilization, and their effects on revenue, efficiency, and equity, and more information is necessary to help guide decision makers in implementing cost-recovery systems. However, issues related to the financing of health services are much better understood than issues that directly concern sustainability—even though sustainability in the health sector is a predominant policy objective, and health financing a means to achieve that objective. Given existing waste and inefficiency, the net gains to be had by reducing costs are likely to be greater than the gains from improving recovery of costs. Available evidence on the revenue and equity effects of cost-recovery mechanisms and on the magnitude of technical and allocative inefficiencies in the health sector of African countries lends support to this argument.

The top priority for health sector decision makers in Africa is to do a better job using the resources they already have rather than emphasizing efforts to generate additional revenue through cost-recovery or larger budget allocations from the central treasury. Therefore, emphasis should be placed on improving the efficiency of resource management. The paradox is that very little is known about measures to improve the capacity to manage resources more efficiently.

The major lessons learned in health sector financing and sustainability, and priority topics for future research and analysis, are summarized below:

### **Lessons learned**

- ◆ Nearly all cost-effective health interventions are public health measures or clinical interventions that can be delivered at or below the district hospital level.
- ◆ Identifying the sources of waste and technical inefficiency and reducing their effects can extend the coverage and quality of health services without the potentially negative equity consequences of cost-recovery measures.
- ◆ Revenues from user fees should stay within the health sector and be used to improve or maintain the quality of care.
- ◆ User fees for government health services will not provide substantial revenues for national health resources.
- ◆ Health financing mechanisms must account for the seasonality of individual incomes.
- ◆ Adjustment of fee levels or insurance premium rates over time to keep pace with inflation should be institutionalized, to the extent possible, as an administrative action.
- ◆ Expanding insurance coverage for formal sector workers should be supported only if sufficient political will can be mobilized to generate profits from the coverage of the well-off-insured and use them to cross-subsidize services for the uninsured.

- ◆ Fees should be consistent with ability to pay and should not prevent access to essential services.
- ◆ Interventions to improve institutional sustainability require a long-term commitment.
- ◆ Vertical programs and administrative structures within ministries of health undermine development of sustainable, integrated health services.

**Research and analysis topics** (that have been chosen for financing by the USAID Africa Bureau are marked with an asterisk [\*]):

- ◆ **Hospital autonomy.\*** Under what conditions would granting managerial and financial autonomy to hospitals result in improved efficiency, quality of care, and equitable delivery of services? What is the experience to date of developing countries in granting autonomy to hospitals?
- ◆ **Resource mobilization.\*** What are the revenue, equity, and efficiency effects of various resource mobilization schemes?
- ◆ **Equity in the financing and provision of health care.\*** In the context of cost recovery for health care, how can poor segments of the population be identified, and how can health systems ensure that the poor have access to reference facilities?
- ◆ **Efficiency, equity, and quality implications of different types of decentralization.\*** What are the consequences of, and most appropriate strategies for, decentralization within the health sector? What management skills are needed at the district level for decentralization to work?
- ◆ **Consumer preferences for different sources of health care.** Where does a given population seek health care, and what factors influence consumer preferences for different sources of care?
- ◆ **Reducing waste and technical inefficiencies in health services.** What cost-reducing or productivity-enhancing measures are available to correct waste and inefficiency, especially in drug procurement and distribution systems and in large tertiary hospitals?

- ◆ **Incentive measures for health workers and managers.** What incentive measures reward rather than punish efficient resource management and cost recovery in centrally budgeted health systems?
- ◆ **The costs of AIDS, and strategies for care.** What are the economic and financial consequences of AIDS, and what strategies will enable health systems to cope with the forecasted demands of AIDS patients?

## Acronyms

AIDS	acquired immune deficiency syndrome
BI	Bamako Initiative
CAM	Carte d'Assurance Maladie (Burundi)
CCCD-ACSI	Combatting Communicable Childhood Diseases- Africa Child Survival Initiative
CDD	control of diarrheal diseases
CHAM	Christian Health Association of Malawi
DALY	disability-adjusted life-year
DDM	Data for Decision Making Project
DPT	diphtheria, pertussis, and tetanus
EPI	Expanded Program for Immunization
GNP	gross national product
HHRAA	Health and Human Resources Analysis for Africa Project
HIV	human immune-deficiency virus
KAP	Knowledge, Attitudes, Practices (survey)
LSMS	Living Standards Measurement Surveys
MCH	maternal and child health
MOH	ministry of health
MFP	Mutuelle de la Fonction Publique (Burundi)
NGOs	non-governmental organizations
ORS	oral rehydration solution

ORT	oral rehydration therapy
PRITECH	Technologies for Primary Health Care Project
PSI	Population Services International
REDSO/WCA	USAID Regional Economic Development Services Office, West and Central Africa
SARA	Support for Analysis and Research in Africa Project
SD	Office of Sustainable Development (USAID)
SDHS	Strengthening District Health Systems
SSS	sugar salt solution
STD	sexually transmitted disease
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

## **Introduction**

This strategic framework document (1) presents a comprehensive overview of current issues affecting health sector financing and sustainability, and (2) defines the research and analysis priorities in this subject area for the Africa Bureau of USAID—specifically for the Office of Sustainable Development (SD) and the Health and Human Resources Analysis for Africa (HHRAA) Project. The SD Office and the HHRAA Project support research, analysis, and dissemination activities that will provide timely and appropriate information to USAID offices, African governments, and donors for important decisions concerning setting priorities and allocating resources. This paper highlights key analytic and policy issues in health care financing and sustainability that should be disseminated to health sector decision makers in Africa, identifies important gaps in information in these areas, and presents recommendations for further research and analysis.

### ***The Strategic Framework Process***

As one of a series of strategic frameworks covering key analytic areas for the HHRAA project, development of this strategic framework has followed a defined path leading to the determination of research, analysis, and dissemination activities. The first step in this process was a review of recent literature and documentation from projects and studies, complemented by discussions with representatives of donor agencies, NGOs, and researchers working in the field of health finance and sustainability. An early draft of the document was presented for review at consultative group meetings in Washington, D.C. and Dakar, Senegal. At these meetings, participants critiqued the document; suggested additional priority topics for research, analysis, and dissemination; and voted on the topics. A summary of the voting results, combining the two meetings, is attached to this document as Annex 6. The results of the consultative group meetings, and comments from additional experts unable to attend the meetings, have been incorporated into this final version of the strategic framework.

Throughout the strategic framework process, four essential criteria have been used to determine priority research and analysis topics (a more detailed list of criteria is attached as Annex 5):

- ◆ The importance of the problem in general and to African policy makers.

- ◆ The feasibility of intervention in the subject area.
- ◆ The level of existing knowledge in the subject area and the importance of the “information gap.”
- ◆ USAID’s strengths in the subject area.

In addition, HIRAA activities should complement, rather than duplicate, the research and analysis of other donors. Annex 3, “Recent and On-Going Research and Analysis Activities,” provides a summary of the current major activities undertaken by donors in health financing and sustainability.

The priority topics for research, analysis, and dissemination are described under “Conclusions.” Topics that have been chosen for HIRAA funding are specified in this section. The HIRAA research and analysis activities determined by this strategic framework are scheduled to begin in October 1994 and will be completed in 1996. Wherever possible, African researchers, decision makers, and institutions will design and implement these activities.

### ***Background to the Major Issues***

Health is an important development issue. Good health in and of itself makes a direct contribution to individual usefulness and welfare. Good health leads to a reduction in productivity losses due to illnesses; school enrollment and educability of children are also improved, providing long-term economic benefits, and resources that would otherwise be used to treat illnesses are freed for other purposes.<sup>2</sup> The economic benefits of improving health status are particularly strong in the case of women’s health. Women are the principal providers of health care services for their family members, and women’s education (which is enhanced by a woman’s good health status) has been shown to have substantial economic benefits (Summers 1992).

Because health is a significant development issue, the factors that affect health status are also important. These factors include income, nutrition, education (of the individual and his or her mother), and the quality and availability of health services. This last factor depends on the human and financial resources that buttress a nation’s health services. Therefore, health care financing and the sustainability of health systems are significant development issues because they are major determinants of the perfor-

mance of a country's health system, which in turn has a direct impact on a population's health status. Financing is necessary to maintain and expand the provision of important health services, and for a given level of financing to be adequate, the organization of services must be affordable. Moreover, human resources must be developed so that the services can be adequately managed and delivered.

Unlike the market for many other goods and services, most authors suggest that governments should intervene in the market for health care services, generally because of the presence of "market failures"—reasons why the actions of producers and consumers alone will not yield a socially optimal or economically efficient result. Market failures are usually divided into the following categories: public goods, externalities, economies of scale, information deficiencies, and incomplete markets.

While it is not the purpose of this paper to examine market failures in detail, the conclusions of related analyses are that government has an important role to play in supporting the provision and consumption of services that are more "public" in nature (sanitation, for example) or have important positive externalities (such as the prevention and treatment of communicable diseases). In addition, governments need to take measures to address the average consumer's relative lack of information (compared with providers) regarding his or her health and the options available to improve it. Government intervention can take several forms, including direct provision of services, financing of services, regulation of private service provision, or a combination of these.<sup>2</sup>

Poverty alleviation is another rationale for government involvement. One means to reduce poverty is to increase the human capital of the poor by increasing their access to basic health care, education, and nutrition. This is likely to require targeting on the basis of income, and possibly complete subsidization of a package of clinical services that are deemed to be "essential" on the basis of a country's disease burden and the cost effectiveness of interventions. In the 1993 *World Development Report*, The World Bank uses an estimate of the average cost per disability-adjusted life-year (DALY) as a cost-effectiveness measure.<sup>3</sup> Since nearly all cost-effective interventions can be delivered at the district hospital level or below, this implies that public funding should be redirected to programs at this level (Shaw and Elmendorf 1993).

The rationales for government involvement in the market for health services suggest a need for public policy with regard to the provision, financing, and regulation of health services. Health financing measures affect the level of resources available and the efficiency and equity of health service production and consumption. Increasing revenues, improving efficiency, and enhancing equity are appropriate objectives of health financing policy.<sup>1</sup> These objectives are broad measures against which the performance of health financing measures can be assessed.

Health sector finance consists of all sources of revenue and in-kind contributions that support public and private health care services. These include central government, local governments, public and private health insurance, and individual payments at the point of service (i.e., payments made by households). This paper emphasizes financing recurrent health inputs because the capacity to meet recurrent resource needs is synonymous with the financial sustainability of the service. The implications of capital expenditures are also addressed in this strategic framework, because the development strategy chosen for the health sector and the resulting pattern of investments directly affect sustainability.

The term sustainable has been applied to many aspects of economic development. King (1990, p. 199) reports one definition: "capable of being maintained at a certain rate or level." The World Bank (1992a, p. 34) defines sustainable development as simply "development that lasts." Although both of these definitions are relevant to the health sector, this terminology has been most commonly used in reference to the environment and the capacity of an ecosystem to support a given development strategy.

In analyses of the health sector in developing countries, sustainability has usually referred to the capacity of a country to maintain activities begun with donor support after this external assistance ceases.<sup>2</sup> This capacity relates to financial and institutional characteristics of the recipient country. In other words, the issue of health project sustainability has raised the following questions: can the country finance the incremental recurrent costs arising from a new investment project, and does the country have the human resources needed to manage its new or reformed programs?

The definition of sustainability used in this strategic framework extends these questions from individual projects to the entire health sector and is

consistent with that advanced by the Save the Children Fund: "the capacity of the health system to function effectively over time with a minimum of external resources."<sup>10</sup> Financially, sustainability depends on resource availability and the costs implied by specific sectoral development strategies. Institutional sustainability depends on the capacity of a health system to develop and implement policies and programs and is thus related to a sufficient quantity of skilled and experienced personnel.

Linkages exist between health finance and sector sustainability because adequate finance is necessary to sustain the sector. Moreover, measures to finance health services affect sustainability because the characteristics of a financing system generate behavioral incentives that affect the allocation of sectoral resources. In other words, health financing measures affect not only the level of resources available in the sector but also the efficiency and equity of resource allocation. Although finding sufficient resources to fund health services has often been viewed as a cost-recovery problem, financing alone is not sufficient to achieve sectoral sustainability.

Financial sustainability also relates to the cost of health sector programs. More emphasis should be placed on measures to reduce the costs of services (for example, by reducing waste in the procurement and distribution of essential drugs) as a step toward improving the affordability of health services.<sup>11</sup> More broadly, the definition of a cost-recovery or other health financing strategy does not address the institutional capacity of the health system to implement such policies successfully. Thus, health finance and health sector sustainability need to be addressed individually and together.

## **Review of the Major Issues in Health Sector Financing and Sustainability**

### *Allocative and Technical Efficiency*

Much of the literature and discussion concerning health financing and sustainability in sub-Saharan Africa focuses on the need to mobilize additional financial resources for health through cost recovery and other systems. African ministries of health are indeed faced with critical funding shortages; however, there is significant evidence that African health systems could allocate and use existing resources much more efficiently. More efficient allocation of existing financial and human resources, and more technically efficient use of those resources, would not eliminate the need for

additional resources. Nonetheless, greater efficiency could successfully address many of the fundamental health problems in sub-Saharan Africa.

### *Resource Allocation*

Health authorities in all countries must address certain basic issues related to the definition, provision, organization, and funding of health services to be provided, and the role of government in the delivery, financing, and organization of services. Given sufficient information on the epidemiological characteristics (i.e., the causes of the burden of disease) of a country, the costs and effects of alternative health care interventions, and a knowledge of the total resource envelope for health services (i.e., the budget constraint), a cost-effective network of providers of care can be defined.

Such an approach is described in The World Bank's *World Development Report*. Based on an assessment of the burden of disease and the cost-effectiveness of interventions, this document recommends that priorities for health sector investments by governments are: (1) public health measures, such as immunizations, AIDS prevention, and information and services for family planning and nutrition; and (2) essential clinical (i.e., personal) health services, including interventions focused on safe motherhood, tuberculosis and STD treatment, treatment for the major causes of childhood illness, and treatment for minor infection and trauma.

