MSH
MANAGEMENT SCIENCES FOR HEALTH

HEALTH FINANCING AND REFORM IN KENYA

Lessons from the Field

Prepared by
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A SUMMARY AND ASSESSMENT OF THE MAJOR ACCOMPLISHMENTS OF THE APHIA FINANCING AND SUSTAINABILITY (AFS) PROJECT

December 1996 – June 2001

Discussion Draft

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December 1996 through June 2001

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PREFACE

This report is based on the experiences of providing technical assistance under the USAID-funded APHIA Financing and Sustainability (AFS) Project in Kenya from 1996-2001. It is in draft form for review by all the participants in this work with Kenyan organizations, particularly the Ministry of Health (MoH), as well as organizations in the NGO/Mission and private health sectors.

The report will be completed as a summary document for the AFS Project, and perhaps further edited and published as a small book for use within Kenya and other countries. It will be used as part of the background material for the end-of-project Conference for the AFS Project on May 22-24, 2001 in Nairobi.

The report covers a wide range of activities by organizations that sought technical support from the AFS Project to implement their health financing reforms and quality improvements. While each chapter describes a different set of experiences ranging from cash registers to employee incentives, the underlying message is that experiences from one health organization are transferable to others across government/nongovernment lines. This report and the AFS Conference are both designed to reinforce this theme of transferability of knowledge and experience between organizations in the health field.

Please give your comments on this draft to the AFS Project Office in the Ministry of Health Annex Building, Attention: Mr. Charles Stover, prior to June 15, 2001. E-mail messages should be sent to cstover@msh.org. Your comments will be utilized in the final editing of this document.

ACKNOWLEDGEMENTS

This report is the result of a tremendous effort by all the counterpart organizations to the AFS Project, especially the Ministry of Health, and the consultants and technical advisors who worked on all aspects of the project. Primary thanks are to the Ministry of Health officials in senior management, the Division of Health Care Finance, the Training Division, Provincial Medical Officers, and hospital directors and staff. Particular thanks are reserved for the Director, Board, and staff of Coast Provincial General Hospital.

The USAID/Kenya mission has been very supportive of the AFS Project from its inception through completion, including making a special provision in the contract for documentation and dissemination. This report, the manuals and other project documents completed under the project, and the AFS Conference all reflect this priority that activities and lessons learned should be documented and shared with other organizations with similar challenges facing them.

The organizations that requested technical assistance from the AFS Project should receive the credit for the accomplishments cited in this report, and special thanks. Their work to improve services, increase revenues, reduce costs, promote sustainability, and above all make health services better and more affordable is described in the following chapters. Working with a wide range of organizations has stimulated innovation as well as success in the difficult and ongoing task of improving performance and services. These organizations have already started the process of collaboration and sharing of experiences and systems among each other. That process will certainly continue.

Rather than cite these organizations here, at the risk of creating a very long list and forgetting an organization or a key individual, we ask the reader to take note of these organizations in each chapter of this report.

The contributing authors to this report have earned special recognition.

- Dr. Daniel Kraushaar wrote the major portion of Chapter 2, "Evolution and Implementation of Health Financing Policy" and part of Chapter 3, "Successful Reforms through Cost Sharing." Dr. Kraushaar served as Chief of Party of the USAID-funded Kenya Health Care Financing Project" managed by Management Sciences for Health from 1989-95. He is a Principal Program Associate in the Center for Health Reform and Financing at Management Sciences for Health.
- Dr. Rena Eichler wrote the major portion of Chapter 10, "Improving Clinical Quality and Performance: Staff Incentive Scheme". Dr. Eichler also conducted the technical work of design, evaluation, and initial implementation of the pilot scheme for employee incentives to improve clinic performance. She is a Senior Program Associate/Health Economist in the Center for Health Reform and Financing at Management Sciences for Health.
- Ms. Karen Quigley wrote the major portion of Chapter 9, "Market Forces in the Health Sector: Working with the Private Sector." Ms. Quigley also conducted much of the technical assistance by the AFS Project to the private health sector, particularly

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in the area of managed care. She is an independent consultant with extensive experience in health insurance, managed care, and the dynamics of the private health care market.

The members of the AFS Team, led by Mr. Ian Sliney, contributed at all stages to the writing, editing, and verification of this report. Ms. Zahra Hassanali reviewed and edited many sections of the report, and provided ongoing support for tracking down key documents. Mr. Silas Njiru provided the data analysis and verification and helped with the editing. Mr. Jay Clark reviewed and edited an earlier draft of Chapter 5, "Improving Hospital Performance through Institutional Reform: Coast PGH". Ms. Rowena Edgeworth edited and wrote portions of the sections on quality improvement and clinical pathways. Dr. Dayl Donaldson and Mr. Stephen Musau conducted much of the costing work which is described in Chapters and 7. Mr. Peter Sipe, Ms. Caroline Min, Ms. Elizabeth Lewis, and Ms. Anne Bilby all contributed in many ways to preparing this document.

Mr. Sam Munga from the MoH Division of Health Care Finance also reviewed and edited portions of the document, as did the management teams at PCEA Chogoria and Coast PGH. Additional thanks to Dr. William Newbrander, Project Director for the AFS Project and Director of the MSH Center for Health Reform and Financing, for his overall guidance in the planning, writing, and production of this document.

CHAPTER 1. INTRODUCTION

It is a rare opportunity to participate in health reform activities over an extended period—in this case, 10 years. Since 1990, under the sponsorship of two projects funded by the U.S. Agency for International Development (USAID) with the Kenya Ministry of Health (MoH), Management Sciences for Health (MSH) has worked closely with other organizations on a nationwide cost-sharing program, as well as other health financing reforms with nongovernmental organizations (NGOs) and private-sector organizations. This decade of experience has yielded many achievements that are clearly useful for Kenya and also provide valuable insights for other countries and organizations.

The intended audience for this report is made up of three groups. The first is MSH's partner organizations in Kenya, since it provides a context and an analysis of trends to help them interpret their work and take advantage of the work of others. Officials of the MoH, particularly the Division of Health Care Finance, are part of this primary audience. A second group comprises those involved in health reform policy making, both in Kenya and elsewhere. The third group is people who are interested in understanding the tools and techniques developed during the project's life for application to other settings.

This publication focuses on the period 1997 through the present. It draws on the experiences of the USAID-funded and MoH-sponsored APHIA (AIDS, Public Health Integrated Assistance) Financing and Sustainability (AFS) Project from December 1996 through July 2001. A companion book, *Health Financing Reform in Kenya: The Fall and Rise of Cost Sharing, 1989–1994,* provides important background.[1] The work carried out during that earlier period was under the USAID- and MoH-sponsored Kenya Health Care Financing (KHCF) Project from 1989 through 1995.

Neither this publication nor its predecessor aims to document the technical assistance provided under the projects as an end in itself. They both focus on the practical details of the work performed by the counterpart agencies and individuals, as well as documenting the results achieved and the lessons learned. The experience gained and the accomplishments achieved rest with the individuals who worked on the specific initiatives. Their experiences are a guide for possible adaptation elsewhere.

Since December 1996, MSH, through the AFS Project, has provided technical assistance to help achieve concrete results in health reform in Kenya. Whereas the earlier book on MSH's work in health care financing focused primarily on the introduction and full implementation of the cost-sharing program, this publication highlights experiences in the government, in NGO/missions, and in private areas of health financing and reform. The lessons learned, both positive and negative, are applicable beyond the specific organizations where the changes took place.

The AFS Project has four components. By including these four components, both USAID and the MoH showed a solid appreciation of how the health financing and reform process takes place in all sectors of the health system. The largest component, support for the public-sector cost-sharing program, represents 40% of the project's resources.

Two other components, improved health financing in the private sector and improved sustainability of family planning–oriented NGOs, represent 20% and 25% of the resources, respectively. The fourth component, a reliable public-sector supply of key expendable commodities (essential drugs and family planning supplies), represents 15% of the resources. The project also provides technical assistance through long-term advisers, short-term local consultants and organizations, and foreign technical assistance.

The main objective of the AFS Project is to encourage:

- **More money:** greater financial resources for health and family planning services
- **Better management:** increased organizational capacity and self-sufficiency of health and family planning service providers

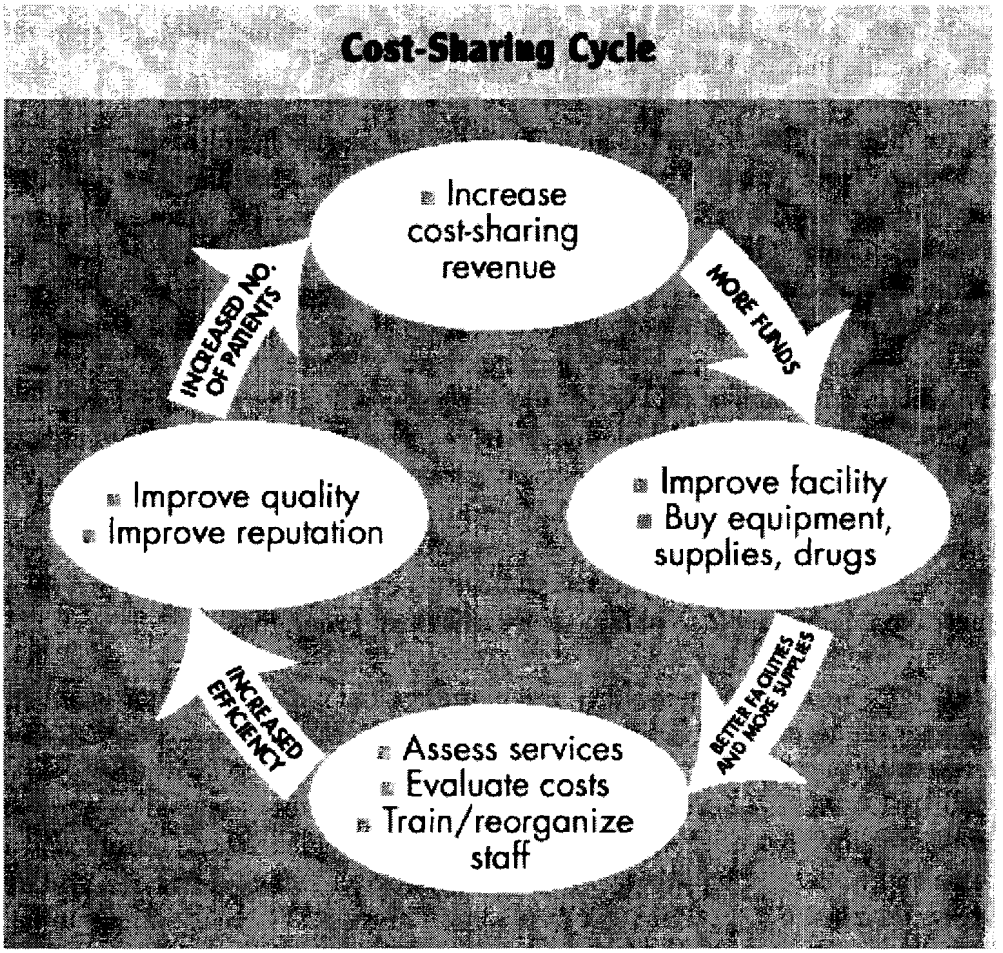
By working in the three health sectors (public, private, and nongovernmental), the AFS Project is able to provide cutting-edge technical assistance to a wide range of partner organizations struggling to improve their services. Figure 1-1 illustrates how these improvements, whether in increased revenues, facility enhancement, cost-effectiveness of services, or quality improvement, are linked both in theory and practice. Increasing revenues is an important first step in improving service quality, rather than a goal in itself. Additional revenues can be used to improve facilities, upgrade equipment, and maintain adequate stocks of supplies and drugs. Assessments of service delivery patterns, and costing of services, can then lead to more cost-effective clinical practices. Finally, better clinical practices, combined with better facilities, equipment, and greater availability of necessary supplies, results in improved quality and an enhanced reputation. This improved reputation can then lead to greater patient satisfaction and additional demand for services.

AFS technical assistance supports work in many areas represented by the figure. For example, the introduction of cash registers at Coast Provincial General Hospital (PGH) proved that revenues could be increased significantly and used to improve facilities and services. These cost-sharing steps are also useful to hospitals such as the Presbyterian Church of East Africa's Chogoria network, as well as other MoH hospitals. The work on evaluating services and creating clinical pathways by the Aga Khan Hospital staff is important for improving services at Coast PGH. The individual technical assistance and achievements by the partner organizations fit into a larger picture of health reform that cuts across government, NGO, and private sectors and provides a unity of purpose and common ground for sharing problems and solutions.

Figure 1-1 illustrates how the work of the AFS Project in each of the three sectors has proven important lessons and in many cases provided the means of transferring experiences from one institution to another. The subsequent chapters discuss the work that is summarized on this chart.

This publication chronicles a phase in the implementation of Kenya's health financing strategy and health-sector reform, as defined primarily by the 1993 *Strategic Action Plan for Financing Health Care in Kenya* and the 1994 *Health Policy Framework,*

Figure 1-1: Cost-Sharing Cycle



respectively.[2] The work of the AFS Project and its partner organizations takes place under conditions of a declining economy; government attempts at reform, including personnel retrenchment and economic structural adjustment; declining health status, as measured by morbidity statistics and immunization rates; and the rising pandemic of AIDS. The successes of the project demonstrate that progress can be made in improving the health system even in the face of economic decline and rising morbidity.

The next steps in health reform cannot be predicted and will be affected by a number of political, administrative, epidemiological, and health care system decisions. However, if substantial progress can be achieved during a period of decline, such as that of the past five years, there is reason to expect that further progress on a larger scale is at least plausible.

The pace of health reform is generally slow and uneven, but pockets of rapid improvement are discussed in the following chapters. Whether the current circumstances warrant a speeding up of policy reforms and a more rapid removal of obstacles is both a significant policy issue and a matter of individual and institutional initiative, influenced by external events and by chance. In November 2000, the Minister of Medical Services

began to work closely with an intersectoral group of health experts on ways to expand social health insurance and managed care consistent with the health reform policies. The work of this group may provide an additional vehicle for implementing reforms that lie jointly within the public, NGO, and private sectors.

It is impossible to predict what the underlying conditions for health-sector reforms will be over the next five years. Alternative scenarios about the economy, the political situation, the country's health status, and other variables can be developed and are often the basis for organized initiatives in Kenya and by donor organizations. However, a high level of uncertainty underlies any such scenario. Past experience can provide some guidance but cannot predict the external variables that often prove to be decisive.

The multisector approach of the AFS Project is a sound strategy, given these uncertainties. The lessons and experiences from one sector are likely to be relevant in some way to the other sectors. One specific example discussed in the following chapters is the use of cash registers in the NGO sector, after their implementation in the government cost-sharing program. Other, more future-oriented work, such as applying cost-effective clinical protocols and guidelines, has evolved mainly in the private sector but appears to be applicable to public-sector treatment programs.

There is one major factor in morbidity and mortality that will play a significant part in any five-year scenario: the AIDS pandemic. Although HIV/AIDS was present five years ago, it was not a significant factor in the health reform strategies. Now, the growing scourge of AIDS and its current and future impact on mortality—including a growing number of orphans, loss of economic productivity, and personal and family loss—will have to be addressed, either directly or at least indirectly. AIDS prevention and treatment strategies may require a speeding up of the reform process. There is nothing to be gained by delay, except a further decline in health status and a reduced capability to respond to the AIDS pandemic.

As the prospect of affordable, effective treatment for AIDS comes closer to becoming a reality, the infrastructure of the health system will be challenged and perhaps overwhelmed by the demand for active treatment using sophisticated medical regimens that require close compliance. For this reality to materialize, the most effective new drugs need to be available on a large scale and at a low enough price to permit widespread utilization. The focus will move from the treatment of secondary complications of AIDS to active treatment of the primary disease. This additional demand on the health system—public, nongovernmental, and private—argues for speeding up the process of constructive reform, as well as moving the health system to new levels of effectiveness.

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[1] David Collins et al., *Health Financing Reform in Kenya: The Fall and Rise of Cost Sharing, 1989–1994* (Stubbs Monograph Series No. 1, Management Sciences for Health, 1996).
[2] MoH, Government of Kenya, *Strategic Action Plan for Financing Health Care in Kenya* (March 1993); MoH, Government of Kenya, *Health Policy Framework* (November 1994).

CHAPTER 2. EVOLUTION AND IMPLEMENTATION OF HEALTH FINANCING POLICY IN KENYA

Summary

Problem

Steady economic growth from independence in 1963 through the 1980s supported the rapid expansion of health services and facilities consistent with the pledge of the Kenya African National Union (KANU) to provide free health care and education for all Kenyans. During this 20-year period, the government expanded health and educational services dramatically to cover a wide range of the population.

Starting in the early 1980s, economic slowdown, inflation, and increasing population growth made government funding of these commitments more difficult. The current economic crisis, and the consequent lack of funding for government services, is a continuation of this gap between available resources and the costs of the health system. Other related problems, including low salaries for government health workers, lack of supervision and low morale, inefficient staffing patterns, and inadequate drug supply systems, reflect the decline in the performance of the government health system.

Actions Taken

Stagnating economic conditions led to increased international borrowing, followed by a structural adjustment supported by the International Monetary Fund (IMF) and the World Bank. Cost sharing in the government health and education sectors emerged as a major priority and as a challenge to the government pledge of free health services for everyone. By the late 1980s, cost sharing was adopted as a policy for both the health and the education sectors, although it was not implemented successfully until the early 1990s.

In the 1990s, the health reform and financing policies of the Kenyan government supported cost sharing and other specific reforms, including expansion of social health insurance, decentralization, and a greater role for the private health sector. Other areas of health reform with less direct impact on revenues were given less attention.

Results

Cost sharing has been very successful in raising additional revenues, particularly at the larger hospitals. Estimated collections totaled 4 billion Kenya shillings (K Sh) over the 10-year period from 1990–91 through 1999–2000 (equivalent to US$66.1 million). Of that total, K Sh 2.4 billion (US$40.4 million) was from Ministry of Health (MoH) provinces, and K Sh 1.5 billion (US$25.8 million) from Kenyatta National Hospital. These revenues from user fees and health insurance reimbursements at government hospitals and health centers supplemented the declining direct government revenues for

nonpersonnel, while government expenditures for health personnel grew at a much slower rate. The details of the cost-sharing program are discussed in Chapter 3.

Reforms related to the cost-sharing program have been implemented, in particular, decentralization of responsibility for cost sharing by the establishment of District Health Management Boards in 1992 and hospital boards in 1996. Supervision of the cost-sharing program has also been delegated to provincial medical officers.

Other areas of reform, particularly related to the reallocation of resources toward primary and preventive care and the expansion of social health insurance through the National Hospital Insurance Fund (NHIF), have not achieved the same level of success. However, in 2001, NHIF increased its benefit levels by 60% and has begun to improve the efficiency of the reimbursement operations.

Historical Precedents and Health Financing–Related Problems

History and tradition have influenced the financing of health services in Kenya. Kenya came under increasing European influence in the 1800s, was colonized by England until 1963, and remains heavily donor dependent today. For two decades after independence in 1963, Kenya was one of the most prosperous and stable African countries. From 1963 to 1980, per capita output grew by about 3% per year, and the government invested heavily in infrastructure, schools, hospitals, and other public services. Life expectancy rose from 44 years in 1963 to 54 years in 1979 and continued to rise through the 1990s. Population pressure began to take its toll early on. In 1963 the population of Kenya was 8.9 million people, but by 1993 it had reached 24.5 million. At the current growth rate of 3% (down from 3.8% in 1979), the 1999 population was estimated at 28.7 million.

The world economic crisis of the mid-1970s caused economic problems in Kenya that the government struggled with for many years. Per capita economic output fell, and a bad drought in 1984 further slowed agricultural output. Inflation reached record highs of 21% in 1982 and 27% in 1992. The average growth in gross domestic product (GDP) deteriorated from about 7% in the 1970s to 2.2% during 1990–97. Growth recovered to 3.8% in 1994–96 following the implementation of certain liberalization measures and good harvests. However, it fell back to 2.4% in 1997 when bad weather added to economic management problems and political uncertainty, and it fell even lower to 1.8% in 1998 and 1.4% in 1999.[1] Extended periods of drought in 1999 and 2000 further harmed the economy, including reducing supplies of electricity from hydrogenerating stations. In late 2000, GDP growth estimates were reduced to 0.5%.

Per capita expenditures on health declined from US$9.50 in fiscal year (FY) 1980–81 to US$4.50 in FY 1991–92 and to US$3.50 by FY 1997–98. In 1994, 43% of the population (11.4 million people) were below the poverty line according to the Welfare Monitoring Survey. An additional 1 million people were estimated to be below the poverty line in 1997.

Demand for health services increased as the population grew more educated and more affluent. Demand has also been influenced by the AIDS epidemic, refugee problems in neighboring countries, and the increased prevalence of malaria, tuberculosis, and other health problems, including continued morbidity from infectious diseases. In spite of this increased demand, the efficiency, quality, and quantity of health services provided in government health facilities declined from 1980 as a result of inadequate resources and unmotivated health workers, according to information in the *Health Policy Framework.*

As financing of government services became more difficult, the private health sector began to grow. More for-profit hospitals and nursing and maternity homes (usually with fewer than eight beds) were built, more large employers began to finance their own health services, and the health care gap between people with means and the poor increased. The National Hospital Insurance Fund played a key role in the growth of private hospitals and nursing homes. In 1991–92 NHIF changed the employee contribution level from a fixed K Sh 20 per month to 2% of salary for those earning at least K Sh 1,000 per month. This change dramatically increased NHIF revenues and permitted increased payments to health care providers. NHIF reimbursement favored the private sector, which received the major share of the reimbursements. This influx of NHIF reimbursements contributed to the rapid growth of private nursing homes.

Finally, as government resources shrank, a greater percentage of available resources was spent on hospitals and curative care in general. Although the government had espoused a policy of primary health care, family planning, and health promotion, increasingly resources were spent on less cost-effective health services, primarily hospitals.

Government Health Financing Policies

The government of Kenya recognized early on the precarious financing position faced by the MoH. This recognition was reinforced by analyses by the World Bank and other donors and contributed to the imposition of certain conditions for health-sector loans starting in the 1980s. The primary focus of these conditions was the introduction of cost sharing. Under cost sharing, government hospitals and health centers would charge nominal fees to patients and seek reimbursement for services rendered to NHIF members. Seventy-five percent of the revenues from cost sharing would be retained by the facility and spent on nonpersonnel requirements to improve services, and 25% would be retained at the district level for preventive care measures.

Beginning in 1987 the MoH, with support from the U.S. Agency for International Development (USAID), began implementing a series of health financing studies as input into a policy reform agenda for the delivery and financing of health services. These studies documented the funding gap in health services, including assessments of maintenance, transport, drugs, and personnel for preventive services. During this period it was recognized that financing from government sources would not rise in the near future.

One of the culminating activities of the MoH during this period was a study tour of senior government officials to Botswana, Swaziland, the United Kingdom, Mexico, Canada, and the United States in 1989.[2] Three seminal events resulted from these studies and the study tour:

1. Kenya's first *Concept Paper: Strategic Plan for Financing Health Services in Kenya* was written.[3]
2. The MoH initiated its Health Care Financing Program to help implement outlined initiatives.
3. USAID made a commitment to support the implementation of this program and began the Kenya Health Care Financing (KHCF) Project.[4]

Throughout the early financing initiatives, the government of Kenya was enthusiastic about identifying areas of policy that needed to change, supportive of studies that helped determine where policy interventions were necessary, and willing to adopt new policies that supported action. Adopting new policies, it was later found, was easier than implementing them.

National Hospital Insurance Fund

The NHIF was established through an act of parliament through an Act of Parliament as a self-financing department within the MoH in 1966, shortly after Kenya's independence. It was formed as a financing mechanism to improve middle-class Kenyans' access to previously white-owned and -occupied hospitals. NHIF operates as a national social health insurance fund, primarily for employees in the formal sector (both private industry and government). NHIF was established by law as a mandatory scheme requiring all individuals earning above a stipulated amount per month to contribute a portion of their income to a pool of funds.[5] Under the law, no employer contribution is required, so NHIF members pay the entire premium. The act also has a provision for voluntary membership for those not required to join the scheme. Membership in NHIF provides a basic benefit package for the contributor and for a specified number of dependents. The pool of insurance funds is managed by NHIF staff and used to pay the costs of care for members.

As the scheme grew, it accredited both private and mission hospitals and nursing homes for NHIF reimbursement purposes. At the same time, membership types expanded to include voluntary as well as "special" members who are individuals outside of a formal group. By the mid-1990s, approximately 25 million people were eligible for benefits.

In December 1998 the Kenyan Parliament revised the NHIF legislation to facilitate sweeping changes in fund operations. These changes were designed to make NHIF both more independent and more responsible to its membership. The board was made responsible only to the Minister of Health. It was reconstituted to include a wider membership, including contributors (Federation of Kenya Employers), members (Central Organization of Trade Unions, Kenya National Union of Teachers, Kenya National Farmers Union), representatives of private-sector health insurers (Association of Kenya Insurers), and health care providers (mission sector in the form of the Christian Health

Association of Kenya- CHAK), and the private sector in the form of the Kenya Medical Association), as well as the Ministries of Health and Finance and the Directorate of Personnel Management (Civil Service).

In a move to improve management, in mid-2000 the board appointed as executive director an individual with six years' experience managing the health care financing program of the MoH. He began restructuring to focus on improving the efficiency of collection and disbursement procedures, using the large cash surplus as loans to government hospitals, and introducing actuarial expertise in the design of new health benefits packages to be offered to fund members.

Hospital Autonomy Starting at Kenyatta National Hospital

Kenyatta National Hospital (KNH), originally called the Native Civil Hospital, was built in 1901 with 45 beds. It was renamed King George VI Hospital in 1951 and after independence in 1963 was renamed KNH. By 1981 it had a bed capacity of 1,928 and today is the top referral hospital in Kenya. Until 1987 KNH was under the direct control of the MoH, but during the 1980s KNH became overcrowded and was chronically short of critical patient care items and medical supplies and equipment. Its staff was not highly motivated, and the management systems were weak. The MoH retained overall control of management and financing.

A report prepared by a special committee in 1985 recommended that the government seek ways to improve revenue generation, cost containment, and efficiency of service delivery. It identified KNH as the best institution in Kenya to begin the move toward increased managerial autonomy for government hospitals.[6] The report was followed by a review of issues and options financed by the World Bank in 1987. On 10 April 1987 KNH was established by presidential order as a state corporation under the State Corporations Act of 1986.[7]

With the change to state corporation status, ownership of the hospital was retained by the government through the minister for health, but a hospital board was given responsibility for assets, liabilities, and development and management of the hospital. The MoH continued to provide annual development and recurrent funding and retained control over board appointments, funding levels, fee structures, and staff remuneration levels. The board was given authority to generate revenue through cost sharing; to procure goods and services, including hiring and firing of staff; and to pursue available resources to accomplish the hospital's mission.

In July 2000 Moi Teaching and Referral Hospital in Eldoret was granted autonomous status as the second government hospital after KNH based on a government circular issued in 1998. No further steps to formalize hospital autonomy (presumably using the KNH model) have been taken. This issue is particularly important at Coast Provincial General Hospital, where extensive preparations for autonomous status have been made over the past three years.

Decentralization of Health Services Management

Three major policies influenced decentralization in the Kenyan health sector:

1. In the 1970s, the MoH made District Health Management Teams (DHMTs) the focal point for the management of health services in rural areas.
2. The national government's District Focus for Rural Development (DFRD) was introduced in 1985, transferring some authority to lower levels of government.
3. The MoH introduced District Health Management Boards (DHMBs) in 1992 to oversee the use of funds generated through cost sharing.

The DFRD had an explicit policy objective of decentralizing authority to districts, and other MoH-specific policies encouraged decentralization. Decentralization itself was not an explicit health policy objective.[8]

DHMTs: These teams were the initial focus of an integrated approach to health care. Under the Rural Health and Development Project, six Rural Health Training Centers were built and used as sites for management training. Multiple donors supported this effort. USAID financed considerable management training during this time. Due to declining government and donor resources and rapid turnover of DHMT members, DHMT training declined in the 1990s.

DFRD: The DFRD was conceived in the Office of the President and was launched nationwide in 1983 (without any initial pilot program), essentially eliminating the role of provincial governments. The government focused on the key measures of financial and planning management systems. This policy shift required major restructuring of district administration and influenced the roles and functions of DHMTs and DHMBs. After decentralization of authority to purchase drugs, this policy was reversed, and responsibility for pharmaceuticals was transferred back to central medical stores.

DHMBs: The cost-sharing program was established on a decentralized basis at the district level with DHMBs appointed by the president in 1991–92. DHMBs were responsible for collecting, accounting for, and spending revenue from the cost-sharing program for locally agreed-on service improvements. Cost sharing paved the way for further decentralization in the absence of a master plan or an overall political consensus for decentralization. The MoH, with assistance from the KHCF Project, developed operational manuals, and all DHMB members were trained, some more than once, by the mid-1990s.[9] Their initial function was to manage cost-sharing resources at the district level and to approve expenditures of facility-retained revenues.

Hospital Boards: In October 1996, perhaps in part in preparation for the national elections, the government showed renewed interest in further decentralizing health services decision making. The director of medical services appointed boards for district and provincial hospitals, although the extent of their authority is unclear. There have been no formal attempts to clarify their roles, particularly regarding the management of personnel.[10] This issue is discussed in more detail in Chapter 5.

Certain features of the method of decentralization during the 1980s and 1990s influenced the implementation of decentralization in Kenya. First, the parallel decentralizations of the health system through DHMTs and DHMBs and of district administration resulted in two decentralization mechanisms and structures. There were formal links between these two mechanisms, and in spite of the plethora of committees at the district level, the two mechanisms seemed to work well. The responsibilities and relationships at the subdistrict levels were less clear.

Second, neither mechanism addressed the restructuring needed within MoH headquarters. The result was that linkages, communication, coordination, and accountability between national and district levels were complex and confusing. Elimination of the provincial management level was perhaps inappropriate, especially as the number of districts increased by over 50%—from 47 in 1992 to 65 in 2000.

In essence, the districts were decentralized, yet they did not have the authority to manage their own recurrent budgets and personnel. In effect, the policy to decentralize was not followed by the authority to do so.

However, through the cost-sharing program, the MoH has taken specific steps toward decentralizing the management of health services.[11] The first step was building a strong role for the DHMBs in managing the cost-sharing program. More recently, in June 1998, supervision of the cost-sharing program was decentralized to the provincial medical officers. This decision has been supported by the installation of monitoring systems, the implementation of training modules, and the training of key staff, as discussed further in Chapter 8.

Cost Sharing

Cost sharing is the charging of patient fees in government hospitals and health centers to cover part of the cost of the care provided. The introduction of cost sharing meant the end of free services in government health programs starting in 1989. It consisted of both cash collections from patients and insurance reimbursements from NHIF.

Even though initial implementation (e.g., introducing user fees for the first time) in 1989 met with strong political opposition, the program was ultimately expanded and has become an invaluable source of additional nonpersonnel recurrent financing, which has supported critical health-sector programs in times of severe budget constraints.

The guiding principles of the cost-sharing program were as follows:

- All revenue would be retained at the local level—75% at the collecting facility, and 25% at the district level to finance primary and preventive health care. Planning for the use of the money would occur at the local level, following national guidelines. Revenue collected would be in addition to routine budgetary allocations—that is,

budgetary allocations would not be reduced in proportion to the amount of revenue collected.
- Fees would be graduated, based on the level of service and level of facility. Fees would be lower in health centers and higher in hospitals to encourage the appropriate use of services.
- The poor would be protected through a system of waivers and exemptions.

These conditions were reinforced through the provision of grant funds from USAID to the government of Kenya under the second component of the KHCF Project.

Role of Multilateral Donors

The World Bank and the IMF negotiated a structural adjustment program with the government of Kenya in the mid-1980s. Structural adjustment called for reduced government spending, particularly in the service sectors. Structural adjustment in Kenya included two major changes:

1. Privatization of certain sectors of the economy.
2. Introduction and expansion of cost sharing in the health and education sectors.

The Kenyan government endorsed this approach in Sessional Paper No. 1 of 1986, "Economic Management for Renewed Growth," which guided the economy and was endorsed in the 1989–93 National Development Plan.

Financing from the World Bank reinforced the commitment to user fees. The four-year World Bank–funded Health Rehabilitation Project introduced user fees at KNH and then in the provincial general hospitals and eventually the health centers. One condition of the financing was the reintroduction of outpatient fees at government hospitals. The World Bank's Health Rehabilitation Project started in 1995. Its Sexually Transmitted Disease Project of 1996 and its Population Project III and IV, a continuation of ongoing World Bank support to the health sector, supported health financing reforms.

The World Bank reassessed its program for Kenya in 1997 and conducted a thorough review of the performance of its projects in Kenya. The Bank also undertook an extensive consultation with stakeholders in the formulation of the Country Assistance Strategy in 1998. As a result, the Bank's primary focus shifted to improvements in economic governance, including reforms in public expenditure management and steps to reduce widespread corruption. This new approach seems to have gained wide support among other donors.

The 1998 publication *Our Problems, Our Solutions: An Economic and Public Policy Agenda for Kenya* is a compilation of comprehensive analyses and proposals for reform by Kenyan and external experts.[12] It draws on previous work of the Post-Election Action Program, published prior to the 1992 multiparty elections.

Role of Bilateral Donors, Including USAID

During the 1980s and early 1990s, bilateral donors focused much of their assistance on helping the government of Kenya expand its primary health care, disease prevention, and health promotion activities throughout the country. The British and Danish governments supported the central MoH; other donors, such as the Swedish government, supported specific provinces. Few bilateral donors, with the exception of USAID, were interested in supporting the government's health-sector reform efforts in the early 1990s.

USAID concentrated much of its efforts on improving the national family planning program and increasing the availability and use of contraceptives. USAID ranked health financing and health-sector reform as one of its fundamental assistance packages. USAID supported technical assistance to the cost-sharing program through its KHCF Project (1989–95). Recognizing the need to continue its support of successful health financing initiatives, USAID provided technical assistance to the MoH cost-sharing program for another four years, starting in 1997, under the APHIA Financing and Sustainability Project.

By the middle of the 1990s, this picture had changed. In particular, the British government, through its Overseas Development Agency (ODA), and the Danish government, through DANIDA, were active in supporting health-sector and health financing reforms.[13]

Health Financing Policy Objectives

The MoH's 1990 *Concept Paper: Strategic Plan for Financing Health Services in Kenya* called for the attainment of objectives and the implementation of activities in three areas:

1. Revenue generation and mobilization
2. Organization and structure of the health sector
3. Efficiency, effectiveness, and equity in the use of health-sector resources

Revenue Generation and Mobilization: Revenue was to be generated from cost sharing, health insurance, and government financing. The term *cost sharing* was explicitly used to indicate that from that point onward, people had to take some responsibility for financing their own health care. Cost sharing was to be expanded, with the objective of achieving 10% of MoH recurrent costs. The role of NHIF was to be expanded by broadening its membership base, increasing premium contributions, improving premium collection efficiency, and encouraging government hospital claims for reimbursement. Private health insurance was also to be encouraged. Government funding, the MoH indicated, was to increase in real terms with new financing sources through earmarked taxation (cigarettes, alcohol, and car insurance).

Organization and Structure of the Health Sector: In 1993, approximately 61% of the 32,100 hospital beds in Kenya were operated by the MoH (8% in KNH), and 39% by nongovernmental institutions. Within the 39%, nongovernmental organizations (NGOs)

and the mission sector accounted for 27%, and private hospitals for 12%. The MoH share of total hospitals was only 51%, but its share of overall beds was larger due to the larger average size of government hospitals. The government operated 70% of health centers, 62% of dispensaries, and 2% of nursing and maternity homes (96% are in the private sector).

The initial health financing strategy called for continued subsidies (subventions) to nongovernmental (specifically mission) providers and increased user fees. Services and financing of nongovernmental providers would be coordinated with those of the MoH through its annual planning process. Decentralization was to be actively pursued and DHMBs and DHMTs established, and each facility was to develop its own Executive Expenditure Team. Incentives and controls were designed and implemented.[14]

Efficiency, Effectiveness, and Equity in the Use of Health-Sector Resources: Although curative services were considered very important, preventive services, which reduce the need for curative care and are much more cost-effective, were to be emphasized and given priority funding. Public awareness was to be raised. Human resources planning was to be emphasized, and staffing norms reviewed, revised, and implemented. Nonpersonnel expenditures were to be given priority. The allocation of resources among districts was to be revised, with equity considerations in mind; the drug management system improved; and the information system enhanced, leading to greater overall system efficiency. Finally, KNH was to be reformed and made semiautonomous in an attempt to reduce its dependency on government financing and to improve services.

The Kenya Health Care Financing Project and the Health Financing Agenda

The KHCF Project was signed by USAID and the MoH in August 1989 and officially begun in late 1990. KHCF had two components: technical assistance and nonproject assistance. The second component would provide cash transfers to three institutions—KNH, NHIF, and the MoH—upon successful policy change.[15]

By the time the KHCF Project was implemented, the health financing challenges facing Kenya were more pressing than ever. Changes in the cost-sharing program—most importantly, the increased user fees instituted in 1989—had backfired, causing a political backlash that nearly terminated the program. The pervasive belief that health services should be free of charge remained.[16] Recommendations outlined in the numerous USAID-financed and MoH-supported studies were adopted, but little concrete action occurred, with the exception of changes in the cost-sharing program. Kenya's annual population growth was over 3%, and HIV/AIDS was a growing threat. Overall, health system funding was in decline, and no serious action had been taken to change resource allocation from curative to preventive services and from wage to nonwage expenditures.

To address these problems, the objectives of the KHCF Project were to assist the MoH do the following:

- Generate additional resources through cost sharing.

- Use all available resources more efficiently and effectively.
- Reallocate resources from curative care to preventive and primary health services.

One of the first KHCF Project activities was a detailed review of the national health financing situation, documenting operational and policy issues and outlining these issues in a position paper. The position paper was to serve as a source of information, act as a status report, and become a guide for those who were responsible for implementing health financing reforms.[17] This document was followed by the promulgation of the MoH's *Strategic Action Plan for Financing Health Care in Kenya* and its companion *Five-Year Implementation Plan for Financing Health Care in Kenya,* adopted as policy in March 1993.[18]

The strategic action plan called for reforms in the following areas:

- Resource allocation
- Cost sharing
- Private-sector growth
- Social financing
- Efficiency improvements

This strategic action plan provided input into and was in turn supported by a more comprehensive MoH policy document entitled *Kenya's Health Policy Framework of 1994.*[19] The policy framework outlined six strategic imperatives that formed the basis of the MoH's agenda for reform:

1. Ensure equitable allocation of government resources to reduce disparities in health status.
2. Increase the cost-effectiveness and the cost-efficiency of resource allocation and use.
3. Continue to manage population growth.
4. Enhance the regulatory role of government in all aspects of health care provision.
5. Create an enabling environment for increased private-sector and community involvement in health service provision and financing.
6. Increase and diversify per capita financial flows to the health sector.

These two documents outlined the core financing strategies for Kenya, as well as the specific reform initiatives to be implemented. Implementation of the specific finance-related initiatives outlined in these documents is summarized in Chapter 3.

In the latter half of the KHCF Project, activities to identify and implement NHIF reforms were terminated, cash transfers to NHIF for policy reforms were eliminated due to nonperformance by NHIF and the MoH, and more emphasis was placed on health insurance programs and private-sector development. This shift was not the result of bad policy but the result of a lack of commitment to implementing reforms that had been identified in policy documents.

In 1999 the MoH prepared a health-sector strategic plan for the period 1999 to 2004. Based on the *Health Policy Framework,* this plan provided a comprehensive articulation of the Ministry's plans to implement the policy reforms outlined in 1994.

Kenya's Influence in the East and Southern Africa Region

Kenya played an important role in the East and Southern Africa (ESA) region by generating national-level interest in health financing as part of a major policy and health-sector reform agenda. Many countries sent delegations to Kenya to learn about its health financing reform efforts, with a specific interest in how Kenya implemented its cost-sharing program. In addition, Kenyan reforms were used to initiate a regional health financing network implemented by USAID's Regional Economic Development Office for the ESA region. Through this network, Kenya's experiences were shared with other countries, and other more advanced national programs influenced Kenya's direction. As noted earlier, for example, one of the initial activities was a visit by senior government officials to Botswana and Swaziland, where user fee programs had been in place for some time. Kenyans also learned about health insurance from Zimbabwe and South Africa and about decentralization from Uganda and Tanzania.