These essential clinical services do not require highly sophisticated technical inputs—they can all be delivered at the district hospital level or below. The *World Development Report* estimates an annual per capita cost for this clinical package of US\$8, plus another US\$4 for the public health interventions. This is consistent with the estimate from *Better Health in Africa* of US\$15 per capita for a package of health services, provided by a two-tiered network of health centers and a referral hospital, public health interventions, and support to district health management (Shaw and Ehmendorf 1993, p. 127).

International comparisons indicate that many African countries lag behind other developing countries in terms of their expenditures on health, both as a share of GNP and on a per capita basis. For African countries with low levels of expenditures on health (see Table 1), the basic package of clinical, public health, and management services (\$13 per capita) would represent 5.8 percent of average per capita GNP, whereas average spending

from all sources (government, private, and donor) is currently 4.6 percent of per capita GNP. In these poor countries (which represent more than half of sub-Saharan Africa's population), an increase in the absolute level of health spending is needed to provide a basic minimum package of services to the population (Shaw and Elmendorf 1993, p. 130-31).

Moreover, the evidence from all African countries is that actual allocations are far from the cost-effective pattern on which the \$13 per capita estimate is based. The challenge for policy makers is to change historical patterns of budget allocation. Improvements in resource allocation would mean that far greater health benefits could be derived from the existing levels of resources used in the health sector of African countries. In the poorest countries, however, reallocating existing resources will not be sufficient to enable the poorest, most remote groups to gain access to essential public health and clinical services. For these countries, additional resources are needed to achieve this coverage.

**Table 1.**  
**Groupings of Countries by Relative Level of Expenditures on Health, 1985-90**

Country Characteristics	Country Grouping		
	High	Medium	Low
Population (millions)	21.4	102.3	210.7
Average GNP/Capita	\$818	\$395	\$225
Expenditures Per Capita			
- Government	\$20-30	\$3-7	\$1-2
- Private	\$26-33	\$7-11	\$7-9
- Donor	\$4-12	\$2-7	\$1-2
Total (crude range)	\$50-75	\$12-25	\$9-13

**High Countries:** Botswana, Lesotho, Mauritius, Swaziland, Zimbabwe

**Medium Countries:** Burundi, Cameroon, Gambia, Ghana, Kenya, Liberia, Malawi, Mali, Niger, Rwanda, Senegal, Togo, Zambia

**Low Countries:** Burkina Faso, Ethiopia, Nigeria, Sierra Leone, Somalia, Uganda, Zaire

**Note:** Expenditure range for each group of countries excludes highest and lowest figures, in the interests of establishing a range closer to the median.

**Source:** Reprinted from Shaw and Elmendorf 1993, p. 130.

Even if governments were able to increase their financial commitments to the health sector, the amounts available would probably be inadequate to provide basic care for a large part of the population. Clearly, the private sector has an important role to play in funding essential health services. The challenge is to create a system that uses the limited resources available from all sources in the most cost-effective manner. Governments should focus on financing and providing public health measures, promoting private providers, and developing private sources of financing (such as community financing through user fees or prepayment) to help support delivery of clinical services.

The two-tiered organization of health centers and district hospital recommended in *Better Health in Africa* reflects an assessment of the types of providers that can provide the greatest population coverage at low levels of resource availability. If resources are allocated well, this organization would also minimize costs to users. The top priority for resource allocation is to improve and maintain the quality of care in facilities designed to be the first contact point between the population and the health system—generally the health center. Pricing of services should also encourage people to use health centers first. Resource allocation and financing policies should be coordinated to maintain quality at the first contact point and encourage appropriate use of the referral system.

Most African governments have endorsed the principles of primary health care laid out in the Alma Ata declaration. Often, however, patterns of investment and recurrent resource allocation are not consistent with official statements of health sector strategy. Detailed data are not available for a conclusive determination of the cost-effectiveness of health sector resource allocation in African countries. However, the evidence available on access to care and the allocation of government health budgets to facilities strongly suggests that there is considerable room to improve the efficiency of current allocations. Approximately half of Africa's population does not have regular access to modern medical facilities, and in different countries from 30 to 80 percent of government health expenditures are absorbed by urban-based hospital care (Shaw and Elmendorf 1993, p.2).<sup>7</sup>

**The need for increased hospital autonomy.** This pattern of spending undermines the desired referral system model and conflicts with a more efficient approach wherein all or nearly all cost-effective interventions can be

delivered at the district hospital level or below. A heavy concentration of government resources in large tertiary hospitals is not only inefficient but is also inequitable, because most consumers of the care provided in these facilities are from urban areas, where incomes tend to be higher.

One option for reducing the drain that large tertiary hospitals place on recurrent health budgets is to grant them financial and managerial autonomy.<sup>9</sup> By generating a substantial share of their revenues through user fees or insurance reimbursements, the hospitals would be able to reduce their dependence on central treasury financing. However, evidence from several countries where one or more large hospitals have been made parastatals or been granted some measure of autonomy (Burundi, Kenya, Nigeria, and Zimbabwe, for example) indicates that these policies have not resulted in a decrease in the amount or share of government subventions to these hospitals. Research is needed to develop ways to reduce government subventions to large hospitals by enabling them to function effectively with financial and managerial autonomy.

To achieve a more effective allocation of resources, policy makers should address the demand for resources as well as supply. Although the majority of Africa's people are disadvantaged by current expenditure patterns, there is little public lobbying for more primary health care. Improving information to the public concerning the allocation of resources could lead to more support from consumers (or potential consumers) for reallocation, and may ease the political difficulties involved in moving resources away from politically powerful institutions such as large urban hospitals.<sup>10</sup>

**Consumer preferences and political factors.** Unfortunately, not enough is known concerning consumer preferences for care and what type of information will encourage people to seek modern health services. Data available from the Living Standards Measurement Surveys (LSMS) suggest that 50–60 percent of people who become ill in Africa do not visit health facilities but self-treat instead. The considerable activity of private traditional practitioners clearly meets some level of consumer demand. More basic information is needed concerning private household health expenditures and how these affect patterns of total national health resource allocation.

Efforts to reallocate resources available for health care are often compromised by political factors and historical patterns of resource allocation. Changing these patterns will likely take a considerable amount of time; do-

nors concerned with improving allocative efficiency should recognize the complexity of resource allocation decisions and adopt realistic time frames for achieving reallocation. This is particularly true in poor countries with as little as \$1 per capita government health expenditures—these countries have less to reallocate.

### *Cost Containment—Reducing Waste and Technical Inefficiency*

Funding shortages are usually considered to be the principal issue of health financing and sustainability in Africa. The idea that costs could be excessive in a low-resource environment has received far less attention. Nevertheless, available evidence suggests that far greater benefits could be attained with the current level of resource inputs to the sector if waste and inefficiency are reduced. Unnecessarily high costs of providing services directly affect financial sustainability. A concerted effort to reduce costs by minimizing waste can yield relatively rapid results.

Even if nothing is done to change patterns of resource allocation in African health sectors, considerable gains could be achieved if current levels of waste and other forms of technical inefficiency were reduced. Or, if resources were allocated toward a more cost-effective organization of services, improvements in technical efficiency could magnify the benefits of this improved allocation pattern. The magnitude of the benefits to be gained is great, as evidenced by findings regarding pharmaceuticals. Waste and inefficiencies are so great in the procurement, storage, prescription, and use of drugs that only 12 percent of the total amount spent by governments on drugs actually reaches patients in the form of good quality drugs. Reducing waste and inefficiency has the potential to make an important contribution to the sustainability of health services in Africa (Shaw and Elmendorf 1993, p. 58).

Some authors have argued that reducing waste and technical inefficiency should have higher priority than implementing cost-recovery mechanisms. The former does not entail the negative equity consequences associated with the latter, and can save as much in the way of revenues as can be generated through fees (Gilson 1988, Brunet-Jailly 1991). Indeed, an analysis of the drug system in Mali led to the conclusion that no additional resources are needed to make drugs available in that country's health units and dispensaries (Brunet-Jailly 1991, p. 31).

Moreover, for community financing schemes such as the Bamako Initiative (BI), keeping the costs of obtaining drugs low is essential to maintain affordable user charges. In other words, reducing waste and inefficiency is a critical precondition for sustainability of the health financing mechanism (in this case, user fees for drugs) as well as for the delivery system. Cost recovery is a more feasible option when costs are kept under control because this enables prices to be kept low as well (McPake, Hanson, and Mills 1992, p. xii).

Waste and inefficiency can be reduced. A study in one university hospital in Sudan found that there was excessive waste in food purchasing and provision at the hospital. Based on this study, a new food system was introduced, and food costs at the hospital were reduced by 65 percent within four months. This represented a savings of 21 percent of the region's hospital non-staff recurrent budget (Bekele and Lewis 1986, p. 120–21).

Financial gains from reducing various forms of waste can be substantial. A study from Malawi suggested that 41 percent of non-staff recurrent expenditures in the national hospital could be saved by simple management improvements.<sup>13</sup> Large urban tertiary facilities are major consumers of health resources and are no doubt characterized by high levels of waste and inefficiency. There are potentially large financial returns to measures that would correct these problems, allowing for a degree of reallocation of resources away from these facilities toward those affecting a larger proportion of the population.

**Contracting out.** Contracting of specified services to the private sector is regarded as a means to improve efficiency and reduce public sector expenditures. The motivating assumption is that private suppliers would be more technically efficient in providing the specified service. Gains in efficiency could be expected from competition for contracts among potential suppliers and from the involvement of private sector firms with more advanced and flexible management structures than exist in the public sector. To ensure these gains, public sector managers of contracts would need to have the skills to establish and supervise contracts to ensure that cost containment goals are achieved.

However, little is known about the extent or success of contracting reforms in Africa. In other countries limited success has been achieved in large hospitals' contracting out some non-clinical services, such as cleaning and

laundry. The potential for success, in terms of quality improvement and cost containment, may be less in African countries without a well-developed market of competing private suppliers. It is important to understand the preconditions necessary for contracting out to yield efficiency gains and quality improvement, in clinical and non-clinical settings.

**NGOs and technical efficiency.** In most African countries, an important portion of total health services is provided by non-governmental entities—in particular, not-for-profit (NFP) organizations, which often have religious affiliations. The World Bank estimates that NGOs provide a third or more of all clinical care in Cameroon, Ghana, Malawi, Uganda, and Zambia. There is a need to address the relative efficiency of public and private providers, and the circumstances under which the private sector may be more efficient than the public. Similarly, what are the implications of alternative organizations of health services (such as church-based groups) for technical efficiency?

There may be scope to establish explicit contracts between ministries of health and the NGO providers they subsidize, if the NGOs would accept a greater degree of government influence over their policies (Gilson and Mills 1993). An example of successful collaboration comes from Malawi, where the government pays the salaries of staff working at health facilities run by the Christian Health Association of Malawi (CHAM), while CHAM provides the remaining resources. Research is needed on the potential of measures to improve coordination between government and NGO providers.

**Incentives and managerial autonomy.** More information should be disseminated regarding the ways in which waste and inefficiencies can be reduced. Are savings just a matter of better management practices, or can incentives be put in place to encourage waste-reducing behavior? The question of incentives is important because in centrally budgeted health systems, the overriding financial incentive is to guarantee next year's budget by spending this year's as rapidly as possible. If part of a budget is unspent, this is generally not rewarded but rather punished by a reduction in allocation. Developing incentives to reward efficient management is a challenge that needs to be addressed through research and the dissemination of successful examples.

In addition to reducing waste and cutting costs, technical efficiency can be improved by improving quality of care and making services more responsive to consumer needs. Changing the hours of a health center, for example, to adapt to the needs of the surrounding population might increase effective access and coverage rates. To implement measures to improve technical efficiency in decentralized health systems, district level managers should be conscious of costs and have enough autonomy to control costs and institute changes that can lead to greater technical efficiency.

### *AIDS—A Threat to Sustainability*

Cost containment is urgently needed because of, among other reasons, the implications of AIDS for the sustainability of African health systems. AIDS has already erased some of the health gains achieved by African countries and threatens to overwhelm the health systems of many others.

In addition to its devastating health effects, the spread of the AIDS pandemic in Africa poses a threat to the sustainability of effective health systems. It is a special case because of the current magnitude and projected growth of HIV infection, the high costs of treating infected people, and, of course, because it is fatal. An estimated one in forty adults in sub-Saharan Africa is already infected with HIV, and in some high-prevalence cities, such as Kigali, one-third of the adult population is infected (World Bank 1993a). Even if prevention programs are successful in stopping the annual number of new infections from growing, the number of new cases of full-blown AIDS will continue to increase due to past growth in infection rates.

AIDS affects the sustainability of the health sector primarily because of its impact on the demand for care and the costs of that care. Ainsworth and Over (1992, pp. 12–15) present some order of magnitude estimates of the impact of treating all existing AIDS cases in five African countries. The costs range from 23 percent of government health spending in Kenya to 65 percent in Rwanda. While actual costs are probably somewhat less because not every person with AIDS seeks treatment, these figures demonstrate that AIDS can absorb a substantial share of government resources allocated to the health sector. In effect, the use of services for terminal AIDS cases may be crowding out patients with curable conditions.

Moreover, as more HIV cases convert to AIDS during this decade, the demands on health sector resources may be overwhelming. A South African study predicts that the costs of treating AIDS patients and other HIV-positive persons will increase from less than one percent of total public and private health spending in 1990 to between 19 and 40 percent by 2000.<sup>12</sup> Similarly, a World Bank study estimates that the costs of drugs and nursing for Tanzanian AIDS patients may consume up to two-thirds of the government's recurrent health budget by the year 2000 (World Bank 1992c).

These early findings raise obvious concerns. Clearly, prevention efforts must be redoubled, but this, too, absorbs scarce financial and human resources. The donor community is providing much support for AIDS prevention, but not enough is known about effective prevention strategies. Even with strong prevention, the demands on African health systems will grow rapidly during the rest of the decade, unless patients with AIDS simply do not seek care. More research is needed on treatment-seeking behavior of HIV-infected persons in Africa, but the likelihood is that they do seek some care, at least in the early stages of the disease when opportunistic illnesses such as tuberculosis occur frequently. Strategies need to be developed now to deal with the burden that AIDS will place on health services in the near future. Low-cost alternatives to inpatient care are needed.<sup>13</sup>

### ***Resource Mobilization***

A growing number of countries have implemented alternatives to central treasury financing of publicly provided health services. The alternative financing measures involve, either separately or together, direct user charges and public or private risk-sharing schemes (i.e., health insurance). The impetus for adopting these alternative financing measures has been the need to mobilize additional funds to maintain service provision and the inefficiency and inequity that arise from using public resources to fund personal health services that do not have broad societal benefits.

### ***User Fees***

Charging users of health services on a fee-for-service basis is a common practice of private non-profit and for-profit providers in Africa and is increasing among public providers as well. While increasing revenues is one

objective of cost-recovery policies, achieving a high degree of cost recovery should not be, in and of itself, an objective of public health policy. Cost-recovery measures can be useful instruments for achieving public health objectives, such as a sustainable health service of adequate quality. In the public sector, therefore, cost recovery is a means to an end rather than an end in itself.

**Table 2.**  
**Revenue from User Charges in**  
**Government Health Facilities as a**  
**Percent of Recurrent Government**  
**Expenditures on Health**

Country and Year	Percent of Recurrent Expenditures
Botswana, 1983	1.3
Burkina Faso, 1981	0.5
Burundi, 1982	4.0
Côte d'Ivoire, 1986	3.1
Ethiopia, 1982	12.0
Ghana, 1987	11.8
Kenya, 1984	2.0
Lesotho, 1986/7	5.8
Malawi, 1983	3.3
Mali, 1986	2.7
Mauritania, 1986	12.0
Mozambique, 1985	8.0
Rwanda, 1984	7.0
Senegal, 1986	4.7
Swaziland, 1988/9	4.6
Zimbabwe, 1987/8	3.0

**Sources:**

Barnum and Kutzin 1993 (Botswana, Lesotho); Collins 1990 (Swaziland); Hecht 1992 (Zimbabwe); Vogel 1988 (Côte d'Ivoire, Mali, Senegal); Vogel 1989 (Burkina Faso, Burundi, Ethiopia, Kenya, Malawi, Mauritania, Mozambique, Rwanda); Waddington and Enyimayew 1989 (Ghana).

Cost recovery can nonetheless be very important for achieving policy objectives. Because government budget allocations are subject to total resource availability, which is—particularly in African countries—often closely linked to the international price of a few export commodities, government funding for health facilities and programs is often unstable. Health system users are often the only alternative revenue source, particularly in rural settings. Therefore, good cost-recovery performance (i.e., collecting a high proportion of operating costs in the form of user fees) can be the only way to ensure the availability of publicly provided health services.

**The revenue potential of user fees.** The revenue performance of user charges in African countries is mixed. On a national level, as Table 2 shows, user fees have contributed a small percentage (usually less than five percent) of operating revenues for publicly provided services. This has been due to several factors: (1) prices are set at low levels relative to service costs, especially in hospitals where government recurrent resources are concentrated; (2) the poor quality of services and the low income level of much of the population limit the willingness to pay for government health services; and (3) many users who are able to pay avoid payment because public user-fee schemes are poorly administered and exemptions exist for non-indigent persons.<sup>1</sup>

The potential exists to increase cost recovery by adjusting prices and improving administration of user-fee systems,<sup>2</sup> but the potential for user fees to generate a substantial share of total recurrent revenue for government health services is limited to probably no more than 15 percent (Caese 1991, p. 311; Korte et al. 1992, p. 8). It would be difficult to collect a greater amount without severe consequences for the use of services by the poor.

Thus, as a financial resource, user charges can be expected to generate only a modest supplement to national health revenues. Moreover, for user fees to serve as a financial resource for health services, the revenues collected must be retained for use within the health system. In some countries, all fee revenues must be sent to the central treasury, and there is no guarantee that government budget allocations will reward good fee-collection performance.<sup>3</sup> Conversely, even if the health services can retain fee revenues, government budget-tax authorities seeking to reduce their over-

all expenditures may reduce their budget allocations by the amount of fees collected.

Despite the relatively minor contribution of user fee revenues to national health budgets in Africa, studies have demonstrated that community financing schemes such as those operating as part of Bamako Initiative<sup>47</sup> type programs have been successful at generating a substantial percentage of operating costs through user charges.<sup>48</sup> Because the costs per unit of service tend to be much less at a health center or community pharmacy than at large hospitals where most government funds are concentrated, community facilities can set prices that more closely reflect operating costs. Community financing systems often benefit from close oversight and involvement of a village or district health committee. There also appears to be a greater willingness to pay for tangible products such as drugs.<sup>49</sup> These factors are likely explanations for the better cost recovery performance of community financing schemes compared with overall national programs.

Although user fees for publicly provided health services have not made a significant contribution to overall health revenues, cost recovery has enabled the continued operation of many important community-level health programs. Revenues generated through user fees can be very important at the facility level because of the discretionary income they provide to managers and the productivity implications of adding non-staff recurrent inputs. Despite its relatively small contribution to national health revenues, therefore, cost recovery for publicly provided services can make an important contribution to the financial sustainability of health services.<sup>50</sup> This evidence also suggests that, among government health facilities, hospitals have been the least successful at covering their operating costs with user charges.

A review of country experiences with cost recovery policies for financing public hospitals in developing countries concludes that the most important measure for maintaining the revenue potential of user fees is that the level of prices be adjusted regularly to keep pace with inflation (Barham and Kutzn, 1993, pp. 29, 203). This conclusion has general application throughout the sector. In several countries (Botswana, Ethiopia, and Zimbabwe, for example) for which an act of government was needed to change fee levels, prices remained unchanged for many years. The consequences of this were that the percentage of government health expenditures recovered through fees fell dramatically. Maintaining the real level of

prices does not affect equity negatively, so the policy recommendation of the authors is that periodic adjustment of fees be built in to any system of user charges. This policy is most likely to be successful if price changes are an administrative (for example, if fee levels are tied to a price index) rather than a political act.

**NGOs and user fees.** Experience with user fees for private non-profit providers is very different. In the private mission sector, user financing often supports more than 50 percent of recurrent resource needs.<sup>21</sup> Evidence from a sample of 88 NGO hospitals shows a slightly lower contribution of fees to total revenue, ranging from about 25 to 45 percent (van Lerberghe, van Balen, and Kegels 1989, pp. 27-28). Nevertheless, these amounts tended to be greater than the amounts from government subventions to the NGO hospitals.

Why are mission facilities more successful at cost recovery than those owned by government? There are a number of possible explanations, some or all of which may apply to different degrees in different settings. These can be grouped into two categories: conditions that lead to greater revenue collection and conditions that lead to lower costs. Greater revenues can arise as a result of higher prices, more willingness to pay fees, and greater efforts to collect fees. Lower costs could result from greater efficiency or underestimation of the costs of providing services in mission facilities. Evidence of each of these potential causes of greater cost recovery in mission health facilities is limited, and more research and analytical work is needed to assess the relative importance of each. The critical policy issue is to define the reasons for better cost recovery performance in NGO facilities that can and should be transplanted to government facilities.

Revenue collection may be greater in NGO facilities if, at a given level of prices, they do a better job of actually collecting payments. This may result from the relative administrative capacity of the facility, different incentives for efficient collection, or both. Fee collection would also be greater if mission facilities charged higher prices or served a higher income segment of the population. Finally, fee collection would be greater if the population's willingness to pay were greater for NGO than for government services. Apart from any possible income differences among users, greater willingness to pay would result from the belief that NGO services were of better quality. While no studies have conclusively demonstrated that NGO services are of superior quality, strong anecdotal evidence and observations

suggest that most people in Africa prefer being treated in mission facilities.<sup>23</sup>

The reported costs of providing services in NGO facilities may be lower for two reasons. First, NGOs may manage their resources more efficiently than government facilities and thus provide services at a lower cost per patient.<sup>24</sup> Another possible reason is that the costs reported by missions may be artificially low because they often receive donations of free supplies or other in-kind contributions, including expatriate services that are externally funded (DeJong 1991, p. 9). If these inputs are not included as part of total health facility costs, revenue collections will appear to be a higher percentage of total recurrent expenditures than they would be if all operating costs were valued.

Attempts should be made to incorporate some elements of NGOs' user fee revenue performance into government health facilities. It would be beneficial for public facilities to strengthen their administration and also be given incentives to collect fees by being allowed some measure of fee retention.<sup>25</sup> One aspect of quality that has been raised as an issue in many community focus group studies and that can be changed in public facilities is improving the attitude of health workers toward patients.<sup>26</sup>

Nevertheless, it is easy to recommend that the quality of care be improved and that waste and inefficiency in government facilities be reduced, but several reasons why mission facilities appear to have higher quality services may be difficult for government facilities to replicate, at least in the short run. These have mostly to do with the managerial and administrative capacity of missions, which often receive external support. Making similar improvements in government facilities will take a long-term commitment to building the necessary institutional capacity (Korte et al. 1992, p.3-4). In addition, if the poor tend to use public facilities more than higher-income groups,<sup>27</sup> there may be substantial negative equity effects if government facilities raise their prices to match those in mission facilities to increase revenue collection.

**Demand, price, distance, quality, and income.** A recommendation to impose or increase user fees to increase revenues is based on an implicit assumption that the percentage increase in price would be greater than the percentage decrease in the number of patients using the services as a consequence of the price increase. A number of studies have found that, in-

deed, the demand for health services appears to be relatively price inelastic, at least for the range of prices that have been studied.<sup>28</sup>

However, demand does not depend solely on the price charged for a service. Demand for care from any particular provider depends on a great many factors in addition to the expected price of treatment, including underlying epidemiology, individual perception of illness (i.e., does my health problem merit medical attention?), perceived quality (i.e., expectation that a specific provider will solve the health problem), expected transport costs, expected time cost (and how the individual values this time), who decides (at the household level) whether an individual will seek care, household income, and control of household resources. This paper focuses on five policy-relevant demand determinants: user fees, monetary costs of travel to health facilities, time costs, income, and perceived quality.

While studies have shown demand for health services to be relatively price inelastic, higher prices do deter demand to some extent. Indeed, one of the rationales commonly used to support the implementation of fees is, if they have to pay each time they use services, "consumers will be more sensible in their demand for services" (Akin, Birdsall, and de Ferranti 1987, p. 26). However, there is no evidence from any study that implies that the use reduced because of the imposition of fees was "unnecessary" (Creese 1991, p. 317). The other monetary and time costs that individuals face when seeking care are probably enough of a deterrent to inappropriate use, and thus, in general, this justification for the implementation of user fees in African countries is not warranted.<sup>29</sup> Studies have also shown that price elasticity increases as income falls. In other words, use by poorer people is deterred more by price increases than is that of richer persons.<sup>30</sup> Analyses from Zaïre, Ghana, Swaziland, and Lesotho reach the same conclusion (Creese 1991, pp. 316–317).

Travel time has been shown to have a similar deterrent effect, by a household survey conducted in Côte d'Ivoire in 1985; at that time there were no user fees in government health facilities. Multivariate analysis of the data revealed that the effect of travel time, which reflects the monetary cost and time cost of accessing a health facility, was very similar to the effect of user fees. The elasticity of demand with respect to travel time was highest for the lowest-income quartile and lowest for the highest-income quartile. In other words, travel time was found to be a greater access barrier for the poor than for higher income persons. This evidence suggests, therefore,

that an increase in the user's cost of gaining access to care will deter use by lower income persons to a greater extent than by higher-income persons (Dor, Gertler, and van der Gaag 1987; Dor and van der Gaag 1988; Gertler and van der Gaag 1990).

While studies have examined the effects of price increases on use, little is known about how different systems of payment for services would affect demand. It would be useful to know, for example, the likely effects on demand of different systems, such as flat fees, differentiated fees, fees per episode vs. fees per service item consumed, and prepayment (Creese 1991, p.314).<sup>31</sup> Under Kenya's cost-recovery program, a switch from a consultation fee to a drug fee resulted in increased use rates, primarily because consumers associate drugs with effective treatment.<sup>32</sup> Also of concern are the so-called ethical implications of each type of payment. For example, payment based on taxation requires legal enforcement—a more coercive form of user fee than some other systems such as voluntary prepayment for health insurance. Taxes, however small, also set a precedent—as health care costs rise, so will taxes.

The effect of different fee collection systems on the poor is an important policy issue. Although an increase in user fee levels would, by itself, reduce use most for lower-income persons, a study from Cameroon suggests that when improvement in the perceived quality of services accompanies an increase in user fees, demand for services may actually increase, and the poorer strata of the population may increase their use by proportionately more than any other group (Litvack and Bodart 1993). This study looked at health center fees and the perceived quality of services (as proxied by the availability of high quality drugs) in the Adamaoua province. Overall utilization of services increased significantly more in areas where fees were implemented and the new revenues used to improve drug supply than in areas that witnessed neither fees nor quality changes.

Since the time and travel costs of reaching alternative sources of care (where the availability of drugs was relatively assured) were high, household survey data revealed that the availability of good-quality services at the local health center encouraged more people, and proportionately more poor people, to seek care. Even though users faced increased costs from higher fees, this was more than offset by the reduction in travel and time costs made possible by the improved quality of local facilities. In effect,

implementing user fees and using the fee revenue to improve quality resulted in a decrease in the total cost of accessing care of acceptable quality.

The Cameroon study does not imply that fees are good for the poor; the rise in price and change in quality are two separate effects. However, in areas where governments cannot be relied upon to provide sufficient resources for health services, charging fees and retaining the revenue to improve the quality of services can be an appropriate means for making care more available to the poor, if the overall effect is to reduce the individual's expected total cost of receiving effective treatment. Increasing fees without measures to improve quality will hurt the poor disproportionately and will likely create or increase general discontent with government health services.<sup>23</sup> In other words, fee increases should be linked to improvements in the quality of care (Ellis 1987, p. 996; Barnum and Kutzin 1993, pp. 154–55).

Based on analysis of household data from Meru, Kenya, a policy simulation found that increasing the availability of drugs and reducing the distance to facilities increases demand (Mwabu, Ainsworth and Nyamete 1993, p. 30). Other policy simulations of fee increases and quality enhancements in Kenya (Mwabu and Mwangi 1986) and Nigeria (World Bank 1991) found that quality-induced demand increases outweighed price-induced demand decreases, leading to estimates of an overall increase in utilization as a consequence of these policies. Conversely, simulations of policies in Côte d'Ivoire and Peru that would achieve full cost recovery and reduce travel time to zero were found to reduce use and welfare (Gertler and van der Gaag 1990).