This sharing of information and the regional swelling of interest in health-sector and health financing reform provided positive support to Kenya's MoH and added legitimacy to Kenyan efforts to implement reforms. Regional organizations picked up on reform efforts, encouraged innovation, and supported individual country reforms.[20] The Commonwealth Regional Health Community Secretariat for East, Central, and Southern Africa was particularly interested in supporting health financing reforms and early on identified health financing as an important topic for reform.[21]

Lessons Learned

1. Generally speaking, the health reforms were rarely implemented as intended. Initial reform efforts were aimed at identifying and, if necessary, studying health financing and health system problems faced by the public and private sectors in Kenya. The emphasis was on formulating and adopting the best and most appropriate policies as the platform and road map for positive change. In an ideal world, good policies would lead to good programs that would directly reduce health-sector problems.
2. The policies that were addressed most comprehensively were those related to cost sharing and the elements of decentralization that accompanied it, such as the establishment of DHMBs. The government of Kenya did an outstanding job of implementing its cost-sharing program.
3. Other planned reforms did not fare as well. The reallocation and efficiency improvement strategies were not effectively implemented. Reforms related to the NHIF were never carried out as planned. The roles and functions of the central MoH were not appreciably altered, and the government did not effectively or aggressively promote the private sector or private health insurance. It is impossible to determine

whether these reforms were too difficult or complex to implement or whether they lacked political support from the outset.

4. MoH officials did not have full authority to implement many of the reforms. In addition, they had to focus on responding to crises in the Ministry of Health, such as the doctors' strike in 1995 and the nurses' strike in 1997.
5. Health financing and health-sector reform is essentially a politically driven process. Proposed reforms usually generate strong opposition, which require tremendous political will to overcome. In Kenya, as in most countries, it is difficult to mobilize political support for all reforms. Priorities are often set by what is politically feasible.
6. Sometimes good programs implemented on an ad hoc or pilot basis can shape good policy, even when there is no defined policy. Small health insurance initiatives in the private sector and retention of health center revenue are two examples of local efforts helping to shape government policy.
7. It is easier to redirect new resources than it is to reallocate old resources. Cost sharing has been more successful than attempts to reallocate resources from curative care to preventive care, for example.
8. Large central ministries are much harder to change than are individual health care institutions. Reform of ministries is very difficult without strong political support.

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[1] Economic Survey 2000.

[2] The studies were implemented by the REACH Project of John Snow, Inc.

[3] The concept paper was outlined in a report developed by the REACH Project and the MoH entitled *Kenya Ministry of Health, Health Care Financing Strategic Planning Mission* (11 August–10 September 1990).

[4] The KHCF Project was implemented by Management Sciences for Health beginning in 1990.

[5] Government of Kenya, National Hospital Insurance Fund Act (cap. 255), 1966.

[6] Government of Kenya, *Kenya Gazette,* Supplement No. 29, Legal Notice No. 109 (annex 2), April 1987.

[7] Government of Kenya, *Kenya Gazette,* Supplement No. 29, Legal Notice No. 109 (annex 2), April 1987.

[8] Susan Cohen, James Mwanzia, Isaac Omeri, and Samuel Ong'ayo, *Decentralization and Health Systems Change in Kenya: Revised Case Study* (World Health Organization, Strengthening Health Services Division, July 1995) (based on an original case study conducted in November 1993).

[9] An example of the manuals provided to the DHMTs and DHMBs was the one entitled *District PHC Planning and Budgeting Process* (Ministry of Health, Primary Health Care Unit, Health Care Financing Program, 27 May 1994).

[10] Charles C. Stover, "Financing, Service Delivery, and Decentralization in the Philippines and Kenya," in *Myths and Realities about the Decentralization of Health Systems,* ed. Riitta-Liissa Kolehmainen-Aitken (Boston: Management Sciences for Health, 1999).

[11] Riitta-Liissa Kolehmainen-Aitken, ed., *Myths and Realities about the Decentralization of Health Systems* (Boston: Management Sciences for Health, 1999).

[12] Wamuyu Gatheru and Robert Shaw, eds., *Our Problems, Our Solutions: An Economic and Public Policy Agenda for Kenya,* comp. Institute of Economic Affairs (Nairobi, 1998).

[13] ODA supported MoH reforms by placing a resident adviser in the Ministry. ODA's technical adviser was instrumental in assisting the MoH to develop Kenya's health policy framework, adopted as policy by the MoH in 1994. ODA also financed a mission in 1996 to review reform options related to the role and function of the MoH. A DANIDA-financed technical assistance team outlined its support for health reform in a document entitled *Sector Programme Document: Kenya Health Sector Support Programme* (February 1995).

[14] Kenya's decentralization initiative was begun in 1984 and was enhanced by the development of a decentralization plan finalized and adopted by the MoH in 1989.

[15] Oscar Picazo, David Pyle, and James Setzer, *Final Evaluation: Kenya Health Care Financing Project* (24 May 1996).

[16] The provision of free health services was a fundamental political platform of KANU's manifesto in 1963. This platform was supported in 1965 by Sessional Paper No. 1, "African Socialism and Its Application to Planning in Kenya," developed by the Kenyan Parliament.

[17] MoH, Health Care Financing Program, *Health Care Financing Programme Position Paper* (1 July 1991).

[18] MoH, Government of Kenya, *Strategic Action Plan for Financing Health Care in Kenya* (March 1993), and *Five-Year Implementation Plan for Financing Health Care in Kenya* (13 August 1993).

[19] MoH, *Kenya's Health Policy Framework* (November 1994).

[20] The extent of regional activities in health financing and the number of individuals involved in finance-related reforms was documented by the Regional Economic Development Office for East and Southern Africa in Daniel Kraushaar, *Inventory of Donor-Funded Activities in Health Financing and Health Sector Reform in East and Southern Africa* (31 May 1996).

[21] The Secretariat supported annual regional meetings such as the one held in Gaborone, Botswana, in July 1996 and documented its findings and recommendations in *Proceedings of the Health Financing Planner's Joint Consultative Meeting on Financing the Programmes of the Health Community: Health Care Financing in East and Southern Africa* (July 1996).

CHAPTER 3. REFORMING THE HEALTH SECTOR: THE SUCCESS OF COST SHARING

Summary

Problem

Declining economic conditions and strained government resources forced serious attention to health-sector reforms, particularly those related to increasing revenue. The cost-sharing program, started in 1989, accomplished a policy shift from free care in government health facilities to modest payments by patients. That program was implemented in phases through 1994–95. At that time it was clear that changes in the management of the program were necessary to increase revenue, decrease fraud, and strengthen accountability.

These changes took place from 1996 through 2001. The major focus of cost sharing during this period was increasing revenues in the large government hospitals to address their funding crisis, in some cases threatening collapse of the institution's services. As a result of restricted government funding, maintenance and operating expenses were cut dramatically, in an effort to preserve funding for staffing. Cost-revenues were more critical than ever before and in many cases prevented hospital services from collapsing.

During the 1990s, changes in government operations, such as civil service reform, Ministry of Health (MoH) restructuring, reallocation of funds from curative to preventive care, hospital autonomy, and National Hospital Insurance Fund (NHIF) operations, were also pursued as part of several reform initiatives.

Actions Taken

The MoH successfully implemented a cost-sharing program in the health sector with technical assistance from the U.S. Agency for International Development (USAID) through the Kenya Health Care Financing (KHCF) and APHIA Financing and Sustainability (AFS) Projects, both of which were implemented by Management Sciences for Health (MSH). Benefits of the technical assistance included increased health insurance financing through the NHIF in the early 1990s, and decentralization of the cost-sharing program.

The AFS Project assisted with the introduction of cash registers in provincial hospitals to reduce fraud and increase accountability and revenue. The successful introduction of networked cash registers at Coast PGH created strong interest by MoH to replicate this approach in other government hospitals. The AFS Project assisted the MoH to introduce networked cash registers in seven other PGHs. A simpler system, using stand-alone cash registers, was implemented in eight district hospitals.

In addition to providing technical assistance to strengthen the cost-sharing program, the AFS Project helped many innovative initiatives in the governmental, nongovernmental organization (NGO), and private health sectors to improve the efficiency and effectiveness of their services.

Results

Nearly K Sh 4 billion (US$67 million) was collected in cost-sharing revenue, which made a positive contribution to preserving and, in many cases, improving services in hospitals while government support declined relative to inflation. These cost-sharing revenues provided the means for many hospitals to continue operating despite reductions in government funding. Other reform initiatives were less successful, although progress was achieved in most areas despite the declining economic conditions.

The initial expansion of NHIF reimbursements in the 1990s has tapered off since 1998, with little additional revenue from NHIF despite continued increases in fee collections. Recent changes in the board, director, and policies at NHIF have started to reverse this trend. NHIF recently increased its benefit levels by 60%, and is implementing measures to speed the flow of NHIF reimbursement to hospitals.

Hospital autonomy was accomplished for Kenyatta National Hospital (KNH), but efforts to extend it to provincial general hospitals have stalled, with the exception of Moi Teaching and Referral Hospital effective July 2000. Hospital autonomy at Coast PGH has not proceeded, despite the major steps to increase revenues and improve services in preparation for autonomous status. The MoH has decentralized decision making for the collection and use of cost-sharing revenue, but decentralization of other government functions has not been implemented.

Focus of the AFS Project

All financing reforms in Kenya were aimed at increasing financial resources through cost sharing and social financing and at using those resources more efficiently and effectively. Covering the gap between available and needed resources was an initial priority for reforms.[1] As a result, raising revenue became the government's top priority, requiring improvement and expansion of the MoH's cost-sharing program and enhancement of NHIF operations. These were two of the priorities of the Kenya Health Care Financing Project, along with strengthening the operations of Kenyatta National Hospitals.

The AFS Project has four priorities for technical assistance in cost sharing. First is to increase revenues in the large government hospitals to respond to the funding crisis. Second is to make management of the cost-sharing program self-sustaining without donor support. Third is to ensure proper use of collected funds, through controls over leakage, fraud, and abuse. Fourth is to improve the quality and availability of services, with an emphasis on re-engineering Coast Provincial General Hospital.

This chapter summarizes the activities and results of the first priority- to increase hospital revenues. The other three objectives are discussed in Chapters 8, 4, and 4, respectively.

Boosting Hospital Revenue

It was apparent that the management capacity of the central MoH was insufficient to meet the challenge of running the nationwide cost-sharing program. It was unable to control the entire

program from the center. The span of control was too great, and there were too few trained and capable staff members to oversee the national program from MoH headquarters in Nairobi.

At the same time, the provincial and district hospitals were shown to have the greatest potential for generating revenue and targeting it toward essential patient care. Managerially there was no way that the Division of Health Care Financing (DHCF) could move the entire MoH infrastructure, and reporting rates from health centers and dispensaries were so low that it was evident that full decentralization had already occurred. The local facilities were in charge, and the DHCF had limited control.

As a result, an explicit strategy was developed that focused on boosting hospital revenue. This was entirely in accord with policy, in that increasing the revenue-generating capacity and revenue-collecting efficiency in hospitals was an important step to be taken before hospital autonomy. If hospitals could substantially increase revenue and manage its allocation to support key patient care services, they could become more autonomous in their operations.

Steps to Assure Equity of Access

The AFS Project team was well aware of the concerns that increased user fees usually result in reduced access to services by the poor. Two recent studies, published by MSH and based in part on studies in Kenya, "Ensuring Equal Access to Health Services"[2], and "User Fees for Health Services: Guidelines for Protecting the Poor"[3], highlight the problems faced by the poor, including not seeking care when there are user fees, and/or having to pay fees when those fees should have been waived under the guidelines.

While recognizing the critical importance of the equity issue, the AFS Project did not address it for three reasons. First, the MoH priority was given to increasing revenues to address the urgent financial crises in the hospitals. Second, the introduction of cash registers themselves increased collections by reducing leakage and fraud, and should not have affected access to services by the poor. Third, when the AFS Project proposed a major study of the impact of cash registers and increased collections on access by the poor, both the MoH and USAID considered that issue less important than extending the cash registers to all the provincial general hospitals and some of the district hospitals.

Frame of Reference for Assessment of Reforms

The frame of reference used here is derived from the key points in the health reform policy documents described in Chapter 2. The areas of reform are addressed through specific experiences, rather than comprehensive assessments, in the chapters of this report. The focus is on technical assistance work that was within the scope of the AFS Project from 1996 to 2001, as well as the KCHF Project from 1990 to 1995. Reform activities outside the scope of these projects are not addressed.

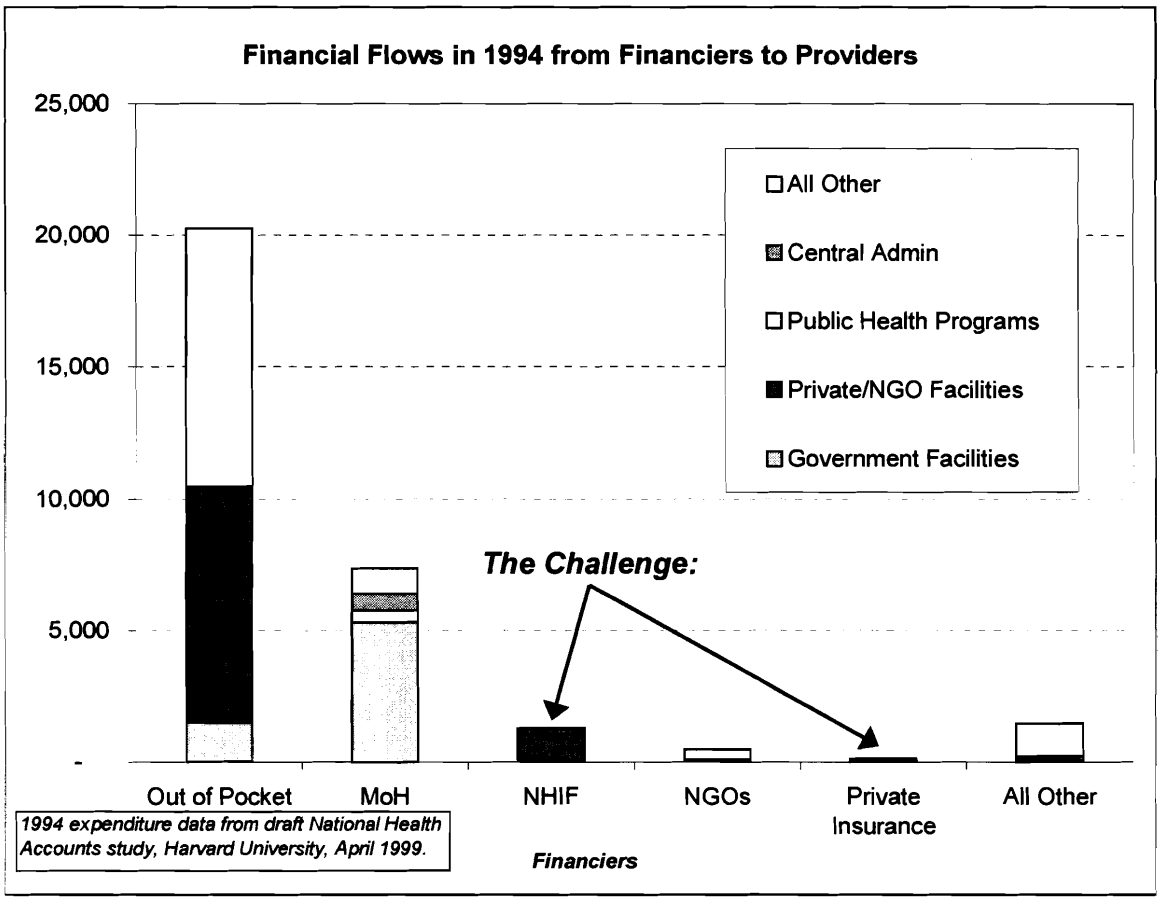
Table 3-1
Reform Agenda and Chapter References

Reform Strategy	Chapter Reference
Greater revenue generation/ mobilization	Chapter 3 Chapter 8
• Government expenditures	Chapter 3 Chapter 4
• Cost sharing	Chapters 3, 4, 7
• Social health insurance through NHIF	Chapters 3, 4
• Private health insurance	Chapter 9
• Managed care (health maintenance organizations [HMOs])	Chapter 9
More equitable resource allocation	
Private-sector growth	Chapter 9
Efficiency improvements	Chapters 10, 7 Chapter 6 Chapter 5
Other reform initiatives	Chapter 9

Greater Revenue Generation and Mobilization

This strategic objective is based on the problem of the large proportion of health expenditures paid out of pocket by patients, the small share contributed by social health insurance through NHIF and private insurance, and the decline of government resources for health. Figure 3-1, based on financial flows in the health sector in 1994, shows that personal out-of-pocket expenditures were nearly three times the government allocations and nearly 20 times the NHIF contributions at that time.[4] There is good reason to believe that this mix of funding sources has not improved and still rests heavily on personal payments.

Figure 3.1: The Challenge
(K Sh million)



Government Expenditures

The total government treasury commitment for the MoH, including KNH, increased 10-fold over the 20-year period from 1979–80 to 1999–2000, from 53.7 to 543.7 million Kenya pounds (K£).[5] Over the past 10 years, government expenditures increased nearly fourfold, from K£140.8 million to K£543.9 million. Government expenditures peaked in 1997–98 at K£666.9 million and decreased substantially over the next two years due to fiscal pressures in the overall budget. Although the increases through 1997-98 were substantial and put considerable strain on the government's budget, they generally did not keep up with inflation and hence permitted little improvement in MoH programs.

Table 3-2
Government Treasury Commitments
Nominal Terms (not adjusted for inflation)
(K£ million)

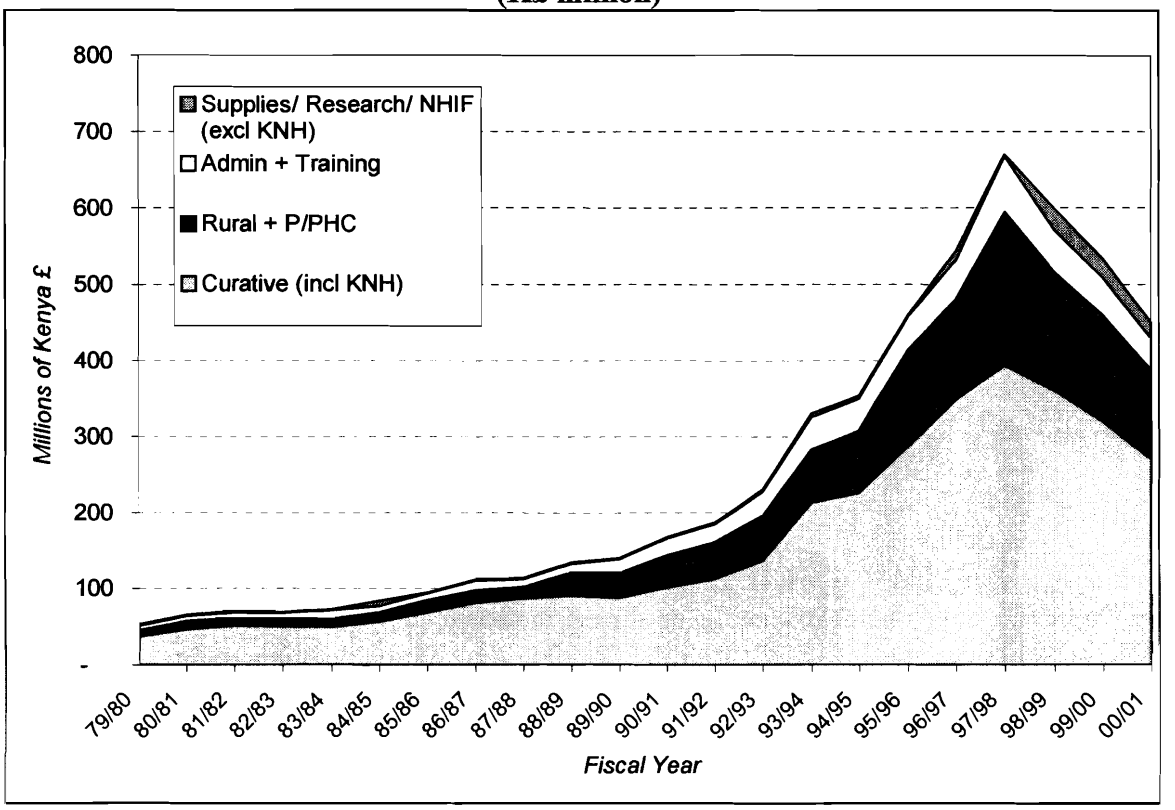
Year	Curative (incl. KNH)	Rural + P/PHC	Admin + Training	Supplies/ Research/ NHIF (excl. KNH)	Total
1979–80	37.1	8.6	5.7	2.2	53.7
1984–85	57.0	11.5	8.3	7.3	84.1
1989–90	88.8	32.5	18.2	1.3	140.8
1994–95	225.8	81.8	42.0	4.2	353.8
1995–96	286.6	128.2	43.0	2.3	460.1
1996–97	300.0	166.9	67.8	2.0	536.4
1997–98	369.1	214.8	79.4	3.6	666.9
1998–99	355.4	109.8	41.4	6.0	512.6
1999–2000	357.5	114.9	70.0	1.5	543.9

(NOTE: One Kenya pound equals 20 Kenya Shillings)

Inflation was high in the early 1990s, peaking at 46% in 1992–93. Starting in 1994–95, inflation has been moderate, except for 11.2% in 1996–97. When the inflation figures are used to adjust the government expenditures into real (inflation-adjusted) terms, the financial picture becomes more discouraging.

Figure 3-2 shows the peaking of government expenditures in 1997-98, followed by a sharp drop in 1998-99 and a partial recovery in 1999-2000.

Figure 3-2: MoH Recurrent Budget
Nominal Terms (not adjusted for inflation)
(K£ million)



The expenditure data in Table 3-2 and Figure 3-2 are in nominal terms- not adjusted for inflation. Table 3-3 shows the rate of inflation from year to year that is the basis for calculating the expenditure data in real terms- adjusted for inflation. Data in real terms indicated the level of spending relative to changes in costs of living as represented by inflation.

Table 3-3: Inflation Rates in the Last Several Years

Fiscal Year (FY)	*Inflation (%)*
1988-89	*13.3%*
1989-90	*15.8%*
1990-91	*19.6%*
1991-92	*27.3%*
1992-93	*46.0%*
1993-94	*28.8%*
1994-95	*1.6%*
1995-96	*9.0%*
1996-97	*11.2%*
1997-98	*6.6%*
1998-99	*3.5%*
1999-2000	*7.0%*
2000-01	*7.0%*

In real terms, using 1985-86 prices as the base level, government treasury commitments for the MoH declined during the 1980s and again during the early 1990s. They rose to a peak in 1997–98, when expenditures were nearly at the 1979–80 level, before declining again. Table 3-4 shows that the government's expenditures have not kept up with inflation; thus, the impact on the institutions, with their rising costs, has been a gradual steady decline in support and in the real value of wages. This decline in support is further exacerbated by the effects of population increases; even fewer resources are available for health on a per capita basis.

Table 3-4
Government Treasury Commitments
Real Terms (prices set at 1985–86 level)
(K£ million)

Year	Total
1979–80	115.2
1984–85	94.7
1989–90	97.2
1994–95	73.6
1995–96	94.3
1996–97	100.8
1997–98	112.7
1998–99	81.3
1999–2000	83.3

Cost-Sharing Program

Revenues from patient cash payments and NHIF reimbursements have increased dramatically since the start of the program in 1989–90. A total of K Sh 4 billion was raised from 1989–90 through 1999–2000. These amounts translate into a total of US$67 million, using the annual exchange rates as outlined in the following table.

Table 3-5
Annual Collections
(K Sh million and US$ million, fiscal year basis)

Fiscal Year	Total Cash and NHIF Billings (K Sh million)	Exchange Rate (K Sh to US$1)	Total Cash and NHIF Billings (US$ million)
1989–90	21.4	25	.9
1990–91	63.4	30	2.1
1991–92	69.3	35	2.0
1992–93	134.9	70	1.9
1993–94	242.7	60	4.0
1994–95	330.2	58	5.7
1995–96	413.4	62	6.7
1996–97	467.9	55	8.5
1997–98	554.0	60	9.2
1998–99	767.1	58	13.2
1999–2000	928.6	73	12.7
Total	**3,992.9**		**67.0**

(NOTE: Recent figures for 1999-2000 show Total Cash and NHIF billings equal to K SH 948.8 million, compared to the estimated totals in Table 3-5 above. These figures are subject to further verification.

The most dramatic percentage increases took place in the early years of the program, due to the very small numbers at the outset. During the period of the AFS Project, as shown in Table 3-6, total cost-sharing revenue increased by 125.6%, from K Sh 413.4 million in 1995–96 to K Sh 928.6 million, well in excess of the inflation rates during that period.

Table 3-6
Annual Collections
MoH and KNH Combined
(K Sh million, fiscal year basis)

Fiscal Year	Total Cash and NHIF Billings	Change from Prior Year (%)	Change from 1995–96 (%)
1995–96	413.4		
1996–97	467.9	13.2	13.2
1997–98	554.0	18.4	34.0
1998–99	767.1	38.5	85.6
1999–2000	928.6	21.1	125.6

Cost-sharing revenue came primarily from the large hospitals, with KNH accounting for 41.4 % of the revenue over the five-year period of the AFS Project. The KNH share of total revenue increased from 30.7 % in 1995–96 to a high of 50.2 % in 1997–98, and decreased again to 40% in 1999–2000 as a result of more rapid revenue increases in the provincial hospitals.

Table 3-7
MoH and KNH Collections
(K Sh million, fiscal year basis)

Fiscal Year	MoH Collections	KNH Collections	Total MoH and KNH Collections	KNH Share of Total (%)
1995–96	286.4	127.0	413.4	30.7
1996–97	282.0	185.9	467.9	39.7
1997–98	276.0	278.0	554.0	50.2
1998–99	436.7	330.4	767.1	43.1
1999–2000	554.5	374.1	928.6	40.0
Total	**1,835.6**	**1.295.4**	**3,131.0**	**41.4**

As expected, the large hospitals account for almost all the cost-sharing revenue. KNH was by far the largest revenue-collecting institution in 1999–2000 (see Table 3-8). The provincial general hospitals collect an average of K Sh 26.4 million per year, and the district hospitals an average of K Sh 3.8 million. The AFS Project targeted initiatives in the provincial hospitals, since KNH was already achieving high levels of revenue collection, and data showed that the provincial and district hospitals were collecting substantially below their potential revenue. The seven largest hospitals account for 60.2% of all cost-sharing revenue. The 73 largest hospitals collect 87.1% of all revenue but account for only 16.6% of all facilities. These data also suggest that a continued focus on collections in hospitals, and perhaps discontinuation of cost sharing in health centers, would be an effective strategy for the next phase of cost sharing.

Table 3-8
Cost Sharing by Type of Facility, 1999–2000

Type of Facility	Estimated Amount Collected (K Sh million)	% of Estimated Total	Cumulative % of Total	Number of Facilities	Average Amount per Facility (K Sh million)
Kenyatta National Hospital	374.1	*40.3%*	*40.3%*	1	374.1
Provincial general hospitals	185.1	*19.9%*	*60.2%*	7	26.4
District hospitals	249.2	*26.8%*	*87.1%*	65	3.8
Subdistrict hospitals	57.8	*6.2%*	*93.3%*	36	1.6
Health centers	51.6	*5.6%*	*98.8%*	433	.1
Annexes	9.7	*1.0%*	*99.9%*	3	3.2
Other	1.0	*0.1%*	*100.0%*		
Total	**928.5**	***100.0%***		**544**	**1.7**

In per capita terms, cost-sharing revenue increased from K Sh 2.7 in 1990–91 to 5.6 in 1994–95 to 30.6 in 1999–2000. Although K Sh 30.6 is a small amount (about US$0.42), the most significant data would be the average charges paid by hospital patients over time and their distribution. These data are not currently available, but they would be worth considering for an analysis of the payment burden on patients.

Table 3-9
Cost-Sharing Revenue per Capita
(MoH and KNH)

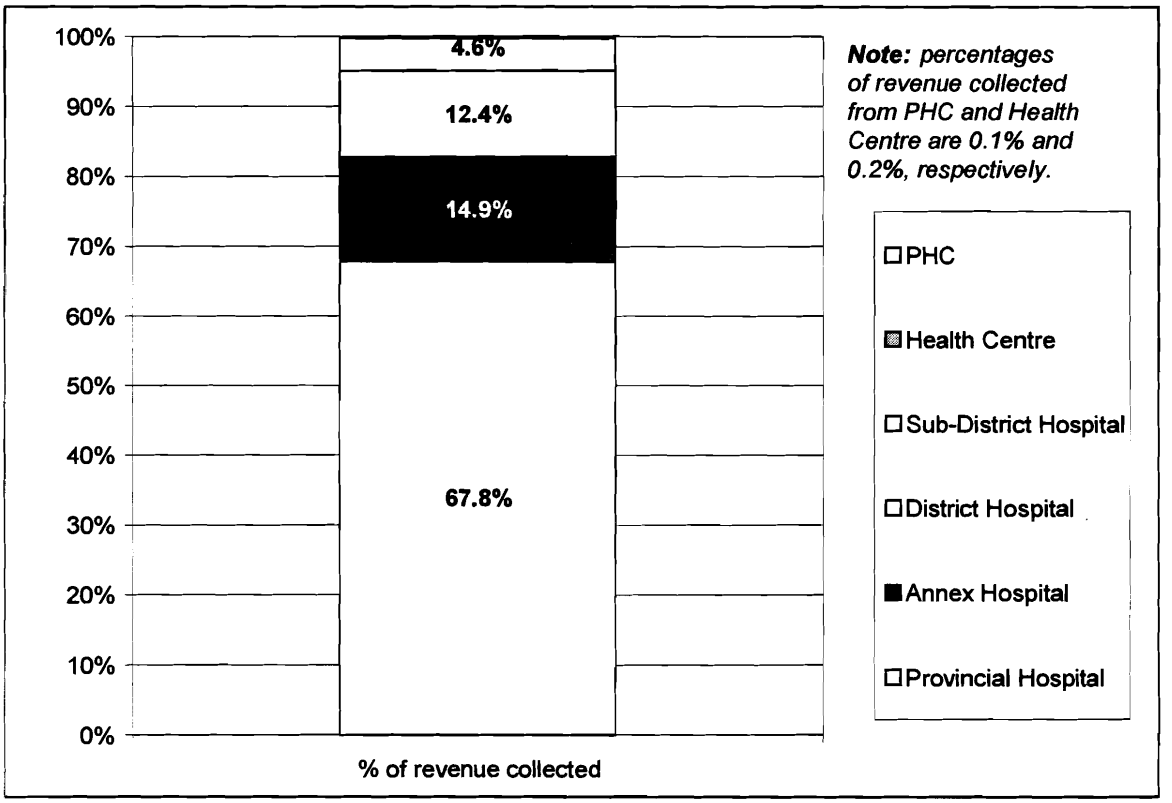
Fiscal Year	Currency		Population (in millions)
	K Sh	US$	
1990-91	2.7	0.09	**23.8**
1994-95	5.6	0.21	**27.3**
1999-2000	30.6	0.42	**30.3**

Despite the rapidly growing cost-sharing revenue, cash collection performance remained significantly lower than expected. Absconding, inefficiency, and fraud were the likely reasons for poor collection performance under the old system, which used manual receipt books. Since 1996, the cost-sharing program, with support from the AFS Project, has focused on improving collection efficiency and thereby increasing revenue in provincial and district hospitals.

Figure 3-3 shows that for Coast Province, the provincial hospital accounts for nearly 75% of all revenue collected. By focusing on increasing collections at Coast Provincial General Hospital,

the cost-sharing program was expected to help offset the large demand by hospitals for government revenue. The AFS Project has supported the MoH cost-sharing program to increase revenue in provincial hospitals. The successful experience with installing cash registers is described in Chapter 4.

Figure 3-3: Percentages of Revenue Collected in Coast Province



National Hospital Insurance Fund

NHIF insures up to 25% of the Kenyan population against some of the costs of hospitalization. The actual amount of insurance coverage, however, is limited to the fixed amount per day paid by NHIF. The member must pay the difference between the actual bill and the NHIF reimbursement, which has resulted in a reverse subsidy from lower-income members to higher-income members who can afford to pay the balance. Like most health insurance, NHIF covers only inpatient care and does not cover less expensive but more frequent outpatient treatment. The complexity of the NHIF claims procedure also limits the amount of money actually paid to patients and hospitals. Recently, NHIF has revised its procedures to make reimbursement to government hospitals easier.

The initial NHIF cost-sharing experience was extremely positive. Prior to cost sharing, MoH hospitals had not submitted claims to NHIF. After training hospital staff to prepare, submit, and follow up claims to NHIF, reimbursements in 1992–93 totaled K Sh 32.8 million, compared with zero in the previous year.

Table 3-10
Level of NHIF Reimbursements
MoH and KNH Collections
(K Sh million, fiscal year basis)

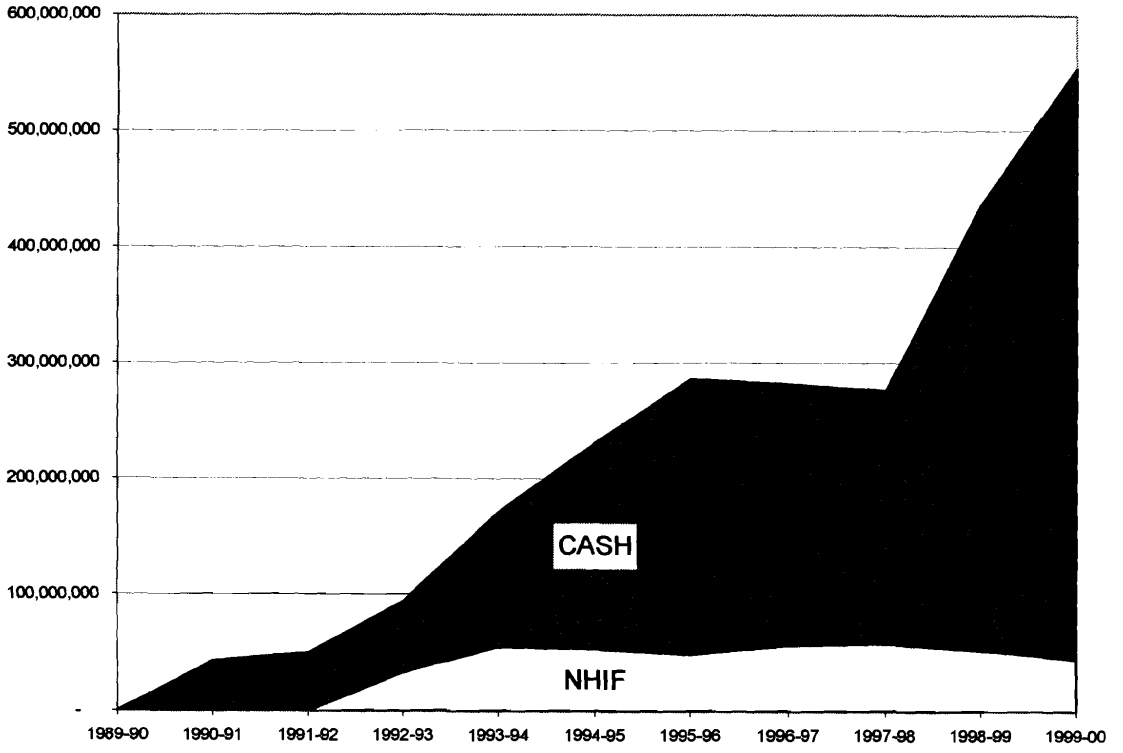
Fiscal Year	Total Cash Receipts	NHIF Receipts	Total Cash and NHIF Receipts	NHIF's Share of Total (%)
1992–93	60.6	32.8	93.4	35
1993–94	116.6	54.8	171.4	32
1994–95	177.8	53.0	230.8	23
1995–96	237.7	48.7	286.4	17
1996–97	225.6	56.4	282.0	20
1997–98	218.0	58.0	276.0	21
1998–99	384.3	52.4	436.7	12
1999–2000	510.1	44.4	554.5	8

The goal of increased revenue from NHIF claims was partially achieved in the early 1990s. NHIF paid out larger volumes of claims and increased its reimbursement rates, substantially increasing cost-sharing revenue in both public and private hospitals. NHIF can be credited with promoting the growth of private facilities throughout the country. In public-sector facilities, this increase in revenue resulted not from improved claims procedures at NHIF, but from aggressive training of hospital staff and active follow-up of claims. In spite of this, claims were significantly lower than expected, due to cumbersome claims processing procedures and lack of automation at NHIF.

Although revenue from NHIF to MoH facilities increased from zero in 1991–92 to K Sh 54.8 million in 1993–94, it has remained relatively constant since then and even dropped significantly to K Sh 48.7 million in 1995–96 and to K Sh 44.4 million in 1999–2000. NHIF revenue also dropped significantly compared with the rapid growth in cash collections under cost sharing. In 1992–93 NHIF revenue made up 35% of all cost-sharing revenue. By 1999–2000, that amount had dropped to 8%.

Figure 3-4 illustrates that NHIF reimbursements have not kept up with cash payments and that the cost-sharing program has depended on out-of-pocket expenditures for most of the increases. As a result, the objective of expanding insurance to offset the large out-of-pocket payments by patients has not been achieved. This topic is also discussed in Chapter 5, with specific reference to the experience at Coast Provincial General Hospital.

Figure 3.4: Cost Sharing Revenues
(K Sh million)



More Equitable Resource Allocation

Reallocation Strategies from Curative to Primary and Preventive Services

Primary and preventive health care (P/PHC) services accounted for just 16.1% of MoH recurrent expenditures in FY 1979–80, while hospitals utilized about 66.2%. The share of government treasury commitments for rural and P/PHC services increased to 23.1% in 1989–90 and peaked at 31.1% in 1996–97 before dropping to 21.1% in 1999–2000. However, the government did make substantial increases in allocations for rural and P/PHC up to 1996-97. Donor funds are included in the government commitments, so it impossible to determine from these data to what extent the changes in allocation are due to the government's own funding commitments, and to what extent donor patterns have changed.

Table 3-11
Government Treasury Commitments, % Distribution
Nominal Terms (not adjusted for inflation)
(K£ million)

Year	Curative (including KNH)	Rural + P/PHC	Administration and Training	Supplies/ Research/ NHIF (excluding KNH)	Total
79–80	37.1	8.6	5.7	2.2	53.7
%	69.2%	16.1%	10.6%	4.2%	100.0%
89–90	88.8	32.5	18.2	1.3	140.8
%	63.1%	23.1%	12.9%	0.9%	100.0%
96–97	299.8	166.9	67.8	2.0	536.4
%	55.9%	31.1%	12.6%	0.4%	100.0%
99–00	357.5	114.9	70.0	1.5	543.9
%	65.7%	21.1%	12.9%	0.3%	100.0%

The *Strategic Action Plan for Financing Health Care in Kenya* called for allowing budget growth to increase resources for PHC, while curative care and hospital spending would be capped at previous years' levels. These data suggest that the strategy was at least a partial success through 1996-97, but it could not be sustained in recent years.

Lessons Learned

Cost Sharing

1. Cost sharing successfully increased revenue from patients and NHIF reimbursements much faster than inflation and government revenue, despite the declining economic conditions of the past decade. In most cases, cost sharing prevented a decline in services, and even collapse, and also contributed to improved services in certain institutions.
2. Systematic introduction of policies and system changes proved important in introducing cost sharing. An early emphasis on the development of management systems, guidelines, training, and gradual introduction of fee changes enhanced acceptability.
3. The nearly universal experience of actual revenue collections being below targets reflects in large part the undercollection of fees. Based on the experience at Coast Provincial General Hospital, much of this undercollection reflects leakage and abuses by collection staff and can be corrected through the effective use of cash registers.
4. The cost-sharing program is essentially a program for MoH hospitals. Additional focus on achieving positive results in other hospitals, coupled with a phasing out of user fees in health centers, should be considered.
5. The MoH lost central control over the cost-sharing program due to a lack of adequate supervision and an unwillingness to authorize fee increases in light of inflation and declining

government revenue, particularly in 1995–97. As a result, many hospitals set their own fee schedules and do not fully respect the MoH's cost-sharing guidelines and policies. Since 1997, the MoH has strengthened its management of the system and has decentralized direct supervision to provincial medical officers.

6. Despite the existence of a specific waiver system designed to protect the poor in the cost-sharing program, not many waivers were issued. The provision of free services (exemptions) for certain population groups, illnesses, or facility levels was more effective in the early stages of cost sharing. The experience of the last several years is less clear, since the issue of waivers and exemptions for the poor has not been studied explicitly.

NHIF

1. NHIF contributed in a major way to the success of cost sharing in the early to mid-1990s, as well as to the growth of the private health sector. More recently, it has not kept pace with the changes in cost sharing. As a result, the burden of payment is falling increasingly on patients rather than on health insurance.
2. As a large national health insurer pooling risk and paying providers, NHIF is acting as a *passive payer* of claims rather than an *active purchaser* of health services. Many of the reforms suggested for NHIF imply a more active purchaser role that is not feasible at present.
3. NHIF lacks many of the sophisticated management skills and systems that are needed to run a national scheme effectively and efficiently. Despite its close links to the MoH, NHIF has not consistently supported the MoH policy goals of increasing revenue to public health facilities. NHIF policies and procedures have made reimbursement difficult for many government hospitals.
4. NHIF has substantial financial resources to implement higher reimbursement levels and improve its management systems.
5. Reforms implemented beginning in mid-2000 may be a starting point for a broader and more effective role for NHIF in financing health care in Kenya. Although the early signs are encouraging, it is too early to measure the impact of the changes.

Reallocation of Government Resources to P/PHC

1. Although the government was able to increase its share of funds for P/PHC through the mid-1990s, it has not been able to continue that commitment.
2. Since donor funds pass through the government treasury allocations, it is unclear to what extent the changes in P/PHC funding result from government or donor contributions.

General Observations

1. Introducing new financing sources was easier than changing existing consumer, provider, or government behavior. Although making better use of existing resources might have seemed the easiest financing option, it was actually easier to generate additional money through cost sharing than to change the way resources were allocated.
2. Good policy did not necessarily lead to good programs. Because many donors and international organizations in Kenya had believed that it would, priority was given to

influencing the development of appropriate financing policies. In reality, policies were relatively easy to change, but implementation of policy was much harder to achieve.

3. Multiple reform initiatives, although linked in policy terms, proved difficult to implement simultaneously. The sustained focus on cost sharing has produced good results. Similar sustained focus on other reforms is appropriate at this time.
4. Kenyan MoH employees had little incentive to change their behavior and adopt new methods of generating money or using existing money more wisely. Until changes are seen to be in the best interest of the people required to make them, little change will occur. For example, collection efficiency has always been low in MoH facilities because staff derive no direct benefit from improved collection performance. Other countries allow staff to use part of the collected revenue for financial incentives. Some financial incentives are needed, but it is necessary to strike a balance between the positive and negative effects of the incentives.
5. Implementation of the Kenyan cost-sharing program was successful partly because it was done in stages. If changes are politically sensitive or very visible, success may be more likely if an incremental approach is taken.
6. Health-sector and health financing reforms require a long time to be planned and implemented. The experience with cost sharing is that significant reform on a nationwide basis can take 10 years and requires careful oversight and periodic changes. Implementation may not proceed in a linear, objective, and coherent manner. Thus, governments should embark on such changes in an analytical and thorough manner but must be willing to make a sustained, long-term commitment to achieve positive results.

Notes for this chapter:

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[1] Studies were made of the gap between available resources and the need for primary and curative care services. One of these studies (*Curative Services Financing Gap Study*), documenting the gap between available resources and curative care requirements, was financed by the World Bank and implemented by Stephen Musau and Ian Sliney in 1992. Similar studies were done for Nairobi (*Nairobi Area Studies*) and for preventive and primary care (*Preventive and Primary Resources Gap Study*) and implemented by Catherine Overholt (1989) and Larry Forgy (1990), respectively.

[2] W. Newbrander, D. Collins, and L. Gilson. *Ensuring Equal Access to Health Services: User Fee Systems and the Poor.* (Management Sciences for Health, 2000).

[3] W. Newbrander, D. Collins, and L. Gilson. *User Fees for Health Services: Guidelines for Protecting the Poor.* (Management Sciences for Health, 2001).

[4] P. Berman, K. Nwuke, K. Hanson, M. Kariuki, J. Ngugi, T. Omurwa, and S. Ong'ayo, *Kenya: National Health Accounts* (Harvard University, Data for Decision-Making Project, 1994).

[5] One Kenya pound equals 20 Kenya shillings.

CHAPTER 4. REDUCING FRAUD AND INCREASING REVENUE: CASH REGISTERS

Summary

During 1998–99, the APHIA Financing and Sustainability (AFS) Project supported the introduction of five networked cash registers at Coast Provincial General Hospital (PGH), the second largest government hospital in Kenya. As a result, revenue from patient fees increased by 400% over a two-year period. This experience has encouraged the Ministry of Health (MoH) to support the installation of similar networked systems at eight other provincial hospitals and smaller stand-alone systems at seven district hospitals and Garissa PGH.

Problem

Because of declining government support for public hospitals, Coast PGH began to rely increasingly on revenue from the cost-sharing program to support its nonpersonnel requirements. Because of undercollection and theft at collection points, revenue was well below the amount expected to be collected from patients. Manual receipt books, in use since the beginning of cost sharing, permitted collection clerks to underreport collections and made it hard for patients to verify their bills.

Actions Taken

Based on the experience with cash registers at Kenyatta National Hospital (KNH), the AFS Project developed a pilot initiative to adapt networked retail-store cash registers for cash collections at Coast PGH. The cash register system was adapted from commercial applications and installed at the hospital by a local company funded by technical support through an AFS subcontract. From the starting point of designing a request for proposal (RFP) that incorporated the hospital's requirements in early 1998; competitive bidding, installation of equipment, and training of staff in July 1998; and the most recent improvements to the system, the initial positive results took a total of nine months. During the two years after installation, many technical and personnel problems were encountered and resolved.

Results

The networked cash register system resulted in a 400% increase in patient revenue from the base in August 1998 through January 2001. The increased revenue has permitted the hospital to undertake many improvements in its operations and to use new and renovated facilities financed through foreign assistance from the Japan International Cooperation Agency (JICA).

This revenue increase came almost entirely from patient fee collections, not from payments by the National Hospital Insurance Fund (NHIF). Fee increases also made a small contribution to increased revenues. These fee increases were not instituted, however, until public confidence in the hospital had improved to the point that the increases were politically acceptable to the local community. The major portion of the revenue increase was due to improved efficiency in collection—primarily less fraud and more complete capture of patient charges.

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Based on the positive experience at Coast PGH, networked cash registers were installed in six other provincial hospitals from March through November 2000 with the support from the AFS contracting firm—Trans Business Machines (TBM). Two stand-alone cash registers were installed in each of seven district hospitals and Garissa PGH during the six months ending in February 2001, with the support of a special team from the MoH Division of Health Care Financing. The stand alone systems were used at the smaller hospitals because of their greater simplicity. These can be upgraded to networked cash registers at a later time. All these hospitals are now facing the same management challenges successfully addressed at Coast PGH to realize the revenue increases possible through the use of cash registers.

Introduction of Cash Registers

One major weakness of the cost-sharing program since its inception has been the use of handwritten triplicate receipt books. Manipulation of receipts by collecting clerks has been a major source of revenue loss at collection points, and has also resulted in long patient waiting lines. One option to correct that problem was the introduction of cash registers in selected hospitals for faster automated totaling, automated use of fixed price schedules, and the production of printed receipts for patients. Based on the experience at KNH, where revenue increased 30%, cash registers were expected to reduce the manipulation that existed in the manual cash receipt system.

The AFS team conducted detailed preparations, including:[1]

- Analysis of the impact of stand-alone (not networked) cash registers at KNH.
- Analysis of the potential revenue increases at Coast PGH from the introduction of cash registers.
- Analysis of community attitudes toward Coast PGH, including identification of areas of perceived weakness in service quality and staff attitudes. (This survey showed the public's perception of fraud in the revenue-collection process.)
- Review of the various types of cash register systems in use in commercial enterprises in Kenya (e.g., supermarkets) and the rationale for using networked cash registers rather than stand-alone ones.
- Decisions about key collection points in the hospital to introduce networked cash registers.
- Development of specifications for contracting out the purchase, installation, and training.
- Development of an RFP for bidding out the work.
- Competitive procurement search for the most qualified and cost-effective system available in Kenya.
- Baseline analysis of revenue collections prior to cash register installation.

Selection of Coast PGH

Based on these initial assessments, the AFS team made the decision to introduce cash registers at Coast PGH as a pilot project in the first quarter of 1998. The impact of cash registers on revenue would be measured, and if the results were positive, other MoH facilities would be encouraged to use cost-sharing resources to purchase and install cash registers.

The MoH selected Coast PGH for the introduction of cash registers for several reasons:

- As the largest provincial hospital, Coast PGH could be expected to have the most dramatic revenue increases.
- There was strong support from the provincial medical officer (PMO), the hospital administrator, and the board.
- The MoH identified Coast PGH as the most likely hospital for pilot efforts toward hospital autonomy.
- The capital improvements funded by JICA were reaching completion, and additional revenue was needed to support the operation of the new and renovated facilities.
- The continued decline in government support for Coast PGH (as well as for other hospitals), plus a stagnant level of reimbursements from NHIF, made the need for increased revenue urgent.

MoH senior officials referred to Coast PGH as the next most likely hospital to be granted autonomy after KNH. In addition, the MoH had targeted development assistance by the Japanese (JICA) to Coast PGH to improve the physical condition of the hospital facility. The AFS-supported pilot initiative with cash registers at Coast PGH was designed to boost revenue and target increased expenditures on essential patient care.

Local Procurement for the System

The AFS team decided that the cash register system should be developed using technology and resources available in Kenya. After canvassing many different types of cash register systems available locally, the team developed a detailed RFP for the work required at Coast PGH. In order to purchase the cash registers, the AFS team followed the procurement process of the U.S. Agency for International Development (USAID) and Management Sciences for Health (MSH). The procurement process took roughly four months, from reviewing the draft RFP through signing a contract with the winning vendor. The procurement was conducted locally in Kenya because (1) the technology was available, (2) the price was likely to be lower, (3) ongoing local support was possible, and (4) the work would help create a new market niche for local companies. The contract began on 12 June 1998, and commissioning and handover took place with the Minister of Health on 16 October. Handover could have been accomplished on 2 September but was postponed due to local politics. It thus took three months from start to finish to get the system up and running. It was the first time TBM had worked with the public sector, and was a learning experience for everyone. The next round took only six weeks per site on average—less than half the original time required at Coast.

Generic Modular System

Upon conclusion of the competitive bidding and contract negotiations, MSH entered into a contract with Trans Business Machines (TBM) of Nairobi in June 1998 to develop the generic modular systems for networked cash registers and to install them at Coast PGH.

The objectives of the system were to:

- Increase cash revenue at the hospital.
- Improve the efficiency, cost-effectiveness, and accuracy of cash accounts.
- Reduce the administrative delay in producing reconciled accounts of cost-sharing revenue.

Coast PGH was used as a test site to develop a generic, computerized, cost-sharing cash revenue collection and accounting system using networked point-of-sale cash registers. The system was constructed in a modular fashion so that it could be easily replicated in any hospital with any number of cash collection sites by the simple addition of one computerized point-of-sale cash register per site. It would permit the computerization of multiple cash collection sites and the preparation of all existing cost-sharing financial reports.

The system would operate like those used at supermarket checkouts. The receipts issued by the system, and also recorded by it, would have a printed description of every item paid for, the amount of money tendered by the payee, and the amount of change returned. The system would have the cash till built in so that all collected monies would be held securely, and would be accounted for correctly at the end of each cash transaction.

A series of computerized cash registers would be set up at all cash collection points, linked via a network to a central server installed in the Accounts Office. There were five cash collection points in the hospital:

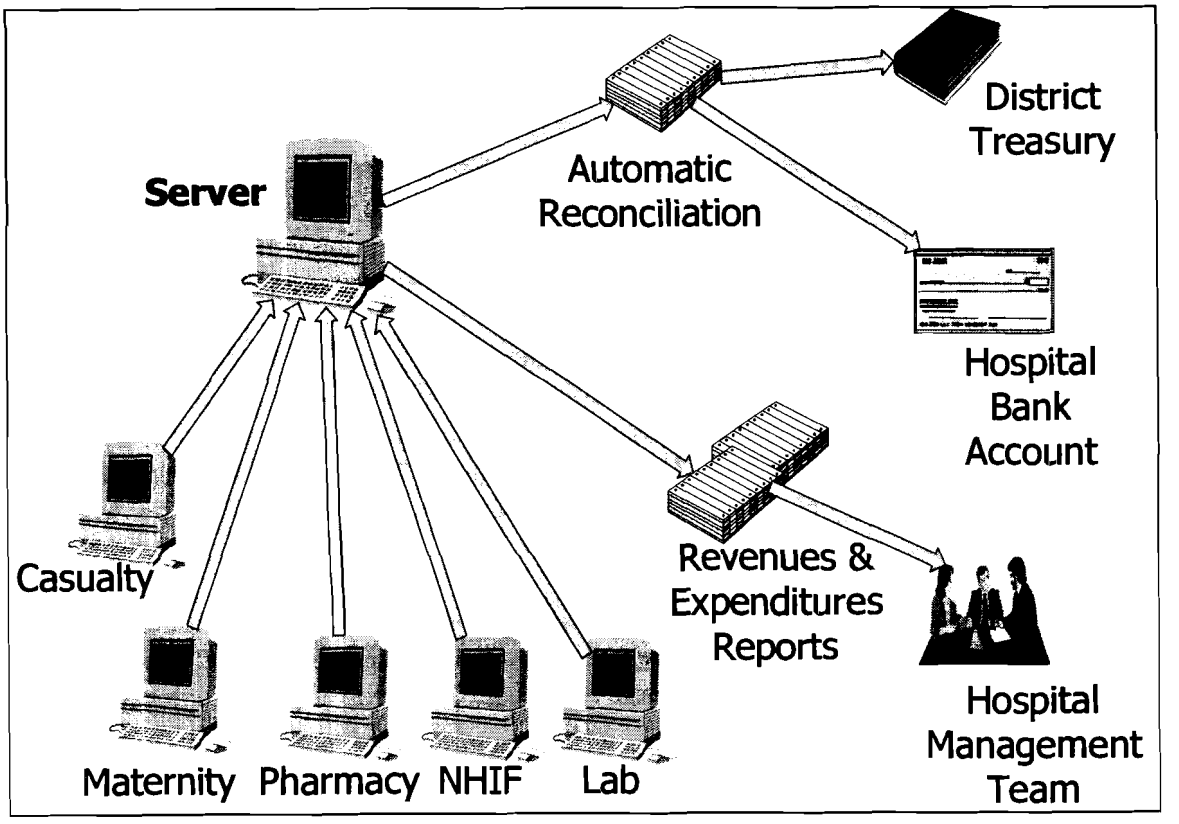
- Casualty
- Outpatient Pharmacy
- Laboratory
- Maternity
- NHIF Office

The system adopted at Coast PGH was a retail point-of-sale system in use in Nairobi supermarkets and department stores. It was usable off the shelf, with only two modifications required. One modification was to produce reports of accounts receivable at NHIF, and a second was to account for waivers and exemptions issued to patients. The system produces output data on a daily and cumulative basis, including the following:

- Analysis of revenue daily and cumulatively by month
  - by fee-for-service item or group of items
  - by cash collection point
  - by cost center
  - by cashier
- Computed daily and monthly summaries of revenue
- Report of debtors and losses by account, including waivers and exemptions
- Report of checks received by debtor account

Figure 4-1 below shows the initial set-up of the networked cash register system.

Figure 4-1: Diagram of a Networked Cash Register System



Installation, Training, and After-Sale Support

The subcontractor was required to provide systems programming, installation (including cabling and trunking), training of operators and supervisors, a one-year warranty, and after-sale breakdown support and spare parts. The contract specified that the cabling, cash register installation, programming of the system, training of staff, and handover of the system to Coast PGH management would take place by the end of July 1998. The contract also provided for a 12-month postcompletion guarantee for repair of all equipment breakdowns at no additional charge.

All activities by the contractor were organized into eight deliverables, each sequenced by completion date, starting with installation of all network cabling hub and trunking to interconnect the computer server with the point-of-sale registers. A penalty of roughly 20% of the amount to be paid for each deliverable was specified. MSH constructed the payment schedule so that the incentives were based on completion of installation and training. With a small start-up payment, then large payments only after the systems were in place and the staff trained, the contractor assumed almost all the financial risk until the systems were operational.

During the training period, the hospital's collection staff was reluctant to take the training, and some refused. Based on that reaction, which indicated their potential to undercut the new system, the hospital administrator hired new staff who were trained to operate the cash registers. This need to replace staff was a surprise. It was most likely due to their anticipation that the "leakage" of collections under the old system would not be possible with the cash registers.

Evaluation of Initial Performance

The AFS team was confident that the cash registers would result in higher collections. However, there was considerable uncertainty about how much the increase would be. The project wanted to have a clear picture of the impact of cash registers on cost sharing, both for the experience at Coast PGH and to help determine whether cash registers should be used at other hospitals.

The project commissioned a study at the outset of the cash register installation. A local consultant compiled baseline data on collections prior to use of the cash registers, as well as data afterward. He performed a regression analysis on these data, along with many other variables, to determine whether other variables could have an influence.[2] The consultant concluded that the revenue increases were attributable to the introduction of the cash registers and not to other variables.

The initial results showed that the introduction of cash registers at Coast PGH increased hospital monthly cash revenue by 47%, from an average of K Sh 1.418 million for the three months before installation in August 1998 to an average of K Sh 2.090 million for the three months after installation.

An analysis of utilization data showed that the cash registers had no appreciable impact on utilization. A staff survey revealed that the system had been well received by staff, most of whom thought that it was beneficial to patients in a number of ways:

- No complaints from patients about having to make side (or under-the-table) payments to get favors from staff.
- Shorter waiting lines for making payments.
- Fewer complaints from patients about people jumping ahead in line.
- Less movement of patients around the hospital looking for a place to make payments.

However, a number of problems were identified:

- Some of the register operators complained that they worked long hours, which irritated their eyes. And because they lacked proper chairs, some staff reported back problems.
- Nurses in the wards complained that the system increased their workload.
- The receipts did not show the names of patients. (Some patients had been known to give their used receipts to others.)

Recommendations

The assessment included a series of recommendations that were implemented:

- Improved training of nurses and clerks to ensure accurate billing and receipting of patient charges.
- Improved communication from management to staff concerning the results of systems operations.
- Tightening of internal checks and controls to reduce leakage further.
- Improved patient information.
- Improved data management and protection.

Dramatic Increase in Collections[3]

The introduction of cash registers, accompanied by management oversight and changes in staffing and procedures, dramatically increased revenue. The short-term increase of 47% in cash collections was the first level of success. Longer-term success, as measured by comparing revenue before cash registers in fiscal year (FY) 1997–98 with revenue in FY 2000–01, is much more significant. Cash collections have risen by over 400% over that period as a result of the introduction of cash registers and other specific actions discussed later.

Table 4-1
Annual Collections, Coast PGH[4]
(K Sh million, fiscal year basis)

Fiscal Year	Total Cash and NHIF Billings	Change from Prior Year (%)	Change from 1997–98 (%)
Before cash registers (July 1997–June 1998	14.1		
August 1998 introduction of cash registers			
July 1998–June 1999	29.1	107%	107%
July 1999–June 2000	51.0	76%	263%
July 2000–June 2001 (est.)	70.3	38%	400%

In terms of annual revenue, Coast PGH's total revenue increased by 400% in 2000–01 compared with the year before the introduction of cash registers, 1997–98. On an average monthly basis,

the average monthly revenue increased from K Sh 1.2 million in 1997–98 to K Sh 5.9 million (estimated) in 2000–01.

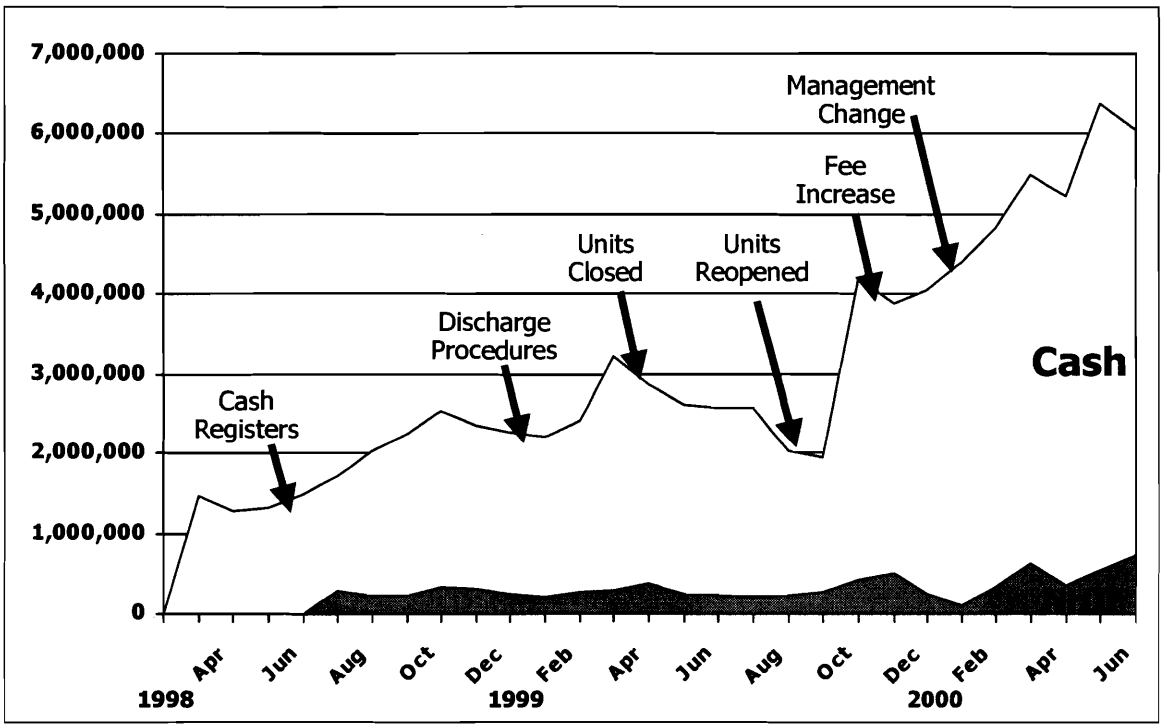
Payback Period for Cash Registers

The cost of the cash registers, including purchase, installation, training, and one year's support, was K Sh 2.4 million (roughly US$42,000 at the prevailing exchange rate of 58). Hence, the cash registers could have been purchased by Coast PGH in 1998 using just over one month's collections if they had been bought with cost-sharing revenue rather than USAID funds. The cash registers were thus very cost-effective investments, which made their introduction in other hospitals using cost-sharing revenue rather than donor funding a distinct possibility.

Ongoing Management Challenges

Figure 4-2 demonstrates that although revenue increased over time, there were many peaks and valleys due to challenges that hospital management and the AFS team had to address.

Figure 4-2: Coast Hospital Revenues

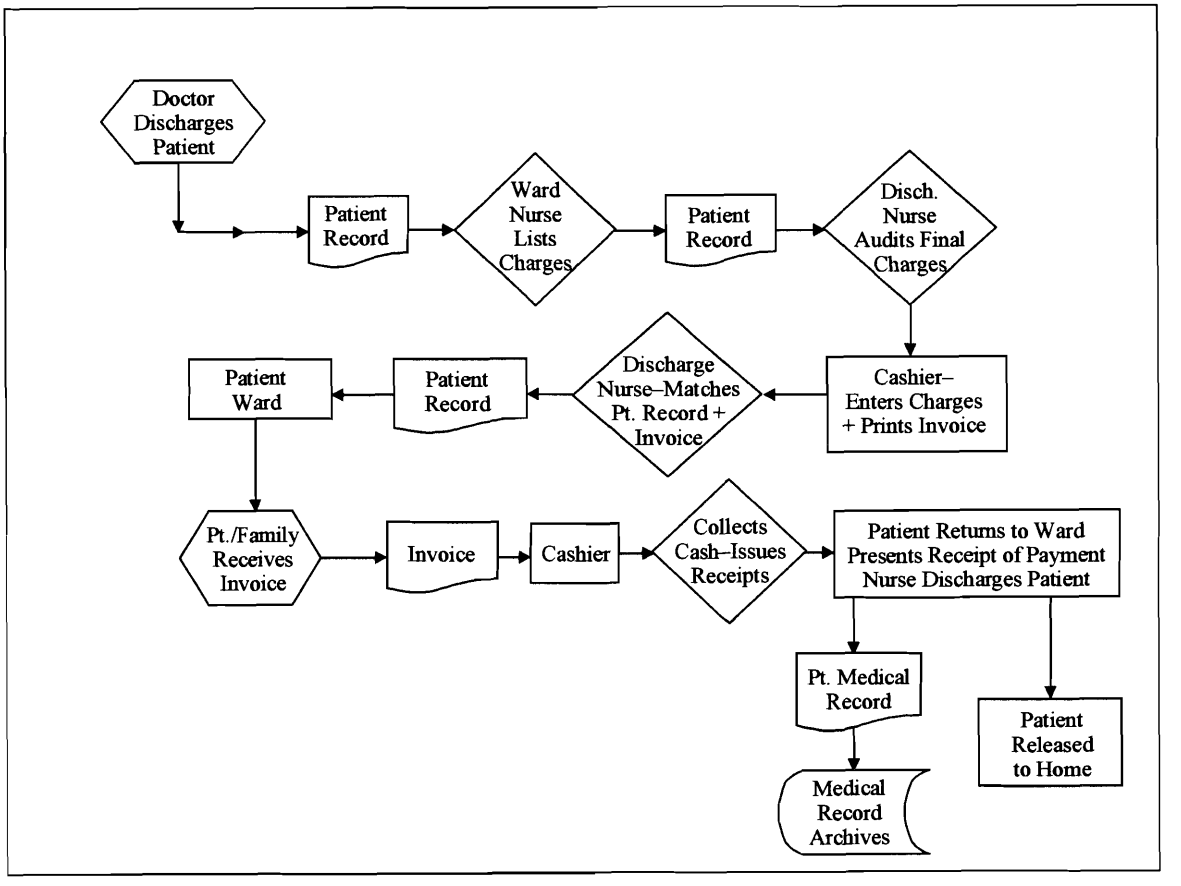


Revised Discharge Procedures

Monitoring of the cash results showed that the initial increase in collections peaked in October 1998. Upon further investigation, it became clear to the hospital administration and AFS technical advisers that many of the charges for services incurred by patients were not reflected in

the hospital bills paid at the cash register.[5] At that point, a flowchart analysis of all the steps required to process a patient's bill was completed, and the process was streamlined. This flowchart, shown in Figure 4-3, describes the detailed flow of information necessary to obtain the correct charges for services delivered to each patient. With the completion of the flowchart by nursing and financial staff, the full process could be studied, assignments made, and staff trained to make the process more efficient and thorough, thereby recording charges that had previously not been reported.

Figure 4-3: Flow Chart on Collection of Charges



In February 1999 a revised discharge procedure was introduced, resulting in an additional 36% increase in cash collections (from K Sh 2.15 million in February 1999 to K Sh 2.9 million in March 1999).

Closing of Units for Renovation

Between March and September 1999, several units in the hospital were closed to permit renovations funded through the JICA project. Monthly revenue dropped to K Sh 1.67 million in September but then rose to a new high in October 1999 as the renovated wards were reopened.

Fee Increase

In October 1999 the hospital implemented a moderate fee increase, which led to a steady climb in revenue starting in November.

Change in Senior Management

The cash register system has provided a focused model for improvements in hospital management by making pertinent and accurate financial information readily available. However, the regular monitoring of cash collections emerged as a significant problem. The staff responsible for monitoring the discharge process and collections seemed to lack commitment, and there was little follow-up when decreases in collections were identified. The AFS Project continued to work with the hospital management team and the board to address these management issues.

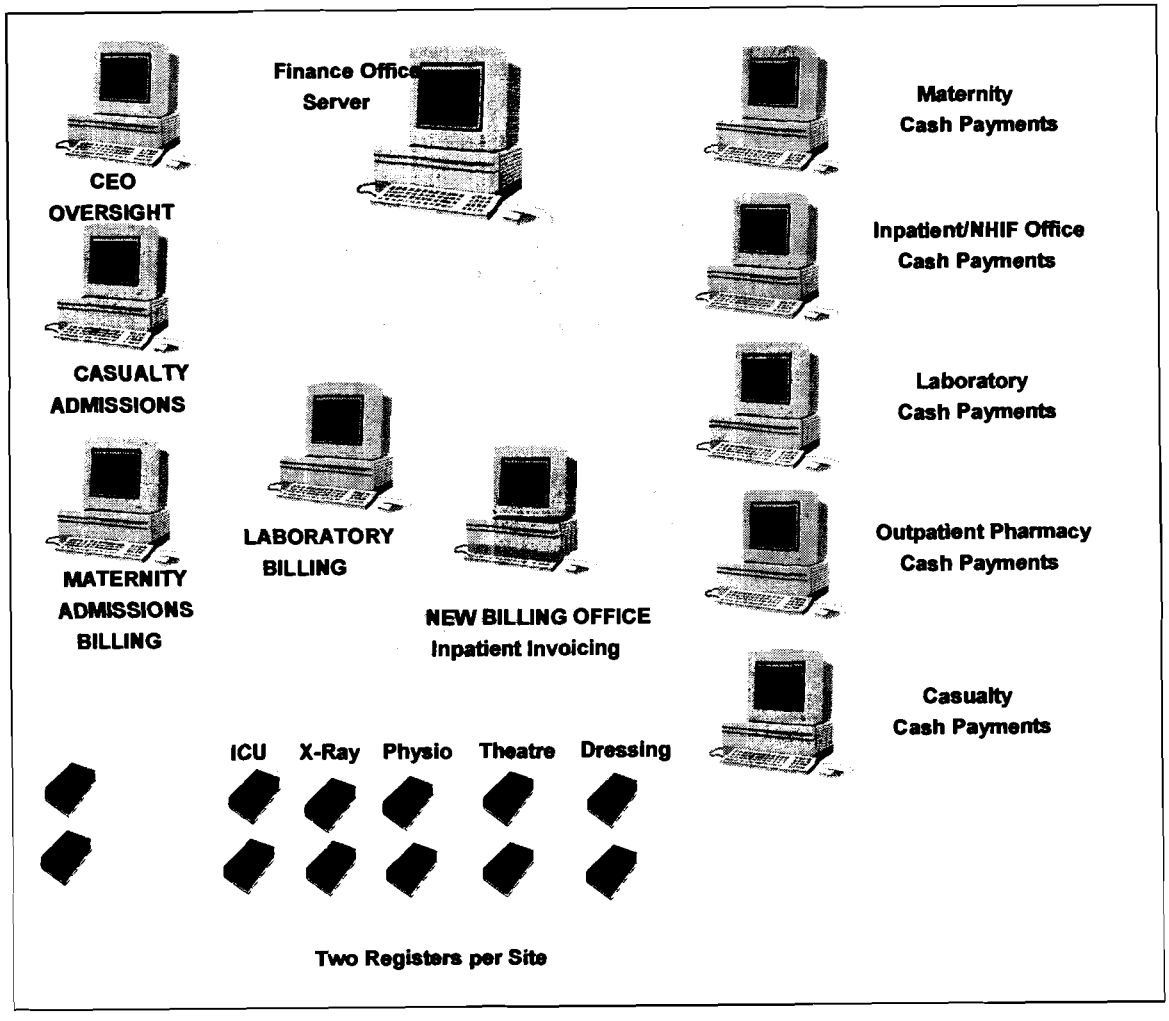
Also during 1999, increased spending by management on lower-priority projects, combined with lack of transparency in the spending process, led to decreased motivation among nursing, billing, collection, and accounts staff. In their view, poor judgment by senior management stood in the way of service improvements. A change in senior management in February 2000 led to a hike in revenue and further support for the cost-sharing program.

Hospital management had little idea how much mismanagement existed or the large amounts that were being lost through the manual receipts system. These lost amounts were recovered through the use of the networked cash register system. This system has continued to contribute significantly to hospital revenue. Further improvements in the process of registering patients and invoicing inpatients at the time of discharge were projected to increase revenue another 15%. Five additional terminals were installed in the emergency and maternity departments, the billing office, the laboratory, and the administrator's office. None were new. They were used computers available in the hospital which were attached to the network server.

Patient Registration System

Along with the additional terminals, the AFS team contracted for the development of a patient registration module that contains patient information obtained upon admission. These data were linked to the billing system so that preparation of patients' bills could be more fully automated. In addition, this system provides a check against the services delivered and billed to patients, as well as a means of verifying the patient census in the hospital on a daily basis. This enhancement of the cash register system was implemented in October 2000 by a local Kenyan consultant experienced in hospital information systems. The five other computers added to the system permit monitoring of the system by the chief administrator, to permit patient registration at the admissions office, emergency room, and maternity ward. These changes also permitted the automatic production of bills to be submitted to NHIF. The revised configuration is shown in Figure 4-4 below.

Figure 4-4: Current Operation of Cash Register System



System Maintenance

Another performance issue was the poor maintenance of the cash register system due to a lack of on-site support. Network failures were frequent, resulting in the use of miscellaneous receipt books. The staff at Coast PGH continued to call for assistance in basic system maintenance from the AFS Project and the subcontractor. With basic training of a management information systems (MIS) person at Coast PGH, this problem was corrected. Also, management had neglected site licenses and other maintenance issues. It was the responsibility of the end-user, not the project, to maintain licenses and systems.

Static Level of NHIF Reimbursements[6]

Starting in November 1999, the AFS team noticed that the income from NHIF had dropped significantly. Process monitoring disclosed that the hospital had not submitted the appropriate NHIF billing forms, and the claims had been returned. As of late January 2000, the claims still

had not been reworked and resubmitted to NHIF. Staff were not motivated to produce the documented bills correctly, submit them to NHIF, and then go through the arduous process of follow-up on payments delayed by NHIF. They perceived that NHIF was unwilling to disburse funds to MoH hospitals and that their work was in vain.

As shown in Table 4-2, the revenue increases were due to changes in the charges paid by patients. Reimbursements by NHIF for services incurred by its members have not increased and have remained below the peak in 1996–97. The cash register system did not change the process of documenting NHIF membership and submitting bills to NHIF significantly, although parts of the documentation process were streamlined. As a result of the growth in patient collections measured against slowly growing reimbursements from NHIF, the share of hospital revenue from NHIF dropped from 30% in 1996–97 to 8.9% in 1999–2000 and to an estimated 3.9% in FY 2000–01.

Table 4-2
Level of NHIF Reimbursements at Coast PGH
(K Sh million, fiscal year basis)

Fiscal Year	Cash Collections	NHIF Billings	Total Cash and NHIF Billings	NHIF's Share of Total (%)
July 1996–June 1997	12.3	5.2	17.5	30.0%
July 1997–June 1998	11.3	2.8	14.1	19.6%
July 1998–June 1999	25.8	3.3	29.1	11.2%
July 1999–June 2000	46.5	4.5	51.0	8.9%
July 2000–June 2001 (est.)	67.6	2.7	70.3	3.9%

This experience with static or declining revenue from NHIF was consistent with the experiences of most other government hospitals. These hospitals, which depended on NHIF for up to 35% of their collected revenue, faced long delays in claims processing and slow and partial payments. NHIF also introduced steps designed to reduce the cost of reimbursing MoH facilities, by paying the lower of the daily reimbursement schedule or the published hospital charges. Since there was strong political pressure in government hospitals to keep charges low, reimbursement for many hospitals had been reduced to reflect the lower level of charges.

While reimbursement for government hospitals was low, payments to private nursing homes were high—often close to 100% of the bed days of those institutions. This anomalous performance was an issue under discussion between MoH leadership and NHIF. There are several possible explanations for this disparity:

- In most government facilities, hospital managers and other staff were not sensitized to the importance of NHIF revenue. Consequently, they put little effort into the NHIF revenue collection process. Staff did not take this as their responsibility.
- NHIF contributors and beneficiaries were reluctant to use their NHIF cards. This was due to the perception of poor-quality services in public facilities and the transaction costs (e.g.,

travel and time costs of photocopying documents, renewing NHIF cards, and obtaining certificates of contribution) involved in facilitating a hospital claim.

- Low user fees at public hospitals made it less attractive for patients to perform the additional steps required when using an NHIF card. In facilities where user fees had been raised, hospital management observed an increase in the use of NHIF cards. This was because the fee increase narrowed the gap between user fees and the reimbursement rate. The opportunity cost of paying cash was increased, and cash payment was discouraged. There was then an incentive to use NHIF cards, and the hospital gained revenue.
- It is possible that officials at private facilities paid an informal fee to expedite the processing of their claims, which was not paid by government hospital officials.
- Government health facilities essentially gave up billing NHIF. It was easier to collect cash, so they stopped making the extra effort necessary to bill NHIF and follow up to receive reimbursement.
- There is some evidence of fraud. NHIF may have made some payments, but when the checks were received by the hospital, they were not added into the receipt ledgers. Cash equal to the amount of the check could then be stolen when the check was deposited.

Sources of Revenue for Coast PGH

The level and mix of financing resources for Coast PGH have changed significantly over the past several years. Revenue from the government, in the form of salaries for personnel and payments for nonpersonnel costs, has decreased steadily. NHIF payments have remained constant, and revenue from patient collections has increased.

Table 4-3
Analysis of Sources of Revenue for Coast PGH
(K Sh million, fiscal year basis)

Source of Revenue	1996-97	1997-98	1998-99	1999-2000	2000-01 Budget*	% Change 1996–97 to 2000–01
Government						
Personnel	135.5	138.5	152.5	133.5	123.8	–9%
Nonpersonnel	41.3	46.6	35.0	35.0 †	41.3	0%
Cost sharing						
Patient fees	12.3	11.3	25.8	46.5	71.3	482%
NHIF reimbursement	5.2	2.8	3.2	4.5	5.0	–5%
Total Revenue	**194.3**	**199.2**	**216.5**	**219.5**	**241.4**	**24%**
Revenue Categories as % of Total	**1996-97**	**1997-98**	**1998-99**	**1999-2000**	**2000-01 Budget***	
Government						
Personnel	69.7%	69.5%	70.4%	60.8%	51.3%	*N/A*
Nonpersonnel	21.3%	23.4%	16.2%	15.9%	17.1%	*N/A*
Cost sharing						
Patient fees	6.3%	5.7%	11.9%	21.2%	29.5%	*N/A*
NHIF reimbursement	2.7%	1.4%	1.5%	2.1%	2.1%	*N/A*
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	

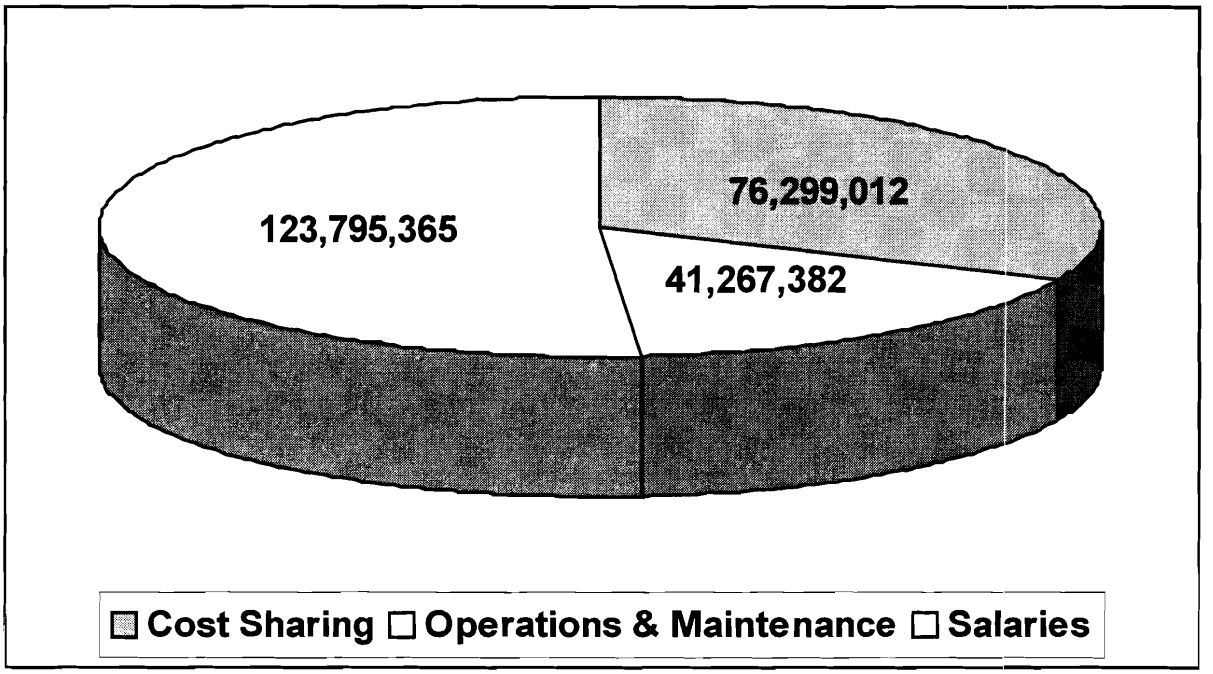
** The figures for 2000–01 are based on the hospital's budget.*
† While final figures have not yet been released, it is estimated that Government nonpersonnel expenditures for 1999–2000 were at the same level as in 1998–99.