The only so-called real world experience of a price increase combined with quality enhancement that has been reported to date has been in Cameroon (Litvack and Bodart 1993). This experience suggests that it is possible to use fee revenues to improve quality and reduce the cost of obtaining effective care. To determine if a price increase will lead to an increase in demand if the revenues generated by the price increase are used to improve quality, one must know the quantitative impacts of each of these measures on demand. Several empirical questions arise and suggest a need for further exploration: (1) by how much will use by specific socio-economic groups fall in response to a price increase; (2) how much of an increase in revenue is needed to improve consumer-perceived quality; and

(3) by how much will use by specific socioeconomic groups increase in response to a given improvement in perceived quality?<sup>11</sup>

Another less technical but no less relevant issue concerns the capacity of health facilities to use revenues to improve quality. Indeed, a study in Ghana found that many health facilities that were entitled to retain revenues for their own use had not spent any of the funds to which they were entitled (Waddington and Enyimavew 1990). The successful experiment in Cameroon described above may prove difficult to replicate on a large-scale basis because it received considerable external support. In addition to financial management skills, success in using fees to improve quality requires that there be institutions, such as rural banking facilities, where revenues can be safely stored with their value maintained. This is particularly important in highly inflationary environments. More dissemination of field successes is needed to provide information regarding the institutional preconditions for using retained fee revenues to improve quality.

Many of the studies cited above (for example, Mwabu, Ainsworth and Nyamete 1993; Litvack and Bodart 1993; World Bank 1991) have found that the extent to which drugs are available in a health facility has an important positive impact on the demand for services in that facility. In other words, people seem to equate the availability of drugs with a higher probability that they will receive effective treatment. Thus, in many studies, drug availability is used as a proxy measure of the population's perception of health facility quality. This perception of quality may differ from a professionally determined assessment of quality, however. Financing schemes that are organized around cost recovery for drugs, such as those that are part of the Bamako Initiative, may create an incentive to sell pharmaceuticals to a greater extent than is medically necessary (McPake, Hanson, and Mills 1992, p. iv).

China's experience suggests that drug pricing policy can lead to overuse. Health facilities are allowed a substantial markup over their acquisition costs for the sale of drugs, and, by the late 1980s, an average of 2.3 drugs was prescribed per patient contact with the health system; nearly one-half of all health expenditures in the country was for drugs (Bungarner 1992). The issue that policy makers must face is how to charge for drugs yet limit the incentive to overprescribe. On the demand side, information is needed on how people assess quality and whether informational interven-

tions are needed to counteract the idea that, when it comes to pharmaceuticals, more is better.

**Incentive pricing.** One rationale for the implementation of user fees is that a positive price will encourage more efficient consumption of health services than a zero price. As stated above, there is no evidence to date that suggests that the use that has been deterred through imposition of user fees was not necessary or desirable. The other costs facing potential users of services are probably sufficient to deter superfluous use.

However, the structure of prices across different types of facilities does affect patterns of use. Prices should therefore be used to encourage desired patterns of use by, for example, rewarding or penalizing appropriate or inappropriate use of the referral network of facilities (Ellis 1987, p. 996; Barnum and Kutzin 1993, p. 154). Penalties, such as bypass charges, are not appropriate for people who happen to live near a hospital and would thus use this facility as a first contact point with the health system. Measures to provide first contact services in an efficient manner to this group need to be developed.

For services provided by African ministries of health, fee levels are generally highest in large tertiary hospitals and lowest in the most peripheral facilities, as in Ghana and Zimbabwe. In Kenya and Uganda, free hospital services (and, in Kenya, free health center services as well) provided an incentive for people to bypass lower-level services, which charged a fee for drugs (McPake, Hanson, and Mills 1992, p. 34). Even in Zimbabwe, where fees for MOH services are graded according to facility complexity, the presence of municipally-funded health centers operating under different pricing rules has led to problems. In one town, for example, the price for an outpatient consultation at the provincial (MOH) hospital is lower than the fee for a consultation at a nearby municipal clinic.<sup>15</sup>

A related issue concerns the coordination of prices among government and non-government health facilities that serve overlapping populations. In some countries, government health authorities regulate the level of prices that can be set by NGO facilities (Swaziland, for example), but this is not true for all countries. In regions where non-government providers play an important role in service delivery, health authorities should work with these facilities to encourage price coordination. Examples of successful

price coordination across facilities owned by different institutions are needed to suggest how this can be achieved.

Another aspect of efficiency in the consumption of health services related to pricing policy is that policies should be in place to increase the use of services that would otherwise not be adequately consumed because of market failures such as externalities or informational deficiencies. For example, treatment of patients with communicable diseases benefits not only the patient but also other members of the community who would have caught the disease (for example, tuberculosis, syphilis, or HIV) from these patients if they had not been treated. One way to encourage persons with communicable conditions to be treated is to provide such services free of charge.

In many countries (for example, Ethiopia, Ghana, Mali, Niger, and Zimbabwe), no fees are charged to treat tuberculosis in government health facilities. However, all of these countries charge for treatment of sexually transmitted diseases (STDs), which are also communicable. If these charges are causing persons with STDs to delay seeking care (an empirical question), policy makers should consider waiving them because the social costs of not treating an STD case are far greater than any revenue forgone by exempting the case from payment.

### *Risk Sharing*

An increasing number of countries are examining risk-sharing options as a means to increase cost recovery in health, improve the organization of services, and expand access (Vogel 1990). Nevertheless, as indicated in , health insurance is not well-developed in Africa. Since most health services are heavily subsidized, governments are implicitly covering an individual's risk of incurring a catastrophic level of expenditures, even though this coverage is not actuarially based.

Interpreted in this light, government finance and provision of services is a form of social insurance, with any user charges serving as a copayment. This system limits the demand for more explicit forms of health insurance. High administrative costs and the lack of strong management skills or institutional premium collection mechanisms in rural areas also impede the growth of health insurance in Africa. Health insurance is usually organized for employees working in the formal sector of the economy, and this repre-

**Table 3.**  
**Percentage of the Population Covered by**  
**Health Insurance in Selected Countries**

Country and Year	Population (millions)	Percent Covered by Insurance
Burkina Faso, 1981	6.7	0.9
Burundi, 1986	4.9	1.4
Kenya, 1985	21.2	11.4
Mali, 1986	7.6	3.3
Nigeria, 1986	103.1	0.04
Senegal, 1991	7.2	13.0
Uganda, 1991	16.8	0.0
Zambia, 1981	5.6	6.1
Zimbabwe, 1987	8.7	4.6

Reprinted from Shaw and Elmendorf 1993, p.119.

sents only a small percentage of Africa's population. In a few countries, most notably Zaire, health insurance programs have been implemented for persons, such as self-employed farmers, working in the non-formal sector. Experience with these rural, population-based (as opposed to employment-based) schemes is limited, but it suggests that they may have the potential to make an important contribution to health financing.

**Should governments promote insurance coverage of formal sector workers?** There is considerable room for expansion of employment-based insurance in African countries, even though such insurance would inevitably be limited to a minority of the population. Some studies have recommended that governments promote this type of health insurance because the higher-income groups that would be covered by insurance would use more privately provided care, freeing up government resources that could then be better targeted to lower income groups.<sup>10</sup> It might also be possible to use revenues raised through employment-based plans to fund large urban tertiary hospitals because, in many countries, most of the beneficiaries would live in the same city as the largest hospital—potentially permitting government funds to be reallocated to more cost-effective services.

However, the limited available evidence suggests that the result of such measures is not a greater concentration of government expenditure on services provided to low-income groups, but the reverse. The reasons for this have to do with the manner by which governments encourage expansion of insurance and the source of financing of the services consumed by the insured. The equity problem is magnified because the insured tend to consume more services as a consequence of the improved financial access provided by insurance (this is often referred to as moral hazard). Because of these problems, several authors recommend caution when considering expansion of insurance for a relatively well-off segment of the population.<sup>47</sup>

Under what circumstances will expansion of health insurance lead to increased provision of health services for poor? Governments can encourage expanded health insurance coverage of formal sector workers by making contributions from employers and employees mandatory (Shaw and Elmendorf 1993, p. 119). A problem is that, in most African countries, government itself is one of the largest employers, and so it would be increasing its expenditures to benefit a group that is relatively advantaged compared with most of the population.

In Burundi, for example, there are four times as many beneficiaries of the insurance program for government employees and their dependents (the *Mutuelle de la Fonction Publique*, or MFP) as there are employees (and their dependents) in the formal private sector. The MFP has been the cause of gross inequity in health care spending in Burundi. In 1991, for example, total reimbursements paid out on behalf of MFP beneficiaries were equivalent to 68 percent of the Ministry of Health budget, yet MFP beneficiaries constituted less than six percent of the entire population. Moreover, government was the source of 60 percent of MFP revenues through its so-called employer contributions (World Bank 1993b). As a result of these factors, a disproportionate share (about 30 percent) of government health expenditures (MOH plus government contributions to the MFP) was allocated to services consumed by a small and economically advantaged group.

Governments can also encourage employment-based private health insurance through the tax system. In South Africa and Zimbabwe, for example, private insurance is highly subsidized with tax deductions for employer and employee contributions (World Bank 1993a, p. 121). While the ultimate impact of these measures on equity also depends on the source of financing for the health services consumed by the insured groups, this method of

encouraging private health insurance, similar to programs that use direct contributions from government (as in the Burundi example above), constitutes a government subsidy for a relatively well-off segment of the population and is thus questionable on equity grounds.

Despite the problems discussed above, government support for insurance of formal sector workers in African countries may be justified if newly insured persons switch from publicly financed care to privately financed care to such an extent that the magnitude of public revenues freed up from this switching is greater than the government subsidies used to induce this change. Unfortunately, the limited evidence available only provides examples of where this has not occurred. An important reason why insuring only a small part of the population has led to inequities is that such coverage increases financial access to care for a group that already had better access, and this has resulted in increased consumption of privately and publicly financed care. This issue of easier access for the insured to services that remain heavily subsidized must be addressed by African health policy makers considering expansion of formal sector employment-based insurance coverage.

Policy makers need to define the conditions under which expansion of health insurance for formal sector employees will improve the targeting of government health expenditures on the neediest groups. They then need to determine the likelihood that those conditions can be met in their country. These are topics for which country-specific research is needed before proceeding with policies to expand coverage. If sufficient political will can be mustered, governments should consider measures that would minimize subsidies to insured groups, such as charging insured persons in public facilities rates that would more than cover their costs of care, thus allowing for some cross-subsidization of services provided to the uninsured.

There is little available documentation concerning private, employer-sponsored health insurance in sub-Saharan Africa. While the formal private sector does provide some health insurance, in nearly all African countries it is not of sufficient size to cover a significant portion of the population. Nevertheless, governments may be able to draw lessons from employer-sponsored insurance systems, and the relationships between these systems and service providers. Another potential, but unexplored, area for government involvement is in pooling together small insurance schemes, public and pri-

vate. In theory, this could lead to a reduction in administrative overhead, economies of scale, and expanded coverage.

**Rural health insurance.** Although health insurance is usually considered as an option only for the population working in the formal sector, rural prepayment schemes are drawing increasing attention as a means of financing and organizing health services within a district setting. Indeed, Korte et al. (1992, p. 8) suggest that the development of decentralized risk-sharing schemes is of paramount importance for the sustainability of health services in Africa. Interest in these schemes comes from their potential to generate much greater revenues than with user fees and to do so in a manner that has fewer demand-dampening effects than a system based on charges at the point of service.

One important advantage of prepayment is that it can limit the effects of seasonal income fluctuations on access to care. The review of five country examples of the BI noted that, in each case, survey respondents indicated that the seasonality of income was an important constraint on use (McPake, Hanson, and Mills 1992, p. 27). By collecting a contribution when cash income is highest, financial access can be guaranteed even during seasons when much of the rural population is cash poor. For example, a village-level prepayment scheme for drugs and basic services in Guinea-Bissau is funded through annual collections made shortly after the harvest, when cash is readily available in the village (Chabot, Boal, and da Silva 1991, p. 48).

Similarly, in Zaire's Bwamanda health zone, annual collections for a prepayment scheme for hospital services are made during the season when cash incomes are highest (Shepard, Vian, and Kleinau 1990). The success of this approach is reflected in the enrollment rates achieved in these voluntary schemes. Seventy-five percent of the adult population was enrolled in the villages studied in Guinea-Bissau, and 60 percent of the population was enrolled in Bwamanda.<sup>27</sup> Those not covered by insurance were required to pay the full fees charged at health facilities. During periods of the year when cash incomes were low, these fees were a particularly difficult economic barrier to access. Those who prepaid for their care circumvented this problem.

The prepayment plan organized and managed by the Bwamanda health zone in Zaire illustrates a number of features critical to the short- and long-

term viability of rural health insurance in Africa. Conversely, the voluntary nationwide rural health card scheme in Burundi (the *Carte d'Assurance Maladie*, or CAM) illustrates some of the problems that can arise with a rural health insurance program if it is not well-organized. In brief, beneficiaries of the Bwamanda plan are covered for 80 percent of the existing fees for hospital care if they were referred from a health center (where patients must pay). The health zone and the prepayment scheme are managed by the same entity, which is heavily supported by Belgian technical assistance.<sup>17</sup>

In Burundi, the CAM entitles the card holder and his or her direct dependents listed on the card to free health care, including drugs, in government health centers and hospitals. Unlike the Bwamanda plan, the card can be purchased at any time during the year. Despite these provisions, however, only about 20 to 25 percent of the population buys the card in a given year (World Bank 1993b). The experience of these rural health insurance programs illustrates several important lessons.

The Bwamanda insurance plan has achieved much better financial performance than Burundi's CAM because of differences in enrollment rates, premium levels, and the use of funds. The relatively high enrollment rate in Bwamanda can be attributed to a number of factors. First and perhaps most important most of the population believes the scheme provides access to good quality health services. Second, high fees are charged at the hospital, so there is real financial risk associated with an illness requiring hospitalization. Third, the premium is affordable to most of the population, even though premiums have been increased every year to keep pace with high inflation rates by linking the price to the value of two kilograms of soybeans, a commonly produced crop. The revenues from premiums and copayments directly finance the operating costs of the zone's health facilities.