Over the five-year period from 1996–97 through the present, overall revenue at Coast PGH increased 24%, or less than 5% per year. The increases are due primarily to cost-sharing revenue, which grew by 482%. The government's advance budget figures for nonpersonnel were projected to triple in 1999–2000 and 2000–01, but given the prior year's experience and the overall fiscal pressure on the budget, it is more likely that 1998–99 levels or lower were achieved in 1999–2000 (the final figures have yet to be released). Thus, 1998–99 levels were used for government nonpersonnel expenditures in 1999–2000, and the hospital's budget figures for 2000–01 were used instead of the advance budget projections.

Government personnel expenditures fell by 9% over the period, after peaking in 1998–99 and then decreasing. For the current year, these figures may be affected by the government-wide retrenchment program. The share of government personnel costs in the total decreased from almost 70% to 51%, as a result of the rapidly rising cost-sharing revenue and declining personnel costs. Patient fees increased from 6.3% of the total to 29.5%. NHIF reimbursement dropped slightly from 2.7% to 2.1%. It is possible that the 2000–01 figures might increase further if NHIF reimbursement is expanded, as per directives from the new NHIF management.

The 2000–01 budget for Coast PGH in Figure 4-5 shows the increased level of patient revenue.

Figure 4-5: Coast PGH Budget for FY 2000-01
(K Sh)



Expenditure of Increased Revenue

Table 4-4 illustrates the patterns of expenditure of cost-sharing revenue to improve hospital services. There was a dramatic increase in spending between the first and second halves of FY 1999–2000. This was related in part to the change in chief administrators. The current administrator assumed the position in February 2000 and began to spend more heavily on improvements in hospital services. Nearly all the spending was for categories covered under government nonpersonnel expenditures, which indicates a shortfall in that area of the budget.

Table 4-4
Expenditure of Cost-Sharing Revenue
(K Sh million)

Description	July-Dec 1999	Jan-Dec 2000	% Share
Clinical supplies	2.2	10.1	*22.0%*
Construction of nonresidential buildings*	—	8.9	*19.6%*
Unclassified	2.7	6.3	*13.9%*
Drugs	1.3	5.7	*12.6%*
Contracted services	1.1	4.4	*9.7%*
Nonclinical supplies	1.1	2.2	*4.8%*
Oxygen	0.8	2.2	*4.8%*
Utilities	1.0	1.5	*3.3%*
Transportation	1.5	1.3	*2.9%*
Maintenance	1.4	1.1	*2.4%*
Training	0.4	0.9	*2.0%*
Miscellaneous	0.3	0.5	*1.1%*
PHC activities	—	0.4	*0.9%*
Total	**13.8**	**45.4**	***100.0%***

Note: apparent addition errors are due to rounding.

The positive impact of the cost-sharing program on hospital performance needs to be emphasized in light of the reduction in government budget allocations for day-to-day operations. Cost-sharing funds not only made it possible to maintain services, but also funded much-needed physical rehabilitation. This included renovation of the old maternity wards (prenatal and postnatal), amenity ward, casualty service, and maternal-child health and family planning (MCH-FP) service; improvements to the grounds and gardens; and the new security wall. These changes have been favorably perceived by the community and by patients, who report that services at Coast PGH are improving along with staff attitudes.

Clinical supplies, drugs, and oxygen together accounted for 40% of spending. These expenditures are directly related to patient care. Much of the construction of buildings was related to renovations and painting prior to a visit by the head of state in mid-2000. Contracted services include part-time (casual) laborers hired under contract. No other direct spending for personnel is permitted under the cost-sharing regulations.

Changes in Quality and Access at Coast PGH

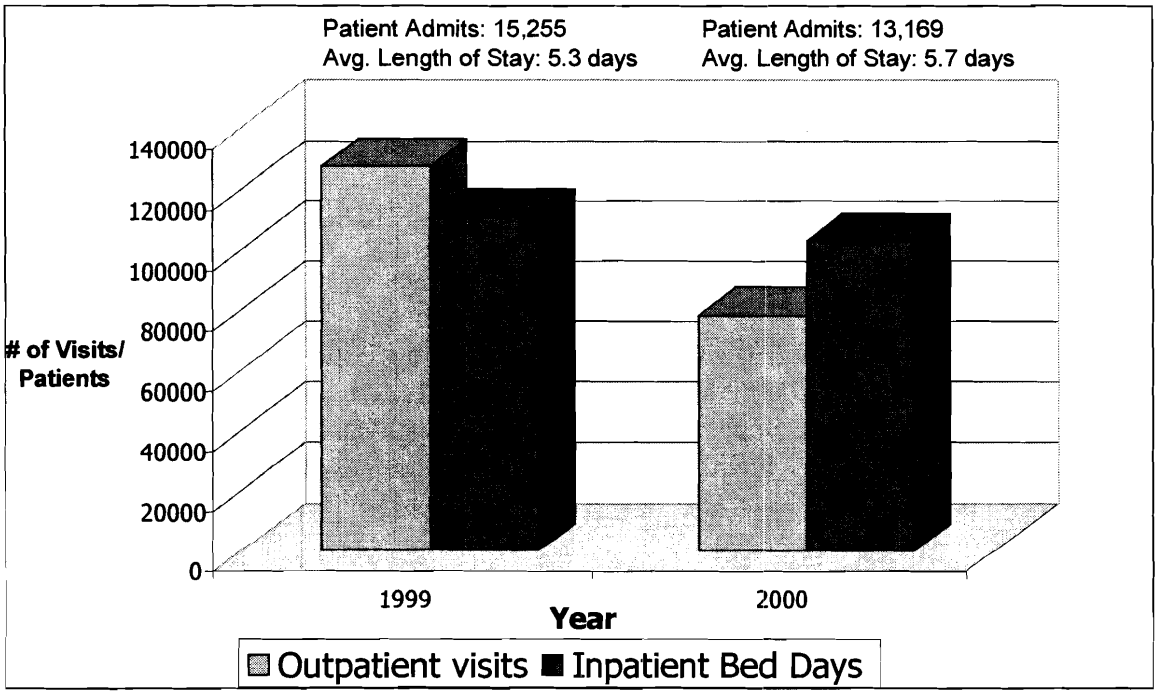
The important impact is not the increase in revenue *per se*, but the improvements in the quality of services at the hospital and access to them. To measure changes as a result of the increased revenue, several measurement tools were used to compare service quality before and after the introduction of cash registers. The analysis showed that patients' perception of the quality of services had improved dramatically since the introduction of cash registers. Staff attitudes

improved to a limited degree. More details on this study of quality improvement are included in Chapter 5.

Decline in Utilization Rate

Coast PGH experienced a reduction in outpatient visits as well as in its inpatient census in 2000 compared with 1999. There is no information available as to the causes, although increased patient fees may have had some negative impact on utilization. Outpatient visits decreased from 120,000 to 70,000, a reduction of 42%. Inpatient bed days dropped 7%, from 102,000 to 95,000. Finding the reasons for this decline is very important. If the drop is due to the lack of an effective waiver and exemption program, this problem needs to be corrected as soon as possible. It is also possible that there are other causes related to better management of care that could have contributed to this trend.

Figure 4-6: Coast Hospital Utilization Trends, 1999 to 2000



Strategies for Replication[7]

The success of the networked cash registers at Coast PGH caught the attention of PMOs and central officials in the MoH. MoH senior management requested that the AFS Project assist in the installation of networked cash registers at six large provincial hospitals from March through November 2000, and at eight district hospitals as well. The plan to extend the use of cash registers to additional MoH hospitals included two distinct strategies, developed in response to the budgetary constraints in the AFS contract with USAID. To install systems in all the other provincial hospitals and in one district hospital per province, it was necessary to strip the

system's configuration down to the minimum that was both affordable and practical. Each provincial hospital received a server and two networked cash registers; district hospitals received only two stand-alone cash registers.

The provincial hospitals were:

- Moi Teaching and Referral Hospital
- New Nyanza PGH
- Nakuru PGH
- Nyeri PGH
- Embu PGH
- Kakamega PGH

Senior management selected the following eight district hospitals for cash register installation:

- Garissa PGH (small size similar to a district hospital)
- Machakos District Hospital (DH)
- Kabarnet DH
- Meru DH
- Kisii DH
- Homa Bay DH
- Bungoma DH
- Kitale DH

Systems at the PGHs were installed under local subcontract by TBM, and the district hospital systems were installed by MoH staff assigned in teams to this activity, with their training and fieldwork supported by project funds. Each Cash Register Installation Team (CaRIT) consisted of three MoH headquarters staff members and one other person per province. All systems would make use of the tried and tested POS-I-TILL software that had produced dramatic results at Coast PGH.

System installations started in April 2000. After installation in Kisumu PGH, the MoH CaRIT staff were trained there before being sent to set up and install the district hospital systems. PGH installation and staff training took approximately six weeks per site, whereas district hospital systems required an average of three weeks per site. Provincial hospital system installation began in April 2000 and was completed in December 2000. District hospital system installation began in August 2000 and was completed in February 2001.

These networked installations were conducted by the AFS local contractor, TBM, which had developed, installed, and maintained the system at Coast PGH. The AFS contract with TBM included penalty provisions to ensure the timely completion of tasks, adequate training of hospital staff, and follow-up technical assistance.

The same software was used at all sites after it had been tested extensively. A specially trained CaRIT from the MoH Division of Health Care Financing supervised the installation, training,

and set-up of policies and procedures at these hospitals. The major weak point of the stand-alone systems used at the smaller hospitals is that they operate in parallel with the manual receipt books, so some of the control and management oversight possible with a networked system is not feasible. Some of these systems may well be upgraded to networked cash register systems, depending on the priorities and determination of the hospital management teams.

The AFS Project funded the initial purchase and installation of cash registers at the 14 hospitals, plus technical support through June 2001. With the end of the AFS Project, subsequent upgrades and maintenance will be arranged and funded by each hospital using its cost-sharing revenue. The major portion of the workload of the AFS Project during its final stage, from March 2000 through June 2001, has concentrated on the installation of cash registers.

Expected Impact

The experience with networked cash registers raises the possibility that the PGHs that have recently installed them will realize significant increases in cost-sharing revenue. In Table 4-5, the five provincial hospitals that recently received networked systems (excluding Moi Teaching and Referral Hospital, Garissa PGH, and Coast PGH), realized cost sharing revenue of K Sh 119.7 million in FY 1999–2000. Given the experience at Coast PGH, revenue increases ranging from 100% to 300% over a two-year period are possible. Thus, cost-sharing revenue could increase from a low of K Sh 239.4 million to a high of K Sh 478.8 million. If government expenditures for these hospitals remain constant, the share of cost-sharing revenues in total expenditures by these hospitals will increase from 10.4% at present to between 18.8% and 31.7%, depending on the level of increase in cost-sharing revenue.

However, the experience at Coast PGH has also shown that for the cash registers to achieve the desired revenue impact, tight management by the hospital team is required. Collections staff must be closely supervised, and the manual receipt books replaced; the cash register systems will require maintenance and most likely expansion; and other procedural changes will prove necessary to ensure the effectiveness of the new systems. At Coast PGH, this continual management process even contributed to the appointment of a new chief administrator.

As a result of these major challenges, the prospects for dramatic increases in revenue should be carefully hedged by a dose of reality—the hoped-for increases may not materialize. The installation of cash registers poses a tremendous challenge for each of the hospital management teams. Some of these teams, but probably not all of them, will be able to rise to this challenge. Some of the cash register systems are likely to be circumvented by staff who want the eliminate them, and they will fall into disuse. Revenue increases from cost sharing under such circumstances are likely to be minimal.

Table 4-5
Projected Cost-Sharing Revenue for Five Provincial Hospitals[8]
(K Sh million)

5 PGHs	1999-2000 Total	FY 2001–02 Potential Revenue Increases		
		100% Increase	200% Increase	300% Increase
Cost-sharing revenue	119.7	239.4	359.1	478.8
MoH expenditures	1,031.1	1,031.1	1,031.1	1,031.1
Total	**1,150.8**	**1,270.5**	**1,390.2**	**1,509.9**
Cost sharing as % of total	***10.4%***	***18.8%***	***25.8%***	***31.7%***

Lessons Learned

1. The cost-sharing program has generated large amounts of revenue from patients. However, the temptation of handling large amounts of cash has also resulted in considerable diversion of funds and corruption by collection officials, either on their own or in collusion with other staff members.
2. Good financial control practices, such as rotating staff and checking receipts against volume of services, are necessary. If these systems alone were effective, cash registers would not be necessary. Cash registers make controlling funds easier, but systems to manage financial staff are still necessary.
3. Introducing cash registers at Coast PGH reduced the diversion of funds and dramatically increased the revenue available to the hospital. Although cash registers cost more and are more difficult to maintain than the manual system they replace, they are highly cost-effective, provided they are well managed.
4. Major management challenges must be overcome to realize the benefits of cash registers. At Coast PGH, the collections staff as well as other staff members had to be replaced. Systems to track and monitor patient charges throughout the hospital were also necessary. Although these changes resulted in positive outcomes, they could be reversed if vigilance were reduced.
5. The bulk of revenue increases at Coast PGH came from patient revenue. The cash register system has not improved the receipt of revenue from NHIF. Steps to increase NHIF revenue are separate from cash registers and relate to NHIF policies and management practices.
6. The increased revenue at Coast PGH, plus the renovations from the Japanese foreign aid project, resulted in measurable quality improvements (see Chapter 5).
7. The future experience of cost sharing at the other provincial and district hospitals is difficult to predict. Hospitals that manage the use of the newly installed cash registers closely should realize large revenue increases. Without this close management, the benefits of the cash registers will not be realized. Given the strong resistance by collections staff to the tighter controls possible with cash registers, many hospital management teams will not be able to maintain the systems and realize the benefits.

8. Hospitals need to train staff and enter into maintenance contracts with local vendors to maintain their systems. Cost-sharing revenue is available for this purpose. Without these preventive steps, the systems are likely to fail.
9. Current civil service restrictions make it hard to discipline and replace staff, even when they have diverted funds. This makes the successful management of cash registers more difficult for hospital administrators.
10. Cash registers are likely to work most successfully in autonomous hospitals where the board and management team have the ability to supervise and discipline staff when necessary. This is the case at KNH and Moi Teaching and Referral Hospital. Coast PGH has made many preparations for autonomous management but has not yet been granted that status by the government.

Notes from this chapter:

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[1] "Contractor Self Evaluation—October 1 through December 31, 1997" (APHIA Financing and Sustainability Project, Management Sciences for Health, 29 January 1998).

[2] Benjamin M. Nganda, "Monitoring and Evaluation of Cash Registers" (Technical Report, APHIA Financing and Sustainability Project, 6 September–28 November 1998).

[3] Ibid.

[4] "Coast PGH Cash and NHIF Claims" (AFS Analysis, Management Sciences for Health, prepared by Silas Njiru, AFS financial analysis specialist, February 2001).

[5] "Contractor Self-Evaluation Report—January 1 through June 30, 2000" (APHIA Financing and Sustainability Project, Management Sciences for Health, 31 July 2000).

[6] "Extraordinary Report of Project Activities" (APHIA Financing and Sustainability Project, Management Sciences for Health, 23 July 1999).

[7] "Contractor Self-Evaluation Report—January 1 through June 30, 1999" (APHIA Financing and Sustainability Project, Management Sciences for Health, 17 October 1999).

[8] "Analysis of Gross Total Recurrent Expenditure and Cost Sharing Revenues for MoH Provincial General Hospitals" (AFS Analysis, Management Sciences for Health, prepared by Silas Njiru, AFS financial analysis specialist, February 2001).

CHAPTER 5. IMPROVING HOSPITAL PERFORMANCE THROUGH INSTITUTIONAL REFORM: COAST PROVINCIAL GENERAL HOSPITAL

Summary

Coast Provincial General Hospital (PGH) in Mombasa is the second largest government hospital in Kenya, with an available bed capacity of 550 and a staff of 660. (The hospital was originally designed and equipped for 700 beds, and it is possible to expand to that number. Although the current need for 700 beds exists, the necessary staff are not available.) It serves the primary service area of Mombasa with a population of 600,000 and is the referral hospital for Coast Province. The Ministry of Health (MoH) asked that the APHIA Financing and Sustainability (AFS) Project to assist the hospital prepare for autonomous status. The AFS work was a concerted effort to improve the performance of a major hospital in terms of finance, management, and quality of services.

The challenge was similar to that faced by Kenyatta National Hospital (KNH) between the mid-1980s and the present. The hospital's run-down condition was being improved by an extensive plant modernization through US$8.5 million in construction and equipment assistance from the Japan International Cooperation Agency (JICA). Declining government support for hospital operations made it heavily reliant on cost sharing, which was increased with the introduction of cash registers. But increasing revenue was only the starting point for improving services. The AFS Project provided a wide range of technical assistance to improve the management and governance of Coast PGH. Quality as perceived by patients showed a marked improvement from July 1998 through October 2000. The work at Coast PGH also serves as a template for improvements at other government PGHs.

Problem

The assessment of Coast PGH conducted in February 1998 identified many weaknesses in financing, management, and patient care. It was estimated that it would take two to four years to improve these weaknesses prior to autonomy. As revenue increased under cost sharing, the question of how to best use the additional funding to improve hospital services became more focused for both the administrator and the recently appointed hospital board. The work in progress to improve parts of the facility, including a new maternity wing, a new kitchen and laundry, new toilet facilities, and extensive renovations and new equipment for the operating rooms, the intensive care unit, and mortuary, also raised important issues of funding priorities. Weaknesses in the management of the hospital also became apparent.

Actions Taken

Starting in spring 1998, the AFS expert in hospital management worked closely with the hospital administrator, board, and staff to develop a strategic plan and then implement operational plans to improve the hospital's operations. The ongoing focus was to improve quality *and* reduce

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costs through better clinical practices and improved management. Key initial activities included an organizational assessment and a plan for transition to autonomous status, a streamlining of the management reporting structure, development of an action plan, a community assessment of the hospital, and implementation of steps to increase revenue (described in Chapter 4). Progress has been steady but often slow on many initiatives, given the lack of effective communication within the hospital and the weaknesses in key management and clinical areas. With the appointment of the new hospital administrator in February 2000, the pace of change has increased. In addition, the AFS and MoH team conducted assessments of five other MoH hospitals in the late spring of 1999 as background for similar improvement initiatives there. The assessments were submitted to the MoH senior management and to the provincial medical officers.

Results

Specific improvements in hospital operations, including the reopening of the maternity unit, operating rooms, and intensive care units; the training of the board; the reorganization of senior management; and many improvements in nursing services, have been accomplished. The hospital has also renovated and reorganized the Emergency Services (Casualty) Department using cost-sharing funds. Additional steps have been taken since the appointment of a new administrator and the strengthening of the board. Quality improvement measurements show that the changes have had a positive effect. The entire activity shows the complexity and long-term commitment required to "turn around" a large government hospital. The work at Coast PGH has also laid the groundwork and developed a template for improvements at other large government hospitals.

Preparation for Hospital Autonomy

AFS Project assistance to Coast PGH was aimed at preparing the hospital for autonomous status along the lines of KNH, but on a shorter time frame. The capital improvements funded by JICA, started in 1995 and completed in 1999, were analogous to the external funding support to KNH from a World Bank loan.

Kenyatta National Hospital, the government's tertiary teaching hospital, was granted legal autonomy in April 1987 to permit it to improve services and reduce government funding. Because of lack of preparation of the board and staff and limited resources, the actual shift to autonomous status took nearly 10 years, with considerable funding from the government, donors, and cost sharing. KNH also benefited from a substantial loan from the World Bank to improve its physical plant and systems. In the mid-1990s, the MoH began to seriously discuss converting other government hospitals, starting with the PGHs, to autonomous status.

Boards for the PGHs and district hospitals were established ("gazetted") in October 1996 by an administrative circular from the MoH director of medical services. A set of guidelines was issued along with the appointments. Subsequent steps to clarify the role of the hospital boards with respect to MoH, Civil Service, and Ministry of Finance requirements were not taken. Individual board chairmen petitioned the MoH to clarify their responsibilities and authority, but

no specific guidelines were forthcoming. The lack of response by the MoH might have been due to the following:

- Lack of agreement or ambivalence within the MoH (and Civil Service and Ministry of Finance) about devolving authority.
- Negative sentiment in the government and donor community about the poor performance of many parastatal corporations.
- The fact that KNH has absorbed a greater share of the MoH budget since autonomy, rather than less, as intended.
- Other reasons, such as the different viewpoints among the Health Reform Secretariat (HEROS) and other divisions of the MoH.

For whatever reason, specific guidance was not forthcoming from the MoH, Civil Service, or Ministry of Finance—the three ministries affected by a decision to grant hospital autonomy.

Further, the AFS Project supported technical assistance to review the issues of decentralization, including hospital autonomy, in the spring of 1997 (described in Chapter 2). Although these practical studies, based in part on the evolving experience in Colombia, were well received, they did not result in any further clarification of policies. In any event, based on the previous experience with KNH and with cost sharing, it was clear to the AFS team that increased revenue and improved services at hospitals were essential for their survival, regardless of the pace of decision making regarding autonomy.

Selection of Coast Provincial General Hospital

Despite the lack of a clear policy for hospital autonomy, the MoH asked the AFS Project to assist Coast PGH to prepare itself for possible autonomous status, presumably based on the example of KNH.[1] The AFS Project chose to start the assistance process by supporting the installation of cash registers to increase collections under cost sharing (see Chapter 4). Along with increasing collections, the AFS team believed that it was important for the hospital to show visible improvements inpatient care. The MoH also considered Coast PGH a potential model for gradual autonomy of all PGHs.

The initial assessment to determine Coast PGH's readiness for autonomy was conducted in February 1998 by an AFS consultant experienced in hospital management.[2] In that assessment, the consultant concluded that "dramatic improvements are needed in the organization's performance . . . the existing organizational systems are almost all malfunctioning or broken and need replacement. If nothing is done to improve the organization's performance, it surely will not succeed as an autonomous institution." He recommended a restructuring and re-engineering process to effect dramatic improvements over a two- to four-year period. The report also detailed key problems in the areas of organization and governance, staffing, patient care, and finance and accounting. In reviewing the findings and recommendations with the hospital and MoH staff, the consultant and AFS team presented them in the context of hospital autonomy, although the MoH's intentions on granting autonomy were not clear.

Facility Improvements: Support from JICA

Beginning in 1995, the MoH negotiated with JICA for a grant of $8.5 million to fund improvements in the physical plant at Coast PGH. MoH officials considered upgrading the hospital's infrastructure to be a necessary step toward improved services and eventually autonomous status.

The JICA project achieved many improvements, including:

- Construction of a new maternity block, which included labor and delivery beds, postpartum beds, two new operating theaters with necessary equipment, new postoperative acute beds, and a new preadmissions examination area.
- Renovation of the previous labor and delivery ward and changes in the postnatal ward.
- Construction of new laundry and kitchen facilities, with necessary equipment.
- Construction of new toilets and showers for the medical and surgical inpatient wards.
- Renovation and necessary equipment for the main operating theaters; lab, x-ray, and dental services; and intensive care unit.
- Renovation of mortuary to increase capacity from 30 to 120.

The AFS technical assistance worked in parallel with the JICA physical plant renovation. The project developed a list of training needs based on the new equipment and sponsored the attendance of many staff members at refresher training programs in Nairobi hospitals and in Japan. In addition, AFS consultants developed a cost estimation strategy (CES) to determine the costs of drugs and medications for the new maternity service in early 1999.[3] This model was tested and adapted specifically to the needs of Coast PGH. The results were used for budgeting of nonpersonnel costs. The AFS team also assisted the hospital management in the phasing in the new units as they were completed and in determining what training and other supplies were necessary for the units to function effectively once they were commissioned.

Mentoring Strategy

The AFS team used a "mentoring" strategy to organize the project's technical assistance to Coast PGH. This strategy was based on having an experienced hospital administrator working alongside the administrator, senior management, medical staff, board, and staff as an adviser-mentor.

The AFS team hired an experienced hospital consultant as the resident health management adviser. With his 30 years of hospital administration experience—from laboratory technician through chief executive officer—he brought a great deal of experience to the assignment. At Coast PGH, he worked first with the administrator, senior management, and board to prepare an action plan, which was completed in August 1998. The plan included a wide range of activities, starting with reorganizing management and clarifying roles and responsibilities. The adviser also coordinated specific technical work based on the hospital's priorities. He was based in Nairobi

but spent nearly half his time on Coast PGH activities, usually in Mombasa, from April 1998 through September 2000, and returned in March 2001 to complete store management computerization.

The AFS team also experimented with an intensive three-month mentoring process with another hospital specialist, a retired U.S. hospital administrator who lived in Mombasa in spring 1999. He focused primarily on improving the materials management system at the hospital.

Other mentoring was by two nursing consultants. One worked full-time with the nursing staff on organization, training, and patient care management from November 1999 through July 2000. The second focused on improvements in the Emergency (Casualty) Department. The details of their work are discussed later in this chapter.

The mentoring process worked well, due in large part to the extensive experience of the AFS hospital adviser; his ability to relate to the hospital management, board, and staff; and his willingness to provide advice and assistance on a wide range of strategic and operational tasks. Having run many hospitals, he could see the "big picture" for the hospital, as well as understand the significance of the thousands of activities involved in providing high-quality patient care. He did not insert himself into hospital decision making but was available for advice and counsel. He worked with the staff to develop policies and procedures in many areas, including the production of a hospital operations manual,[4] a board of directors' manual,[5] and various strategic documents. He also organized specialized technical assistance in the Emergency Department and in the nursing service, as well as assisting with the implementation of the financial systems, including the networked cash registers and computerization of stores management.

Hospital Re-engineering Action Plan

The AFS hospital adviser developed an action plan with the hospital management and board, based on findings from his initial assessments and the hospital staff's perspectives and priorities.

Table 5-1: Key Steps in Hospital Re-Engineering "Strategy

KEY STEPS IN HOSPITAL RE-ENGINEERING STRATEGY
• Restructure/redesign organization - Staffing patterns—top-heavy in nursing management - Too many direct reports to hospital administrator - Poor morale among staff • Provide orientation and training (board, management, staff development) • Organize systems re-engineering objectives (prepare the organization; select steering committee) - Phase I systems (financial, human resources/personnel, drugs/supplies) - Phase II systems (patient intake, patient care delivery) • Implement re-engineering objectives • Measure new systems performance • Update communications plan—communicate results to staff

Management Structure and Approach

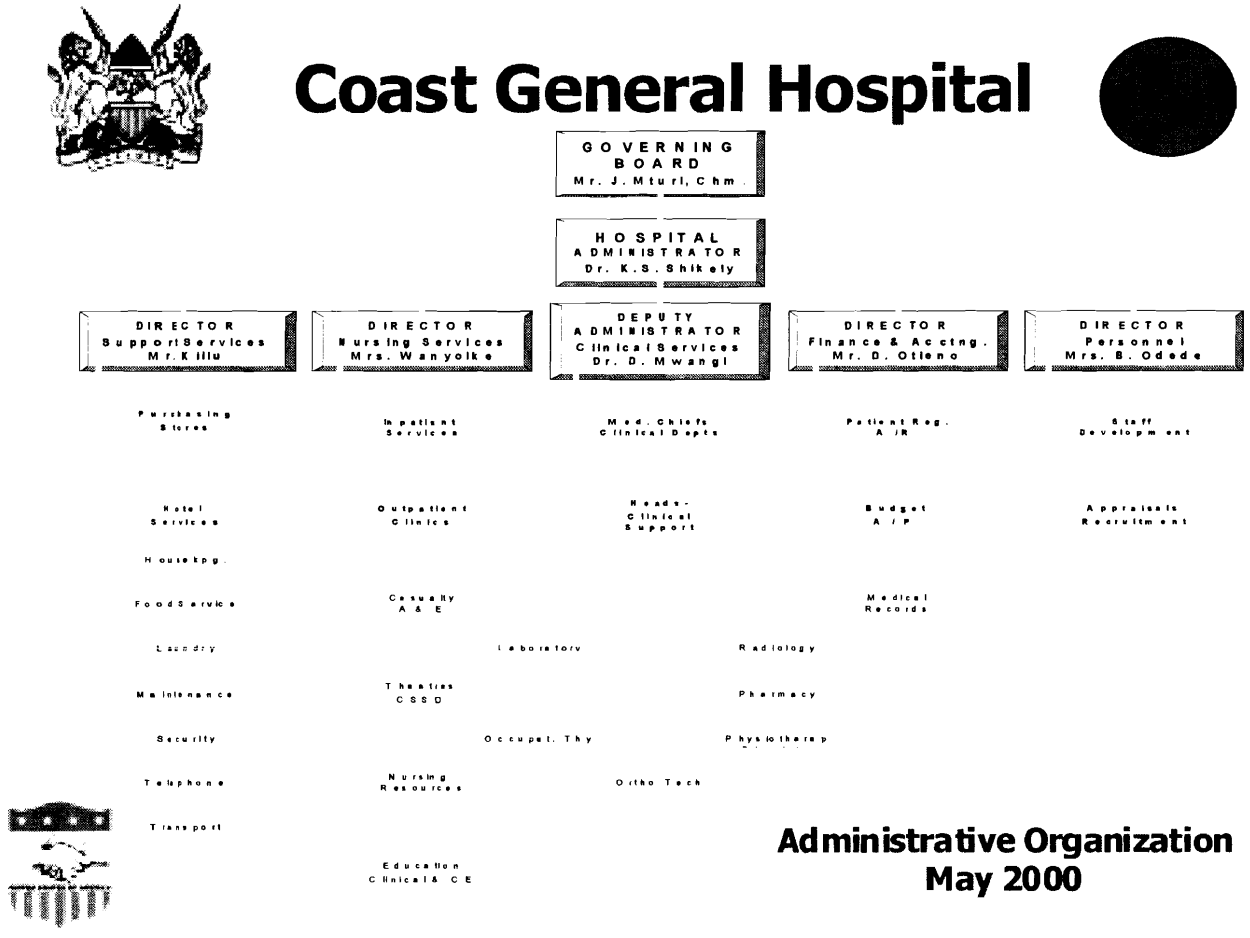
The first step was to formalize the working relationship between Coast PGH and the AFS Project. Under the memorandum of understanding signed by both parties, the technical assistance areas were specified, along with the hospital's responsibilities. An important preliminary step was for the AFS Project to negotiate a formal memorandum of agreement with the administrator and board chairman of Coast PGH, defining the terms of the technical support requested by the hospital. Second, the management adviser and the hospital administration jointly conducted a training needs assessment for hospital managers. Third, a local research firm was commissioned to conduct a community survey of public perceptions of the hospital, including patients and hospital staff. The results of this survey provided independent information that the hospital used in creating the action plan to improve its operations.

Bases on these findings, the management and board agreed upon a streamlined organizational structure to manage the hospital. This structure, which is shows in Figure 5-1, greatly reduced the number of people reporting directly to the Chief Administrator.

Community Assessment of Hospital Services

During 1999 the AFS Project supported a structured community survey of perceptions about Coast PGH, including most prevalent diseases, quality of services in individual hospital departments, attitudes of staff, and comparisons between Coast PGH and other hospitals. The survey, conducted by a local firm, Research International, provided detailed information on areas where the hospital should focus its improvement efforts.[6] The survey also provided certain baseline data that proved useful in measuring quality and service changes after much of the hospital re-engineering had taken place.

Figure 5-1: Hospital Organizational Chart



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Financial Strategy and Impact of Cash Registers

There were two parts to Coast PGH's strategy to improve its financial condition:

1. *Funding of capital improvements:* The JICA capital improvement project covered the new construction and major renovations, with cost-sharing revenue to support maintenance and other nonstaff operating costs. Other capital improvements were funded from cost sharing, including renovation of the Emergency Department in June 2000, and painting of the hospital and ward renovation in August 2000.
2. *Funding of recurrent costs:* The sources of revenue for recurrent costs (staff salaries, drugs, supplies, and other nonpersonnel costs) were discussed in detail in Chapter 4. They included:

    a. *Government (for staff, nonstaff):* Recurrent revenue from government was decreased for staffing, as well as for operations and maintenance expenses. The shortfalls in operations and equipment led to shortages in supplies and drugs that affected all departments.

    b. *Patient fee income:* Because of inadequate government funding, the priority activity in revenue generation was the installation of networked cash registers to reduce fraud, increase transparency, and provide greater cost-sharing revenue. As described in Chapter 4, the process of increasing revenue through the cash registers required many different initiatives by hospital management, including training and replacing staff, careful monitoring, and specific systems to ensure that charges were properly documented and captured for billing. Fee income from patients increased over 400%.

    c. *NHIF reimbursement:* The effort to increase National Hospital Insurance Fund (NHIF) billing and collections required many steps as well and was hampered by NHIF's slow and uneven processes. Annual revenue from NHIF decreased slightly over a four-year period, with the low point in 1997-98.

Governance and Board Development

The hospital board was appointed in October 1996. The board chairman was an experienced businessman in the community, and the board consisted of a cross section of people representing the community. The AFS Project worked with the board and administration to define their respective roles, to conduct strategic planning and reorganization of the administration, and to oversee the cash register system and subsequent changes in operations at the hospital. The board developed its own set of bylaws to codify its role and responsibility, particularly with respect to the hospital administrator.

Although the terms of the board's appointment permitted it to operate, the guidelines were vague with respect to key issues of governance. Specifically, it was unclear whether the hospital:

- would become autonomous;
- had the power to hire, discipline, reward, and fire staff based on performance; and
- had to remit 25% of its cost-sharing revenue to the districts for preventive and primary health care programs.

Through periodic letters and conversations, the board chairman attempted unsuccessfully to get these issues clarified by the MoH. As a result, the board and administrator's inability to hire and, if necessary, fire staff remains as an important obstacle to better quality and more efficient hospital services.

Steps to improve governance of the medical staff have moved more slowly. Under the hospital reorganization, two sets of bylaws—one for the hospital and one for the medical staff—were drafted.[7] The board has adopted the hospital bylaws (part of a manual for operating the hospital) as its method of operation. A chief of the medical staff has not yet been appointed, and the medical staff bylaws are not yet approved. The medical staff bylaws contain many important provisions, including procedures for appointing staff and granting clinical privileges, organizing the medical staff and clinical departments, assessing the quality of medical care, creating committees of medical staff members, and implementing the disciplinary process and rules and regulations. The next step is working with the medical staff to implement the bylaws and to strengthen their ability to improve the quality of care.

Implementation of Hospital Re-engineering

After the cash registers were installed, questions focused on what technical assistance approaches made sense, and whether these should be in the context of hospital autonomy or simply improving hospital operations within the existing government structure. The AFS health management adviser took responsibility for sorting through and prioritizing a set of activities. Because the government's position on hospital autonomy was not clear or forthcoming (despite many press announcements), the strategy was based on principles of good hospital management and focused on operating systems and management development, as well as board strengthening, with no assumption that legislation or regulations granting explicit hospital autonomy would be forthcoming.

The hospital action plan was completed by the hospital administration and approved by the board in October 1998. The many detailed steps are organized into five technical areas: assessment, organization, systems, care management, and materials management. The various activities and their timing were guided by the priorities established in the action plan, the availability of specialized technical consultants, and the speed of implementation by the hospital administration, which varied considerably among activities. In general, the revenue-increasing systems and patient care management improvements moved rapidly, while the changes in organizational structure, materials management, and medical staff structure were implemented more slowly.

Table 5-2: Activities in Hospital Re-engineering

DATE		TECHNICAL AREA	INTERVENTION
1998	Feb	Assessment	Conducted operational assessment and feasibility using **Hospital Assessment Tool;** developed model for conversion to autonomous status
	Aug	Systems	Installed cash registers at six collection points
	Sept Oct	Systems	Re-engineering plan approved by the hospital management and board; communicated plan to hospital staff
	Oct	Systems	Developed **Financial Management Information System:**
	Oct	Organization	"Delayered" organization- new structure- more horizontal- fewer people directly reporting to administrator
	Dec	Assessment	Community Survey to measure patients' perceptions
	Dec	Care Management	Customer care workshops
1999	Mar	Systems	Reviewed and simplified discharge procedures; dramatic revenue increase
	Apr	Systems	Workshop on costing hospital services
	Apr	Materials Management	Fujisaki: Costing of new maternity services (non-personnel costs)
	May Aug	Materials Management	Warren: Developed purchasing system
	May	Organization	Model by laws developed for medical staff
	June	Care Management	Platt: Assessment of emergency services
	July	Organization	Developed orientation/training program for board (draft bylaws plus training modules)
	July	Organization	Leadership and teambuilding course for senior management
	Aug	Care Management	Customer care training for middle and senior management
	Sept	Systems	Cost sharing workshop for management
	Sept	Care Management	Presentation of case management to medical and nursing staff
	Nov-July, 2000	Care Management/ Organization	Ytterberg: Nursing staff organization: outpatient and inpatient nursing operations; nursing organizational chart; training of specific nurses; established QA and Disaster Preparedness Committees
2000	Feb	Organization	Clark: conducted strategic planning and board training workshops
	Mar	Organization	Revised organization chart produced and implemented
	June	Care Management	Renovated casualty department
	Aug	Care Management	Implemented CPR (resuscitation) training
	Aug	Care Management	Developed clinical pathways for pediatric unit
	Aug	Organization	Reviewed potential for outsourcing laundry and kitchen services
	Aug	Organization/Care Management	Clark: Completed Operations Manual, Board Handbook, and sample procurement manual
	Sept	Systems	Upgrading of software for cash collections to include patient registration data

With the appointment of a new administrator in February 2000, the pace of implementation increased. However, the departure of the AFS hospital adviser at the end of his assignment in September 2000 slowed the pace of certain activities. Implementation of a functional medical staff organization and a materials management system for supplies and drugs were reviewed by the AFS Hospital Advisor in March 2001 and a draft complete copy of medical staff bylaws was agreed upon.

Improvements in Emergency Room Services (Casualty Department)

The consultancy of a nursing specialist in emergency services in May–June 1999 provided an in-depth assessment of emergency services at the hospital.[8] The consultant reviewed patient flow, utilization of space, nursing process and quality of care, staffing, equipment and supplies, training, routine maintenance and sanitation, management and supervision, and disaster preparedness and response. Based on the findings and recommendations in the report, the hospital undertook training of staff in customer/patient relations, added necessary equipment, renovated the area to improve patient flow and efficiency, and organized specific training sessions in nursing practice and improvements in quality of care. These activities were funded through cost-sharing revenue, plus technical assistance through the AFS Project.

Improvements in Nursing Services

A senior nursing technical adviser provided extensive technical assistance to the nursing services over a nine-month period from November 1999 through July 2000.[9] During her first three months, she conducted a comprehensive assessment of the hospital nursing outpatient, inpatient (including pediatric and intensive care), maternity, and operating theater departments. The assessment took place during a period of constant change, as various units were being renovated, supply systems improved, and additional equipment was provided. The detailed recommendations covered the entire nursing organization, plus specific recommendations for each of the separate departments.[10] The general recommendations included organizational changes to improve efficiency and effectiveness, rules and regulations to be written by senior nursing managers, improved cleanliness throughout the hospital, inclusion of patient care equipment in the hospital maintenance program, and various training programs for nurse managers and nursing staff in quality of nursing care, infection control, and staffing.

The implementation took place in two phases. Phase I, from March to May 2000, focused on restructuring the nursing organization, organizing committees and appointing members, developing job descriptions, electing and appointing matrons to new nurse manager positions, and assessing training needs for nursing management. Phase II, from May to August 2000, focused on training for nurse managers and charge nurses, review and revision of patient flow and nursing functions, and the development of guidelines for a nursing quality assurance program. Some of the implementation steps were delayed by the replacement of the director of nursing by the MoH central staff in March 2000.

Utilization Management

The AFS utilization management nurse assisted in transferring the care management experience from the Aga Khan Hospital (AKH) in Nairobi to Coast PGH as a means of improving quality. The concepts of clinical pathways were introduced to key hospital staff, and a multidisciplinary team was formed to begin development of these pathways for the pediatric wards. This team has now completed pathways for lower respiratory tract infections, malaria, and gastroenteritis, and a program of in-service education on clinical pathways and quality improvements is under way. Admission and discharge procedures have been improved, and a tentative date for trials was set for March 2001.

Infection Prevention

A review of basic infection prevention practices was completed at Coast PGH in early 2001. The results indicated poor practices in infection prevention in place. This finding was a major concern to the hospital administration due to the incidence of communicable diseases in the hospital environment.