In Burundi, quality of care in public facilities is reported to be poor, with drug stockouts a common occurrence. A survey of the rural population found that this was the leading reason for not buying or not renewing the card. The need for the card is also undermined by the very low fees charged at health centers. Contribution of the CAM is also limited by the low level of the premium, which has not been adjusted since the scheme was introduced in 1981. Finally, revenues from CAM sales revert to local government authorities and thus do not finance health services directly.

The consequence of each of these factors was that revenues from CAM sales represented only about three percent of Ministry of Health recurrent expenditures in 1990. In Bwamanda, substantial revenues were generated from the combination of prepayments and copayments from the prepayment scheme and used to finance health services in the zone. All hospital costs for beneficiaries were covered by premium income in 1987 and 1988, and cost recovery in the hospital went from 48 percent in 1985 (before the insurance scheme) to 79 percent in 1988.

The Bwamanda plan illustrates how a financing mechanism can be a means to organize district health services by enforcing strict referral requirements and allocating resources to ensure that adequate quality is provided at the first contact point with the health system. Even though the insurance plan does not cover health center care, the plan will only pay for hospital care if a beneficiary has been referred. The incentive for using the appropriate first contact facility is thus built directly into its reimbursement rules. These rules are made easier to enforce because the insurer and the provider—manager of care for the district—are the same entity (i.e., direct rather than third party insurance). In Burundi the CAM is merely a financial mechanism.

A potential problem with any voluntary insurance program is adverse selection—the greater propensity to enroll those persons who expect to need care. If this problem is widespread it can cause severe financial imbalances because the self-selected enrollee is likely to incur far greater costs than would an average member of the population. The Bwamanda plan attempts to limit adverse selection in two ways. First, enrollment is limited to one period during the year. In Burundi, persons could purchase the CAM at any time during the year, and many would enroll just prior to hospitalization. Second, coverage by the Bwamanda plan is for individuals rather than families, but if any family member joins, all must join. This provision limits the effects of adverse selection.

Nevertheless, the insured used hospital care at nearly seven times the rate of the uninsured in Bwamanda, and this was probably due in part to the enrollment of persons who expected to have an adverse health event. Most of this difference, however, is probably due to the greater financial access to care for insured persons. This illustrates a problem similar to employer-based schemes in poor countries, where coverage is not universal, use patterns between the insured and uninsured differ markedly,

Critical factors contributing to the sustainability of the Bwamanda plan are strong management and the provision of services perceived to be of high quality. Both of these factors are lacking in Burundi. The Bwamanda plan benefits from several characteristics that may not be easy to replicate in other settings. First, the plan's management team has, over time, gained the confidence of the population. Strong management was developed with the support of Belgian technical assistance. Also strong community health and community development committees were involved in developing the scheme and spreading awareness of it among the population.

Second, essential drugs procured at low cost were regularly available in Bwamanda. Third, the zone has one reference hospital and several geographically separate health centers, so there was little competition among providers in the zone, which made it possible to reach a critical mass of subscribers. Fourth, local institutions for the investment of money were available to invest collected revenues at a positive real interest rate, and funds were also used to purchase drugs immediately as a hedge against inflation. Finally, the zone's infrastructure was developed sufficiently to allow for frequent supervision visits to peripheral facilities to monitor quality at this level.

### *Equity—Protecting the Poor*

Part of the above discussion of resource mobilization focuses on the consequences for use by the poor of implementing or raising user charges. The advent of cost recovery in most countries of sub-Saharan Africa, together with declining GNP per capita in many of those countries, makes protection of the poor an especially important issue. The devaluation of the CFA franc in January 1994 intensified this issue for the countries in the CFA zone, and led to general inflation and higher prices for drugs in particular.

The generally recommended policy to mitigate the effects of fees on access for the poor is to exempt them from paying fees. A review of fee exemption policies in developing countries found that most countries include provisions to exempt the poor from payment of fees in government hospitals (Barnum and Kutzin 1993, pp. 291–29). However, there is also an array of other exemptions that run contrary to equity goals, such as exemptions for civil servants and members of the armed forces. For example, a survey of patients at Niger's central government hospital in

Niamey found that the median income of patients who were not entitled to exemption from payment was less than the median for the entire sample of patients (Weaver, Handou, and Mohamed 1990). In some countries, therefore, fee exemption policies do not promote equity.

Even where exemption policies are designed in such a way as to be clearly pro-poor, actual practice often varies from policy intent. It is administratively difficult to accurately determine a patient's income, particularly when most income is generated through subsistence farming and patients have little incentive to be truthful about their economic status.<sup>10</sup> A review of five BI-type schemes found that exemption mechanisms had an extremely limited scope, were ineffective in practice, or, in one case, did not exist (McPake, Hanson, and Mills 1992, p. 35).

Conversely, a review of 23 targeted social programs in Latin American countries concluded that (1) targeted programs were more progressive than general subsidies; (2) administrative costs were less than expected; and (3) the most appropriate targeting mechanism depended on the local situation and implementation capacity (Grosh 1992, p. vii). Good targeting devices depend on sound project management and local factors. Records and accounting are very important for successful targeting. Because administrative capacity is an important determinant of the effectiveness of targeting, African countries are probably less successful than those in Latin America in implementing these measures. Exemption mechanisms can easily lead to decapitalization, particularly when they are administered ineffectively.

The basic issues regarding exemptions are how to identify persons too poor to pay fees and ensure that they have access to needed services while guaranteeing that the non-poor pay the designated fee. There is a direct relationship between the accuracy of measures to target the poor for exemption and the cost and administrative complexity of such measures. Even if the administrative capacity were in place, the costs of implementing a strict means testing program might be greater than the revenues that could be collected from fees, especially where fee levels are low. A cost-benefit framework could be used to address this issue, and should explicitly identify the tradeoff between accuracy and cost. Unfortunately, little is known about the costs of targeting and the means to improve its accuracy.

For many African countries that are in the process of so-called structural adjustment, cost-recovery mechanisms are being recommended and implemented for a range of government services in addition to health, such as education. Fees for different social programs mean that households face an array of user charges for basic social services. Cross-sectoral work is needed to get a better understanding of the burden of all social service fees facing households and to develop methods for ensuring that the lowest-income groups have access to basic education, nutrition, and health programs. Ideally, the same means testing method would be used for determining fee exemptions for a variety of services, including health, education, and water and electricity supply.

Implementing a prospective means test to identify those who are eligible for free services is a very resource-intensive approach that can probably be justified only when the findings will be used to determine qualification for a range of services. Because many countries have programs in addition to health for which only the poor qualify, ministries of health should not be the government agencies responsible for implementing measures to conduct a prospective means test (Barnum and Kutzin 1993, pp. 227–29). Where they exist, countries should use pre-existing means tests and have them apply to payment for health services as well. In Jamaica, for example, individuals identified by local government authorities as qualifying for nutritional assistance are recognized by Ministry of Health facilities as qualifying for free treatment. More information is needed on means testing in African countries to determine if this is a relevant policy option.

While there are several recommendations in the literature for targeting exemptions, very few have been assessed analytically. The 1993 *World Development Report* identifies four mechanisms for targeting an essential package of services to the poor: (1) individual assessment of income, nutritional status, or assets; (2) targeting easily identifiable subgroups, such as those living in poor geographic regions;<sup>11</sup> (3) self-targeting, by charging a price for certain amenities or shorter waiting times, leaving those who do not choose to pay with less costly (in monetary terms) or less convenient services; and (4) targeting services that are used disproportionately by the poor. Unfortunately, this study does not provide much information on how to implement any of these options successfully or on the conditions that must be in place to have an effective targeting method. Regardless of the mechanism that is selected, the key question for policy makers is how to implement it with an acceptable degree of accuracy and at a cost that is

considerably less than the amount of revenue that is expected to be recovered through fees.

### *Institutional Issues—The Capacity for Health Policy Reform*

This strategic framework has identified major policy issues in health financing and financial sustainability. Unfortunately, identification of policy does not mean implementation of policy. Implementation capacity cuts across all aspects of the specific policies discussed earlier and can be categorized as institutional sustainability. Improving institutional sustainability involves human resource development, with particular emphasis on building financial management skills and the capacity to use information for management decisions. These skills are not generally well developed in Africa, and important issues relate to how rapidly they can be generated and what governments and donors should do before these are in place. Institutional sustainability is of overriding concern to development in the health sector because it influences all measures that may be taken to improve the functioning of a country's health services.

Building the institutional capacity to develop, implement, and manage health policy reform is clearly a priority for the creation of sustainable health services in Africa. An important characteristic of sustainable health systems is the capacity to use information for management and related spending decisions. It takes time to build institutional capacity, but, unfortunately, little information is available on how to build this capacity. There is no shortage of good ideas regarding policies to improve the financing and operation of health services in Africa. What is needed most is the means to translate policy into practice on a broad basis within each country.

### *Replication of Policy Successes*

A limitation on all of the health financing measures reported above that have been successfully implemented is that they have received considerable support from donors and have been relatively small in scale. For new policies or programs to be considered truly sustainable, they need to be replicable beyond the pilot stage and successful without using donor assistance. The fact that there are few, if any, examples of successful replication or scaling up without the involvement of external support speaks to the institutional limitations of African ministries of health and the need for the dissemination of basic management skills.

For example, conditions for success in the collection and use of fee revenues in peripheral health facilities probably include having staff trained in basic financial management, availability of local banking arrangements, development of audit procedures, and establishment of community committees to oversee the use of revenues. For policy reforms or the lessons learned from pilot projects to have a lasting impact, basic skills and conditions such as these have to be widely available throughout a country.

### *Decentralization*

Many African countries are moving to decentralize management within health systems, usually to the health district level. The objectives of decentralization are to improve management, efficiency, accountability, and responsiveness of health services—to increase the population's exposure to, and control of, modern health care. The ways in which decentralized institutions should be organized has not been clearly defined, however. Two possible problems that may arise with decentralization are that (1) it will result in an increase rather than a decrease in administration expenditures, and (2) it will add more bureaucratic layers and bottlenecks in decision-making (Bossert 1993, pp. 13–14).

Another potential problem area concerns the capacity of the central ministry to play a supervisory and monitoring role in a decentralized system, as opposed to the previous focus on direct service delivery. Finally, the success of decentralization policies depends on the administrative and managerial capacity of the unit to which responsibility is devolved. For example, decentralization to the district level may be going too far if sufficient management skills are not available at this level, if local institutions are not well developed, or if higher levels do not provide adequate support (Gilson and Mills 1993, p. 13).

Decentralization may lead to increased administrative costs if central level costs cannot be reduced when decentralized administrative units are created. In other words, economies of scale in administration that may have existed prior to decentralization may be lost on implementation of this reform. Research is needed on the incremental administrative costs of decentralization, accounting for increases at the local level and any decrease that may occur centrally. Such research will assist governments to make cost-effective decisions regarding decentralization (Bossert 1993).

The equity consequences of decentralization depend on the procedures used to allocate resources to decentralized units. If formulae for allocating resources to the different units are transparent, the process can highlight any regional inequities and provide a means to correct them (Gilson and Mills 1993). Evaluating the equity consequences of decentralization will require that measures of equity be defined. A first approximation of an equitable allocation might be resource distribution that is directly proportional to the population share of each region. However, country-specific analysis is needed to develop allocation measures that address problems such as previous inequities, lower-income regions, and regions with special needs (for example, an area with relatively low population density may require more resources to serve the same number of people as a higher-density region).

The unit of administration to which management responsibility is decentralized can have consequences for sectoral efficiency. In particular, if the decentralized administrative structure is not consistent with the organization of the referral system between first contact and first referral facilities, the efficiency of patient management will be compromised. In Nigeria, for example, state governments are responsible for secondary care (i.e., first referral hospitals), and local governments are responsible for primary care (i.e., first contact facilities). National health policy calls for an integrated referral system, yet the sector's organization inhibits this because the administration of these two levels of care is entirely separate. Also, because state and local government budgets are distinct, there is no scope for a re-allocation of resources across levels of care (World Bank 1993c).

The administrative and management skills needed to efficiently run a decentralized prepayment scheme (such as the Bwamanda prepayment plan in Zaïre) are the major constraint on their development. Systematic evaluation of existing rural prepayment plans in Africa is needed to identify the management aspects necessary to sustain such programs.<sup>12</sup> The review of Bamako Initiative schemes in five African countries concluded that strengthening the capacity of lower levels of the health system is a prerequisite for successful decentralization (McPake, Hanson, and Mills 1992, p. iii). Defining management and other institutional requirements is clearly a priority research and analysis area. Related questions include defining the sequencing of steps to implement decentralization once the institutional

requirements have been identified, and investigating the potential for NGOs to participate in government-managed decentralized health systems.

Evidence suggests that it is possible to build capacity for decentralized management with a sustained commitment. Ghana's Ministry of Health has emphasized district-level capacity building through its Strengthening District Health Systems (SDHS) Initiative, which was begun in 1988 with support from WHO and other donors. Through a series of workshops followed by implementation and supervision, SDHS has helped staff at the district level develop planning and management skills. Development of Ghana's district health systems reflects in part the importance of building the capacity to define informational needs, collect the relevant data, and use it for decision-making. District staff have gained confidence in managing their own services, and they have also been able to influence regional and national reforms (Hiscock 1993). A USAID-supported project in Indonesia achieved similar results by improving local officials' capacity to collect and use data to inform management decisions (Bossert, Soebekti, and Kumara Rai 1991).

### *Human Resource Needs*

The potential benefits of alternative policies for resource allocation, cost recovery, or cost containment discussed above are limited by the capacity of African ministries of health to design and implement such policies. Much analytical work has been done on health financing and resource allocation. Less is known about cost-control measures and almost nothing is known regarding interventions to build institutional capacity throughout a health system. For example, it is not known what mix of human resources is needed to operate effectively a large-scale cost recovery program that is designed to use retained revenues to improve quality and access for the poor. The needs are difficult to define, and existing capacity does not lend itself to easy measurement.

The definition of human resource requirements depends on individual country circumstances, but Table 4 provides an outline of the types of skills that should be in place at various policy and technical levels of a country's health system. If financing measures are in place that allow some degree of facility autonomy in the use of collected fee revenues, then facility managers must have financial management skills as well as the capacity to define spending priorities. Further country-specific work is needed to

**Table 4. Skill Needs at Different Levels of the Health System**

Decision level	Skill needs (type and level)
Top decision makers (Minister, PS, Cabinet, health and related sectors)	Awareness of contributions from economics, epidemiology, social, legal, and political sciences.
Directors of health sector planning and budget	Working technical competence in one or more of above; ability to assess technical material from others.
National/regional health directors, categorical programme chiefs, district management team	Working competence in epidemiology, resource allocation principles, management information systems, personnel, logistics, etc.
Specialist skills (inside or outside health sector)	Health economics and financing, management accounting, contract setting, organizational behavior, industrial relations, etc.

Source: WHO 1993.

determine how broadly these skills need to be disseminated throughout the health system.

A related question concerns appropriate strategies for developing human resource capacities. USAID has invested considerable amounts of money in long and short-term training of health professionals, but there has been little systematic evaluation of training results. Investment in African educational institutions, such as schools of public health, is a promising, but not well-evaluated, strategy.

### *The Role of Donors*

Much of the work on sustainability has focused on the capacity of countries to meet the recurrent cost and management requirements of projects begun with donor support after such support ceases. A paper on health project sustainability in Central America and Africa notes that in Africa economic deterioration and weak government institutions make for an unfavorable environment for project sustainability. This conclusion applies to the health sector as well as to projects. Given this weak context, the sustainability objectives need to be reconsidered. In particular, foreign assistance should take a longer-term view of sectoral development and address these contextual issues by focusing on institutional development (Bossert 1990, p. 1018).

A similar conclusion is reached by the Save the Children Fund—U.K. in its critique of the World Bank's 1993 *World Development Report*. They note that policy measures are unlikely to be successful in countries that have very limited capacity to implement policy, and that priority should be given to developing health systems and the capacity of government to define and implement relevant policies (Save the Children 1993b). Bossert suggests that, until the economic and political development of countries is sufficient, donors will need to provide financial support for social service activities. Similarly, Save the Children recommends that, in the poorest countries, donors should provide coordinated support for recurrent funding of government health services.

While donors are generally responsive to short-term goals and pressures, the creation of sound institutions is a long-term process. Desirous of demonstrating results, donors tend to fund activities that are not programmatically or geographically well integrated into overall institutional development efforts. To the extent possible, donor institutions should move from a project oriented focus to a wider focus on the health sector, and should seek to promote capacity building within ministries of health, especially their planning units. To help define such efforts, a clear definition of indicators for institutional development is needed.

Special initiatives and vertical programs supported by donors have sometimes been successful in delivering important services, such as immunizations, but this has come at the cost of constraining the long-term development of integrated health systems (Foltz 1992). Indeed, the need to reorganize ministries of health in response to specific donor initiatives strains the limited administrative capacities of governments, and the disruptive effects of these programs may be sustained long after donor involvement ends. This inhibits the growth of sustainable health systems that will have the capacity to effectively manage and coordinate donor inputs (Save the Children 1993b). The lesson is that short term service delivery aims of donor funded projects should not be pursued at the expense of long term development of integrated health systems.

### **Lessons Learned—Dissemination Priorities**

Although health financing has been studied much more extensively than have issues related more specifically to sustainability, the latter is an important policy objective while the former constitutes a means to that end.

Given the waste and inefficiency existing in African health systems, the net gains to be had by reducing costs are likely to be greater than the gains from improving cost recovery.<sup>13</sup> The available evidence on the revenue and equity effects of cost recovery mechanisms and on the magnitude of technical and allocative inefficiencies in the health sector of African countries lend support to this argument.

Putting the case in more basic terms, the top priority for health sector decision makers in Africa is to do a better job of using the resources they already have rather than emphasizing efforts to generate additional revenues through cost recovery or larger budget allocations from the central treasury. Therefore, emphasis should be placed on developing the capacity to improve the efficiency of resource management. The paradox is that much more is known about health financing policy than about measures to improve the capacity to manage resources more efficiently.

Thus, most of the findings that can be disseminated to health sector policy makers in Africa concern cost recovery and resource mobilization, rather than measures to improve institutional and financial sustainability. The following is a list of priority messages with regard to policy and institutional development for health finance and sustainability that should be disseminated to decision-makers. (These findings are grouped in the same categories as those used for the more detailed review of the issues in Section II, above.)

### *Allocative and Technical Efficiency*

- ◆ **Nearly all cost-effective health interventions are public health measures or clinical interventions that can be delivered at or below the level of the district hospital.** Moreover, the key characteristic of a well-functioning referral system is acceptable quality of care in facilities designed to be the first contact point between the population and the health system (i.e., health centers and dispensaries).

One of the principal concerns regarding government health services in Africa is that peripheral facilities located closest to the population are underused, even when services are provided there without charge, because the quality of care available is very poor.<sup>14</sup> Pricing and resource allocation policies should be coordi-

nated to support quality in first contact facilities and appropriate use of the provider network. To achieve this end, governments should reallocate recurrent funding from large tertiary hospitals to health centers and dispensaries. Another option is to use retained fee revenues to support these peripheral facilities, while maintaining appropriate price incentives across facilities to users.

- ◆ **Identifying sources of waste and technical inefficiency and reducing their effects can extend the coverage and quality of health services without the potentially negative equity consequences of cost-recovery measures.** The most immediate gains can be had by improving the performance of drug selection, procurement, distribution, and prescription. The World Bank estimates that many African countries get only \$12 worth of good quality drugs for every \$100 spent.<sup>15</sup> Reducing these costs (i.e., increasing the supply of drugs available without an increase in expenditures) will enhance sector sustainability.

The success of community financing measures also relates to the affordability of charges levied for basic drugs. A key feature of successful programs is that the costs of procuring drugs have been minimized by measures that reduce losses and other forms of waste. Controlling costs is critical to the success of a sustainable community-financed service. In addition to drugs, large tertiary hospitals should be the focus of cost-cutting measures because of the large share of recurrent resources they absorb. Strong management, including financial management skills, is needed to control costs and keep services affordable.

### *Resource Mobilization*

- ◆ **Revenues raised from user fees should be retained within the health sector and used to improve or maintain the quality of care.** If prices are raised without any commensurate improvement in quality, the services will lose the confidence of the population. Using retained revenues to improve quality may ultimately provide disproportionate benefits to the poor despite the presence of user fees. If, prior to an increase in fees, care of acceptable quality was available only at distant facilities or at expensive private providers, many persons, especially members of low-income

households, may not have sought care when they were ill. If fees at local facilities are raised and if the revenues from these fees are used to improve the quality of care in a manner that is perceptible by the local population, use will increase if the total cost of obtaining acceptable quality services (the sum of time cost, the monetary cost of travel to the health facility, and the user fee) falls. Moreover, use may increase most by the poorest segment of the population because that segment may have otherwise not sought care at all.

- ◆ **User fees for government health services will not provide a substantial increment to national health resources.** Nevertheless, they can play a crucial role in sustaining community-based facilities by funding essential drugs, and can provide facility and district level managers with important discretionary revenue. NGOs have generally recouped higher proportions of their costs than is the case with government services—the reasons for this include management and administrative advantages, better perceived quality, and, in some cases, external support.
- ◆ **Health financing mechanisms must account for the seasonality of individual incomes,** especially in rural areas. Decentralized rural prepayment schemes can limit the demand-inhibiting effects of seasonal income fluctuations by collecting contributions during a period of the year when incomes are highest. Strong management of finances and patient circulation through the referral system are critical to the success and sustainability of decentralized insurance schemes. Insurers must be actively involved in managing the system rather than acting merely as financial intermediaries. This is most easily achieved when the insurer and provider of services are the same entity (i.e., direct rather than third-party insurance).
- ◆ **Adjustment of fee levels or insurance premium rates over time to keep pace with inflation should be institutionalized, to the extent possible, as an administrative action** rather than be left to political bodies to decide. This can perhaps be most easily achieved by tying fee levels to price indices or, for example, to the value of a fixed quantity of a staple food.

- ◆ **Expanding insurance coverage for formal sector workers should be supported only if sufficient political will can be mobilized to generate profits from the coverage of the well-off-insured and use them to cross-subsidize services for the uninsured.** No study has demonstrated that the theoretical benefits of freed up resources have actually been realized as a consequence of expanded coverage of high-income groups. For African countries, the key will be to determine the conditions under which expansion of health insurance in the formal sector will support the sectoral objectives of equity and efficiency and the likelihood that these conditions can be met.

### *Equity—Protecting the Poor*

- ◆ **Fees should be consistent with ability to pay and should not prevent access to essential services.** Evidence from several studies suggests that although the demand for care with respect to price is relatively inelastic, elasticity increases as income falls, and so the poor are more deterred by a price increase than are the relatively well-off. Policies to exempt the poor from payment of fees exist in most countries, but these policies have proven difficult to implement effectively and often exempt many categories of non-poor persons, such as civil servants.

In many countries, user fees exist for a range of social services, including health and education—calling for a method of means testing that is valid for multiple sectors. The ministry of health is probably not the most likely government body to implement such a means test. Exemptions from user charges or mandatory prepayment should be made only on the basis of poverty, except for services with important health externalities that would otherwise not be adequately consumed.

### *Institutional Issues—The Capacity for Health Policy Reform*

- ◆ **Interventions to improve institutional sustainability require a long-term commitment to achieve success.** The economic, political, and institutional context within which African governments attempt to implement reform is weak. As the experience of Ghana's support for district-level decentralization demonstrates,

a key element in building institutional capacity is to strengthen the ability of managers to use information to make decisions.

- ◆ **Vertical programs and administrative structures within ministries of health undermine the development of sustainable, integrated health services.** Donors should avoid the temptation to establish parallel management structures for the projects they fund where government implementation capacity is weak. Short-term project objectives should not be pursued at the expense of long-term development of integrated health systems.

## **Conclusions: Priority Topics for Research and Analysis**

As stated in the background information above, measures to improve institutional and financial sustainability are urgently needed in the health sectors of African countries, yet relatively little is known about these issues that can usefully be disseminated at this time. While more is known about health financing measures, many issues relevant to financing remain for which more work is needed.

The list of priority topics for research and analysis that follows is based on an extensive review of existing literature (as reflected in Section II, "Review of Major Issues") in addition to interviews with experts in the field and consultative group meetings held in Washington, D.C. (in January 1991) and Dakar, Senegal (in February 1991). Both of these meetings involved voting on priority topics—a summary of that voting, combining the two meetings, is attached as Annex 6.

Criteria for determination of priority research and analysis topics for the HHRVA Project are attached as Annex 5. These criteria emphasize the pertinence of the topic for decision makers, feasibility of the research and analysis activity, and correspondence of the proposed activity with the strengths of USAID for research and analysis (see Annex 4, "Strengths of USAID Related to Research and Analysis"). In addition, HHRVA activities should complement (rather than duplicate) the research and analysis of other donors. Annex 3, "Recent and On Going Research and Analysis Activities," provides a summary of the current major activities undertaken by donors in health financing and sustainability.

Priority research and analysis topic areas determined by this process are the following (topics that have been chosen for financing through the HIRAA Project are marked with an asterisk [\*]):

- ◆ **Hospital autonomy** \* – Under what conditions would granting managerial and financial autonomy to hospitals result in improved efficiency, quality of care, and equitable delivery of services? What is the experience to date of developing countries in granting autonomy to hospitals? In most sub-Saharan countries hospitals consume a disproportionate share of health budgets, compromising referral systems and contributing to poor services at lower level facilities. Large hospitals located in urban centers serve relatively well-off segments of the population – while the majority of public health problems can be addressed more effectively through the delivery of a package of essential clinical and educational services at the district hospital level and below. Reallocation of public resources to primary and secondary levels of care would result in higher levels of efficiency, equity, and quality of care. Research is needed concerning the prerequisites for successfully increasing financial and managerial autonomy for large urban hospitals.
  
- ◆ **Resource mobilization** \* – What are the revenue, equity and efficiency effects of various resource mobilization schemes? Almost every ministry of health and many NGOs in sub-Saharan Africa are currently putting into place cost recovery and other resource mobilization systems. Several options exist to collect revenue from consumers: taxes, health insurance, prepayment, and copayment are among the possibilities with which governments and NGOs are currently experimenting. But understanding of the trade-offs in efficiency, equity, and revenue generation inherent in different resource mobilization schemes is not well developed – particularly in the context of different levels of care, different packages of care, and the social, economic, and political environment of which the health care delivery system is a part.

Public sector insurance schemes represent a particular challenge, as they are politically popular but can create serious equity problems. Research is needed to inform decisions regarding expansion of health insurance to public sector workers, and to formal

sector workers in general. Under what conditions will the net effect of measures to encourage insurance (or the direct provision of health care by large employers) for this relatively well-off group have beneficial equity effects? In other words, under what conditions will this result in public expenditures being concentrated more on health services for the poor?

- ◆ **Equity in the financing and provision of health care.<sup>6</sup>** In the context of cost recovery for health care, how can poor segments of the population be identified, and how can health systems ensure that the poor have access to reference facilities? The recent implementation of cost-recovery systems in the majority of sub-Saharan African countries coincides with a time period when real per capita incomes are declining in many of these countries. To date, many systems designed to exempt the poor from payment have proven to be too expensive or administratively burdensome. With the recent devaluation of the CFA currency, and concomitant increases in the cost of drugs and transport, the countries of West Africa are particularly concerned with equity problems.

Policy makers need examples of mechanisms that accurately and efficiently target the poorest segments of the population for exemption from payment. In particular, alternative measures are needed to reach the poorest, most remote populations, which have little contact with modern health services. Associated research should demonstrate explicitly any tradeoff between the accuracy of the means-testing mechanism and its cost.

In many countries, cost recovery is not unique to the health sector; it is being used increasingly to help finance education, water and sanitation, and other critical social services. Identifying mechanisms to consolidate identification of the poor is thus a concern beyond the ministry of health. Priority should be given to cross-sectoral solutions to this problem—solutions that would be much more efficient than for means-testing systems for health care alone.