AFS supported the implementation of a pilot project on infection prevention in the pediatric and maternity departments. Resources were made to support education and to assist the infection prevention committee to develop a prevention policy and procedure manual. Another audit was scheduled in May 2001 to evaluate the effectiveness of the pilot study.

Measurement of Quality Improvements

The AFS Project conducted an assessment of the changes in quality of care from June 1997 through March 2000 under the direction of a member of the AFS technical team.[11] The study was designed to determine whether the AFS financial and management interventions had contributed to changes in the quality of care and to develop tools for routine quality assessment. The baseline data were assembled from a quality assessment questionnaire administered in 1997, the results of the community survey by Research International, and staff focus groups and patient questionnaires in 1998. Similar studies were done in April–May 2000.

This study demonstrated that quality at Coast PGH had improved significantly according to patients, with much of the change due to better facility conditions and improved supply of drugs and other inputs. The patient survey reported that hospital services had improved dramatically from baseline scores of 47% for both inpatient and outpatient services in 1998 to 88% for outpatient services and 80% for inpatient services in 2000. Patients noticed the improvements in the physical plant, including those funded by JICA and from cost-sharing revenue. Both inpatients and outpatients reported that they would like to see greater availability of drugs, which remains a problem. In contrast, the feedback from staff was somewhat negative, focusing on malfunctioning processes and low pay. Staff also complained about the lack of a formal communication chain, despite AFS efforts to restructure medical and nursing staff organizations.

The quality of care survey showed an overall improvement, although some of the complaints from staff were also reflected. Data from all three instruments suggested that the physical infrastructure and availability of supplies had greatly improved, but management and human resources processes were still areas of concern. These results reinforce findings from previous studies that revenue increases will translate into quality improvements only if processes improve. Recommendations from the study therefore focused on improving the processes and conditions related to hospital staff.

Assessment of Five Other Large Government Hospitals

The MoH, in the interest of moving the decentralization process forward, requested AFS support in conducting operational assessments of five other large hospitals to determine the feasibility of their autonomy. MoH staff participated in the assessments, using the hospital assessment tool. In May–June 1999 the team completed assessments of Nyanza, Rift Valley, and Nyeri Provincial Hospitals.[12] In October 1999 assessments of Moi Teaching and Referral Hospital and Kakamega Provincial Hospital were completed.

The findings and recommendations resulting from these assessments were consistent among all five MoH institutions and with the first assessment at Coast PGH. The re-engineering action plan developed for Coast PGH could be readily adapted and implemented at the other five institutions. The recommendation to install cash registers was implemented at all five hospitals during 2000. The experiences, constraints, lessons learned, and recommendations from Coast PGH are in large part applicable to the other hospitals. The time frame of two to four years for successful conversion to autonomous status is a minimum for these institutions. A three- to six-year time frame for a successful transition is more realistic. In the absence of a clear decision regarding the autonomy of the hospital board, however, many important decisions affecting appropriate staffing are unlikely to be achievable in these institutions.

Constraints Affecting Hospital Re-engineering

The observations listed below are based largely on the final report of the hospital adviser, who directed the technical support to Coast PGH and mentored its leadership and also directed the assessments of the other five government hospitals:[13]

- The lack of hospital control over personnel (retained by the MoH and Civil Service) negatively impacted improvements because of (1) a lack of staff continuity as a result of transfers, particularly managerial, and (2) an inability to implement corrective action or discipline and performance-based incentives when appropriate.
- The organizational culture in general lacked motivation and a sense of responsibility and accountability and did not focus on improving the organization and the quality of patient-client services.
- The lack of a middle management group committed to quality improvement, problem solving, and team building was a general barrier to implementing institutional reform.

Lessons Learned

Hospital re-engineering encompasses positive changes that improve quality, lower costs, and improve access. Often the process is stymied by lack of additional resources and an outside catalyst. Although both these factors can help facilitate change, they are not the only important elements for positive change.

1. Hospital re-engineering can be achieved in large government hospitals through focused, sustained efforts, combined with selective capital improvements and improved operating systems. The process of improvement is likely to be more difficult under the bureaucratic constraints of a government structure than under an autonomous structure. In either case, the process is arduous and requires a considerable period of time.
2. A realistic time frame for significant improvements is three to six years, not two for four, as originally conceived for Coast PGH. The process of quality improvement would probably be shorter if it were combined with a process of phased autonomy under which management power was transferred to the board from the MoH in specific steps.
3. This long time frame for improvement requires well-qualified and committed managers. They must be visionaries and catalysts for change, as well as overseers of the implementation of change. Continuity of service and reward for good performance are most important for this leadership group. Arbitrary transfers to other institutions can disrupt the entire process.
4. The re-engineering process requires a combination of systems, policies and procedures, training, and, above all, excellent communication to build support and commitment from as many staff members as possible.
5. Many of the necessary tools and techniques for hospital re-engineering are available from the AFS Project's work at Coast PGH, Chogoria Hospital, and Aga Khan Hospital and other work by Management Sciences for Health and other consulting organizations. Skilled technical assistance is still critical. The motivation, continuity, and sustained commitment must come from the hospital board and management team, with support from key MoH and other government officials.
6. During the early phase of restructuring, senior and middle management positions should be reviewed and revised to include job qualifications. Then the appropriate persons should be appointed to these positions. This process of defining roles and responsibilities and selecting the most qualified individuals should be completed early in the process in order to build a solid and competent management team.
7. Management development is essential, and new managers should take a general course in management.
8. If the hospital has control of its staff, a performance-based incentive program can be effective in recruiting and training managers and other critical staff.
9. At the same time that the management team is formed and trained, the medical staff organization should be developed and implemented. Without definitions of roles and responsibilities and appointment of key doctors to committee responsibilities, the hospital cannot manage its service delivery responsibilities.
10. Rapid change in a hospital breeds fear, and fear often congeals into rigidity, which is mistaken for stability. This reaction may not be preventable, but it can be anticipated and planned for.

11. The re-engineering process demands ongoing monitoring and measuring of the performance of new systems and updating of the communication process to staff. These critical steps require leadership involvement, ambitious goals, and work on critical systems.
12. Regarding the capital improvement project, it is important that hospital managers be involved from the planning phase, particularly for the selection of medical equipment. This involvement is critical to ensure the availability of technical and operators' manuals, cross-training of staff, start-up inventory of spare parts, and a proper inventory and preventive maintenance program.
13. Successful conversion to autonomous status depends on having a legal framework in place that supports full control of the hospital by its local board, and commitment of the board.

Notes from this chapter:

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[1] In fact, Moi Teaching and Referral Hospital in Eldoret was granted autonomy in July 2000, and the policies regarding Coast PGH have not been clarified.

[2] Jay Clark, "Operational Assessment and Feasibility Study for Autonomous Status: Coast Provincial General Hospital" (AFS Project, 24 February 1998).

[3] Tomoko Fujisaki, Shirley Ko, and Maria Pia Sanchez, "Costing the Maternity Services at the Coast Provincial General Hospital" (Nairobi: Management Sciences for Health, April 1999).

[4] Jay Clark, "A Hospital Operations' Manual: Decentralising Healthcare in Kenya: Transforming Public Hospitals into Autonomous Institutions" (Ministry of Health, Government of Kenya, Management Sciences for Health, October 2000).

[5] Jay Clark, "The Hospital Governing Board: Members' Handbook" (Ministry of Health, Government of Kenya, Management Sciences for Health, September 2000).

[6] "Coast Provincial Hospital, RI/2454: Final Report on Main Findings" (Research International, AFS Project, 1999).

[7] Jay Clark, "Hospital Medical and Dental Staff ByLaws: Model Staff ByLaws" (Management Sciences for Health, October 2000).

[8] Georgianna Platt, R.N., M.A., "Assessment of the Hospital Emergency Services Department: Coast Provincial General Hospital" (AFS Project, Management Sciences for Health, June 1999).

[9] Lorea Ytterberg, R.N., Ph.D., "Reengineering Hospital Nursing Services: Coast Provincial General Hospital. Final Report" (AFS Project, Management Sciences for Health, July 2000).

[10] Lorea Ytterberg, R.N., Ph.D., "Assessment of the Hospital Nursing Outpatient, Inpatient, Maternity, and Operating Theatre Departments: Coast Provincial General Hospital. Final Report" (AFS Project, Management Sciences for Health, February 2000).

[11] Zahra Hassanali, "Quality of Care from Staff and Patient Perspectives at Coast Hospital, Kenya" (AFS Project, Management Sciences for Health, November 2000).

[12] Jay Clark, "Operational Assessment of Three MoH Provincial Hospitals" (AFS Project, Management Sciences for Health, July 1999).

[13] Jay Clark, "A Final Report of Health Systems Management Advisor"(AFS Project, Management Sciences for Health, September 2000).

CHAPTER 6. IMPROVING SERVICE MANAGEMENT THROUGH COSTING OF SERVICES

Summary

The APHIA Financing and Sustainability (AFS) Project introduced the use of various new costing tools to the government and to nongovernmental organizations (NGOs) and private organizations it worked with. Three types of costing models were used: (1) a cost and revenue model (CORE) for clinic services, (2) a hospital costing tool for hospital services, and (3) a cost estimation strategy (CES) for drug and supply costs primarily in hospitals. The new tools for costing of services—which include spreadsheet models linking cost to volume of services delivered—permit organizations to understand their unit costs, utilization of staff time, and use of other costly inputs such as drugs. They also permit what-if analyses that show the impact of different inputs and volumes of services on unit and total costs.

The costing of services was an integral part of the technical assistance to each organization. As a result, the specific results from each organization's analysis were available for decision makers. In many cases, costs could be compared across organizations, providing a unique perspective on how an organization's costs per service compared with those of their peers. Many organizations used the costing model as the basis for prospective budgeting, and also for decentralizing more management responsibilities to the heads of departments, such as the nursing wards, laboratory, and pharmacy in a hospital.

Problem

The costing of services is an essential part of understanding how to improve efficiency in service delivery. Most health services in developing countries, particularly in the government sector, are quite inefficient, in addition to being severely underfunded.

The new tools for costing of services—which include spreadsheet models linking cost to volume of services delivered—permit organizations to understand their unit costs, utilization of staff time, and use of other costly inputs such as drugs. They also permit what-if analyses that show the impact of different inputs and volumes of services on unit and total costs. Also, clinicians are better able to select treatments that contain costs, maintain treatment standards, and improve outcomes.

Without the use of these tools, it is difficult for program managers and funders to understand how to correct deficits, rationally price their services, and become more financially sustainable. However, these tools are poorly understood and require input from both financial and clinical experts.

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Actions Taken

The AFS Project introduced the use of various new costing tools to the government and to nongovernmental organizations (NGOs) and private organizations it worked with. Three types of costing models were used: (1) a cost and revenue model (CORE) for clinic services, (2) a hospital costing tool for hospital services, and (3) a cost estimation strategy (CES) for drug and supply costs primarily in hospitals. The hospital costing model was also linked to a quality measurement tool that permitted the calculation of a cost per unit of quality as a comparative measure. The AFS Project also conducted a training course in health services costing for accountants and clinicians from 13 institutions. The course covered both clinic and hospital service costing.

In addition, other costing models were adapted for analyzing clinic performance (see Chapter 10 on the incentive program developed in the Chogoria clinics). Another model was developed for a private managed care organization to use in pricing its insurance products based on provider costs and utilization patterns.

Application of the costing techniques used a combination of local and Management Sciences for Health (MSH) experts, other local consultants, and staff from the participating organizations. In each case, the costing tools were introduced to provide the potential for ongoing use as new data were developed and new alternative approaches were considered. Many of the organizations now have the capacity to manage these costing tools themselves. Others rely on local experts to assist them.

Results

Costing of services was an integral part of the technical assistance to each organization. As a result, the specific results from each organization's analysis were available for decision makers. In many cases, costs could be compared across organizations, providing a unique perspective on how an organization's costs per service compared with those of their peers. The CORE tool had been developed prior to the AFS Project, but both the hospital costing tool and the CES tool were further developed and refined with AFS Project resources.

Since the costing exercises require the participation of both clinical and financial staff, in each institution where costing took place, a cooperative dialogue replaced the traditional communications barrier between these two groups of experts. Although the costing tools do not substitute for good management or entrepreneurial leadership, they assisted each organization to better understand its cost and service delivery structure and how to make constructive changes. In several cases at Aga Khan Hospital, the costing tools were used to analyze the different costs that would result from using specific clinical guidelines or pathways, resulting in dramatic savings, as well as admission screening criteria to assess whether patient stays are avoidable.

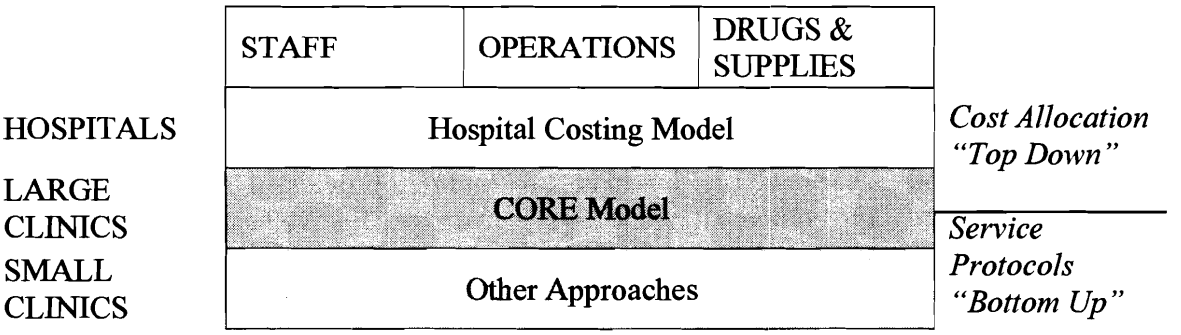
The work on costing also led to a better appreciation of the need for certain key information to be produced accurately and in a more timely manner. These data include

full cost information, such as staffing patterns, salaries, and equipment costs. In addition, data on key service statistics, such as outpatient visits, inpatient bed days, and lab tests, are needed. By using this information for costing analysis, the data sources improved. Finally, many organizations used the costing model as the basis for prospective budgeting, and also for decentralizing more management responsibilities to the heads of departments, such as the nursing wards, laboratory, and pharmacy in a hospital.

Development of Tools by MSH

MSH developed three tools for the costing of services at the clinic and hospital levels, as well as one survey for measuring quality in hospitals. These tools, which facilitate the financial management of both health clinics and hospitals, are used to analyze the current activities of an organization in terms of meeting operational costs, such as those related to labor, supplies, capital, and so forth. The technical activities of the AFS Project contributed to the development of these tools. The exception is the CORE tool, which was completed by Management Sciences for Health in 1998 and used extensively in Kenya.

Figure 6-1: Application of Costing Tools



CORE: The first tool, CORE, is a spreadsheet-based application for analyzing and comparing a clinic's costs and revenue by service and for comparing costs and revenue among facilities within an organization.[1] This costing tool uses a "bottom-up" approach to costing in which each service is analyzed in terms of the staff time, clinical supplies, medicines, and other supplies used to deliver one unit of service. Managers can use CORE to improve the efficiency and financial viability of existing services and as a resource for meeting major management challenges, such as the expansion of existing services, the integration of new services, or the improvement of financial sustainability.

Hospital Costing Tool: The hospital costing tool is also a spreadsheet tool and is similar to CORE in structure but is designed to accommodate the complexity of the hospital setting.[2] It relies on a "top-down" approach in which costs are allocated to the departmental level, without specifying the inputs involved in delivering each service. It provides hospital administrators with the necessary information to:

- Measure the performance of different wards or units.
- Examine the composition of staff and supply costs.

- Assess revenue generation with regard to service costs.
- Link unit costs to quality measures.
- Compare costs with those of other hospitals.

Like CORE, this information can be used for current decision making on expenses and revenue, as well as for planning purposes, such as making cost projections, budgeting, and scenario planning.

The hospital costing model and Quality Measurement Survey were refined from models developed under the Kenya Health Care Financing (KHCF) Project.[3] These earlier tools were used to perform calculations for the "Curative Gap Financing Study."[4] Under the AFS Project, these tools were refined, including improving the layout and integrity of the spreadsheets, producing user manuals and protocols for data collection, and developing training exercises and materials.

Quality Measurement Survey: The Quality Measurement Survey is based on a questionnaire that scores measurable inputs that affect quality in a hospital.[5] The tool was developed in 1994 by the KHCF Project as a method for the National Hospital Insurance Fund (NHIF) to measure the quality of its accreditation process. In addition, it was linked to hospital costing to provide a method for NHIF to reimburse hospitals based on the quality of their services and to provide a positive incentive to improve quality. Although NHIF never implemented this novel reimbursement system, the tool was tested by NHIF inspectors and has been used off and on since then.

CES: The CES tool is a spreadsheet-based costing tool that provides a logical way to estimate commodity and equipment needs for selected reproductive health services based on standard treatment protocols, unit costs of commodities, and expected caseloads for identified health conditions.[6] The tool uses protocols for each service and diagnosis as the basis for determining what drugs and supplied are required for the hospital's expected case mix. The objectives of the tool are to:

- Identify essential drugs, supplies, and equipment.
- Quantify and cost the requirements for these essential commodities and items.
- Highlight the cost implications of standard treatment guidelines.
- Demonstrate the cost effects of different treatment options.
- Produce lists of essential commodities for the purpose of monitoring their availability and use (based on standard treatment guidelines).

CES was developed at Coast Provincial General Hospital (PGH) by an MSH team to determine the nonstaff operating costs for the new maternity wing of the hospital financed by the Japan International Cooperation Agency (JICA). Since new hospital construction is rarely budgeted properly, it often does not perform at its intended level of quality. Although the results of the CES analysis at Coast PGH were initially ignored, in 1999 they were introduced as the basis for many of the budget items for the maternity wing.

Management Development Assessment: In keeping with the twofold objective of the AFS Project to increase financial resources for health and family planning services in Kenya and to increase the organizational capacity and self-sufficiency of selected private-sector health and family planning service providers, the AFS team sought to identify key management strengths and weaknesses and to develop corrective plans of action. To this end, AFS used another tool, the Management Development Assessment (MDA),[7] to assess the organizations' management capabilities and identify areas that needed strengthening. The tool works through four major steps: (1) development of a preliminary management map to guide the assessment, (2) development and administration of an MDA questionnaire to collect information on management capabilities within the organization, (3) analysis of survey results and development of a postsurvey management map, and (4) development of an action plan for making management improvements. The MDA provides a formal view of management development and establishes benchmarks against which an organization's progress can be measured.

Clinic Costing

Many of the cases below are discussed in more detail in other chapters. For example, the Mkomani Clinic, Family Planning Association of Kenya (FPAK), and Chogoria Hospital are discussed in Chapter 7; the incentive scheme developed for the Chogoria clinics is the subject of Chapter 10; and the work at the Nandi Hills tea estates and subdistrict hospital is presented in Chapter 9.

Mkomani Clinic Society[8]

The Mkomani Clinic Society (MCS) is an NGO with a total staff of around 50, operating two clinics in Mombasa. These facilities offer family planning, antenatal, maternal and child health, outpatient, and laboratory testing services to low-income patients. MCS also manages a community-based distribution (CBD) program that provides family planning and AIDS education. In 1997, faced with the prospect of drastically reduced funding, the MCS board requested AFS assistance in understanding costs and revenue so that it could make appropriate decisions about reorganizing clinic staff without significantly affecting service delivery.

Using the CORE tool, in February–March 1998 AFS consultants worked with the two MCS clinics to collect and analyze cost, expenditure, and revenue data, focusing on service utilization, user fees, staff salaries and benefits, drug and clinical supply costs, and other fixed costs. The clinics had cost recovery rates of 95% and 85%, and the CBD program had a 10% cost recovery rate. Thus, the degree of revenue increase or cost reduction was not an overwhelming obstacle for MCS.

Using these data, AFS and MCS prepared scenarios to demonstrate what action MCS might take to reduce or eliminate the projected deficit between its expected grant money and its own revenue from operations. The first set of scenarios centered on cutting costs, and the second focused on increasing user fees. The cost-cutting scenarios included

reducing physician services, decreasing CBD staff, and even eliminating the CBD program altogether. However, these measures resulted in only slight cost recovery improvements, although terminating the CBD program increased cost recovery by 16%. In the scenarios involving higher fees, the CORE tool showed increases in cost recovery ranging from 8% to 19%.

AFS consultants recommended that the most effective way for the MCS clinics to become more financially self-sufficient without seriously decreasing the level of services was to raise fees modestly for both curative and CBD services and meet the unrecovered costs through continued, but lower, donor support. After considering the options, the board decided not to increase fees and pursued other remedies in terms of funding increases or cost reductions using the CORE analysis.

Family Planning Association of Kenya

In the fall of 1998, AFS consultants worked with FPAK to conduct a cost analysis of four clinics to help the organization gain a better understanding of the key indicators of their performance.[9] The four clinics were selected for their diversity in terms of location, service, and client mix. This analysis also provided staff with training in cost analysis, enabling replication of the exercise in other FPAK clinics. The ultimate goal was to provide FPAK managers not only with enhanced insight into their existing operations but also with the necessary information to direct future activities. AFS and FPAK staff conducted the cost analysis using the CORE tool. They obtained the necessary data though FPAK's financial information systems, as well as interviews with clinic staff.

In the course of the analysis, AFS and FPAK found several areas where management practices could be improved. Despite a fairly well-developed management information system, various financial and service data were not readily available to managers. Moreover, standard service delivery protocols were absent, hampering efforts to monitor performance.

With regard to financial management, the clinics' sustainability was called into question by the low rates of cost recovery: The average rates among the four facilities ranged from 11% to 22%. Services with the highest rates of cost recovery were treatments for sexually transmitted infections, and those with the lowest rates were maternal and child health services. This finding led AFS to recommend that FPAK pursue broader integration of curative services to facilitate the cross-subsidy of family services. Moreover, the CORE analysis found high unit costs at FPAK clinics, which prompted recommendations to apply rigorous cost-control and -containment measures.

The study also provided comparative data on cost recovery rates, which were much lower for FPAK than for MCS clinics. In addition, the cost per visit at FPAK clinics was much higher than the cost for the same services at Mkomani, Nandi Hills, and Chogoria clinics. For example, the cost per client visit for oral pills was between four and eight times higher at FPAK than at the MCS clinics. A similar comparison of the laboratories at

FPAK's Thika clinic and at Mkomani showed that FPAK could earn a surplus on its laboratory services if it reduced excess staff.

The detailed findings were presented to a strategic planning workshop conducted by FPAK in December 1998. The cost findings contributed to the overall conclusion that FPAK needed to take a more businesslike and entrepreneurial approach to managing its services. FPAK also decided to develop clinic business plans based on CORE cost-revenue scenario modeling. Three clinics developed such plans in 2000, and 10 more in 2001.

Nandi Hills Tea Growers Association

The Nandi Hills Tea Growers Association (NHTGA), an affiliated group of the Kenya Tea Growers Association, operates 17 tea plantations. They finance and operate a medical care scheme for employees and their dependents consisting of 17 dispensaries staffed by a medical doctor, 17 nurses, and 34 subordinate staff. The scheme's operation was characterized by heavy overutilization of medical services and a lack of effective cost-control mechanisms. The NHTGA, interested in establishing a managed health care arrangement, sought AFS assistance in conducting a study of current costs, utilization, and efficiency, with an eye to improving standards of care, increasing financial sustainability, reducing costs, and controlling abuse of the scheme by nonmembers.

In April–May 1998 AFS conducted a cost and utilization study on a sample of four dispensaries on four estates, selected on the basis of their varying rates of utilization and NHIF contributors.[10] Using the CORE tool, the evaluators found that in at least two of the dispensaries, there was excess staff capacity: In one clinic, staff spent only a third of their available time providing services to clients; in another, staff spent less than half their time with clients. Looking at drug utilization, the analysis suggested that waste of drugs through overprescribing was not a problem; in fact, the dispensaries did not have adequate drugs and supplies. An analysis of the cost of malaria treatment versus the cost of individual lab tests for diagnosing the disease indicated that presumptive treatment of malaria would be just as cost-effective and result in more timely treatment This surprising finding focused attention on several weaknesses in the dispensary system: need for a medical director, lack of common treatment protocols and access to lab services, and discrepancies in data reporting between dispensaries and tea estates.

With regard to levels of input and expenditures, either there was great variability among the dispensaries, which would allow for improvement in their management, or the provision of data, particularly with regard to cost, was not uniform among the facilities studied. As in other cases, the study highlighted areas in which record keeping and management of information could be improved, particularly with regard to the development of common definitions and guidelines.

The cost analysis provided a starting point for the new medical director hired by the tea estates, with AFS input, to improve services at the dispensaries.

Chogoria Clinics

The Presbyterian Church of East Africa (PCEA) runs an NGO health care system in Chogoria with one 312-bed hospital, 30 rural primary health clinics, and a network of community health volunteer programs. In early spring 1998 PCEA Chogoria approached the AFS Project for technical assistance in evaluating the feasibility of transforming the 30 rural clinics into more financially independent entities. However, the weak managerial capacity of these clinics suggested that the move to financial independence might not be successful. Reasoning that interventions to change staff behavior would have a better chance of improving clinic performance than privatization would, PCEA Chogoria management chose to modify the basis of clinic staff remuneration. The new incentive system would reward staff on the basis of how well their clinic performed financially. The AFS Project worked with PCEA Chogoria to increase managerial capacity and financial sustainability, with the ultimate goal of making high-quality health care affordable and available to the greatest number of individuals in Chogoria and surrounding areas. The development of the incentive scheme for clinic employees is described in Chapter 10.

Hospital Costing

PCEA Chogoria Hospital

Chogoria Hospital is the largest of three hospitals run by the PCEA in Kenya. The facility provides preventive and curative services in line with the church's mission of serving the community. The hospital was founded in 1927 and had established a strong reputation as a service provider for a catchment area of about 450,000 people. As described in Chapter 7, for several years the hospital had been having difficulty financing its activities and relied on donations to avoid deficits. It had increased its charges steadily to meet higher costs but was losing service volume because of the higher fees and new competition.

Other sources of revenue included patient fees and income-generating projects, such as a restaurant, a petrol station, and the production of intravenous fluids. The hospital's 10-year plan envisioned a move to financial sustainability, with a financing structure based primarily on patient fees, health insurance, and endowment; income-generating projects and donations would play a minor role. To attain this goal, PCEA requested that AFS conduct a cost analysis of Chogoria Hospital's current operations.

In May–June 1998 AFS consultants conducted a detailed study of Chogoria Hospital's operations using the hospital costing model. This study covered all the inpatient wards and clinical departments, outpatient services, and non–health care ventures such as the restaurant and petrol station. The AFS analysis found that rather than earning surpluses, the income-generating projects had management problems that made this difficult to do; for example, the restaurant, despite high volume, operated at a loss. Inefficiency also characterized the management information system; little information regarding cost and

revenue was available to managers to monitor performance, nor was there regular evaluation of departments in those areas.

Using the hospital costing model, AFS consultants also conducted an analysis to derive unit costs for various cost centers, as defined in relation to the hospital's own financial and activity units: the different wards, the laboratory, the pharmacy, the kitchen, and so forth.[11]

Their recommendations regarding the hospital's push toward financial sustainability were to increase the volume of services provided while cutting the costs of those services. The latter could be achieved by competitive pricing, improved quality, and operation of wards at full capacity by opening underutilized wards to non–Chogoria Hospital doctors. Costs could be cut by reducing inefficiency and waste. Increasing revenue by raising prices was not deemed feasible, due to the PCEA's commitment to keeping services accessible to the community and the declining utilization caused by previous prices increases.

The first round of decisions focused on reducing the losses on the nonhospital ventures, which instead of making profits for the hospital were posting losses. The petrol station and the restaurant were leased to independent operators. The second round of decisions was more complex and involved reviewing the costs and services of each department, using the cost analysis as a starting point. As described in Chapter 7, these reviews also led to the decision to implement a comprehensive hospital management information system to provide detailed management and cost information on a current basis. In addition, the hospital decided to install cash registers to manage its collections, based on the experiences at Coast PGH.

Coast Provincial General Hospital

Among the objectives of the AFS Project were to improve the collection rate and accountability of the existing cost-sharing program of the Ministry of Health and to enhance the Ministry's capacity to plan and implement health financing reforms. As part of that effort, AFS collaborated with JICA to improve services at Coast PGH in Mombasa. JICA focused its assistance on renovating the facility, which included building a new maternity ward, providing state-of-the-art services for labor and delivery, and increasing space to accommodate the expected volume. Using the CES, AFS sought to quantify and cost both the drugs and the supplies necessary to provide the services.

Working with Coast PGH staff, the AFS consultants drew up a list of services covering antenatal care, labor and delivery, and postpartum treatment and determined the annual caseload for each. They then identified treatment patterns for the purpose of establishing the commodities necessary to deliver those services. Having obtained this information, the consultants and staff used the hospital records to identify unit costs, as well as consumption data. Results, which were both morbidity based (theoretical) and consumption based (actual), showed that more than 80% of the total commodity costs was attributable to antenatal care, normal and cesarean section deliveries, and neonatal care.

The consultants recommended that Coast PGH staff develop standard treatment guidelines to improve the quality of care, reduce under- and overprescription, and synchronize treatment patterns with the hospital commodity management system, especially with the hospital formulary system. The CES tool assisted the staff in examining the cost effects of different treatment options, thus allowing them to determine the most appropriate and affordable treatment guidelines. Moreover, it facilitated the establishment of a fee structure, as well as the cross-subsidization of costs among different services. In July 2001, Coast PGH intends to develop a fixed-price maternity care package based on repeat use of CES.

Nandi Hills Subdistrict Hospital

In addition to the health care provided by NHTGA dispensaries (discussed above), staff and dependents receive services from a local 72-bed inpatient and outpatient facility, the Nandi Hills Subdistrict Hospital. Looking to more fully integrate the hospital into its scheme and to obtain improved health care, the NHTGA was considering the construction of an amenity ward at the hospital for its employees that would provide cost-effective, quality care. The NHTGA requested AFS's help in determining the feasibility of such an additional facility. One AFS consultant provided a preliminary feasibility assessment for an amenity ward. A second consultant provided a detailed analysis of the costs and benefits of setting up a clinical lab on the tea estates, which would reduce the need for transport of patients to the sub-district hospital for diagnosis of simple symptoms.

Other Costing Activities

The AFS Project supported other costing work in specialized settings for Health Management Solutions, Aga Khan Hospital, and other institutions.

Health Management Solutions

As described in Chapter 9, part of the AFS support to private health-sector organizations was the development of a costing and pricing model for health insurance plans for Health Management Solutions (HMS). AFS was also able to provide technical assistance in the design and ongoing medical management of the plan.

In November 1998 an MSH actuarial consultant completed a model for pricing health insurance products that used preferred provider networks.[12] The pricing model was based on an analysis of the costs of health services provided to HMS clients in both open-panel and preferred provider settings. The model incorporated rates of utilization for hospital services, outpatient visits, and diagnostic services, as well as the average cost per service charged by members' providers. The model can be used with data from an individual company's employees or for a larger group of potential members. In addition, it permits discounts in terms of fees and specific utilization management procedures to be reflected

in the cost of services and the resulting premiums. HMS used the model to price its subsequent preferred provider health insurance products sold to companies.

AFS assisted in this effort by analyzing utilization rates and developing a financial model that could be used to set fair premiums and capitation rates for providers willing to contract to serve HMS clients.

Aga Khan Hospital

AFS staff and consultants working with the Aga Khan medical staff to develop a care management program used two costing tools to determine the cost impact of different treatment patterns for specific diseases. They also supported the analysis and documentation of clinical audits designed to improve patient outcomes, achieve shorter recovery times, and realize substantial cost savings. For example, preliminary results indicated that for children admitted to the pediatric ward for lower respiratory tract infections, there were marked improvements in drug prescribing practices, a decrease in average length of stay from 4.5 days to 3 days, and an associated 30% decrease in hospital costs.

The audits and cost analyses used the MSH hospital costing spreadsheet tool and the CES tool for drugs and nonmedical supplies, both of which were developed and tested in Kenya. In combination with a new clinical audit tool developed by the project, these tools provided a rapid means of assessing compliance with clinical pathways and the associated cost savings. Clinical measurement techniques that compared actual practice patterns with suggested clinical pathways, combined with cost analysis of key factors, provided valuable insights into areas of potential cost savings and quality improvement. Since these techniques examine data at the heart of actual medical and nursing practice, they were developed in close collaboration with the clinical staff. The work to date has provided only an indication of the major improvements in cost-effectiveness that are possible by integrating the two disciplines of clinical pathways and costing of service delivery. The techniques can provide meaningful guidance for health providers in the private, NGO, and government sectors alike.

AFS Costing Course: April 1999

In April 1999 the AFS Project conducted the course "Costing of Health Services in Kenya," attended by 25 participants from 13 different institutions, both public and private. The attendees came from clinical, administrative, and financial backgrounds in organizations the AFS Project was working with or intended to work with in the future. As a result, the course also reinforced lessons already learned and laid the groundwork for new costing work. Some of the highlights of the course, which featured lectures, group exercises, and fieldwork, were sessions on the following:

- Definitions and uses of costing information
- Calculating costs
- Factors influencing costs: scale, quality, efficiency, and issues specific to hospitals

- Measuring cost-effectiveness
- Cost accounting
- Cost and revenue analysis
- Hospital costing
- Fieldwork on costing in a health center and a hospital, including analysis and recommendations

During the fieldwork, the group was divided into two groups for on-site costing at PCEA Kikuyu Hospital using the hospital costing model and at Marie Stopes Clinic in M'uranga using the CORE model. Each team spent three days at the chosen site to collect and analyze the raw data, enter it into the models, and conduct the analysis, which was presented to the entire group at a wrap-up session. In addition, forms used for data collection at the hospital were later incorporated into worksheets for the hospital costing model.

Use of Local Expertise

The AFS Project used local consultants to carry out the costing work in order to build local capacity and ensure that the expertise remained in Kenya. This task was made easier because a local consultant, Stephen Musau, CFA-UK, had been a team member on the KHCF Project and had conducted many hospital costing studies. Previously, Musau had been a partner in a local accounting firm that conducted audits for many mission facilities and NGOs, so he was experienced in their accounting methods and management styles. The AFS Project also recruited other local consultants. MSH costing and modeling experts assisted with the introduction and training in the use of the CORE tool and in refining the hospital costing model. A team from MSH/Boston/Washington developed the CES tool.

Lessons Learned

The work involved in costing health services in Kenya is quite advanced as a result of application of the tools under the KHCF and AFS Projects, as well as the sophistication of many of the partner organizations. However, introducing the tools is not an easy task, and their ongoing use as management tools by the institutions has not worked in all cases. Key lessons learned include the following:

1. The spreadsheet-based cost analysis tools are very powerful tools for the management of clinics and hospitals. They pull together both financial data and service statistics in the form of models that calculate unit costs for the current situation, as well as provide answers to what-if queries.
2. Use of the tools requires expertise in cost analysis and in-depth input and participation by clinical experts in each area. This team approach is essential, since errors in either the financial or the service entries can lead to erroneous conclusions.
3. The team approach usually brings additional benefits in terms of improved communication within the institution and permits more in-depth dialogues about how to increase revenue, decrease costs, and improve services.

4. Use of the tools usually stimulates a demand for accurate and timely data to permit updating and refinement of the analysis. This may require additions to existing information systems or the installation of new systems.
5. Without a team approach, the costing cannot be brought to an adequate conclusion. For example, in the case of the Nandi Hills clinics, the different clinical assumptions and practice patterns made it impossible to accurately analyze actual drug utilization compared with the utilization suggested by the clinical protocols.
6. As the number of institutions using standard costing tools increases, so does the database for comparative information. Comparison of unit costs of similar services, whether in a clinic or a hospital setting, is very important for the institutions involved. A respected clearinghouse for such data, with appropriate safeguards for competitive confidentiality, would assist all health care managers.
7. If the costing work is carried out successfully and the institutional managers appreciate the value of the information for their decision making, the tools are likely to be used later for comparative analysis. The tools are often adapted for planning, budgeting, and stronger departmental management.
8. When the costing is viewed as a requirement of an outside donor, or if the organization does not understand the need for cost analysis, the likelihood of the analysis being used productively is substantially decreased.
9. Although there is an argument against introducing computer-based tools because of their complexity, the reality is that nearly all health service organizations have some computer applications, and there is a high level of interest in learning new skills. The tools provide such greater analytical power than hand calculations that the use of these tools seems justified in most cases.

Notes from this chapter:

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[1] "Cost and Revenue Model" (Management Sciences for Health, 1997).
[2] "Hospital Costing Tool" (Management Sciences for Health, 1999).
[3] Reference work by R. Siegrist and S. Musau under the KHCF Project.
[4] S. Musau, A. Kimunya, and I. Sliney, "Curative Services Financing Gap Study" (Ministry of Health, Kenya, March 1995).
[5] R. Siegrist and S. Musau, "National Hospital Insurance Fund" (Management Sciences for Health, 1994).
[6] "Cost Estimating Strategy" (Management Sciences for Health, 1998).
[7] "Management Development Assessment" (Family Planning Management Development Project, Management Sciences for Health, 1993).
[8] Dayl Donaldson, "Cost and Revenue Analysis of Mkomani Project" (Management Sciences for Health, March 1998).
[9] S. Musau, C. Onoka, and J. Murage, "Cost Analysis for FPAK" (AFS Project, Management Sciences for Health, December 1998).
[10] D. Donaldson, S. Kimani, S. Musau, and S. Njiru, "Cost and Utilization Analyses of the NHTGA Dispensaries" (AFS Project, Management Sciences for Health, May 1998).

[11] S. Musau and S. Kimani, "Chogoria Hospital Costing" (AFS Project, Management Sciences for Health, June 1998).
[12] O. Esguerra, "Actuarial Pricing Model" (Management Sciences for Health, November 1998).

CHAPTER 7. IMPROVING FINANCIAL SUSTAINABILITY OF HEALTH AND FAMILY PLANNING NGOS

Summary

The APHIA Financing and Sustainability (AFS) Project provided technical assistance to three different NGOs offering family planning services: Mkomani Clinic Society (MCS), Family Planning Association of Kenya (FPAK), and Chogoria Hospital operated by the Presbyterian Church of East Africa (PCEA). The work at Chogoria Hospital had the most dramatic results, including a series of financial decisions by the hospital administration team and board to stop money-losing outside ventures, restructure the clinics, take steps to make clinical care more efficient, and install a comprehensive hospital management information system. At FPAK, the management and board took the findings of the comparative cost analysis seriously. It showed a number of inefficiencies in the four FPAK clinics and provided models for successful transition to sustainable status.

Problem

Since the late 1980s, the U.S. Agency for International Development (USAID) and other donors have been collaborating with the Kenyan government to address the following obstacles in the country's health sector: inadequate recurrent support for health and family planning service delivery, limited management capacity and financial sustainability of Kenyan family planning nongovernmental organizations (NGOs), limited private health financing mechanisms, and insufficient government financing for contraceptive commodities and vaccines. These factors have left many organizations heavily dependent on donors not just for start-up expenses but also for ongoing operations. USAID's strategy is to help these organizations develop the means of sustaining their programs without ongoing donor support.

In a broader context, these organizations have an important role in providing affordable services to a growing number of Kenyans. Their task is complicated by increasing costs, an economic decline, and, in some cases, decreasing donor support. Their challenge is similar to that of purely private-sector organizations trying to provide services more cost-effectively to serve clients in lower-income groups.

Actions Taken

First Phase: During this phase, the AFS Project provided technical assistance to three different NGOs offering family planning services: Mkomani Clinic Society (MCS), Family Planning Association of Kenya (FPAK), and Chogoria Hospital operated by the Presbyterian Church of East Africa (PCEA). These organizations were selected by USAID in 1997 as the first group to work with. With each organization, the AFS team provided technical assistance as negotiated in a memorandum of agreement. Parallel activities took place in the costing of services and the assessment of ways to improve financial sustainability. Special activities in strategic and market assessments and improvements in financial and operating systems took place as well.

Second Phase: The project developed a set of criteria for selecting the next round of NGOs and recommended a short list of organizations, from which several could be chosen. After considerable discussion, USAID staff agreed on the framework, but the selection of another group of target NGOs did not take place. In part, this lack of decision reflected the heavy workload involved with the first phase.

Results

The common results shared by all three organizations were in-depth organizational assessments, including detailed cost and revenue analyses of their major programs. In the cases of FPAK and Chogoria, community surveys were also conducted, which provided independent input on the quality, cost, and accessibility of services. Other specialized technical assistance, including the design and installation of comprehensive hospitalwide management systems at Chogoria and strategic planning assistance to FPAK, were also provided.