- ◆ **Efficiency, equity, and quality implications of different types of decentralization.<sup>7</sup>** What are the consequences of, and most appropriate strategies for, decentralization within the health sector?

What management skills need to be in place at the district level for decentralization to work? International donors and national governments are increasingly advocating decentralization of the health sector as a means to improve allocative and technical efficiency and increase accountability to the local population. Decentralization, however, has been increasingly advanced as a generic, all purpose solution to numerous problems in the health sector, including so-called overcentralization and unsustainable programs. Advocacy for and implementation of decentralization policies lack specificity and grounding in empirical and theoretical analysis. Health sector decentralization must occur as part of a broader public sector framework.

◆ **Consumer preferences for different sources of health care.**

Where does a given population seek health care, and what factors influence consumer preferences for different sources of care?

Most African ministries of health are putting into place a package of essential health services, typically based at the health district level, as part of efforts to improve coverage of their populations. A key component of this essential package is that it responds to consumer needs; the factors determining demand (including financial, sociological, and cultural) are important factors to consider in redesigning health systems to increase coverage and use.

Another method of increasing coverage is to encourage private sector providers (including traditional healers, NGOs, and private clinics) to provide care that is consistent with public health goals. Efforts to work with the private sector, underway in many African countries, depend heavily on reliable information about why populations resort to these sources of care. In many cases, information about why consumers prefer private provision can be used to improve the quality of care in the public sector.

◆ **Reducing waste and technical inefficiencies in health services.**

What cost-reducing or productivity-enhancing measures are available to correct waste and inefficiency, especially in drug procurement and distribution systems and in large tertiary hospitals?

Lessons from successful essential drug programs need to be widely disseminated. Another focus of this work should be the large urban hospitals that absorb large shares of government re-

current expenditures. Policies for gradually reducing government financing of these institutions need to be developed and implemented.

There may be scope for cooperation between the public and private sectors to achieve this end. Options that should be considered are hospital management autonomy and contracting out specific services for which a competitive market of suppliers exists in the private sector. It will be important to strengthen the capacity of governments to regulate the private sector if these reforms are to be effective. The potential for this type of reform and the conditions (management skills, for example) that must be in place for either of these options needs to be analyzed and disseminated.

- ◆ **Incentive measures for health workers and managers.** Research is needed to identify appropriate incentive measures that reward rather than punish efficient resource management and cost recovery in centrally budgeted health systems.
- ◆ **The costs of AIDS and strategies for care.** More work is needed to determine the economic and financial consequences of AIDS and to develop optimal strategies for health systems to cope with the forecasted demands of patients suffering from this disease. AIDS has already had a significant economic impact in some countries and the growth in the number of cases threatens to overwhelm the health systems of many others. Despite the need for more research, however, the problem demands an immediate response even while waiting for the research results to arrive.



## **Annex 1. Persons Contacted During Preparation of the Strategic Framework**

Howard Barnum, The World Bank, Population, Health and Nutrition Department

Abraham Bekele, Senior Economist, USAID

Peter Berman, Harvard University, Data for Decision Making Project

Ricardo Bitran, Abt Associates, Health Financing and Sustainability Project

Thomas Bossert, LAC Health, Population and Nutrition Sustainability Project

Guy Carrin, World Health Organization

David Collins, Director, Health Financing Program, Management Sciences for Health (MSH)

Andrew Creese, World Health Organization

Dayl Donaldson, Consultant

A. Edward Elmendorf, The World Bank, Africa Technical Department, Human Resources and Poverty Division

Helmut Görden, GTZ

Charles Griffin, The World Bank, Eastern Africa Department, Population and Human Resources Operations Division

Davidson Gyatkin, The World Bank, International Health Policy Program

Kara Hanson, Harvard University, Data for Decision Making Project

Anne Lafond, The Save the Children Fund (U.K.)

Jean-Louis Lamboray, The World Bank, Population, Health and Nutrition Department

Jennifer Litvack, The World Bank

Marty Mäkinen, Abt Associates, Health Financing and Sustainability Project

Timothy Marchant, The World Bank

Barbara McPake, UNICEF, Bamako Initiative Management Unit (and the London School of Hygiene and Tropical Medicine)

Anne Mills, London School of Hygiene and Tropical Medicine

Nancy Mock, Tulane University, SARA Project

Jeffrey Muschell, World Health Organization

Suzanne Pryor-Jones, Academy for Educational Development, SARA Project

R. Paul Shaw, The World Bank, Africa Technical Department, Human Resources and Poverty Division

Paul Smithson, The Save the Children Fund (U.K.)

John Tomaro, Office of Health, USAID

Vincent Turbat, Economic Development Institute, The World Bank.

Gerald Wein, Project Director, Abt Health Financing and Sustainability Project

Holly Wong, Abt Health Financing and Sustainability Project

Annemarie Wouters, Johns Hopkins University

## **Annex 2. Participants at Consultative Group Meetings**

### ***A. Washington, D.C., January 13–14, 1994***

Howard Barnum, The World Bank

Abraham Bekele, USAID

David Collins, Management Sciences for Health

Christine Comito, SARA Project

Ed Elmendorf, The World Bank

Fred Golladay, The World Bank

Kara Hanson, DDM Project

Joe Kutzin, SARA Project

Chuck Lerman, USAID

Marty Makinen, Abt Associates

Barbara McPake, London School of Hygiene and Tropical Medicine

Nancy Mock, SARA Project (Tulane University)

Millie Morton, SARA Project

Kasirim Nwuke, DDM Project

Samuel Ofusu-Amaah

Suzanne Pivson-Jones, SARA Project

Duale Samba, SARA Project (Tulane University)

Paul Shaw, The World Bank

Jim Sheppard, USAID

Peter Spain, SARA Project

Hope Sukin, USAID

John Tomaro, USAID

Ronald Vogel, University of Arizona

Hugh Waters, SARA Project

Jerry Wein, Abt Associates

*B. Dakar, Senegal, February 14–18, 1994 (organized by the Health Financing and Sustainability Project in collaboration with the USAID Regional Economic Development Services Office [REDSO] for West and Central Africa)*

Bineta Ba, USAID-REDSO

Jonathan Balley, Benin

Abraham Bekele, USMID-Washington

Laurentine Bihma, Ministry of Health, Cameroon

Ricardo Bitran, HHS Project

Pascal Brouillet, Ministry of Health, Senegal

Perle Combar, USMID-Burkina Faso

Aline Correa, USMID-Senegal

Salif Coulibaly, Ministry of Health, Mali

Jean-Claude Crinot, USMID-Benin

Scherri Bernard Daret, Direction of Public Health and Social Affairs, Côte d'Ivoire

Lamarana Diallo, Association Guinéenne pour le Bien-être Familial (AGBEF)

Abdou Dieng, Ministry of Health, Senegal

Félicien Hounye, CREDESA/SSP, Benin

Issouf M. Ibrango, Ministry of Health, Burkina Faso

Katherine Jones-Patron, USAID/REDSO

Oumarou Kane, USAID/Niger

Djibrilla Karamoko, Ministry of Health, Niger

Eckhard Kleinau, BASICS Project

Rudolph Knippenberg, UNICEF

Abdoulaye Ly, Ministry of Health, Senegal

Anita Mackie, USAID/Chad

Marty Mäkinen, HFS Project

Alioune Mbaye, Ministry of Health, Senegal

Suzanne McLees, HFS Project

Ngaradje Ngarmadjigave, Ministry of Health, Chad

Emmanuel Nguembi, Ministry of Health, Central African Republic

Joseph Niangue, Ministry of Health, Côte d'Ivoire

Alex Ross, USAID, Washington

Ramadan Malick Saleh, Ministry of Health, Chad

Mouhsine Sant'Anna, Ministry of Health, Togo

James Setzer, Emory University

John Stanback, Family Health International

Barbara Stevens, HFS Project

Fatimata Sy, USAID/Senegal

Nena Terrell, HFS Project

Andy Thompson

Lamine Touré, Ministry of Health, Guinea

Hugh Waters, SARA Project

### **Annex 3. Recent and On-Going Research and Analysis Activities**

This annex is intended to provide an overview of current and planned research and analysis activities related to health financing and sustainability in sub-Saharan Africa. This overview is not comprehensive, but provides a general idea of research and analysis topics that are currently being emphasized in this field.

#### ***Activities Sponsored by USAID***

In addition to the planned activities to be financed by USAID through the HIRAA Project (see Section IV for a description of these topics), research and analysis activities in Africa supported by centrally-funded USAID projects include:

- ◆ The Health Financing and Sustainability (HFS) Project, managed by Abt Associates, is conducting several major applied research projects in Africa in cost recovery, quality of care, and comparisons of public and private sector efficiency. In Niger the HFS Project is working with the government to implement cost recovery, comparing prepayment (tax with small copayment) and fee for service approaches in different districts. An applied research project, designed to evaluate the results, includes elements of quality of care, use levels, and availability of drugs, as well as the impact of each alternative on revenue and equity.
- ◆ In Senegal the HFS Project has completed a study of use, costs, efficiency, and quality of care in the public sector. A similar study is underway for private health facilities and will produce data permitting a comparative analysis of differences in efficiency and quality in the public and private sectors. The HFS Project will conduct an overview study of the private health sectors in Senegal and Tanzania, focusing on factors affecting the development of the private sector.
- ◆ The Data for Decision Making Project, managed by the Harvard School of Public Health, has begun a study of the private health sector in Zambia and Kenya. DDM has also developed a series of analytic tools for promoting cost effectiveness and setting priori-

ties, including burden of disease analysis and a methodology for analyzing National Health Accounts—by sources, amounts, and spending patterns—which allows decision-makers to improve resource allocation. Other centrally-funded USAID projects that have undertaken research and analysis activities related to health financing include the REACH Project, which has developed methods for costing vaccination and primary health care services in decentralized health systems, PRICOR, and PRITECH.

USAID missions in several countries have financed country-specific health financing studies and projects. A study sponsored by USAID in Cameroon shows that user fees, when accompanied by improvements in quality, can lead to increased use by the poor (Litvack and Bodart 1993, discussed earlier). The USAID mission in Swaziland supported an assessment of the effectiveness of user fees in that country. The assessment pointed out problems related to the non-payment of inpatient fees; principal recommendations included revising prices periodically in line with inflation and allowing for retention of revenues for use by the facilities charging the fees (Collins 1990).

USAID has provided financial and technical support, through Management Sciences for Health (MSH), to implement the Kenya Health Care Financing Program. This program has established a cost-sharing system for national, provincial, and district hospitals (with plans to introduce the system at the health center level). Seventy-five percent of the revenues generated under this system are retained at the institution in which the fees are generated; the remaining 25 percent is used at the district level. Since 1991 the new system, supported by management reforms and training, has resulted in considerable increases in revenue at the facilities involved (Collins and Hussein 1993).

### ***Activities Sponsored by Other Donors***

The U.K. Overseas Development Agency (ODA) supports the Health Economics and Financing Programme, which is located within the Health Policy Unit of the London School of Hygiene and Tropical Medicine. Major work undertaken within this program includes an evaluation of the Bamako Initiative in five African countries (1992), discussed earlier. The evaluation defines a minimum set of criteria for a Bamako Initiative cost-recovery scheme and points to the need to design effective exemption

mechanisms to ensure equity and to develop management skills at peripheral levels in a decentralized health system. The evaluation found that Bamako Initiative activities have generated considerable revenues to finance drug supply and deserve continued support, and that special attention should be given to quality, supervision, affordability, and community involvement.

Also under the Health Economics and Financing Programme, the London School is conducting several studies on user fees, exemption mechanisms, and the use of revenues. Community financing through health insurance is another important topic, with research underway in Ghana; a workshop is planned for risk sharing in health care in West Africa. For issues related to the public-private mix, a collaborative research network has been set up; Ghana, Malawi, South Africa, Tanzania, Uganda, and Zimbabwe are all part of this network and will be involved in cross-country research. Specifically, a study of contracting out and competitive tendering is planned for South Africa and Zimbabwe.

Save the Children (U.K.) conducted a five-country study (Ghana, Nepal, Pakistan, Uganda, Vietnam) titled Sustainability in the Health Sector, the major findings of which were discussed in a May 1993 workshop. The results emphasize the need for management skills within ministries of health and suggest that, in very poor countries such as Uganda, donors should be prepared to help finance recurrent costs that government budgets are unable to meet. The study also found that user fees do not cover a high percentage of health costs, generally representing less than 5 percent of total health funding.

In addition to the *World Development Report* (1993) and *Better Health in Africa* (1993) (both discussed earlier), The World Bank is currently involved in several important studies and analysis activities related to health financing and sustainability in Africa. These include:

- ◆ An overview of health financing in Africa, focusing on user fees and health insurance, with case studies from Zimbabwe, Lesotho, Ghana, Kenya, Cameroon, Zaire, and Guinea-Bissau. Analysis of some of these case studies, including the Kenya study (Mwabu, Ainsworth and Nyamete 1993), is included in this strategic framework.

- ◆ In Tanzania a social sector (including health and education) survey that focuses on private household expenditures and will be used to inform future investment decisions in the social sector.
- ◆ Ongoing household survey research in several countries. As part of its poverty alleviation programs, The World Bank is assisting countries to conduct household research, using two models: (1) integrated surveys, which are similar to the Living Standards Measurement Survey (LSMS) and provide consumption information; and (2) priority surveys, which are less comprehensive and have larger sample sizes. Integrated surveys in Ghana and Côte d'Ivoire follow from LSMS surveys that had already begun in those countries. To date, 18 countries in sub-Saharan Africa have become engaged in research (either integrated or priority surveys), and nine have preliminary results. The data from these surveys belong to the countries; access to the data therefore depends on release by the country in question. With the data that will be released, the Africa Technical Department of The World Bank plans to establish a household data library. Emphasis will shift from data collection to assistance to countries for analysis and application of the data.
- ◆ An overview titled "Cost Recovery in Public Health Services in Sub-Saharan Africa," currently being prepared by the Economic Development Institute of the World Bank. This document provides a synthesis of cost recovery efforts in 37 countries, with broad comparisons drawn between experiences in francophone and anglophone countries. General conclusions are that cost recovery has increased the availability of drugs, and that cost recovery should be seen as a complement to, not a substitute for, other sources of funding for health care.
- ◆ A paper on "The Economic Impact of AIDS: Shocks, Responses and Outcomes" (discussed earlier). This paper provides a conceptual framework for measuring the economic impact of AIDS in Africa, reviews evidence of economic impact found in other studies, and suggests an agenda for further research and analysis.

The World Health Organization is currently sponsoring an analysis of existing data concerning health expenditures, focusing on issues of equity and

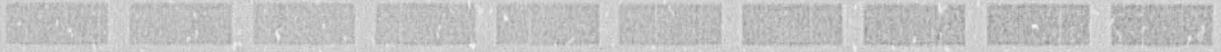
efficiency. WHO is also working directly with ministries of health to resolve country-specific problems in health policy reform in several countries, including Benin, Chad, Ghana, Guinea, Zambia, and Uganda. Upcoming plans include support for three case studies on contracting out with, and regulation of, the private sector, as well as research to study the impact of alternative health financing arrangements on the demand for disease-specific services. During 1994 WHO will begin a work program on hospital economics and financing that will generate country case study material highlighting issues of resource allocation and management.

The Bamako Initiative Management Unit (BIMU) of UNICEF, following the 1992 evaluation undertaken by the London School of Hygiene and Tropical Medicine, has developed a research agenda focusing on the following issues:

- ◆ quality of care at peripheral levels,
- ◆ access to services and equity issues,
- ◆ community participation,
- ◆ health workers and their role,
- ◆ essential drug arrangements,
- ◆ systems and management sustainability.

A program of 12 research projects covering at least 13 African countries including Zambia, Tanzania, Benin, and Cameroon, and involving at least 16 research institutes from Africa, Europe, and North America, is currently being established by the BIMU. Research activities will begin January 1994.

In addition, a large body of research on health financing and sustainability has been conducted on a country-specific level, often related to implementation of the Bamako Initiative or other decentralized cost-recovery plans. Each of the donor agencies listed above has sponsored household surveys and other pertinent country-specific research; the German bilateral aid agency GIZ has also played an important role in sponsoring country-specific problem-solving research.

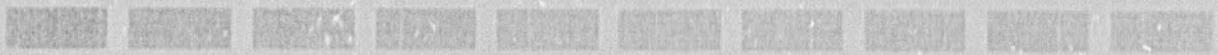


## **Annex 4. Strengths of USAID Related to Research and Analysis**

Perhaps the single most important strength of USAID related to research and analysis is the presence of USAID missions and large projects working on a long-term basis in African countries. In several countries, USAID is financing large, integrated primary health care and family planning projects that emphasize decentralization and cost recovery. These projects are staffed by technically competent long-term advisors and in-country nationals. This presence lends itself to research within an ongoing operational context, and to implementation of research results to resolve specific problems within programs.

USAID regional offices in Abidjan and Nairobi offer additional technical expertise in health financing and sustainability and increase the possibilities for comparable cross-country and regional studies. Several USAID projects, such as the BASICS project, also have regional offices that can help to coordinate and support cross-country research. Centrally funded projects also offer experience and technical skills, specializing in technical assistance and research design and execution. These projects can call on a wide range of experts from cooperating agencies and universities. The Africa Bureau of USAID, particularly the ARTS Office, provides oversight and technical support for on-going research, analysis, and operations activities.

USAID cooperation with and support for a variety of African institutions at the regional and national levels creates opportunities for conducting research and analysis activities in close collaboration with African individuals and organizations. The presence of long-term resident advisors facilitates the identification of needs and appropriate channels for execution of activities. In addition, USAID is involved in promoting partnerships with the private sector in Africa. Social marketing, promotion of health and family planning services through employers' infrastructure, and local production of pharmaceutical products (such as ORS) are among USAID's initiatives with the private sector.



## **Annex 5. Criteria for Assessing Research and Analysis Topics for HHRAA**

1. Who is the research and analysis activity for and what questions are being answered? The activity should be of strategic importance to African decision-makers and to USAID and other donors; research should provide results of immediate relevance to decision makers.
2. To be most effective, research should be cross-country or regional, addressing specific problems found in more than one setting and in more than one country.
3. Perhaps most important, proposed topics for research should be *researchable*—with realistic and feasible methodologies and time frames.
4. How will the results be disseminated? Timely and appropriate dissemination of results, and their impact on implementation, are key factors in determining the success of research and analysis activities.
5. How will results be used? Priority should be given to research and analysis activities that provide solutions to practical problems, with results directly linked to implementation.
6. Is the research and analysis topic appropriate for USAID, given USAID's strengths and priorities relative to other donors? (See Annex 4, Strengths of USAID Related to Research and Analysis.)
7. Research and analysis activities should be able to be completed within 12 to 24 months.
8. Research and analysis activities should require minimal logistical support from USAID missions.
9. Research and analysis activities should respond to gaps in information, taking into account the current and planned activities of governments and other donors.
10. Research and analysis activities should offer opportunities for increased African participation in the HHRAA implementation process.



## Annex 6. Overall Results of Consultative Group Voting

(Note: The following table reflects the results of voting concerning priority research and analysis topics at consultative group meetings held in Washington, D.C. (January 1994), and Dakar, Senegal (February 1994). The first meeting was entirely dedicated to Health Financing and Sustainability. However, voting at the Dakar meeting also concerned Private Sector Health Development—a separate HHRMA strategic framework area. For this reason, the combined results of the vote, shown below, include some topics that are specific to Private Sector Health Development.”)

Total Rank	TOPIC
1	Cross country study of hospital autonomy, including effects on MOH budget allocation, quality, efficiency.
2a tie	Study of the efficiency, equity and quality implications of different types of decentralization.
2b tie	Study of the factors (financial, sociological, cultural, traditional) influencing consumer preferences for different sources of care (modern vs. traditional, self-care, private, etc.).
4	How to design and implement the package of basic, cost effective services to meet the needs of specific populations? What is the cost of doing so?
5	Poor segments of the population: how to identify them? How to ensure that the poor will be have access to reference facilities?
6a tie	Research on public and private expenditures on health (national health accounts approach).
6b tie	Case studies of means testing/exemption systems.
6c tie	What are the revenue, equity and efficiency effects of various resource mobilization schemes?
9	Study of NGO experience with improving efficiency, pricing of services, quality and means testing.

Total Rank	TOPIC
10a tie	Traditional healers: what are the factors determining the demand for the services of the healers? What are the costs relative to the modern sector?
10b tie	Designing incentives for health workers and health system managers for application of technically efficient use of resources.
12	Test operational approaches for health insurance: evaluate different insurance schemes.
13	What are the political factors and processes influencing resource allocation: what are constraints to efficient allocation?
14	Case studies of institutional development in different countries (including multi-disciplinary team in Niger): successes and failures. Case studies of natural experiments in institution building.
15	Evaluation of the efficiency and effectiveness of different traditional solidarity, insurance and risk-sharing systems.
16	Cross-country study of methods of implementing health financing measures -not just the "what" but also the "how."
17a tie	Evaluation of training and capacity building efforts, including methods, short vs. long-term.
17b tie	KAP studies of consumers concerning the basic package of services: influence on health status and personal behavior.
19	How to encourage the pharmaceutical sector to promote public health objectives (social marketing)?

## Endnotes

<sup>1</sup>For a more detailed description of the economic benefits of good health, see World Bank 1993a, pp. 17-21.

<sup>2</sup>See de Ferranti 1985; Jimenez 1987; Akin, Birdsall, and de Ferranti 1987; Griffin 1989; Barnum and Kutzin 1993; World Bank 1993a.

<sup>3</sup>See also Jamison and others 1993.

<sup>4</sup>Barnum and Kutzin 1993, p. 144. See also Jimenez 1987.

<sup>5</sup>For example, see Bossert 1990.

<sup>6</sup>The Save the Children Fund (1993a, p. 1) used this definition for its research into health sector sustainability in five low-income countries.

<sup>7</sup>Brunet-Jailly 1991.

<sup>8</sup>Examples from Zambia, Kenya, and Zimbabwe illustrate the high percentages of recurrent government health expenditures devoted to large tertiary facilities (Barnum and Kutzin 1993, p. 26).

<sup>9</sup>See, for example, Shaw and Elmendorf 1993, p. 114.

<sup>10</sup>Even with good information, consumers will not forsake all cost-ineffective interventions. However, governments should not subsidize cost-ineffective health services.

<sup>11</sup>Creese 1991, p. 312.

<sup>12</sup>Broomberg et al. 1991, cited in Ainsworth and Over 1992, p. 14.

<sup>13</sup>See Over and Piot 1993, pp. 500, 503 for a discussion of cost-effective case management strategies.

<sup>14</sup>In 1986 in Ghana, for example, most statutory exemptions from payment of user fees in government health facilities were granted to Ministry of Health employees and their dependents. The revenue that would have been collected if there were no exemptions was estimated to represent about 21 percent of total collections for that year (Waddington and Enyimayew 1990).

<sup>6</sup>For an example from Zimbabwe, see Hecht, Overholt, and Holmberg 1992.

<sup>7</sup>See Barnum and Kutzin 1993, pp. 214–220, for a discussion of fee retention policies in a number of countries.

<sup>8</sup>In their review of five country case studies (Burundi, Guinea, Kenya, Nigeria, and Uganda) of Bamako Initiative (BI) schemes, McPake, Hanson, and Mills (1992, p. ii) identified a set of minimum criteria that define the initiative. Features of BI programs are community financing, community participation (community health development committees), and national involvement to integrate local programs into national health policy. The aims of BI schemes are to improve quality and increase access, and strengthening management and accountability are the key strategic elements needed to implement the BI effectively. The review also describes the price structure, price-setting mechanisms, and exemption policies in each of the five countries (p. 33).

<sup>9</sup>McPake, Hanson, and Mills 1992; Parker and Knippenberg 1991; Shaw and Elmendorf 1993, p. 111; Unger, Mbaye, and Diao 1990, p. 372.

<sup>10</sup>See, for example, Waddington and Enyimavew 1990, p. 305.

<sup>11</sup>A related finding is that, to keep community financing schemes affordable, waste and inefficiency must be reduced. With lower costs, less revenue is needed, and thus facilities can charge lower prices (Brunet-Jailly 1991; Creese 1991; Korte et al. 1992).

<sup>12</sup>For examples from Tanzania and Uganda, see Mujinja and Mabala 1992 and World Bank 1992b, respectively, and see Shaw and Elmendorf 1993, pp. 112–13, for a general discussion.

<sup>13</sup>In Swaziland, government and mission hospitals are required to charge the same fees to patients. Public facilities must return all revenues to the central treasury, but mission facilities use the revenues to meet recurrent costs. Collins (1990) found that mission hospitals collect substantially more revenues per patient and concluded that the difference in policies with regard to fee retention was an important cause of this difference in revenue performance.

<sup>14</sup>See, for example, Mwabu, Ainsworth, and Nyamete 1993.

<sup>24</sup>See, for example, World Bank 1993a, p. 127; Korte et al. 1992, p. 3.

<sup>25</sup>Even if the central government has as its objective the maximization of revenues flowing to the central treasury, some retention of fees is warranted to provide a collection incentive (Barnum and Kutzin 1993, pp. 152, 177–178). More important, retention of fees for health services can be critically important for improving the quality of care available and is recommended for this reason. This is discussed in more detail below.

<sup>26</sup>See, for example, Waddington and Enyimayew 1990, p. 305.

<sup>27</sup>As Mwabu, Ainsworth, and Nyamete 1993, found to be the case in the Kenya's Meru district.

<sup>28</sup>See Gertler and van der Gaag 1990; Mwabu, Ainsworth, and Nyamete 1993; Mwabu and Mwangi 1986; and World Bank 1991.

<sup>29</sup>Akin, Birdsall, and de Ferranti (1987, p. 26) note this in their parenthetical statement that "time and travel costs will probably do more than any small fee to discourage the frivolous use of services."

<sup>30</sup>See Gertler and van der Gaag 1990 for an analysis of data from Peru.

<sup>31</sup>The Health Financing and Sustainability Project funded by USAID is examining some of these issues in its major applied research work in Niger. The cost recovery systems being evaluated and compared are a fee per episode of illness and an individual tax accompanied by a small copayment at the point of service. The study will allow for an evaluation of the revenue and equity effects of each alternative (see Annex 3).

<sup>32</sup>David Collins, personal communication, 1991.

<sup>33</sup>See Epstein and Coultas 1991 (p. 1467) for a description of events leading to the temporary cessation of Kenya's user fee program in September 1990.

<sup>34</sup>Barnum and Kutzin (1993, pp. 140, 295–298) suggest that, conceptually, because improving quality will often mean increasing supply-side costs (e.g., by increasing the supply of essential drugs), information is needed on three elasticity measures: (1) elasticity of demand with respect to price,

(2) elasticity of cost with respect to quality, and (3) elasticity of demand with respect to quality.

<sup>5</sup>Author's observations during World Bank Mission to Zimbabwe, May 1992.

<sup>6</sup>See, for example, Shaw and Elmendorf 1993, pp. 118–121.

<sup>7</sup>For example, Kutzin and Barnum 1992, p. 71.

<sup>8</sup>In Bwamanda health center nurses were given financial incentives to enroll members of their community in the prepayment scheme. This probably gave further impetus to enrollment in the zone.

<sup>9</sup>See Shepard, Vian, and Kleinau 1990 for a full description of this and other prepayment plans operating in Zaïre.

<sup>10</sup>These problems are highlighted in Gilson's (1988, p. 46) review of evidence from the few studies that have examined implementation of exemption policies.

<sup>11</sup>Based on their analysis of survey data from Côte d'Ivoire and Peru, Gertler and van der Gaag (1990) recommend that, because identifying individual income is administratively difficult, a useful alternative would be to charge lower prices in low-income regions.

<sup>12</sup>See Korte et al. 1992, p. 9.

<sup>13</sup>This is the fundamental argument made by Brunet-Jailly (1991).

<sup>14</sup>See Mwabu 1989 for an analysis of patients' health care-seeking behavior.

<sup>15</sup>Shaw and Elmendorf 1993, p. 58.

<sup>16</sup>See the HIRAA document, *Strategic Framework for Strengthening the Contribution of Non-Governmental Health Care Provision to National Health Goals in Africa*, prepared by the Data for Decision Making Project.

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