The work at Chogoria Hospital had the most dramatic results, including a series of financial decisions by the hospital administration team and board to stop money-losing outside ventures, restructure the clinics, take steps to make clinical care more efficient, and install a comprehensive hospital management information system. At FPAK, the management and board took the findings of the comparative cost analysis seriously. It showed a number of inefficiencies in the four FPAK clinics and provided models for successful transition to sustainable status based on two large family planning organizations in Latin America. Although FPAK did not make obvious decisions based on the technical assistance, it now has adequate information to alter its organizational culture and strategic directions. The most important accomplishment is that financial and business planning is not conducted at the clinic level, rather than using the top-down approach of the past. At Mkomani, based on the detailed findings of the cost and revenue study, the board did not take immediate action but developed an approach to a short-run financial shortfall with full information about its operations and the financial consequences of different options.

In a related area, the AFS Project provided USAID and Chogoria Hospital with a blueprint for implementing a USAID-funded endowment in local currency. USAID and Chogoria are working on the final details of the transaction.

USAID Objectives

USAID's objective was to assist selected health and family planning service providers to achieve managerial and financial self-sufficiency. The areas identified for possible technical assistance were improving overall organizational management capacity, introducing cost recovery for family planning services, analyzing and developing new profit-generating services, developing institutional marketing capacity, and establishing donor-funded endowments.

Prior Initiatives

USAID had previously provided major assistance in the area of building the institutional capacity of family planning NGOs through the global Family Planning Management Development (FPMD) Project, managed by Management Sciences for Health (MSH), as well as through other cooperating agency initiatives. MSH activities on the FPMD Project included a number of specific interventions that provided models as well as lessons for the AFS Project. Through the FPMD Project, MSH provided substantial technical assistance in sustainability to the Seventh Day Adventist Rural Health Services, the Family Planning Association of Kenya, and the Maseno West Program.

Selection of NGOs

To facilitate the rapid provision of technical assistance, as well as to cost-effectively provide targeted assistance in a broad range of management disciplines to a varied group, the AFS technical assistance process was divided into two phases.

Phase 1

In the first phase, USAID selected three NGOs in 1997 as the starting point for AFS technical assistance in consultation with AFS and the Ministry of Health (MoH): the Mkomani Clinic Society in Mombasa, the Family Planning Association of Kenya, and the Chogoria Hospital of the Presbyterian Church of East Africa.

Mkomani Clinic Society: MCS is a nonprofit health care organization with a total staff of around 50. It operates two clinics in Mombasa. These facilities offer family planning, antenatal, maternal and child health, outpatient, and laboratory testing services to low-income patients. MCS also manages a community-based distribution (CBD) program that provides family planning services and AIDS education. Its operating budget for fiscal year (FY) 1997–98 was approximately US$ 200,000 with about 30% of its total operating budget coming from patient fees and an average daily turnover of approximately US$500.

In 1997, USAID cut by 55% its funding of family planning and HIV/AIDS services to Pathfinder International, a U.S.-based NGO that had been the main source of financial support for MCS. Faced with the prospect of drastically reduced funding, the MCS board requested AFS assistance in understanding its costs and revenues so that it could make appropriate decisions about reorganizing clinic staff without significantly affecting service delivery.

Family Planning Association of Kenya: FPAK, formed in 1961, was the first sub-Saharan family planning organization to gain affiliation with the International Planned Parenthood Federation (IPPF). This status enabled FPAK to receive both financial and material support from international donor agencies. FPAK is the largest and oldest NGO in

Kenya in the field of family planning and reproductive health. FPAK runs 14 conventional clinics nationwide, plus 3 male clinics. The focus of AFS technical assistance to FPAK was to help the organization reach consensus on the importance of sustainability and adopt realistic strategies to move in that direction.

FPAK is highly donor dependent, with 95% of its revenue coming from the IPPF, the National Council for Population and Development (NCPD), and USAID. As a result, its leadership had not fully grasped the need to ensure the sustainability of its services and was not attentive to the comparative costs of its services and its overall efficiency. FPAK's high service costs and very high donor dependence created the impression that it focused less on financial results than did organizations that were more dependent on patient revenue to fund current operations.

FPAK had an ongoing process of reducing costs and increasing revenue. A task force on sustainability had been operating since April 1995 with a focus on cost recovery, improvement in the cost-effectiveness of services, introduction of new services, and development of a marketing strategy and social marketing. In 1996, a detailed management and financial assessment was completed by Deloitte and Touche,[1] which led to extensive cost-saving measures during 1997.

Chogoria Hospital: Established in 1922, PCEA Chogoria is a mission health delivery system in the Meru district of Kenya that provides preventive and curative ambulatory and inpatient services to a region of approximately 450,000 people. The Chogoria health system includes the hospital; the Community Health Department, comprising a family planning/maternal health clinic on the hospital grounds and 30 rural community clinics; groups of community volunteers; a nursing school; and several non-health-related projects. USAID funded family planning programs through the Community Health Department, including a CBD program.

The hospital has suffered a steady decline in the utilization of its outpatient and inpatient services over the last few years. This decline, combined with rising costs, has forced the hospital to increase fees steadily, which has contributed to the decline in utilization. As a result, the hospital has been running at a deficit (covered by contributions), jeopardizing its ability to continue operations.

Beginning in 1992, Chogoria Hospital started a rural health insurance program in partnership with a Nairobi insurance company, Apollo Insurance Ltd. Despite initial success in enrolling members, the plan incurred large deficits, which were corrected through premium increases and tighter enrollment criteria. The KHCF provided extensive technical assistance as a means of strengthening the insurance plan. However, membership dropped, and the program now serves hospital personnel almost exclusively. Despite this decline in membership, the hospital continues to explore ways to expand the program as a means of making health services more affordable to a larger number of people.

Phase 2

During the second phase, other potential partners for AFS assistance were identified through the use of specific characteristics (related to client volume, target population, location, and so forth) and selected on the basis of such criteria as quality, impact, and community participation. Fourteen nonprofit organizations with family planning programs were recommended by the AFS Project as a short list from which to select additional NGOs as technical assistance partners. The AFS team conducted in-depth assessments of five NGOs in July–August 1999. The decision making was complicated, however. Since the AFS budget passed through the MoH accounts, and since the funds for NGO technical assistance did not directly benefit the MoH, it expressed reservations about spending for the work. This discussion between the MoH and USAID may have delayed the selection of additional NGO activities.

AFS Approach

In its work with all client organizations, the AFS Project used a specific strategy to define and provide technical assistance. This approach was designed to (1) target the technical assistance on the most important problems, (2) establish a clear division of responsibility between the AFS Project and the organization, (3) build on work already completed, and (4) encourage decisions based on the technical recommendations.

Table 7-1
Time Frame for AFS Project

Activity	MCS	FPAK	PCEA Chogoria
Memorandum of understanding	March 1998	April 1998	February 1998
Management development assessment	March 1998	November 1998	February 1998
Community survey	NA	October 1998	October 1998
Costing of services	February 1998	November 1998	June, July, August 1998; January 1999
Other technical assistance	Withdrawn June 1998	November–December 1998	November 1998–September 1999

Memorandum of Understanding

The purpose of the memorandum of understanding (MoU) between the AFS Project and the client organization was to define the terms of the working relationship, particularly the technical assistance to be provided. In addition to establishing the rights and obligations of both parties, the MoU provided for the dissemination of findings to other groups and outlined the client's commitment to make its facilities available for training

purposes. This latter provision was used when visitors from one AFS client would visit another client organization to observe the work in progress.

Management Development Assessment

To assess the NGO's organizational structure and identify areas that could benefit from technical assistance, AFS team members used the management development assessment (MDA) tool. MDA works through four major steps: preliminary management map to guide the assessment, questionnaire to collect information on the organization's management capabilities, analysis of survey results and drawing up of a postsurvey management map, and elaboration of an action plan for making management improvements. Through this tool, AFS teams were able to work with the NGOs to complete in-depth analyses of their organizations' structure, governance, operations, and finances, as well as the framework for identifying areas needing assistance and benchmarks to monitor improvements made. AFS and the NGOs also used previous assessments and audits, when they were available.

The MDA was conducted at Chogoria Hospital in February 1998 by a team from the AFS Project and USAID. They then drafted a postsurvey management development map and a draft action plan. These documents were presented to the hospital administration team in March. After this review and general acceptance, the AFS team reviewed the proposals, and the hospital requested technical assistance within a week. Based on the MDA at Chogoria Hospital, the MSH MDA tool was adapted to the specific needs of the AFS Project.[2]

Technical Assistance Plan

The results of these assessments provided the basis of AFS's technical assistance, the specifics of which were detailed in an MoU to each of the three partners. Common to all of them were agreements to address issues pertaining to management structure, operations, planning, financial management, and financial sustainability (including feasibility of expansion of services, training activities, managed care, and other income-generating activities).

Community Surveys

The AFS Project had a local firm, Research International, conduct surveys of the service areas for FPAK and PCEA Chogoria Hospital.[3] The surveys included health-seeking behavior, willingness and ability to pay, community perceptions, and staff attitudes. The rationale for these surveys was to establish valid outside perspectives on the organizations' services from patients, staff, and community members as a basis for conducting further technical assistance.

Chogoria Hospital: In the Chogoria study, the community responses clearly demonstrated that despite the high regard for the quality of services, many people

considered the costs of treatment too high and thus unaffordable. Many were shifting to health facilities that they considered of lower quality but also less expensive. In addition, people identified long waiting times for outpatient services as a problem. The survey also focused on demand and willingness to pay for coverage through the insurance scheme. Awareness of the insurance scheme was low (24%), and reasons for not joining were lack of awareness and price. Two-thirds of the respondents said that they would be interested in joining the scheme if the annual premiums were lower than K Sh 2,000 for an adult and K Sh 1,000 for a child.

USAID-Funded Endowment

Another USAID strategy for sustainability was to provide a lump-sum endowment to an NGO so that family planning services could be supported in part from income from the endowment. USAID regulations are complex, and they differ depending on whether U.S. dollars or local currency is used.

In accordance with the terms of the contract, AFS was committed to assist one or more NGOs to qualify for an endowment provided by USAID. As part of an effort to make Chogoria Hospital more financially sustainable, USAID proposed that AFS assist in establishing an endowment fund for the hospital. In 1997, USAID had provided Chogoria Hospital with KSh 8 million, for the purpose of generating income to defray operating expenses and thus avoid increasing patient fees. Looking to substantially increase the funding of this endowment with an additional contribution of US$1 million, USAID asked for AFS's assistance in the practical establishment of such a fund.

The AFS consultant, a local expert on the capital markets in Kenya, provided recommendations on how to establish and invest an endowment in Kenya shillings that would be managed by an asset management firm.[4] He gathered information on and interviewed various asset and fund managers and reviewed the benefits and drawbacks of the different financial instruments and investment options suitable for such an endowment, both in Kenya and in the United States. He reviewed endowment cash flows and financial projections with the management of Chogoria Hospital and conducted sensitivity analyses using varying interest rates to calculate return on investment. Finally, he discussed with the hospital administration the areas where it should consider targeting its income—namely, the Community Health Department. For that purpose, the consultant recommended that the endowment principal be invested in Kenya, where yearly interest income is considerably higher than in the United States. He also recommended that to minimize increases in patient fees, any surplus income be used to reduce the anticipated deficits in the operation of core hospital activities and that cost-containment strategies be implemented.

In early 2001, USAID deposited the endowment in a Kenyan bank account in the name of Chogoria Hospital. Chogoria has established an investment committee to oversee the investments and disbursements from the endowment fund.

Financial Management

Steps to improve financial performance through better management, both financial and clinical, was the key focus of AFS technical assistance. In each organization, financial problems provided the impetus for addressing management issues. At MCS, a cutback in USAID funding through Pathfinder International spurred the cost and revenue analysis and the development of financial options for the board. At Chogoria, financial losses at most of the rural clinics made finances a priority. In the hospital, the decline of patient attendance, both inpatient and outpatient, exacerbated by rising prices and operating losses, made addressing the inpatient financial condition even more critical.

Costing of Services

Each of the three NGOs assisted by the AFS Project participated in costing their services as a key part of the technical assistance. The costing work and its results are discussed in more detail in Chapter 6. The incentive scheme for the clinics operated by Chogoria Hospital is presented in Chapter 10.

Mkomani Clinic Society[5]

Based on the cost analysis of the two Mkomani clinics, AFS and MCS prepared scenarios to demonstrate what action MCS might take to reduce or eliminate the projected deficit between the expected grant from Pathfinder and its own revenue from operations. Although the two clinics were already recovering most of their costs through fee income (89% at Mkomani and 81% at Bomu), the CBD program recovered only 9%. Overall, MCS recovered 69% of its costs through fee income.

The first set of scenarios centered on cutting costs, and the second focused on increasing user fees. In the first, the scenarios analyzed included reducing physician services, decreasing CBD staff, and even eliminating the CBD program altogether. However, these measures resulted in only slight cost recovery improvements, although terminating the CBD program increased cost recovery by 16%. As for the scenarios involving higher fees, a cost and revenue analysis tool (CORE) showed increases in cost recovery ranging from 8% to 19%.

AFS consultants advised the MCS board that the most effective way to make the MCS clinics more financially self-sufficient, without seriously decreasing the level of services, was to (1) raise fees modestly for both curative and CBD services and (2) finance the unrecovered costs through continued, but lower, donor support.

After considering the options, the board decided not to increase fees and pursued other remedies in terms of funding increases or cost reductions using the CORE analysis. This costing work was the completion of the technical assistance to MCS, since the MoU had focused on that specific activity. The AFS team also suggested that the board hire a facility manager and reduce its own role in day-to-day administration of the programs. The board chose not to act on these recommendations and, along with AFS, decided that further technical assistance was not required.

Family Planning Association of Kenya

As described in Chapter 6, in the fall of 1998, AFS consultants worked with FPAK to conduct a cost analysis of four clinics in order to gain a better understanding of the key indicators of their performance.[6] Additionally, this analysis provided staff with training in cost analysis, enabling replication of the exercise in other FPAK clinics.

In the course of the analyses, AFS and FPAK found several areas in which management practices could be improved. With regard to financial management, the clinics' potential for sustainability was called into question by the low rates of cost recovery: The average rates among the four facilities ranged from 11 % to 22 %. Moreover, the CORE analysis found higher unit costs at FPAK clinics compared with other family planning NGOs in Kenya, which prompted recommendations to apply rigorous cost-control and cost-containment measures.

The study provided comparative data on cost recovery rates, which were much lower for FPAK than for MCS clinics. In addition, comparative costs per visit for FPAK clinics were much higher than for the same services at Mkomani, Nandi Hills, and PCEA Chogoria clinics. For example, the cost per client visit for oral pills at the four FPAK clinics was between four and eight times the cost at MCS clinics. A similar comparison of the laboratories at FPAK's Thika and at Mkomani showed that FPAK could easily earn a surplus on its laboratory services if it reduced excess staff.

The detailed findings were presented to a strategic planning workshop conducted by FPAK in December 1998. The cost findings contributed to the overall conclusion that FPAK needed to take a more businesslike and entrepreneurial approach to managing its services. AFS also supported training sessions in marketing for clinic managers in 1999. Business planning for 10 clinics took place in spring 2001.

PCEA Chogoria Rural Clinics

In early spring 1998, PCEA Chogoria approached the AFS Project for technical assistance in evaluating the feasibility of transforming its 30 rural clinics into more financially independent entities. However, the weak managerial capacity of these clinics suggested that the move to financial independence might not be successful.

After analyzing the costs and performance of the clinics, an AFS consultant designed an incentive scheme for employees as the method for improving performance (described in

Chapter 10). This scheme substantially improved the financial performance of the clinics in 1999, the first year of its implementation. Based on these results, Chogoria Hospital management reversed its strategy of turning the clinics over to the communities. Unfortunately, however, data indicate that clinic losses were greater in 2000. An in-depth assessment is required to determine the causes of these losses and whether they were related to the incentive scheme.

Hospital Costing

PCEA Chogoria Hospital

As described in Chapter 6, in mid-1998 AFS consultants conducted a detailed study of PCEA Chogoria Hospital's operations using the hospital costing model. Data from the previous fiscal year, 1996–97, were used. This study covered all the inpatient wards and clinical departments, outpatient services, and non–health care ventures such as the guesthouse, restaurant, and petrol station.

The most significant findings from the study were the following:

- Significant losses in all the inpatient units.
- Surplus in the outpatient department, laboratory, and operating room.
- Losses in the non-hospital projects (large loss in the restaurant, small loss in the petrol station) instead of expected surpluses.
- Overall improvement in quality points compared with 1994 (60.3 versus 54.9), using the same measurement tool.
- Increase in outpatient cost-effectiveness, and decrease in inpatient cost-effectiveness. (Two measures—inflation-adjusted unit cost and cost per quality point—were used to measure the change in cost-effectiveness.)
- Need for a comprehensive hospital management information system (MIS) to permit more timely and complete information to improve decision making at the department level.

The first round of decisions focused on reducing the losses on the non-hospital ventures, which instead of making profits were posting losses. The petrol station and the restaurant were leased to independent operators. The second round of decisions was more complex and involved reviewing the costs and services of each department, using the cost analysis as a starting point. The hospital management team accepted the findings and recommendations and committed to the development and installation of a comprehensive MIS.

Financial Management Systems

The cost analyses revealed that hospital managers had little information regarding cost and revenue to monitor performance, nor was there regular monitoring of the performance of individual departments. Hospital management, in collaboration with the AFS Project, decided to implement a comprehensive Hospital Management Information

System (HMIS) to provide detailed management and cost information on a current basis. The system also included financial modules that performed the same functions as the cash register systems at Coast Provincial General Hospital (PGH).

A local firm, ALMACO Management Consultants of Nairobi, analyzed the system requirements of the hospital. In its final report, ALMACO provided three alternatives for the hospital and the AFS Project to consider.[7] The recommended alternative was based on a hospital information system developed and used in six private hospitals in Nairobi. It was different from the cash register system used at Coast PGH, which was based on a POS-I-Till cash register system.

Using the specifications from the report, the AFS Project bid the work on a competitive basis and signed a contract with a local firm, MATRA Ltd., in April 2000.[8] The contract specified a rapid pace of work, with completion scheduled for the end of September 2000. The work was scheduled in eight phases, with payments linked to specific deliverables and with penalties for late completion of each task. Following testing and acceptance of the system, the contractor provided six months of postcompletion support for all hardware and software problems.

The total cost of the system, including hardware and software, totaled K Sh 5.6 million (US$80,000). This price is extremely reasonable for a complex system covering all aspects of the hospital's operation. It is still too early to assess the impact of the MIS. Initially, revenue rose as at Coast PGH but then dropped off again. Ongoing assessment and management adjustments will be necessary to realize the potential of the system.

Nonfinancial Technical Assistance

Whereas the technical assistance for Chogoria Hospital continued in phases over an extended period, the focal point for the technical assistance for FPAK was the clinic sustainability workshop in early December 1998.[9] Board members and senior managers attended the workshop, which was designed to focus on a wide range of issues affecting the sustainability of FPAK clinics.

The findings and recommendations from the costing analyses were presented at that meeting. In addition, two international consultants presented their experiences in making two successful family planning programs in Latin America more sustainable.[10] Both consultants worked with FPAK managers before the workshop to share information and formulate strategies for marketing and other aspects of sustainability. Jesus Servin made a presentation on FEMAP's experience with the diversification of services in Mexico. FEMAP, an NGO providing health and family planning services, has been receiving substantial funding from USAID/Mexico and the IPPF/Western Hemisphere Region. Upon USAID's decision to cut funds to Latin American and Caribbean family planning associations, FEMAP embarked on a significant service diversification and expansion strategy to increase its financial sustainability.

Juan Carlos Negrette presented Profamilia-Colombia's experience with the marketing of services. Profamilia is also an IPPF affiliate. It has had tremendous success in increasing its financial sustainability. The two consultants from the Latin American programs worked closely with FPAK's executive director, who concurred with their recommendation that changes be implemented in a pilot clinic site and in the central office as well. At the workshop, the board and management agreed on the need to change the FPAK corporate culture to introduce a more entrepreneurial approach, as well as to foster better business practices.

Lessons Learned

1. The organized relationships with client organizations, including the memoranda of understanding, worked effectively to define roles and clarify technical assistance that was appropriate.
2. Throughout the project, with few exceptions, the experience of using local technical assistance services has been very successful. A combination of strong technical skills and extensive knowledge of local customs, practices, culture, and systems enabled AFS to deliver high-quality technical assistance that helped client organizations make important changes in business practices.
3. The use of common costing tools and common approaches to community surveys helped make it clear that standard approaches can be used to address problems faced by very different organizations. The comparative information—initially on unit costs, and perhaps later on clinical pathways—between organizations is valuable in establishing reasonable norms and standards of service efficiency and effectiveness.
4. Organizations facing financial difficulties respond more quickly to technical advice and assistance (e.g., Mkomani with short-term budget cutbacks, and Chogoria with declining market share) than do organizations that are heavily donor supported, such as FPAK. As long as donors donate, the organizational culture is likely to remain one of dependency and weak business practices.
5. Having to raise revenue from patients requires a certain business focus that donor-funded NGOs often lack as part of their culture. As a result, donor-supported NGOs are less responsive to ways to increase revenue, decrease costs, and improve efficiency than are organizations that are more heavily donor dependent.
6. USAID should work with donor-supported organizations to develop more specific strategies and time frames for organizations to become sustainable. A realistic time frame is three to six years. This strategy can be shared with technical assistance programs and linked to the phase-down of donor funding on the agreed-on schedule. Promotion of sustainability should include donor plans for phased reduction or withdrawal of donor support. This approach would make it easier for the sponsored organization to plan realistically, with time and funding levels as realistic variables.
7. Part of the sustainability strategy by USAID and other donors should focus on setting targets for the efficiency of service delivery, such as comparative unit costs. Such an approach is possible using standard costing tools. This process would in turn focus each organization on its cost structure and utilization of services.
8. The processes for selecting NGOs for donor assistance, setting targets for efficiency and sustainability, and gradually phasing out assistance should be linked in a more

structured way to permit USAID and the sponsored organizations to coordinate their activities more closely. Such processes would also permit more targeted and standardized technical assistance.

9. The sharing of information, management techniques, financial systems, and other products among AFS client organizations has worked effectively—initially in the comparison of unit cost information. Recently, there has been strong crossover and sharing of experience between PCEA Chogoria and Coast PGH on use of the HMIS. Similar sharing has taken place related to the introduction of care management techniques developed at Aga Khan Hospital in Nairobi at Coast PGH.
10. The sharing of information, management techniques, financial systems, and other products can be extended much further by the organizations themselves. For example, the technical capacity to conduct financial analyses using the CORE and hospital costing tool can be shared among organizations until each has mastered the technique.
11. The clinical treatment pathways developed at Aga Khan Hospital and instituted at Coast PGH are applicable to Chogoria Hospital. The concepts are also relevant to FPAK. The relationships among the client organizations are sufficiently well developed for these technical exchanges to be carried out by the organizations themselves.

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CHAPTER 8. MANAGEMENT IMPROVEMENTS IN COST SHARING AND DECENTRALIZATION

Summary

The implementation of any financing system, particularly a nationwide one like cost sharing in a large country such as Kenya, takes many years and different phases. This chapter discusses initiatives taken during 1996–99 to move management of the program to a sustainable footing. These initiatives received technical assistance from the APHIA Financing and Sustainability (AFS) Project funded by the U.S. Agency for International Development (USAID) and provided by Management Sciences for Health (MSH).

Problem

Cost sharing in Kenya was started by a government decision in 1989. To implement the cost-sharing program, the Ministry of Health (MoH) used technical assistance supported by USAID and provided by MSH under the Kenya Health Care Financing (KHCF) Project during 1990–95. The MoH supported many of the systems with staff and supplies. Others, including the cost of supervisory visits and training of staff on a nationwide basis, were supported through project-funded per diems, which were not available in the MoH budget. These donor-funded elements were deemed to be unsustainable once donor funding disappeared. In addition, as the program grew, it became clear that it couldn't be supervised adequately from the DCHF based in Nairobi. A decentralized supervisory and training system was necessary.

Actions Taken

One of the major objectives of the AFS Project was to make the cost-sharing program effective on a sustainable basis. Decentralization of direct supervision of the program to the nine provinces was accomplished. Monitoring responsibilities were formally transferred to provincial medical offices (PMOs) in 1999, after a test phase in three provinces was completed. The financial information system (FIS) used to monitor the performance of each health facility under cost sharing was revised and installed in each provincial office, as well as in several central offices. Computers and software for the financial monitoring system were installed.

Different staff members in the PMOs were trained to oversee cost sharing in each district, to edit and enter the data into the FIS, and to organize and conduct training in cost sharing for hospital and district staff. Support systems such as computerized record systems were developed, and training of key staff was accomplished.

The training programs were modified to lower their cost, such as by using good, inexpensive local facilities such as hospital conference rooms and church pastoral centers and having provincial training officers manage the logistics and conduct some of the training. This low-cost model, which replaced a higher-cost donor-funded model, is much more sustainable. Training of

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over 630 MoH staff members in cost sharing was accomplished on a nationwide basis. The training curriculum was adapted for use in pre-service training. In November 2000, the curriculum was given to the Kenya Medical Training College for use in the training of doctors and nurses in cost sharing, effective January 2001.

The role of the central oversight group, the Division of Health Care Financing (DHCF), was redefined to reflect its task of supporting the PMOs responsible for overseeing the program in each health facility in the province. DHCF staff were trained in computer skills and other management skills to assist them in carrying out their new tasks. The DHCF office was renovated, a computer network installed, and the staff provided with an up-to-date working environment, including access to data from the FIS and e-mail connectivity.

The MoH authorized the use of cost-sharing funds to support the administration, supervision, and training of cost sharing at the PMO level. Hospitals now use the funds to purchase computer equipment or support for their systems. The PMOs can pay for training, as long as the amounts are budgeted and remain within 10% of the total cost-sharing revenue raised by provincial general hospitals (PGHs).

Results

The cost-sharing program continues to be an important source of revenue for the hospitals. This revenue has permitted many hospitals to keep operating in the face of rising costs and declining support from the government. Responsibility for monitoring and reporting on cost sharing has been shifted to the provinces. However, the central DHCF has not yet been reorganized according to the agreed-on plan. The FIS was developed and installed effective August 1999. Due to many changes in senior management at the MoH, top-level oversight of the program remains limited. In addition, periodic staff turnover in the DHCF undercuts the morale and productivity of that staff. Turnover and retrenchment of staff at the facilities have also created difficulties in operating the program. Despite these management shortcomings, there is no doubt that cost sharing has proved very successful in terms of raising revenue that has permitted the hospitals to maintain services and make improvements during a period of declining government support.

Cost-Sharing Accomplishments

The financial performance of cost sharing since 1989–90 is described in detail in Chapter 3. That chapter focuses primarily on the past five years during the AFS Project, along with a historical perspective from the beginning of the program. Chapter 4 includes a detailed description of the use of cash registers—an automated way to manage cost sharing—instituted at Coast PGH and recently introduced at 14 other MoH hospitals. This chapter focuses on the management improvements designed to institutionalize the effective operation of the cost-sharing program and ensure that effective management is sustainable after the AFS Project ends on 30 June 2001 and technical assistance is no longer available.

In the first three years of implementation of cost sharing (1990–93), the systems and procedures for collecting fees and billing for insurance were successfully introduced in all 7 PGHs, 47 district hospitals, and 400 health centers throughout Kenya. The policies and procedures governing the collection, banking, control, and spending of these funds to improve health services were the first step. Forms, systems, and training materials followed. The program was introduced on a phased basis, starting with the largest hospitals (provincial), then the district hospitals, and finally the health centers. Government policies for management of the program, including retention of revenue by the facilities rather than its reverting to the government, were drafted and implemented. Under the AFS Project, many technical innovations were added to improve the monitoring, accountability, and operation of the system. These are discussed further in this chapter as well as in other chapters.

The cost-sharing program has played a critical role in generating additional funds for the health sector and has resulted in significant improvements in health services. For the years 1989–90 to 1999–2000, cost-sharing revenue added a total of K Sh 4.0 billion (US$67 million) to spending for health care within MoH facilities.

Strengthening and Institutionalizing: Rationale for the AFS Project

From the beginning of the program to the present, systems development and training and supervision under the cost-sharing program have been heavily dependent on donor funding (through the USAID-funded KHCF and AFS Projects). Supervision by the central staff of the DHCF is dependent as well. Between the phase-down of the KHCF Project in 1995 and the start-up of the AFS Project in March 1997, the staff of the DHCF made few supervisory visits and provided little training. Further, there were a couple of bugs in the FIS that interfered with the smooth operation of the computerized analysis of field data reporting.[1] During this period, institutions in the cost-sharing program, particularly in Western Province, began to operate their programs with little reporting to the central division, setting their own fees and operating by their own rules, sometimes at odds with the central guidelines.

In February 1997, USAID and MSH signed the contract to implement the AFS Project, which began operation in early March, with the contract retroactive to December 1996. Forty percent of the resources and activities of AFS were to be focused on strengthening the MoH cost-sharing program.

Initial Steps to Strengthen Cost Sharing

The AFS Project team, together with the DHCF, developed a set of activities to start strengthening the management of the program, while establishing a process for in-depth assessment of its strengths and weaknesses.

Division of Health Care Financing

The staff of the DHCF played a critical role in establishing and monitoring cost sharing, with technical assistance from the KHCF Project. When the AFS Project started, additional steps were taken to help the division clarify its mission, determine roles and responsibilities and required skills, and put into place a comprehensive human resources development strategy.

Many of the early activities of the AFS Project were designed to improve the effectiveness of the DHCF in performing its role of policy making, leadership, and monitoring of cost sharing.

Creation of a Library[2]

The documents on cost sharing, plus technical and policy work conducted by the MoH and KHCF Project, were left for the AFS Project. To make these important documents easily accessible and usable, a library database and cataloging system were set up using Reference Manager software for on-line cross-referencing and creation of a library in the DHCF offices. This system has been updated with each new MoH policy and project document, plus other important source and reference documents. These documents have been instrumental in assisting the work of the cost-sharing program, as well as in other activities of the DHCF and the AFS Project.

Plan for Improved Organization[3]

In 1997 the project sponsored a consultancy by the director of human resources of MSH/Boston. He worked with DHCF staff to define the functions, roles, and responsibilities necessary to oversee cost sharing; develop a workable organizational structure, role definitions, and job descriptions; and set up a system for performance review. An additional step involved a human resources development plan to support implementation of the reorganized office structure. The recommendations were reviewed and accepted during the annual work planning session for the AFS Project that took place in October 1997. The plans provided a clear approach to organizing the workload of the division and made it possible to identify areas where additional staff expertise and training were required. However, the plans did not fit into the MoH structure and approach to management, and there was little follow-up by MoH senior management to implement the recommended approach.

Office Renovation and Computerization

The joint offices of the DHCF and the AFS staff were completely renovated, creating more open space, private offices with internal glass windows, and a library and conference space. The offices were in a small, single-story building built by the KHCF Project. The original space had been designed inefficiently, with many small interconnected offices without good flow. The renovated space was much more attractive as a workspace, and the open design made it easier for supervisors to check on staff attendance and activities. An officewide computer system, with a computer for each staff member networked together, was installed in the new offices. The

combination of more workable office space and a computer network with access by all DHCF and AFS staff improved morale and teamwork. It permitted the AFS Project to function with a high degree of efficiency through the use of computers and helped raise the skill level of DHCF staff in computer use and electronic communications.

DHCF Staff Development[4]

Many steps that had been recommended to improve the performance and productivity of the DHCF staff were approved for implementation. The most successful was staff training in the use of computers. An outside vendor conducted computer training sessions for DHCF staff in word processing and spreadsheets. As a result, many staff members began to use computers for their regular correspondence and data analysis, although some utilized their new skills more regularly than others. This increased use of computers as a work aid reduced the gap in productivity between DHCF staff and the AFS team.

Other recommendations to formalize job definitions, clarify the organizational and reporting structure, and utilize a performance planning and monitoring system based on the MSH system were not implemented. One reason was turnover in the position of head of the DHCF. Another was a general lack of commitment to formalizing the structure, which was in addition to the structure implied by the civil service titles and ranks of the DHCF staff.

Improved Supervision of Cost Sharing

The model of supervision of cost sharing by DHCF staff had been designed when the program was introduced. It had not been modified when supervisory responsibility for the program was devolved to the provinces in June 1998. The staff made regular visits to sites on their own, without announcing them in advance. Although this approach was justified as a way to minimize the time local cost-sharing staff had to correct errors or other deficiencies, it often meant that no responsible officials were on hand at the time of the visit. Supervision by the DHCF was separate and independent from the monitoring activities of provincial officials.

Based on a decision by the DHCF head and the AFS chief of party, the AFS Project hired a consultant to assess the impact of the current model of supervision and to suggest improvements. The consultant, an MSH expert in human resources development, reviewed the current method of supervision.[5] She recommended that it be replaced with a model that better reflected and supported the decentralization of program supervision to the provincial level. Under the plan, the DHCF staff would work in teams of two per province and would make two-day visits to each province on a quarterly basis. They would prepare short reports within seven days of the visit and share the reports with the provincial medical officer, head of DHCF, director of medical services, and permanent secretary. At the provincial level, staff would be assigned to monitor specific districts. They would use the FIS data as a monitoring tool and would visit each district at least once a year.

Under the proposed approach, the DHCF staff would use a facilitative approach to support PMO monitoring and would review only the work of the PMOs and PGHs. The PMO staff would supervise lower-level facilities. Up to 10% of the revenue from PGHs would be available to support the supervisory work of the PMOs. A supervision guide was prepared that included performance indicators, standards, annual targets, checklists, and relevant FIS reports. In this way, the supervision would be more structured and focused and more supportive rather than punitive, although disciplinary action would be initiated against staff members who were abusing the system or stealing.

The new supervision plan for the DHCF was implemented in 2000 after decentralization of cost-sharing monitoring to PMOs and implementation of the revised FIS, which provided comprehensive data on collections, banking, and spending.

Assessment of Problems with Cost Sharing

As part of the process of implementing changes to strengthen cost sharing, the staff of the DHCF, with the support of the AFS Project, conducted a review of cost sharing to check compliance with policy guidelines and reporting requirements and to identify problem areas. Between February and July 1999, teams visited eight of the nine provinces. They observed a wide range of problems, including the following:

- Undercollection and underreporting of revenue collected.
- Spending of collected revenue before banking it.
- Fraud and abuse.
- Unprioritized expenditures.
- Inefficient revenue collection systems.
- Lack of tangible improvements in the quality of care in most facilities.
- Delays and inconsistent reimbursements from the National Hospital Insurance Fund (NHIF).
- Lack of teamwork among cost-sharing staff.

As a result of this firsthand confirmation of problems, most of which were already known, implementation of the intended improvements in supervision, reporting systems, training, and cash register installation continued as rapidly as possible.

Limited MoH Senior Management Oversight

In the first five years of cost sharing, oversight and policy making for the program were exercised by the Implementation Committee of MoH senior managers. The committee reviewed the performance of cost sharing, approved fee increases, and provided policy guidance to the head of the DHCF. It also served to keep senior MoH management involved in oversight of the program and helped resolve problems in program management.

During the initial period of the AFS Project (spring 1997 to mid-1999), and perhaps between the end of the KHCF Project in 1995 and the start of the AFS Project in 1997, the MoH Implementation Committee remained inactive. Proposed fee increases were not acted on, and major decisions, such as decentralization of program supervision to the provinces, were made by the DHCF head but not endorsed by the committee. As a result of this inactivity, many institutions increased their fees without authorization from the Implementation Committee, and the central MoH lost some of its supervisory authority over the program.

The inactivity of the committee during this period—when MoH facilities depended increasingly on cost-sharing revenue for their continued operation—weakened cost sharing. It reflected in large part the turnover in senior management in the MoH at the level of minister, permanent secretary, and director of medical services, as well as the effects of MoH reorganization to reduce the number of division heads as part of civil service downsizing. It also reflected the administrative confusion over responsibility for cost sharing caused by the creation of a Health Reform Secretariat (HEROS), a unit separate from the DHCF, in spring 1997. According to the most recent MoH plan, HEROS is set to take over responsibility for cost sharing in July 2001.

Decentralization within the Ministry of Health

The de facto decentralization of management in MoH facilities followed the implementation of cost sharing.[6] The most significant decentralization started in 1991–92 with the formation of District Health Management Boards (DHMBs), whose responsibility covered the oversight of collections and the spending of cost-sharing revenue. The transfer of cost-sharing monitoring to the PMOs in 1998 was a further step toward decentralization. The DHMBs continue to function, although they vary enormously in terms of their level of commitment, effectiveness, and performance. Little formal attention has been paid by the MoH to strengthening these boards.

District Boards and Teams

An essential part of implementing cost sharing was the formation of DHMBs in 1991–92 and the strengthening of their professional colleagues, the District Health Management Teams (DHMTs). These boards were appointed by the president and operated under rules developed through cost sharing. Although their functions were related to the oversight of collection, spending, and service improvements funded by cost-sharing revenue, they also represented the first local governance in the MoH system since it had been centralized in the 1970s. As such, the boards represented a limited official start toward decentralization.

Decentralization of Cost Sharing

Starting in 1998, the decentralization of cost-sharing supervision was started on a pilot basis in three provinces: Coast, Eastern, and Western. Systems and protocols for monitoring the program by provincial medical officers were developed and introduced. Computers with software to analyze and report on collections, banking, and expenditure transactions were installed, and staff

were trained. As of mid-1999, monitoring at the provincial level was working quite well in Coast Province, moderately well in Eastern Province, and poorly in Western Province.[7] The information used to assess the effectiveness of program supervision is the level of reported collections from the facilities. Data from Coast Province, combined with additional information about how the supervision was conducted by the provincial medical officer and his staff during visits to the districts, gave a clear picture of how supervision could be handled effectively at the provincial level.

Decentralization of direct supervision of the program to the nine provinces was accomplished. Monitoring responsibilities were formally transferred to the PMOs in 1999. The FIS used to monitor the performance of each health facility under cost sharing was revised and installed in each provincial office, as well as in several central offices. Computers and the software for the financial monitoring system were installed.

Staff in the PMOs were trained to oversee cost sharing in each district, edit and enter the data into the FIS, and organize and conduct training in cost sharing for hospital and district staff. Support systems such as computerized record systems were developed, and training of key staff was accomplished.

Other Decentralization Initiatives

Many other initiatives under the general label of decentralization were actively debated, and some actions were taken, particularly during 1997–98. The AFS Project hired an expert in the theory and practice of decentralization of health services to present relevant policy choices for Kenya and case studies from recent experience in Colombia.[8] Hospital autonomy was one important feature of the policy discussion on Kenya's approach to decentralization and an area of donor interest.[9] At the time, HEROS was stimulating debate, and donor support was present in these areas.

The MoH appointed hospital boards for provincial and district hospitals through a circular in October 1996. The circular established a system of community involvement and social control within the sector.[10] Hospital Management Boards were created at the provincial, specialized national, and subdistrict hospitals. Existing DHMBs were given management authority over district hospitals, health centers, and dispensaries and also over primary health care activities. Board members were appointed for each hospital, but the terms of their appointment were general, and their authority was not specified with regard to the existing MoH responsibility for the operation of facilities or with regard to civil service responsibility for public employees. An active public debate also took place in the spring of 1997 about the possibility of implementing block grants to the districts to either supplement or replace the traditional method of allocating funds based on personnel salaries and nonpersonnel costs. In addition, there were many policy pronouncements about granting provincial hospitals financial and operating autonomy. In retrospect, this debate did not result in any concrete changes, although it did create considerable discussion about the source of these funds and how they would be allocated, programmed, controlled, and spent.

As with other areas of the decentralization debate, there was a large degree of uncertainty regarding the approach to hospital autonomy in Kenya. The most significant model was the process by which Kenyatta National Hospital (KNH) became an autonomous parastatal organization.[11] It was assumed that autonomy for other hospitals would follow the KNH example and experience.

The DHCF was actively involved in the debate on decentralization, along with HEROS. The creation of hospital boards proved disruptive to the existing procedures of the DHMBs for supervising the collection and allocation of funds from cost sharing. The specific issue was whether the hospital boards would respect the cost-sharing regulation that 25% of revenue collected by a hospital would be spent for public health services. Since the boards were not oriented to this provision, and since the roles of the hospital boards vis-à-vis the DHMBs were not clarified, considerable confusion resulted, which may have caused a drop in revenue for public health programs.

Improvements in Training Programs

The AFS Project, working with MoH staff at the central and provincial levels, reformed and revitalized training materials on cost sharing and information systems on a financially sustainable basis. The training curricula for cost sharing were prepared using previous materials and new requirements in three modules: orientation, operations, and supervision. These materials were completed by early 1999 and were pilot-tested in Machakos in March 1999. After revisions based on the results of pretesting, the materials were used as training for provincial training coordinators. These coordinators had been assigned to this work by their supervisors, the provincial medical officers, with the approval of the central MoH training office. These training coordinators then became responsible for organizing the training of district and hospital staff, with support from the AFS training manager and staff from the DHCF.

After preparing the training materials and selecting and training the provincial trainers, the third step was to utilize less expensive training sites. Previously, local hotels or private meeting halls had been used for residential training programs, which made the cost (training site plus per diem) too expensive for the MoH budget and sustainable only with donor funding. The new training was organized either on-site in a hospital or health center or at a nearby church pastoral center at low cost. By taking these steps, the cost of training was reduced substantially due to lower transport costs, shorter sessions, and lower overhead for lodging expenses. The training programs were shortened so that key staff and board members would not be away from their duties for any longer than necessary.

Training

The establishment of the cost-sharing program required an immense amount of training of district boards, local teams, and staff directly involved in implementing cost sharing. This training was closely coordinated with board formation and the schedule for introducing cost sharing to specific facilities. Additional training was provided when there was staff turnover and when problems in the program were identified.

Training had lapsed from the end of the KHCF Project in 1995 until it was restarted with support from the AFS Project. Nationwide training of key persons working on cost sharing was conducted by the DHCF, the AFS training manager, and the provincial training coordinators during a nine-month period in 1999. More than 600 members of DHMBs and hospital and health center staff working on cost sharing were trained in sessions conducted in all nine provinces. This was the first nationwide training in cost sharing since 1993. Ninety-eight percent of those trained said that they had had no previous training, indicating both the high turnover of board members and staff and the infrequency of training.

After completion of this training, analysis made it clear that training conducted in this manner would be affordable out of a portion of cost-sharing revenue on an annual basis. With the endorsement of the PMOs, the MoH authorized the PMOs to pay for subsequent training out of a portion of cost-sharing revenue not to exceed 15%, along with the costs of supervising the program and operating the FIS at the provincial level.

In parallel with these efforts, the AFS training adviser and the DHCF staff worked with the leadership of Kenya Medical Training College (KMTC), which trains nurses and other health professionals in Nairobi, to incorporate a training module on cost sharing in the pre-service education of health professionals. In October 2000, the AFS chief of party and the MoH formally turned over the training curriculum to the head of KMTC. KMTC began using this module in its pre-service training effective January 2001.

Revision of the Financial Information System

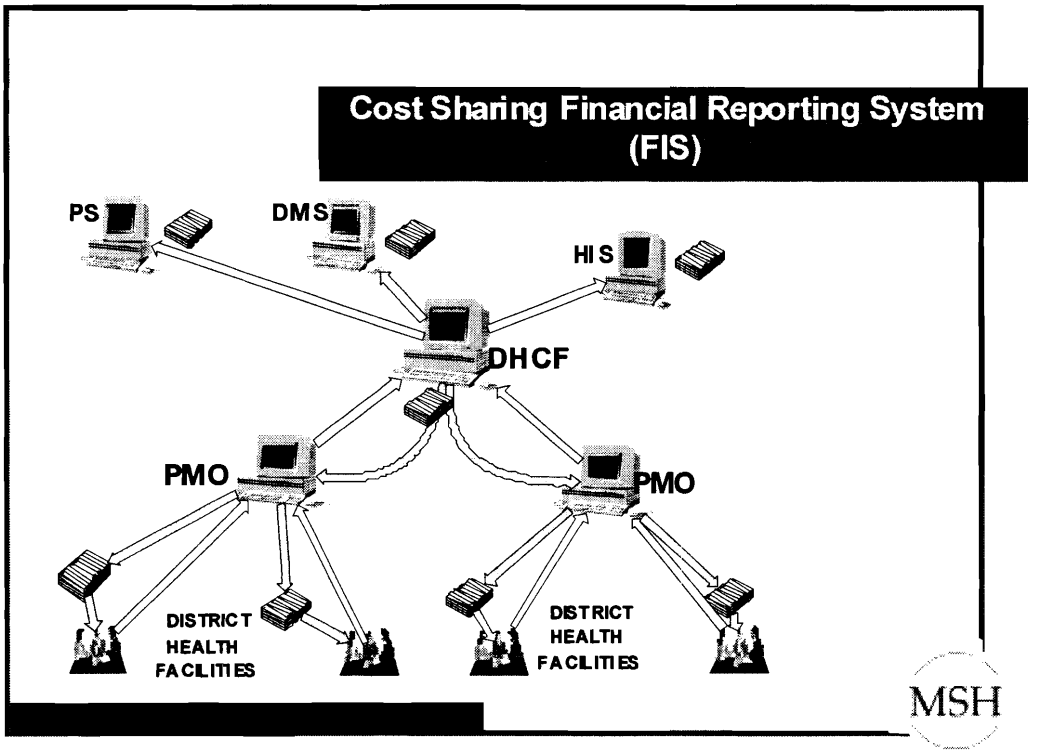
The FIS (FIF-HealthSys 2.0) was first developed in 1994. It supported the MoH cost-sharing program for over 400 hospitals and health centers. The system was used to track revenue collection from patients and NHIF, authority to incur expenditures (AIEs), and banking information. The system was operated primarily centrally by the DHCF but was also decentralized to a few provinces.

The system was reviewed in late 1997 in preparation for decentralization of cost-sharing operation to the PMOs. Shortcomings in software, data transfer, and report writing were identified. As a result, in early 1998, the AFS Project awarded a competitive subcontract to Data Dynamics Ltd. The contract was divided into five phases of activity, each with specific and measurable deliverables, and each with a 20% penalty provision in case the completion dates were not met by the contractor.

Between May 1998 and June 1999, the contractor assessed the system at the DHCF and in the three provinces using it, developed new requirements, and reprogrammed the system in Windows 95. In addition, the contractor installed the system first at Coast PMO for testing, prepared and tested the user manual, and then installed the system and trained staff in three other PMOs. The remaining five provinces had the system installed by the end of 1999.

The revised system is illustrated in Figure 8-1. It provides an integrated database on cost-sharing information that is inputted and verified at the PMO. The system in each PMO transfers its data to the central system at the DHCF by high-capacity Zip disk. Standard as well as customized reports on performance are produced at each PMO for its monitoring activities and by the DHCF for MoH senior management. The two top MoH career officials, the permanent secretary and the director of medical services, have their systems networked into the FIS at the DHCF and can monitor cost-sharing activities on their own. Graphics reports were introduced in 2001, and geographic map reports will be completed in 2001.

Figure 8-1: Diagram Of Financial Information System



Tools for Cost-Sharing Management

As a result of the development work described earlier, the cost-sharing program now has an array of manuals and training materials for cost sharing, including the following:

- Supervision Manual
- Master Training Manual for the Cost-Sharing Program
- Training of Trainers Manual for Cost-Sharing Program
- System User Manual for Financial Information System[12]
- Training and User Manuals for Networked and Stand-Alone Cash Register Systems
- Self-Help Installation Guides for Stand-Alone Cash Register Systems

These manuals and training guides are prepared in a flexible format that makes them easy to update as needed. They are available in both paper copy and electronic format for easy editing and adapting to new settings.

Lessons Learned

1. Cost sharing is well established in the MoH system, and the revenue provided is critical as government support diminishes in real terms. The challenge for each institution and for the MoH as a whole is to make the program work effectively by reducing fraud and using increased revenue to improve services.
2. Overall, the efforts to make cost sharing sustainable without donor support are largely successful, as direct donor support for the program is reduced. Training materials are packaged, and staff are trained. The FIS is installed and operating. MoH policies have authorized spending of up to 15% of PGH cost-sharing revenue to support administration and training of the program.
3. Decentralization of program supervision to the provincial level, envisioned from the early days of cost sharing, was successfully implemented in 1998. Monitoring is conducted by the PMOs. The central DHCF staff are experienced in overseeing the program, although staff turnover remains high.
4. The program requires regular monitoring and corrective action for poor performance. The reporting of data at this point is still uneven, and there are indications that although some districts and provincial hospitals are running the program effectively and making service improvements, others are not, and the funds are not clearly accounted for.
5. As discussed in Chapter 4, the introduction of cash registers in the provincial and district hospitals has the potential to reduce cash pilferage and substantially increase revenue. However, sustained monitoring by hospital management teams is necessary to achieve the intended improvements in cost sharing.
6. NHIF's contribution remains a major uncertainty. Its payments to MoH hospitals have lagged well behind patient revenue. Whether the new corporation will streamline procedures for reimbursement for MoH claims and increase rates is unknown at this time.

7. The government's policies regarding hospital autonomy are still unclear. Despite many policy declarations about phasing in autonomy for PGHs, only one hospital besides KNH, Moi Teaching and Referral Hospital, has been granted autonomous status. This uncertainty is making it difficult for hospital boards to clarify their roles and responsibilities and to address many of the urgent management challenges their hospitals face.
8. Turnover of key staff at the central DHCF and of PMO and hospital staff is disruptive to the cost-sharing program, even though it may be difficult to avoid with the retrenchment program and the usual MoH assignment practices. Hospital autonomy would help correct this major problem, as well as giving hospital boards the ability to hire, reward, discipline, and, if necessary, fire staff. With these powers applied effectively and fairly, hospital services would most likely improve dramatically, even with constrained funding.

Notes from this chapter:

[1] C. Stover, S. Munga, and S. Musau, "Trip Report: Status and Observations on Cost-Sharing Program: Issues in Supervision and Decentralization" (Management Sciences for Health, Kenya Health Care Financing Project, August 1996).
[2] R. Sohali, "Technically Assist in the Organization, Annotation, and Cataloguing of Project Documents" (Management Sciences for Health, AFS Project, August 1997).
[3] John Pollock, "Technical Trip Report: Capacity Building within the Health Care Financing Division" (Management Sciences for Health, AFS Project, September 1997).
[4] Mary O'Neil, "Technical Trip Report: Developing and Implementing Training Strategies for the Health Care Financing Division" (Management Sciences for Health, AFS Project, May 1998).
[5] Ibid.
[6] Charles Stover, "Financing, Service Delivery, and Decentralization in the Philippines and Kenya," in *Myths and Realities about the Decentralization of Health Systems,* ed. Riita-Liisa Kolehmainen-Aitken (Boston: Management Sciences for Health, 1999).
[7] Charles Stover, "Recommendations for Field Assessment Visits of Cost-Sharing Program" (Management Sciences for Health, AFS Project, May 1997).
[8] Wolfgang Munar, MD, SM, "Implications for a Health Care Decentralization Strategy for Kenya" (Management Sciences for Health, AFS Project, April 1997).
[9] K. Grant, "Pilot Testing Hospital Autonomy in Kenya," Report to the Overseas Development Administration (February 1997)..
[10] "Guidelines for District Health Management Boards," Government of Kenya Legal Notice No. 162, The Public Health Act (cap. 242), reissued September 1995.
[11] D. Collins, G. Njeru, and J. Meme, "Hospital Autonomy: The Experience of Kenyatta National Hospital" (Boston: Management Sciences for Health, 1996).
[12] "System User Manual: Financial Information System," Version 1.5 (Ministry of Health, Republic of Kenya, February 2000).

CHAPTER 9. MARKET FORCES IN THE HEALTH SECTOR: WORKING WITH THE PRIVATE SECTOR

Summary

Kenya's health reform policies have consistently called for a greater role for the private sector in meeting the health needs of Kenyans, which would offset the burden of the public sector in providing curative services. The APHIA Financing and Sustainability (AFS) Project has supported many initiatives in the private sector under its project mandate, with a particular focus on managed care. Some of the initiatives continued work carried out under the Kenya Health Care Financing (KHCF) Project, whereas others were proposed as opportunities arose. Attempts to bridge the gap in understanding and approach between the public and private sectors have met with limited success, although many private-sector models and approaches are applicable in the public sector.

Problem

Despite government policy statements advocating a greater role for the private sector, there is little specific guidance on how this role should be defined and how the government and private sector can work together most effectively. The private sector, including both for-profit and not-for-profit nongovernmental health providers and insurers, has continued to grow. Perhaps due to public-sector officials' limited appreciation of how the private health market works, as well as the private sector's lack of confidence in the government's follow-through on specific actions such as contracts, little formal public-private collaboration has taken place. The private health sector continues to evolve in a dynamic way, but without a focused commitment to provide services to the poor or to control and contain costs. In the past, the government also provided direct subsidies to mission hospitals, but these subsidies were greatly reduced as the economy declined in the 1990s.

Actions Taken

The AFS Project focused about 20% of its efforts on private-sector initiatives, along with another 20% on nongovernmental organization (NGO) initiatives aimed at improving and expanding services for the middle class and the poor. Most technical support focused on improving the efficiency and effectiveness of services—for example, in the tea estates at Nandi Hills, managed care organizations such as AAR Health Services and Health Management Solutions, and Nairobi's Aga Khan Hospital. Many of the tools developed were transferred to government health services, particularly Coast Provincial General Hospital (PGH), where clinical protocols are being introduced and a full management information system is being installed, following the model of Chogoria. A proposal to analyze a mutually beneficial public-private partnership between Thika District Hospital and AAR Health Services was not approved by the Ministry of Health (MoH).

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Results

The AFS Project, building on the work of the KHCF Project, has provided a clear understanding of how the market for private health services and financing works in Kenya and ways that the government and private sector can learn from each other and work together. The work has provided various private-sector organizations with insights and skills to help them develop more cost-effective services and products that can serve the poor. In several cases, tools developed during the work with the private sector were adapted for use in public-sector hospitals. Until recently, little high-level dialogue between the public and private sectors had taken place, which is a critical step in designing public-private partnerships to help implement the government's health policy objectives. In early November 2000 the Minister for Medical Services Amukowa Anangwe convened a meeting with private-sector insurers and providers together with MoH and National Hospital Insurance Fund (NHIF) decision makers. He established a task force to develop a framework for expanding and regulating health insurance and to identify linkages and partnerships between private and public health care agencies. The AFS Project was asked to provide technical support to this initiative. The task force's report was expected in February 2001, and although delayed, may provide a launching pad for further policy dialogue and constructive partnerships.

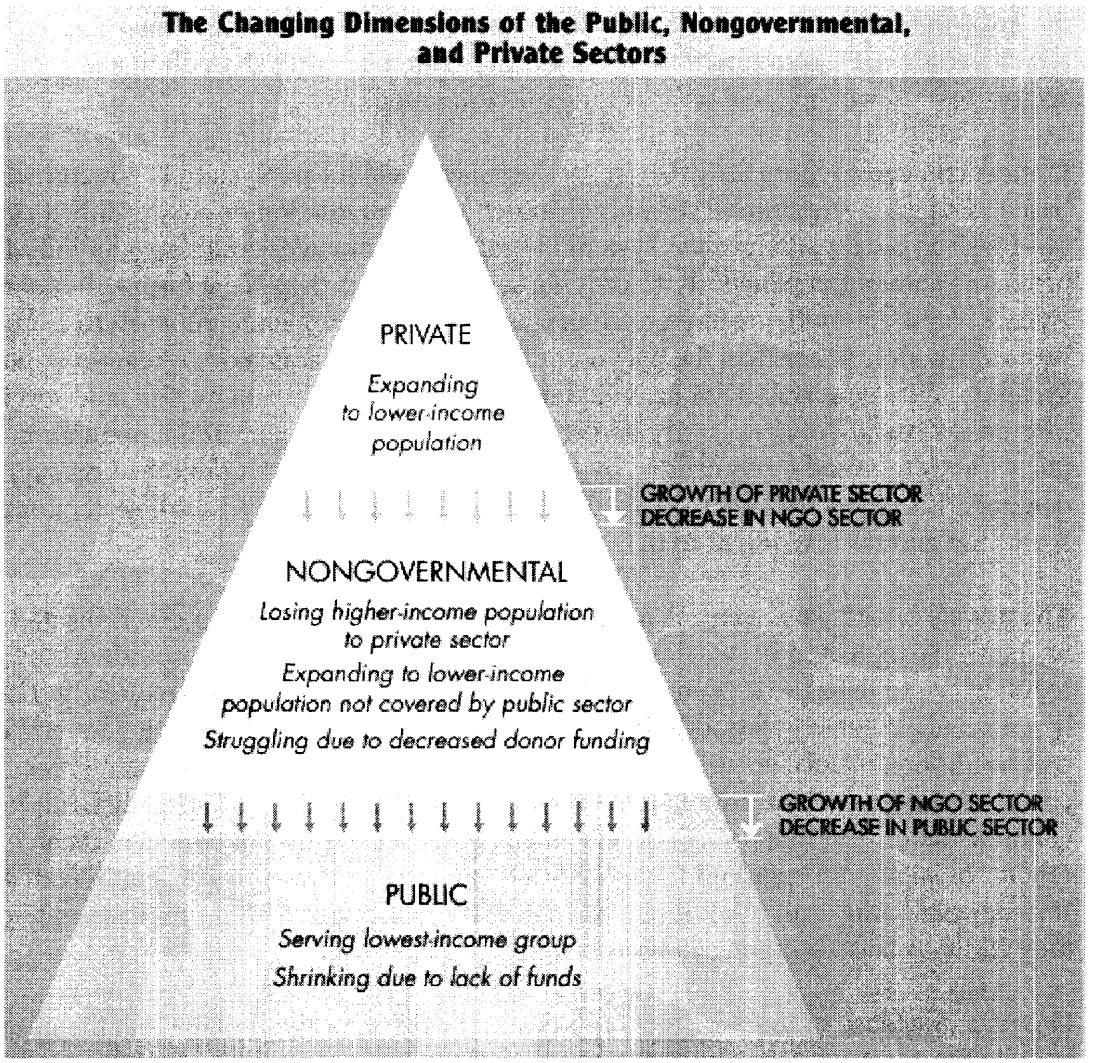
Government Policy Objectives Regarding the Private Sector

The 1994 *Kenya Health Policy Framework*[1] identified two specific reforms regarding the private sector:

- "Strengthening of NGO, Local Authority, Private and Missions Health Service Providers" by creating an enabling environment through the establishment of standards for ethics and quality of care, licensing of practitioners, increase in the share of curative care provided by nongovernmental sources, and greater coverage of family planning services by nongovernmental providers.
- "Shifting Part of the Financial Burden of Curative Care from the Ministry of Health Budget to Insurance Schemes" by expanding the role of NHIF and other social financing mechanisms and expanding mandatory insurance coverage.

The implementation and action plans for the February 1996 *Health Policy Framework*[2] provided details for this private-sector agenda, and the *National Health Sector Strategic Plan: 1999–2004*[3] provided further reinforcement. These objectives are displayed in Figure 9-1, which highlights the policy objective of increasing health insurance financing and encouraging private providers to serve the upper-middle-income groups, who use predominantly NGO and government health services.

Figure 9-1: The Changing Dimensions of the Public, Nongovernmental, and Private Sectors



Private Health Care Market

Private health care markets exist wherever health care services are purchased independently of a government-financed and -controlled system. In general, private health care markets arise when there is a need or an opportunity to buy and sell services privately. The need may be related to the government's inability to provide the full range of services required or to a government decision to limit the scope of its services. It may be related to the perceived quality of public health care or to the level of amenities provided. The opportunity may be related to an emerging middle class with the ability to pay for services privately, combined with investors or entrepreneurs who can make services available. In all cases, the private market is characterized by the voluntary exchange of goods and services at prices that are set by some market mechanism—supply and demand, bid, negotiation, or some combination.

In some countries, the private market exists side by side with the government program, with little or no interaction between the two. In other cases, the markets overlap—for example, when a government-employed doctor also operates a private practice, or when the government buys services from private providers. There are also emerging models in which certain high-cost provider resources are shared between the public and private sectors to achieve the most efficient overall utilization.

In most countries where the primary, or dominant, health care system is government based, the private system serves only a subset of the population or covers only a subset of services. Typically, the private system is initially fragmented, dominated by individual providers acting independently to provide services where they see a business opportunity. Even when the providers are medical professionals, they organize themselves along a business model, rather than the population-based model that is more common in public systems. That is, services are provided only to those who are able to pay, and services offered are based not necessarily on the prioritized clinical needs of the population but on the services required or demanded by the paying patients. Prices are based on supply and demand. Providers tend to grow their volume and market share to achieve economies of scale, and capital is required to help them do this.

The private health care sector is generally unregulated in developing countries and infrequently regulated in developed countries. Although individual providers may be regulated as to their professional qualifications, the business itself is frequently treated like a standard consumer good. Prices are not subject to review or regulation, and quality and conditions of service provision vary widely. The consumer is responsible for making choices based on perceived quality and price. For this reason, it is often difficult to characterize or describe private health care markets. Data are not collected on any regular or standard basis, and the amount of consumer spending is difficult to calculate. It is especially difficult to establish exactly what services are being provided and how they relate to underlying needs.

However, because of the potential high cost of health care and the fact that the need for health care varies widely across the population at any point in time, there is a tendency to evolve insurance or purchasing mechanisms to try to pool risk and reduce the cost of care. Thus, over time, the private health care market may seek to organize itself into broader providers and purchasers of care. Providers seek to offer a broader range of services, perhaps at preset prices. In many cases, employers, unions, or other associations may organize a delivery system on behalf of the individuals they represent. Alternatively, private health insurance and third-party administrators may try to organize the health care system into benefit plans and regulate prices through group purchasing.

Kenya's Private Providers

The private health care system in Kenya has many of the characteristics described above. There is a large government-owned and -operated health system designed to provide inpatient, outpatient, pharmacy, and physician's services to all citizens. There are also a large number of mission-sponsored hospitals and clinics. Finally, there are a number of

private hospitals operated by not-for-profit and for-profit corporations, private nursing homes, and a large number of private practitioners, primarily physicians in solo practice. Privately owned and operated pharmacies are also widely available.

Table 9-1
Distribution of Health Facilities in Kenya, 1994[4]

Type of Facility	Gov't	Nongov't	Total	% Nongov't
Hospital	94	92	186	**49.5**
Health center	373	99	472	**21.0**
Other facilities	1,457	1,330	2,787	**47.7**

As of 1994, the nongovernmental sector owned almost half of all hospitals, 21% of health centers, and 48% of other facilities. In terms of number of hospital beds, the nongovernmental sector provided only one-third of the bed capacity, since the government hospitals were larger.

Table 9-2
Distribution of Private Health Facilities by Ownership, 1994[5]

Type of Facility	Mission	Private/ Company	Other	Total	% Mission
Hospital	62	29		91	**68.1**
Health center	84	13		97	**86.6**
Other facilities	538	695	25	1,258	**42.8**

Within the nongovernmental health sector, in 1994 the missions owned more than two-thirds of the hospitals, 87% of the health centers, and 42% of other health facilities. Although there are no data on the current situation, the number of private nursing homes supported primarily through NHIF reimbursements has reportedly continued to grow.

In general, health care providers in Kenya were historically well positioned. There was an adequate but not excessive number of providers, resulting in high utilization and little excess capacity. This was especially true of private hospital facilities. The consequence was that these providers could establish fees and other conditions of service provision at any level they wished, and there was not much competition among providers for incremental business. There was also a good deal of loyalty and prestige associated with the better-known hospitals and physician specialists, so that patients used them for a broad range of services, including primary care services. As a result of funding cuts and service problems, there may have been a shift in utilization from the government system to the private system in recent years. However, there is no clear evidence, and declining economic conditions may have prompted people to shift to the less-costly public system.

Private Financing System

With the exception of government hospitals, which limit patient fees to copayments tied to ability to pay, all facilities operate on the basis of private fees. Fees vary significantly from one provider to another and, in some cases, from one patient to another, based on ability to pay. Most nongovernmental hospitals require an admission deposit, which can be quite large. Most private providers report high levels of bad debt, as high as 40%.

There are several sources for the payment of fees. One of the most significant is the NHIF, which was established through mandatory contributions from certain Kenyans. In most cases, these contributions are deducted from employee salaries. The fund reimburses private and government hospitals and nursing homes for inpatient services provided to members. The fund is a major revenue source for smaller hospitals and nursing homes. However, NHIF benefits are limited to inpatient hospitalization; no outpatient benefits are covered. The fund does not have contracts with any health care delivery organizations to support a broader package of benefits.

Many employers provide supplementary health care coverage to their employees, using a variety of mechanisms. Some employers provide health care services directly through an on-site facility or through direct contracts with private practitioners and facilities. Most employers establish an annual health care allowance per employee, which can vary widely for different classes of employees, that can be used to cover inpatient care at nongovernmental hospitals and in some cases outpatient care and pharmacy services. Most employers self-administer this allowance, receiving and paying claims from employees and providers. Employers report high levels of fraud, from both employees submitting claims for services provided to noncovered individuals and providers requesting payment at inflated rates or for services that are not covered or were not provided. There have also been cases of employees colluding with physicians to fraudulently report illnesses and accidents. At the Ministerial Task Force meeting in December 2000, sponsored by AFS, the chairman of the Association of Kenya Insurers announced that 40% of all health insurance claims were fraudulent.

Some employers purchase health care coverage from insurance companies, which assume responsibility for processing claims. Traditionally, health insurance has been available

only for inpatient care and has provided very limited coverage, generally minimizing risk by excluding many services and conditions and imposing restrictions on coverage.

Consequences of the Current System

This fragmented health care delivery and financing system is inadequate to meet Kenya's health care needs. The fee-for-service nature of the delivery and purchasing system has led to uncontrolled increases in both utilization and fees. Costs, particularly the cost of pharmaceuticals, have skyrocketed.

Demand for services through the government system has far outstripped the resources available, requiring patients to seek care at nongovernmental facilities. However, the fees for private medical services often exceed an individual's ability to pay. Many private facilities will not provide care without immediate payment. Facilities that are willing to provide services without immediate payment are experiencing rapidly escalating bad debt and a concomitant increase in fees, resulting in less care for a given level of expenditure. Employers are under pressure to increase health care allowances but are reluctant to do so because of the high levels of fraud and the incremental costs of additional coverage.

Due to escalating costs and high levels of fraud and abuse, many insurers have found health care coverage unprofitable and have exited the health insurance market. Those remaining in the market generally provide health care coverage only in conjunction with other policies (e.g., life, casualty) purchased by employers.

Employer Perspective

In general, employers believe that the costs and problems of the health system require a more concentrated and sophisticated effort than they can make. Their costs are increasing rapidly, and employees are pushing for broader and higher levels of coverage. Employee access to care is declining. The government system, relied on by many employees at least for inpatient services, is no longer reliable. Insurance is less available.

The reaction by some employers has been to hire nurses or other health care providers directly. However, the employers do not have expertise in this area, and they generally do not wish to operate such programs long term. It is not a feasible response for many employers, such as those with a small number of employees or whose employees are geographically dispersed. With a few exceptions, neither the health care market nor the insurance market is offering viable solutions.

Health Care Provider Perspective

As noted earlier, private providers have historically been well positioned. However, the current weaknesses in the government-funded health care system carry some consequences:

- Providers are finding that patients who are unable to obtain care at government

facilities are turning to the private market but are unable to pay the usual fees. Facilities that accept these patients are experiencing high bad-debt levels and significant increases in fees for paying patients. Utilization is therefore declining.

- Physicians who practiced primarily within the government system are beginning to set up practices outside the system. This is establishing a new pool of physicians, largely primary care oriented, who are competing for new business in order to establish their practices.
- Some physicians are expanding their revenue base by opening up small hospitals or nursing home facilities that compare extremely favorably in price with existing private facilities and are affordable by the population previously served by government hospitals.

Private health care providers are increasingly aware of several facts regarding the health care services market:

- Current prices are unaffordable for a growing percentage of the patient base.
- Patients and employers are increasingly likely to choose alternative methods of seeking care. Employers are attracted by the option of employing on-site providers, where feasible, or by contracting directly with a limited number of local providers. Many of the costlier private providers, both hospitals and doctors, are beginning to see their patient volumes drop precipitously.
- New models of organized systems of care are becoming widely known. There is some concern that companies that have successfully implemented such schemes in other countries (such as South Africa) will try to expand their business into Kenya, leaving local providers with less leverage over the health care system.

Insurer Perspective

Insurers have been withdrawing from the health care market for some time. Their participation is limited largely to coverage of inpatient services for employees of companies purchasing other insurance products (life, casualty) from the carrier or from companies that can aggressively manage eligibility verification and fraud. All coverage, even that under these programs, imposes heavy restrictions on covered medical conditions and is subject to overall expenditure limits. However, some insurers believe that a well-managed system of care may offer some protection from underwriting risks and fraud.

Developing Trends

There is growing interest in a system that would be more predictable and stable in terms of costs, services, and accessibility. Currently, the strongest interest is on the part of employers and patients. However, providers are also concerned about increasing levels of bad debt and the impact of the reduced capacity of the government system, which is particularly heavy on the mission-sponsored system. Many providers are also feeling pressured to provide care more cost-effectively, in order to retain contracts with employers and their base of self-paying patients. The idea of an organized, prepaid

program that could assist in maintaining cash flow is increasingly attractive, as are management methods that decrease the cost of delivering care.

Entrepreneurs, both provider-based and others, are interested in the business potential of organized systems of care. A number of businesses already involved in some aspect of the financing, management, or provision of health care services are exploring expansion into managed health care programs.

Stimulated in part by the new programs being offered by private companies, employers are beginning to understand that health care services, particularly pharmaceutical services, can be treated much like the other goods and services they purchase. The services can be configured to meet the needs of the employer, and discounts and other advantageous terms can be obtained through organized purchasing processes.

The government is interested in supporting the development of such programs in the private sector as a potentially more cost-effective system of providing care for at least a portion of the population. It has worked with the KHCF and AFS Projects to develop awareness of the potential of managed health care plans and to provide technical assistance to entities interested in developing such plans.

The result would be a competitive health insurance market that would consist of many managed health care plans and other health insurance options competing for customers on the basis of product, quality, and price. Under such a system, providers would be responsible for providing care at competitive rates in order to obtain contracts with insurers and succeed under fixed-price arrangements.

Actions Taken

Through both the KHCF and the AFS Projects, the U.S. Agency for International Development (USAID) and the MoH have encouraged and supported technical assistance to the private sector to improve services, reduce costs, and make private services more accessible to the poor.

Previous Work with the Private Sector: KHCF

The KHCF technical work with the private sector was approved by USAID during the last two years of the project from 1994 to 1995. The original rationale was that because implementation of NHIF reforms was stalled, private-sector initiatives in health insurance and managed care would provide greater opportunity for constructive change. The technical work focused on a variety of health insurance and managed care organizations with an interest in implementing services for the lower middle class and the poor.

AAR Health Services

AAR Health Services is a privately held Kenya-based company that for some years has offered a number of insurance products in the corporate and individual markets.

Organized originally as an air rescue service, it expanded its range of services as it saw need and opportunity. It is currently the largest health insurer in Kenya, with approximately 60,000 members. One product line is traditional, fee-for-service inpatient coverage offered on an insured basis to the corporate and individual markets. Another product line is comprehensive outpatient coverage offered on a prepaid basis, with all services provided at clinics owned and operated by AAR, with AAR-employed doctors. Over the past five years, partly with the advice and guidance of KHCF, AAR has followed a strategy of expansion of clinics to multiple locations, adoption of managed care principles in the administration of all product lines, and integration of inpatient and outpatient services.

1. KHCF provided technical assistance aimed at strengthening the management of health care services and costs. This consisted of evaluating the application of selected managed care principles and practices and identifying how they might be adapted to meet AAR's needs. The goal was to increase AAR's confidence in controlling utilization and the cost of care. With greater confidence in its management capability, AAR was willing to consider broadening the package of services it offered and marketing new, lower-cost products to a broader population. Specific areas addressed included improved management information systems, more aggressive contracting for services, increased use of clinical protocols, and more emphasis on continuity of care.
2. KHCF provided support for AAR Health Services to undertake a study of drug prescribing and purchasing practices, to identify strategies that might be appropriately used to promote rational drug use and reduce costs. The study identified frequently diagnosed conditions, developed a plan to reduce the number of drugs in the formulary, targeted high-cost drugs, and analyzed prescribing patterns.
3. With the assistance of a low-cost loan from the Profit Project (a USAID program to support the inclusion of family planning services in private insurance programs), AAR expanded its ambulatory care benefits to include family planning services. The loan covered start-up costs such as planning, staff training, inventory, and initial program evaluation. The decision to add family planning services was based on the low cost, attractiveness to the target population, and potential to reduce unwanted pregnancies and their associated long-term costs.
4. AAR Health Services also requested assistance regarding a decision on satellite clinics. Although its first clinic was profitable, its operating capacity and central location limited the number of potential enrollees. KHCF helped AAR evaluate the cost of expansion, the potential for additional market share, and the price required to achieve that market share. In addition, they reviewed the need for additional management controls and improved information systems for multiple operating locations. As a result, AAR decided to open a second full-service clinic in Nairobi, close to an industrial district, where lower-income workers could use its services.
5. KHCF helped AAR evaluate the possibility of taking over the health care system operated by a large local employer and converting it to a commercial, prepaid health maintenance organization (HMO) for multiple local employers. The health system was a well-managed, tightly controlled program that included all outpatient and inpatient services except for radiology and was offered on-site to 21,000 employees

and dependents. KHCF assisted in the development of a business plan that evaluated the marketing, financial, and operating risks of the proposal. The business plan showed that the proposal was feasible; however, the employer decided that the health care program represented a competitive advantage and decided not to spin it off.

Rural Prepaid Insurance Scheme

Another innovative model piloted in Kenya was a rural prepaid insurance scheme organized and administered by a mission hospital in conjunction with a rural agricultural cooperative, underwritten by a commercial insurance company. The purpose of the scheme was to improve access and reduce the cost of health care by pooling risk and arranging for prepayment throughout the year.

Unfortunately, in its early years, the scheme experienced a number of problems that resulted in financial deficits, including underpricing, adverse selection, and both member and provider overutilization.

1. One of KHCF's projects was to assist the scheme's managers analyze the causes of its deficits and develop a corrective action scheme. This included analysis of enrollment patterns and trends, utilization, patient flow, and policies. The corrective plan proposed new pricing schemes, underwriting policies, control systems, and protocols to encourage efficient use of the system, as well as better and more timely management information.
2. KHCF developed a management information system, easily adapted and supported in a small-scale environment, to allow easy enrollment and tracking of benefits, utilization, and costs for members.

The program was changed significantly as a result of these efforts. Premiums were raised significantly, and a number of additional controls were instituted. The program stabilized financially, but enrollment dropped significantly due to the high premiums. It became very difficult to market the scheme successfully to groups other than hospital employees. Members of the agricultural cooperatives felt that they could no longer afford to prepay for care and reverted to their former fee-for-service payment method, eliminating the potential to share risk and costs among members. Similar problems occurred with school employees. As a result, the plan continues as a benefit scheme primarily for hospital employees.

Publication of Documents on Managed Care

Because of the potential of managed care organizations to delivery high-quality services at a price affordable by a wide range of the population, the KHCF Project also developed several documents to help organizations apply the principles of managed care to their health services and encourage the development of a competitive health care market. The key documents included "Market Opportunities for Managed Care in Kenya"[6] and "Guidebook for Developing Managed Care Plans,"[7] which was adapted to the Kenyan market from similar work in the Philippines. The KHCF Project also conducted a series

of workshops with NGO/mission and private-sector health organizations to disseminate these materials and develop interest in the concepts.

Recent Work with the Private Sector: AFS

The AFS Project included work with private-sector organizations as one of its four objectives; promoting the sustainability of family planning NGOs was another. These two target groups gave the AFS Project the opportunity to work with all sectors in Kenyan health services except for traditional healers. As a result, many experiences and tools from private-sector and NGO work are available for the government, and vice versa. The transfer of technical skills has taken place in the areas of costing of services, information systems (cash registers and hospital management systems), revenue increases, clinical protocols and treatment pathways, and managed care models.

The start of the AFS program coincided with a deterioration in Kenyan health care and the general economic environment. The government health care program was increasingly underfunded, forcing more citizens to turn to the private sector for necessary care and to ask employers for assistance. Employers found it difficult to continue to purchase services from private providers, especially private hospitals and doctors, given the relatively high cost of care. At the same time, private providers found that their volume of paying patients was declining, forcing them to increase fees substantially to maintain income. Due to high interest rates, companies that tried to offer low-cost prepaid plans (such as AAR Health Services) found the cost of borrowing for expansion prohibitive and investor capital scarce.

Thus, AFS's focus was on finding ways to make care itself more efficient and affordable, as well as continuing to support the development and expansion of low-cost prepaid plans.

Public-Private Partnerships

Another approach that AFS explored was the development of public-private partnerships. In this model, the private sector is given access to underutilized or underfunded public resources in return for either cash or in-kind payment. The goal is to simultaneously meet private-sector needs for lower expansion costs and public-sector needs for revenue and skilled services. The approach has been successfully piloted in South Africa and other locations but requires enlightened management and flexibility on both sides to be viable. Two specific opportunities to create public-private partnerships in Kenya were evaluated with AFS assistance.

1. The first was a proposed partnership between AAR Health Services and Thika District Hospital, a government facility in a town about 50 kilometers from Nairobi. AAR had over 15,000 corporate clients in Thika and sought to expand services by contracting with the district hospital for space and physicians' services, as well as agreeing to purchase x-ray and other support services at commercial rates. A feasibility study documented the financial benefits of the arrangement for both parties

and identified alternative models for implementation. The need to publish a clear policy statement in support of such partnerships and to establish a solicitation process was also detailed. Unfortunately, local politics prevented the plan from being pursued.

2. The second opportunity involved collaborative planning and service development between the private and public delivery systems in Nandi Hills. There, the companies and small landholders forming the tea growers' association had historically provided primary health services to their 18,000 staff members and dependents through privately operated dispensaries supervised by a part-time salaried doctor. With the appointment of a private board to oversee the management of the local government hospital, there was a new opportunity to coordinate and improve services and management at the primary care clinics and the hospital. The AFS Project provided technical assistance to identify joint goals and support the development of a plan to address them. Priorities included improving clinical laboratory services at the hospital and creating an amenity ward, as well as gaining a better understanding of the needs and preferences of the population served. For each priority area, multiple options were identified, with varying degrees of collaboration and partnership between the public and private sectors. The AFS Project provided technical assistance to assess the quality, operation, and cost of the clinic services; developed options for improving laboratory services; and assisted with the recruitment of a full-time medical director. In addition, the project assisted with the costing of services at Nandi Hills Subdistrict MoH Hospital and provided advice on the construction of an amenity ward and ways to improve hospital services.

Aga Khan Health Services

Aga Khan Hospital (AKH) is part of a not-for-profit organization whose mission includes outreach to the poor. Consequently, the hospital was particularly interested in being able to offer low-cost, fixed-price packages for maternity, pediatric, and simple surgical services, both to increase volume and to encourage lower-income patients to use its services. The hospital was also committed to a general health care program for low-income patients, which made cost management a priority.

1. AFS supported Aga Khan Hospital and its medical staff in the development of a care management program designed to reduce and standardize the cost of providing appropriate care, as well as to improve quality. Lower and more predictable costs enable a hospital to contract more confidently with employers and insurers to provide care at fixed prices, as well as to better and more profitably serve low-income patients.

   The major objectives of the care management program included facilitating the most appropriate use of resources for patients based on clinical need, identifying patterns of over- and underutilization, promoting appropriate use by physicians and other caregivers by identifying variations in practice, and identifying system barriers to the efficient delivery of care. The program employed clinical pathways and a review committee to promote compliance with program objectives. AFS also provided

support in developing a cost-accounting system at the hospital to facilitate efficient cost management. After early resistance, the value of the undertaking is becoming appreciated.

2. AFS also supported the analysis and documentation of clinical audits designed to improve patient outcomes, achieve shorter hospital stays, and realize substantial cost savings. Preliminary results indicate that for children admitted to the pediatric ward for lower respiratory tract infections (LRTI), there were marked improvements in drug prescribing practices, a decrease in average length of stay from 4.5 days to 4 days, and an associated 20% decrease in hospital costs. These results show that active case management can result in improved patient outcomes, shorter recovery times, and substantial cost savings that may be used to offer lower cost hospital admissions as part of a corporate medical care benefits package.

   AFS provided detailed guidelines for developing clinical pathways in the "Care Management Manual: A Guide for the Development of Clinical Pathways."[8] The manual is based upon work at the Aga Khan Hospital, Nairobi in the pediatric department. The manual also describes the clinical audits and cost analyses completed after implemented of the clinical pathways.

   The audits and cost analyses made combined use of the Management Sciences for Health (MSH) hospital costing spreadsheet tool and the cost estimation strategy (CES) tool for drugs and nonmedical supplies, both of which were developed and tested in Kenya. In combination with a new clinical audit tool developed by the project, these tools provide a rapid means of assessing compliance with clinical pathways and the associated cost savings.

3. An AFS-AKH consultant carried out a preliminary analysis of a group of patients admitted to the hospital from March to December 2000 using well-tested techniques for measuring whether a hospital stay was avoidable. This analysis revealed that an average of 32% of hospital days had questionable justification either for admission or for continued hospital stay. Using objective criteria for assessing the need for either admission or continued stay, it was estimated that of a total of 3,751 occupied bed days, approximately 1,200 could have been avoided or the patients treated at a lower level of care. This study is under further review to see how the costs of treatment can be reduced while increasing the quality of care at the hospital.

4. The AFS utilization management nurse assisted in transferring the care management experience from AKH to Coast PGH as a means of improving quality. The concepts of clinical pathways were introduced to key hospital staff, and a multidisciplinary team was formed to begin development of these pathways for the pediatric wards.

Health Management Solutions

AFS also supported the development of new products aimed at middle- and lower-income populations. Health Management Solutions (HMS) is a company that has operated as a third-party administrator in Kenya for about four years. It currently covers about 26,000 individuals through 20 corporate clients. HMS specialized in the timely administration of medical claims and the application of active management principles (e.g., negotiation of fees, clinical review of the medical necessity of hospitalization, case management of high-cost cases). HMS saw an opportunity to grow rapidly by developing products that lowered costs to employers and consumers, broadened coverage, and improved quality by establishing minimum standards. AFS assisted HMS in this effort by analyzing utilization rates and developing a financial model that could be used to set fair premiums and capitation rates for providers willing to contract to serve HMS clients. AFS was also able to provide technical assistance in the design and ongoing medical management of the plan.

Efforts to have some key AFS client organizations in the NGO sector, such as Chogoria Hospital and the Family Planning Association of Kenya, included in the HMO preferred provider list are ongoing. The objective is to have private health insurance plans include nonprofit organizations with either rural or national coverage as a means of channeling health care business and insurance financing to these organizations.

Lessons Learned

1. The AFS Project has supported many successful initiatives in the private sector to help control escalating costs through more cost-effective care management. The activities remain focused on ways to provide affordable health services to the lower-middle-income and poorer classes.
2. Many of the initiatives have tools and approaches that can be transferred from the private sector to the government sectors. For example, care management techniques developed with the Aga Khan medical staff are being introduced at Coast PGH.
3. Private doctors may resist some of the techniques of care management. Clinicians are seldom aware of the cost implications of various treatment decisions, especially with respect to diagnostic services and drugs. These techniques respond to the needs of doctors, patients, and employers to provide more affordable and better-quality health services.
4. Particularly during periods of economic decline, when fee increases tend to cause sharp reductions in utilization, attention to cost-effectiveness and efficiency of service delivery is often the only way to maintain market share and expand service coverage.
5. The health care market is like any other consumer market, with consumers interested in obtaining the best possible quality at the lowest possible cost. Health care consumers are price sensitive and will change their utilization levels and patterns based on cost.
6. The private sector is open to innovation as conditions change and market opportunities present themselves, but technical assistance at the appropriate time can hasten the innovation process and avoid costly missteps.

7. In general, the objective of the private sector is profit maximization, and the benefits of pursuing business in a risky or low-margin environment have to be demonstrated.
8. Some fundamental business practices, such as accountability for cost and quality, are significantly underdeveloped in the health care sector, and their establishment requires cultural as well as organizational change.
9. Initiatives that involve public sector–private sector or payer-provider collaboration require an experienced facilitator or a champion if they are to succeed. Communication and active participation are key to successful innovation.
10. Many of the principles and tools of managed care—though developed for more sophisticated environments—can be readily applied to developing countries, with appropriate adaptation.
11. Good management information systems are essential for sustained innovation and improvement.
12. Although market forces and methods can improve efficiency and quality and hasten innovation, they do not in and of themselves promote equity and access.
13. Although the private sector is adapting many aspects of managed care in a price-competitive health insurance market, the possibility of government contracting with the private sector to improve services and increase revenue is still stymied for bureaucratic and political reasons.

Notes from this chapter:

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[1] *Kenya's Health Policy Framework* (Ministry of Health, November 1994).
[2] *Kenya's Health Policy Framework. Implementation and Action Plans* (Ministry of Health, February 1996).
[3] *The National Health Sector Strategic Plan: 1999–2004* (Health Sector Reform Secretariat, Ministry of Health, July 1999).
[4] P. Berman, K. Mwuke, K. Hanson, M. Kariuki, K. Mmugua, J. Ngugi, T. Omurya, and S. Ong'ayo, "Kenya: Non-Governmental Health Care Provision" (Harvard University. Data for Decision-Making Project,1994), p. 51.
[5] Ibid., p. 46.
[6] Daniel Kraushaar, Charles Stover, Karen Quigley, and Sarah Ali, "Market Opportunities for Managed Health Care Plans in Kenya" (Kenya Health Care Financing Project, Management Sciences for Health, April 1995).
[7] Dr. D. Kraushaar, C. Stover, and K. Quigley, "A Guidebook for Setting up a Managed Health Care Plan" (Kenya Health Care Financing Project, Management Sciences for Health, April 1995).
[8] Rowena Edgeworth "Care Management Manual: A Guide for the Development of Clinical Pathways". (AFS Project, Management Sciences for Health, May 2001.)

CHAPTER 10. IMPROVING CLINIC QUALITY AND PERFORMANCE: STAFF INCENTIVE SCHEME

Summary

The Presbyterian Church of East Africa (PCEA) operates the Chogoria health delivery network in Meru, Kenya. The network, with a 312-bed hospital and 30 outlying maternal and child health/family planning (MCH/FP) clinics, serves a population of roughly 450,000 people. In the spring of 1998, Chogoria decided to transfer some clinics to community ownership because of losses incurred in 1997 and earlier. Upon closer examination of the problem, the Management Sciences for Health (MSH) consultant recommended that an incentive scheme be tested; it would reward nurses at six clinics for better financial performance of the clinics. The test, conducted from November 1998 through April 1999, proved successful at improving the financial sustainability of the clinics. In October 1999, Chogoria extended the incentive scheme to all 30 rural clinics. The hospital-based clinic was not included in the analysis and experiment.

During calendar year 2000, the scheme did not succeed. It was not actively managed by the hospital, which had many competing management challenges. The cumulative losses for the clinics in 2000 totaled roughly K Sh 1 million (US$13,700 using exchange rate of 73), roughly five times the level in 1997 in Kenya Shillings but close in dollar terms. The pilot was a clear success and has many lessons that are applicable to other settings. However, full-scale implementation was not successful. Further analysis is required to determine what aspects of the scheme did not work in 2000, and what external variables were at work that required more intense focus from the hospital management to resolve.

Problem

Chogoria faced increasing financial losses from several parts of its operation. In 1997, 18 clinics had run deficits ("nonperforming" clinics), and 12 had earned surpluses. Although the net losses from the community clinics of 221,000 Kenya Shillings (about US$3,700 using the exchange rate of 60) were not large, they had proved difficult to address. The planned solution was to turn over the 18 nonperforming clinics to the sponsoring communities. Chogoria would thereby withdraw the subsidy and let the communities take whatever action they desired. This approach was not optimal, since it risked leaving some communities underserved, as well as increasing demand on the hospital's busy outpatient services. In addition, Chogoria's ongoing efforts to create a successful prepaid rural health insurance scheme depended on effective use of the network of clinics, backed up by the hospital's outpatient and inpatient services.

Actions Taken

The MSH consultant analyzed the problem and proposed a pilot incentive scheme aimed at motivating clinic staff to improve services as one of a series of recommendations.[1] After discussion with the hospital management, approval by the board, and discussion with the staff, the experiment ran for six months, from November 1998 through April 1999.[2] The study group included four nonperforming sites (those that incurred deficits in the prior year) and one

performing site, along with six control sites. Bonuses were given to nurses and clinic assistants in months in which the clinics achieved financial performance targets.

Results

The five study clinics moved from a net financial loss of K Sh 108,458 (US$1,900) in the six months prior to the test to a net gain of K Sh 37,630 (US$650) during the six-month trial. The study clinics earned surpluses in four of the six months. During the same period, the performance of the six control clinics deteriorated, from a surplus of K Sh 98,653 (US$1,700) in the preceding six months to a deficit of K Sh 25,580 (US$440) during the test. Table 10-1 below summarizes the results.

Table 10-1
Financial Results of Six-Month Test: Surplus or (Deficit)
(K Sh and US$)

Period	Study Group (n = 5)		Control Group (n = 6)	
	K Sh	*US$*	*K Sh*	*US$*
Pretest (six months)	(108,458)	(1,900)	98,653	1,700
Test (six months)	37,630	650	(25,580)	(440)

Chogoria considered the bonus scheme a success. In addition to increased revenue, other positive results included improved services, reduced need for supervision, reduced leakage (stealing), and improved financial sustainability. In October 1999, Chogoria expanded the scheme to all 30 rural primary health care clinics. All the clinics remain part of the PCEA Chogoria network.

As mentioned above, in 2000 the scheme did not work as it had during the test period. The cumulative deficit for the 30 clinics was roughly K Sh 1 million (US$14,500), approximately five times the level in 1997. Lacking a detailed review of the actual circumstances, there are several important hypotheses which require testing. Perhaps "unofficial" fees charged by clinic staff, not reported to Chogoria, were higher than the incentive payments. Management oversight by the hospital may not have been effective. The total number of both preventive and curative visits declined from 1997 to 2000 (25% and 30%, respectively). It is unclear how much of this decline was due to "unofficial" fees being charged, competition from other health providers in the region, perception of quality, other factors, or some combination thereof.

Background

PCEA Chogoria is a nongovernmental organization (NGO) health delivery system in the Meru district of Kenya that provides preventive and curative ambulatory and inpatient services to a region of approximately 450,000 people. The network includes a 312-bed hospital, a maternal and child health (MCH) clinic on hospital grounds, 30 rural primary health clinics located in communities throughout the region, a network of community health volunteer programs, a nursing school, and several income-generation projects.

Chogoria's Community Health Department (CHD) oversees the operation of the 30 rural health clinics that provide both preventive and curative services at the primary level to the region surrounding Chogoria Hospital. The CHD director and deputy director are responsible for overseeing all CHD operations. In addition, three facilitators supervise the nurses who run the clinics and their helpers. Facilitators conduct ongoing training workshops for clinic personnel and work with community volunteers who serve on Area Health Committees (AHCs) to ensure that clinics are meeting the needs of their communities.

The AHC is responsible for constructing and maintaining the clinic's buildings and providing a house for the nurse. It also works closely with the CHD, clinic staff, and networks of community volunteers to ensure that community needs are being met. PCEA Chogoria employs clinic staff, although the AHC chooses the clinic helper. Drugs and supplies are distributed monthly from the PCEA Chogoria central store to clinics.

In 1997, PCEA Chogoria was forced to subsidize 18 of the 30 rural clinics because they cost more to run than the revenue they received. Management was exploring the possibility of transforming the 30 clinics into financially independent entities to relieve the financial burden. The idea was to transfer revenue-generating responsibility to the AHC in each community, which would have to cover all clinic costs, including staff salaries, drugs, and maintenance. PCEA Chogoria would continue to provide training and medical oversight, but financial responsibility for operations would be eliminated. AHCs were deeply concerned about their ability to manage and ensure the financial sustainability of the community clinics, and pressured PCEA Chogoria management to consider other options.

AFS Project and PCEA Chogoria

Technical assistance to the Chogoria clinics was one of many areas of support by the APHIA Financing and Sustainability (AFS) Project. Under the memorandum of agreement signed by AFS and Chogoria in 1998, the two groups jointly conducted a management development assessment of the NGO's operations. The AFS Project also supported a cost and revenue analysis, which led to decisions to dispose of two money-losing operations: the petrol station (sold) and the cafeteria (turned over to a private operator). Subsequent work included adaptation and installation of a comprehensive hospital management information system and installation of a full hospital management system to improve control over collection of fees and departmental planning, budgeting, accounting, and performance monitoring. Although the technical assistance to the clinics was smaller in scale than most other activities, it was very important. The community clinics provided an accessible and low cost first level of care for patients in the catchment area, as well as a way to avoid overloading the already busy outpatient services of the hospital.

Analysis of Clinic Operations

Initially, AFS was asked to work with PCEA Chogoria management to develop a plan to divest Chogoria of the community clinics. The initial assessment revealed the possibility that poor

financial performance was caused not by insufficient demand by the population, but by inadequate service in some clinics. The reasons for poor performance were considered important, because each implies a different course of action. A detailed assessment of differences in performance between clinics generating a surplus and those running at a deficit was performed. The initial goal was to ascertain whether performance was determined by external factors (such as competition from other providers or insufficient income among community members) or by internal factors (such as unmotivated staff, lack of drugs and supplies, or poor supervision).

The first step was to gain a clear understanding of the performance differences between clinics that were earning a surplus (performers) and those in deficit (poor performers). Clinics generate revenue by providing services to patients in exchange for fees. In 1997, there was a fixed fee per preventive consultation of K Sh 20; the fee for curative visits was determined by a price list based on the drug dispensed. Official policy was that waivers would not be granted to people who could not pay.

Performers saw more patients than poor performers did (the average was 7,266 versus 4,354), although the proportion of preventive care visits was approximately the same. Performers generated more than twice the average total revenue of poor performers, but only 23% more costs. It is critical to note that, on average, performers received 44% more revenue per curative visit than did poor performers.

Market issues were also examined. There was a perception that increased competition from NGO, private, and government clinics was reducing the number of patients going to PCEA Chogoria clinics. An assessment of the number of competing clinics located near each PCEA Chogoria clinic showed no statistically significant difference between towns with performing clinics and towns with poor performers. Predominant crops grown to earn income were also compared, motivated by a belief that clinics located in communities with cash crops were more likely to be self-sufficient. Examination found that some clinics in regions relatively rich in cash crops were doing poorly, and some clinics in regions with no cash crops were doing well. It was discovered, however, that poorly performing clinics were situated in communities with smaller populations, on average, than well-performing clinics.

An important determinant of clinic performance was found to be the perceived strength of the clinic nurse. The three supervisors who oversee the community clinics were asked to evaluate the strength of the clinic nurse and of the AHC on a scale of 1 to 3, with a rating of 1 meaning weak, 2 average, and 3 strong. Supervisors assessed each clinic and jointly agreed on the ranking that is displayed in Table 10-2. Nurses in top-performing clinics were perceived by supervisors to be significantly stronger than their counterparts in poorly performing clinics. The perceived strength of AHCs was not significantly different between the two groups.

Table 10-2
Supervisors' Ratings of Nurses and Area Health Committees

	Rating for Nurse	Rating for AHC
Poor performers (n = 18)		
Mean	2.28	1.94
Standard deviation	*0.83*	*0.80*
Performers (n = 12)		
Mean	2.92	2.33
Standard deviation	*0.29*	*0.78*

PCEA Chogoria management recognized that a combination of factors influenced the performance of the community clinics. Instead of focusing on factors outside of the NGO's control, such as the degree of poverty of the population or the behavior of competitors, management chose to introduce interventions that could influence determinants of success that were within the NGO's control (Table 10-3 identifies factors within and outside the NGO's sphere of influence). Management chose to look at interventions that had the potential to motivate clinic staff and the AHC to improve performance.

Table 10-3
Potential Reasons for Poor Financial Performance of Clinics

Factors that Could Be Influenced by PCEA Chogoria	Factors Outside the Control of PCEA Chogoria
• Interpersonal skills of staff • Service quality • Strategic pricing • Physical condition of clinics • Effectiveness of AHCs • Cost control • Clinic management	• Degree of poverty of the population • Size of the population (potential market) • Prices charged by competitors • Types of services offered by competitors • Quality of services offered by competitors

One nurse and one helper staffed each rural clinic. Both staff members received a fixed salary and periodic training, and the nurse received housing. The compensation package was not tied to any measure of productivity, clinic financial status, or community satisfaction. Field evaluations indicated that some clinics were not open the required number of hours, and that some nurses needed to improve their interpersonal skills. Insufficient attention was devoted to community outreach, as evidenced by the clinic staff's lack of awareness of potential sources of patients in the surrounding area. For example, one nurse was not aware of the number of students enrolled in a boarding school located adjacent to the health clinic. Tea estates, tea processing plants, and other small businesses were potential sources of patients that were not being actively courted.

One conclusion of the May 1998 evaluation was that some clinic nurses were not devoting sufficient effort to their jobs. One indication of insufficient effort was the small number of patient visits per day in poorly performing clinics. In 1997, the performing clinics saw, on average, 67% more patients than the poor performers did. An assumption underlying this study was that clinic nurses have influence over the demand for clinic services through their nurse-patient relationships, community relationships, and community outreach activities. A central hypothesis was that rewards for productivity would increase the effort expended by nurses, which would result in more patients and improve the potential for financial sustainability of Chogoria's clinics.

Some clinics are located in rural areas that take hours to get to on unpaved roads, making frequent visits by supervisors impossible. The challenge was to find a mechanism that would introduce incentives for clinic staff to provide quality services to their communities in the absence of regular monitoring and supervision.

As noted above, the reasons for poor performance included some factors outside of Chogoria's control, such as the condition of the local economy and the behavior of competitors. However, Chogoria could influence the interpersonal skills of nurses and helpers, the effectiveness of AHCs, strategic pricing, the physical condition of clinics, service quality, clinic management, cost control, and revenue growth.

Action Plan

Ten activities were proposed to strengthen Chogoria's clinics:

1. Improve the financial control and inventory management system.
2. Provide training to AHCs, nurses, and helpers.
3. Strengthen supervision.
4. Introduce quality improvement programs.
5. Pilot-test options for incentives that could alter the behavior of clinic staff.
6. Change pricing for drugs and curative services.
7. Establish preventive and curative targets based on a service-planning model.
8. Devise a plan to monitor progress and flag problems.
9. Explore contracting arrangements for future insurance schemes.
10. Transform poor-performing clinics that are redundant. Among the clinics that survive, transform the strong-performing clinics first.

The hospital management responded positively to all the recommendations, and steps to implement them were taken. The focus of this chapter is on recommendation 5.

Design of the Performance-Based Reimbursement Scheme

Well-designed performance-based reimbursement systems must use indicators of performance that are verifiable and not subject to manipulation. For example, rewarding clinic staff for

increasing the number of patients served might result in the falsification of data. This potential response by clinic staff is referred to as "gaming" the system.

An advantage of using monthly revenue received by the clinic as a measure of performance is that it is verifiable and not subject to gaming by clinic staff. Each month, Chogoria staff take the money to the hospital accountants. The money is counted and checked against clinic reports and is completely verifiable. Because Chogoria's rural clinics are in remote areas, it is not possible to monitor other indicators, such as clinic hours or the number of patients served.

Because all patients pay fees, revenue is a strong indicator of the number of patients served. If more patients choose to receive care from Chogoria's clinics, revenue will increase. Since patients have a choice among public, private, and other NGO clinics, an increase in patient visits implies an increase in satisfaction with the quality of care received in Chogoria's clinics.

In summary, revenue is viewed as a strong indicator of clinic performance because it is verifiable, not subject to gaming, and a good measure of patient satisfaction with services.

Potential Problems with Rewarding Financial Performance

Rewarding increases in revenue is not without potential problems. One fear is that clinic staff will emphasize curative care over preventive care, because curative care generates more revenue. Another danger is that clinic staff might respond to the financial incentives by prescribing high-cost and inappropriate drugs.

During the design of the pilot, these possible problems were discussed with Chogoria clinic supervisors and hospital management. All believed that preventive visits would not be de-emphasized. Management believed that good preventive care was the way to establish strong relationships with patients. Satisfied patients could be expected to return to the clinic for both preventive and curative care, and would recommend the clinic to others in the community, resulting in a consistent stream of revenue.

Excessive prescribing of drugs was not viewed as a serious potential problem by Chogoria management. In fact, the problem was that low-income patients tended to purchase less than the full course of recommended treatment, preferring to buy cheaper drugs of dubious quality from black-market drug sellers. It was hoped that the change in financial incentives at the clinics would prompt nurses to encourage patients to purchase the full course of drug treatment from Chogoria. Chogoria's drugs, purchased through an association of Kenyan Christian NGOs, are of much better quality than drugs available elsewhere.

Financial Incentives Tied to Clinic Performance

Clinic staff were paid a bonus if the clinic achieved an increase in revenue as specified each month.[3] It was possible to receive a bonus when a clinic was in deficit if the target increase in revenue was achieved. If total revenue was less than total costs (deficit), bonuses were a percentage of salaries. If total revenue exceeded total costs (surplus), bonuses were a percentage

of the excess revenue earned, as long as this amount exceeded the highest percentage of salary that could be earned while in deficit. Table 10-4 outlines the payment scheme. AHCs received K Sh 2 per curative visit, an increase from K Sh 1, once their clinics covered costs.

The costs included in the bonus calculation were those that the clinic staff could affect: salaries, drugs and supplies (including a 10% mark-up for transportation and stocking), and bonuses, if applicable. The costs not included were maintenance (assumed by the AHC), utilities, supervision and overhead, and periodic training.

Note that when a clinic was in deficit, the incentive scheme encouraged clinic staff to focus efforts on attracting patients and did not reward controlling costs. Bonuses were tied exclusively to attaining the targeted revenue increase for the month. This initial goal was intended to inspire behaviors that led to improved service to the community and thus attract more clients.

Table 10-4
Bonus Payment Scheme

Deficit	Surplus
If Total revenue < Total costs, ***And*** Revenue increase is > 20% but ≤ 40%, ***Then*** Clinic staff receive a bonus of 2% of their salary	***If*** Total revenue > Total costs, ***Then*** Clinic staff receive a bonus that is the greater of a) 3% of their salary, or b) 10% of the surplus (total revenue - total costs), multiplied by the proportion of the total salary costs of the clinic received by the nurse or helper
If Total revenue < Total costs, ***And*** Revenue increase is > 40%, ***Then*** Clinic staff receive a bonus of 3% of their salary	

Clinic Selection

A total of 11 clinics were studied: five in the study group that used the incentive scheme, and six in the control group. In each group, four clinics were poor performers. The control clinics had similar characteristics to the study clinics. The variables considered were zone served, supervisor, revenue and costs, degree of competition, and sources of income for the population.

Implementation

The pilot was conducted over a six-month period from November 1998 through April 1999. The clinic staff in the study group received training to understand the scheme, customer service, and strategic planning. Clinic staff signed bonus agreements with the hospital administrator each month. The pilot was presented to AHCs of all regions. Accounting procedures to record and pay bonuses and a system to record monthly information were established.

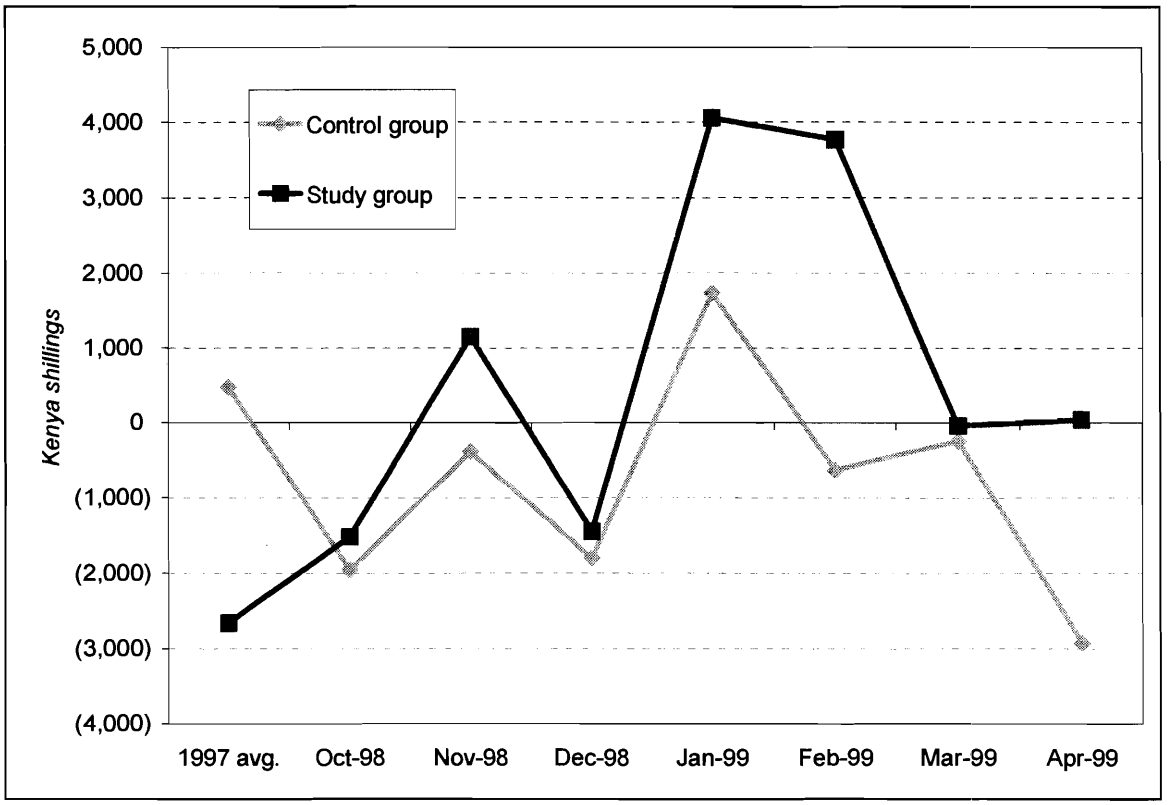
Results of Experiment

The five study clinics improved from a net financial loss of K Sh 108,458 (US$2,700) in the six months before the test to a net gain of K Sh 37,630 (US$940) during the six-month trial. The study clinics earned surpluses in four of the six months. During the same period, the performance of the six control clinics deteriorated, from a surplus of K Sh 98,653 (US$2,460) to a deficit of K Sh 25,580 (US$640). Table 10-5 highlights some of the differences between the study and control group, while Figure 10-1 presents a month-by-month comparison of the net surplus or deficit in both groups.

Table 10-5
Comparison of Study and Control Groups

Study Group	Control Group
• Earned surplus in 4 months out of 6 • Average revenue per visit rose • Average cost per visit fell • Preventive care did not fall	• Earned surplus in only 1 month

Figure 10-1
Average Surplus or (Deficit) by Clinic Group



Surprising Results in 2000

In October 1999, Chogoria expanded the scheme to all 30 rural clinics, with the anticipation that the incentive scheme would improve performance in all the clinics. However, current data for calendar year 2000 show that the performance gains achieved during the test period and beyond have been reversed. Although the information is not complete, it shows that the cumulative loss in 2000 for the 30 rural clinics was roughly K Sh 1 million, or nearly five times the loss in 1997, before the introduction of the incentive scheme. Further in-depth review will be undertaken to determine the cause of the reversal and to recommend appropriate action.

Possible explanations include the following:

- "Unofficial" fees charged by clinic staff, but not reported to Chogoria, may be higher than the incentive payments.
- Management oversight by the Community Health Office at Chogoria is not effective.
- Competing clinics are negatively affecting the performance of Chogoria's clinics.
- The incentive scheme requires regular monitoring, adjustment, and management to achieve its intended results.

Lessons Learned

1. During the period of the test of the incentive scheme, the rural primary health care staff responded to financial incentives by generating increased revenue, controlling costs, improving community services, and possibly reducing leakage (theft) during the study period. Based on the test results, it appeared that the need for close supervision was reduced because the clinic staff had incentives to achieve management's goals.
2. However, the experience in 2000 suggests that close monitoring of the scheme, and perhaps close supervision of staff as well, is still required to achieve the intended results.
3. Performance-based reimbursement of rural primary health care providers can increase the probability of financial sustainability and reduce dependency on donors, at least in the short term. This type of performance incentive can be adapted to other NGOs and is relatively common in some for-profit organizations. Although the principles of human nature are the same in the government sector, introducing similar incentives there would require more careful planning to ensure approval by authorities and compliance with regulations.
4. The fact that the success of the first year was not repeated in the second year requires careful review, which Chogoria and the AFS Project have not been able to conduct. It appears that the system requires close monitoring and adjustment based on varying conditions and staff behavior. The degree of leakage (stealing) of funds by the staff may be greater than anticipated in the performance incentive scheme. Separate but related actions to address that problem may be necessary.
5. As with every other successful approach undertaken with AFS support, strong ongoing commitment by the institution is required to adapt to changing circumstances, and to take corrective action. This step is clearly necessary for Chogoria to take at this time.

Notes for this chapter:

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[1] Rena Eichler, Ph.D., "Technical Trip Report: To Determine the Feasibility of Converting Chogoria Clinics into Financially Independent Units and to Assess Various Options" (Management Sciences for Health, AFS Project, May 1998).

[2] Rena Eichler, Ph.D., "Technical Trip Report: To Design a Demonstration Project to Introduce Financial Incentives in Chogoria's Clinics with the Goal of Improving Staff Performance and Increasing Revenue" (Management Sciences for Health, AFS Project, October 1998).

[3] Revenue increase targets for the first month were determined by averaging clinic revenue over the previous 12 months to capture seasonal variation. Targets for month 2 were determined by averaging actual revenue received in month 1 with the previously calculated 12-month average. Targets for month 3 were calculated by using a straight average of revenue in months 1 and 2.

CHAPTER 11. LOOKING BACK AND LOOKING AHEAD

Reforms in the Governmental, Nongovernmental, and Private Sectors

The experiences in health reform in the preceding chapters provide lessons learned in improving hospitals, clinics, and health insurance in the public, private, and nongovernmental and mission sectors by increasing revenue and improving efficiency and quality of services. These achievements are the result of the focused attention of the leaders of these organizations, with selective technical assistance provided by Kenyan experts supplemented by targeted international expertise. The final chapter on these experiences will never be written, because each organization continues to change. The experiences from each organization are available to be shared, even in competitive private-sector markets. For example, the lessons learned about increasing revenue at Coast Provincial General Hospital (PGH) through the use of cash registers are applicable elsewhere within the Ministry of Health (MoH) system, as well as the rest of the hospital system. The improved performance at the Presbyterian Church of East Africa (PCEA) Chogoria clinics by the use of incentives can be applied in government clinics as well.

Figure 11-1: Successful Approaches Shared among the Sectors

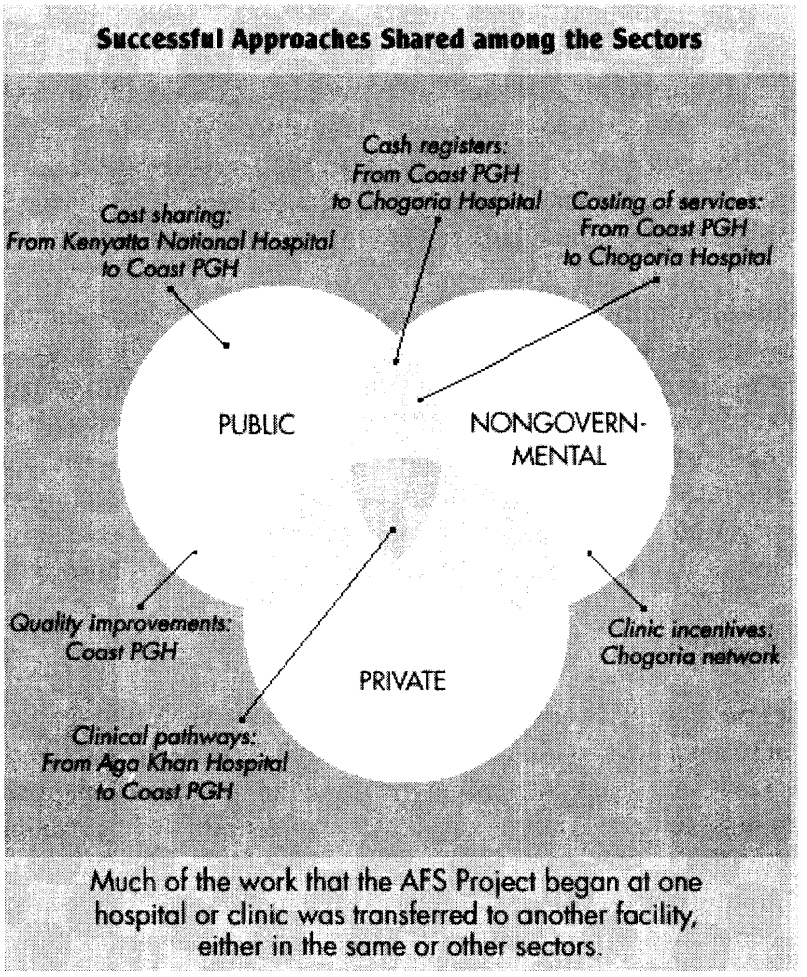

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Figure 11-1 presents some of the technical work undertaken by the APHIA Financing and Sustainability (AFS) Project in the governmental, nongovernmental, and private sectors in the health system. The basic premise, which the AFS work has substantiated, is that all three sectors face similar challenges in terms of increasing revenue, reducing costs, and improving quality. Further, lessons learned, tools developed, and practical experience gained in one institution in one sector are most likely applicable to other institutions in the same sector and in the other sectors. The most dramatic example is the replication of the successful experience with cash registers at Coast PGH in the other PGHs and a few district hospitals. The clinical pathways to improve the cost-effectiveness of certain treatments developed at Aga Khan Hospital have been applied at Coast PGH. The comprehensive hospital management information system developed at PCEA Chogoria Hospital is being introduced at Coast PGH—module by module. And so the story goes on. The AFS Project was extremely fortunate to have had the mandate from the U.S. Agency for International Development (USAID) and the MoH to work in all three sectors. Otherwise, the speed of innovation and the sharing of experience would have been much slower, and much less could have been accomplished.

Local Expertise

The technical and operational expertise necessary to achieve meaningful health reforms is available in Kenya. The cumulative experience gained during the AFS Project lies within the individuals and institutions that made substantial progress in improving their organizations, with technical assistance from the project. Most of the technical assistance was from local firms and individual consultants in Kenya, under the guidance of the AFS team, which was responsible for designing the technical work, identifying and contracting with local groups, and supervising the quality of the work.

However, this health reform expertise does not and cannot reside in a single institution, even one as large as the MoH. Part of the ongoing challenge is figuring out how to allow and encourage those with successful experiences to share them with others facing similar problems. Fostering the ability and willingness to share experiences across the sectors will be one of the most important challenges for ongoing health reform. Following through on partial reforms, such as the autonomy of large government hospitals, would enable those institutions to solve the challenges they face without restrictive government hiring and disciplinary procedures that make running an effective hospital difficult.

Cost-Sharing Agenda

The agenda for cost sharing is both obvious and difficult. The program has proved successful in increasing revenue in government hospitals in particular. But the burden of these increases rests on the patients, largely without the benefit of risk pooling provided by social health insurance. It is not an important responsibility of the National Hospital Insurance Fund (NHIF), with policy guidance from the MoH and government authorities, to expand its reimbursement for services provided to patients in public hospitals. Many systems have been designed to streamline the claims processing procedure, speed up cash

flow, and make the process less bureaucratic without opening it up to further fraud and abuse, which are generally rampant in health insurance operations. Another important issue is to ensure that the poor are indeed having their charges waived so that the cost-sharing program does not prove to be a barrier to necessary care. Finally, the implementation of cash register systems in government hospitals will require a sustained management commitment in each institution, as well as from the provincial medical officers and the central MoH administration. This sustained effort will require at least three to five years of intensive effort.

Broader Health Reform Agenda

The reform agenda in the health sector is taking shape, led in part by actions from the minister's task force on strengthening health insurance. This task force, which has strong representation from the private, nongovernmental, and governmental sectors, is working toward a set of reforms that would strengthen public-private initiatives.

The NHIF has been reorganized at the top under legislation passed in mid-2000. The new board and the new executive director are taking steps to increase NHIF reimbursements to government health facilities. Improvements in this area would help correct the lag in NHIF reimbursements behind increased cash collections at public hospitals and provide additional revenue to help hospitals adjust to declining government funding. In addition, it might correct for the heavy imbalance in reimbursements to private nursing homes and delays and underpayment to government health facilities, whether by design or by chance.

At the same time, the entrenched personnel policies of the Civil Service and MoH continue to make it hard to ensure high productivity from health workers, discipline those who do not perform effectively or who abuse the system, and institute rational staffing patterns. The very low government salary scale makes it increasingly hard to retain qualified personnel, particularly doctors, who are leaving on a regular basis for work in the private sector. These personnel issues are now becoming the focal point for hospital directors and hospital boards.

Whether these personnel problems can be resolved through systemwide reform, or through reform at individual institutions through the granting of autonomous status to government hospitals, is difficult to predict. As the scale of the economic and governance challenges facing the government of Kenya continues to grow, reform initiatives are facing increasingly difficult challenges. The upcoming party and national elections will likely add a measure of uncertainty, unpredictability, and potential instability.

Government reformers in the health sector have to determine whether the present challenges present a crisis or an opportunity for further reforms. On the one hand, granting hospital autonomy could logically be delayed until NHIF reforms are further along and a comprehensive overhaul of the civil service is complete. On the other hand, since reforms have historically come unevenly, a long time frame will be required for

civil service reform and salary restructuring to take place. Therefore, the current momentum for improved hospital management, stimulated by the increase in user fees, is an opportunity to grant autonomy to additional hospitals. The argument may be settled on the grounds of either optimistic assumptions about future reforms or a calculation about whether granting autonomy, for example, is likely to result in worse conditions.

Governmentwide Initiatives

Since mid-1999, the government of Kenya has been implementing a series of high-level reforms affecting economic policy and governance, as well as reforms in each of the government departments, including the Civil Service. A "dream team" of permanent secretaries, supported by the donor community, is working to address the most critical issues in each of their departments—focused on improving governance, reducing corruption, improving efficiency, and eventually reducing poverty.

In parallel, the debate over constitutional reforms has proceeded in the Parliament and in other sectors of society—so far, without a definitive process in place. The planning and political positioning for presidential elections between now and 2002, plus KANU party elections, are also an integral part of the political and economic debate and agenda. There are thus many major uncertainties and opportunities facing the country and the health sector.

There are many positive forces for reform at work in Kenya, plus the prospect of a national election for president within two years. The government, with support and encouragement from major donors, has put in place a reform team in each ministry. These permanent secretaries are working closely with the new head of the Civil Service on governmentwide reforms. This strong reform team is facing many challenges in economic reform and civil service practices and resistance from many vested interests within the government.

The next steps in health reform cannot be easily predicted and will be affected by any number of political, administrative, epidemiological, and health care system outcomes. One comprehensive document for economic and public policy reform, *Our Problems, Our Solutions: An Economic and Public Policy Agenda for Kenya*, provides a comprehensive agenda for reform across all sectors of the economy and all groups in society. In that document, the health sector is only a small part of a massive agenda. It is not clear in that document, nor in many national discussions, just what position and priority health reform occupies. Activists for health reform will continue to push for these reforms, not wanting to wait until more comprehensive economic and governance changes take place.

The pace of health reform is generally slow and uneven, but pockets of rapid improvement were discussed in the preceding chapters. And given the substantial progress achieved even during the economic decline of the past five years, further progress on a larger scale is at least a significant possibility. Whether the current circumstances warrant a speeding up of health policy reforms and a more rapid removal

of obstacles to reform is a significant policy issue and a matter of individual and institutional initiative.

Depending on the strategies used, additional health-sector reforms may require high-level decisions, or they may be allowed to proceed without clear direction from top decision makers. Senior decision makers' silence and internal indecision have not stymied many reforms to date, particularly the cost-sharing program, decentralization of decision making in the health care sector, and steps toward hospital autonomy. However, some of the remaining steps, such as improving the accountability, efficiency, effectiveness, and performance of public-sector health employees, will be more difficult to resolve without clear government decisions regarding hospital autonomy, civil service reform, or both.

It is impossible to predict what the underlying conditions for health-sector reform will be over the next five years. Alternative scenarios about economic, political, health care, and other variables can be developed and are often the basis for organized initiatives in Kenya and by donor organizations. However, a high level of uncertainty underlies any specific scenario. Past experience can provide some guidance on health policies and the implementation of health reforms, but it cannot predict the external variables that often prove to be decisive.

One of the most significant policy and political decisions is whether to speed up the pace of reforms to allow health care providers in all sectors to meet the massive and complex challenge of treating AIDS on an inpatient and outpatient basis, as effective medicines become available at affordable prices. How can these health care resources be most effectively mobilized? Will speeding up the pace of reforms make the institutions more effective? Might a slow and measured pace of reform achieve more than a faster pace could? Will more effective decentralization of financial and managerial decision making cause real problems, or will it free hospital and district boards and teams to more effectively address the health care issues they face?

Since the immediate future, not to mention the longer-term future, is highly unpredictable, health-sector strategists might well develop brief scenarios as a backdrop for decision making on further health reform. The same scenarios could be used to test strategies for reform in other areas. These scenarios are not predictions of the future, but they do represent possible future conditions, given the most significant economic, political, health care, and social factors currently in play.