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Health Financing
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Project

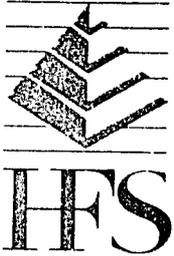
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ABSTRACTS

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APPLIED RESEARCH PAPERS

HFS Major Applied Research Paper No. 1: *Provider Incentives and Productive Efficiency in Government Health Services (Phase I)*, by Ricardo Bitran and Steven Block. (September 1992) (Order No. MAR 1)

As Phase I of a three-phase Health Financing and Sustainability project, the authors review the relevant concepts and literature and present the preliminary field work design for research regarding provider incentives and productive efficiency in government health services. In addition to providing a basic conceptual framework of the issues, the authors present empirical and anecdotal evidence from developed and developing countries to assess the potential for provider incentives to improve the efficiency (as well as equity and quality) of health care in developing countries. The discussion includes both monetary and non-monetary, physician and hospital incentives. Finally, the authors consider both the methodological problems and prospective field work activities necessary for completion of phases II (field work) and III (analysis) of the applied research project.

HFS Major Applied Research Paper No. 2: *Technical and Economic Efficiency in the Production of Health Services (Phase I)*, by Ricardo Bitran. (December 1992) (Order No. MAR 2)

This report completes the first phase of the HFS Project's three-phase major applied research project entitled "Private Sector: Private and Public Differences in Efficiency." This first phase lays the groundwork for phase two (field work) and phase three (analysis) of the research project. The author provides a selective review of studies of health service production efficiency that have been performed in developed and developing countries. In the review, he examines techniques used to measure efficiency, methodological problems associated with these measurements, and possible solutions. The review also provides information about the efficiency of public and private health services in developing countries. Finally, the report describes opportunities for phase two field work, and discusses efficiency measurement techniques for data analysis. The field work opportunities described are: 1) a comparative study of hospital efficiency in Ecuador for five different types of providers, and 2) a study of productive efficiency for private and public facilities in Senegal, including facilities from various levels.

HFS Major Applied Research Paper No. 3: *Extending Coverage and Benefits of Social Financing Systems in Developing Countries (Phase I)*, by Gerard LaForgia, Charles Griffin and Randall Bovbjerg. (March 1993) (Order No. MAR 3; see SAR 4)

The authors review current social financing schemes and the feasibility of extending coverage and benefits in developing countries. Social financing is regarded as a popular and possibly very effective solution to the demand for pooling risk to lessen the effects of catastrophic losses. Social insurance, however, often creates equity, coverage, institutional, and equity problems in health care.

The study examines the social financing concept, particularly economic and equity factors, as well as types of health insurance and their possible application to the health financing concerns of developing countries. Case study summaries offer information and variables concerning the what, who, how, how much, and conditional aspects of health insurance in developing countries. A chronological review of health insurance development in the United States is used to offer additional data on financing sources, strategies, and analyses.

HFS Major Applied Research Paper No. 4: *Efficiency in the Consumption of Health Services: Concepts and Research Needs (Phase I)*, by Robin Barlow with Christine Kolars, Cathy Peters and Bilkis Vissandjée. (June 1993) (Order No. MAR 4)

The authors develop a conceptual framework for analyzing "consumption inefficiencies" in the provision of government health services in developing countries, and also reviews the empirical literature in this field. The inefficiencies, causing health losses for the population, result from such factors as price distortions, misinformation, and externalities. Corrections for the inefficiencies are possible with user charges and health education programs. A project of field research on consumption inefficiencies is proposed, based on estimating cost-effectiveness ratios for selected government health services.

HFS Major Applied Research Paper No. 5: *Public and Private Interactions in the Health Sector in Developing Countries (Phase I)*, by Randall P. Ellis and Mukesh Chawla. (February 1993) (Order No. MAR 5)

The authors offer a comprehensive review of existing payment systems, organizational frameworks, and multiple job-holding. Competition between public and private sectors is also addressed. A proposed field work design for Phase II of the project is outlined.

To remedy budget constraints in health care, an option for some developing countries may be to encourage the private sector to assume a greater role in financing and providing health services, relieving some of the burden from the public sector and increasing collaboration between the public and private sectors. This alternative requires consideration of concepts such as sharing public resources with private providers and determining the division of service financing and provision by sector. Because many physicians in developing countries allocate their time between jobs held in both sectors, a study of this multiple job-holding and the behavioral equations of health personnel time allocations are examined to determine how the sectors are being affected by the choices currently made.

A review of existing literature on public-private interactions to date reveals that such interactions are not well documented, although private sectors in general have the finances for large investments. Future research in the area of public-private interactions for Phases Two and Three is currently recommended in four specific countries: Egypt, Kenya, India and Pakistan, because of special attributes in their systems of health care.

HFS Major Applied Research Paper No. 6: *Economic Impacts of Malaria in Kenya and Nigeria (Phases I, II and III)*, by Charlotte Leighton with Rebecca Foster and others, in collaboration with the Vector Biology and Control (VBC) Project. (November 1993) (Order No. MAR 6)

This paper is an analysis of the short-run economic impact of malaria in Kenya and Nigeria, based on field data. The study concentrates on the annual malaria-related production loss at the national, sectoral and household levels, as well as for urban and rural populations and for men and women. Included in these estimates are schooldays lost due to both teachers' absence from school and children's affliction with the disease, and the proposed corresponding household spending to combat it. Another factor explored in this study is the reduced productivity for those individuals who return to work during a malaria episode. Popular impressions shared by the population about the disease were also reviewed.

Malaria, whether perceived or confirmed, has a significant economic impact for a single disease. Due to the similar symptoms of other diseases, the study uncovered widespread discrepancies in the identification and definition of malaria in the absence of laboratory tests. In addition, three determinants emerged that are critical to making accurate estimates: 1) malaria prevalence is quite high in general for those who live in malarious zones, regardless of gender or whether the areas are urban or rural; 2) although there exist inaccuracies as to true and perceived malaria for those who do not undergo lab exams, the incidence of both types of malaria nevertheless indicates a high burden of annual illnesses for these countries; 3) estimates on the effectiveness of malaria control tend to be overestimated due to the inaccuracy of estimating true malaria incidents.

Conclusions based on this and related studies stress the importance of including caretaking costs when determining malaria's economic impacts. Significant productivity is lost when women—who comprise a large measure of the production base in both countries and are generally accepted as the caretakers of the family—do not work to care for sick children.

HFS Major Applied Research Paper No. 7: *Means Testing in Cost Recovery of Health Services in Developing Countries (Phase I)*, by Carla Willis. (November 1993) (Order No. MAR 7)

In developing country health sectors, the importance of means testing has been brought forth by increased reliance on user fees to help finance services. This paper provides a conceptual framework for understanding the role that means testing can play in promoting equity in the health sector, as well as a survey of over 60 means-tested programs worldwide. Means testing is placed in the broader context of targeting and contrasted with other targeting mechanisms. The paper examines important policy and practical issues involved in the design and implementation of means tests. For example, how are the target population and eligibility criteria defined, and how do these definitions differ from those used in income transfer programs? What are the tradeoffs between spending on benefits and spending on improved means-testing accuracy? How are outcomes evaluated? The survey of previous means-testing experience suggests certain elements of design enhance or diminish the likelihood of success. Finally, an agenda for future research is proposed.

HFS Major Applied Research Paper No. 8: *Quality of Health Care and Its Role in Cost Recovery (Phase I)*, by Annemarie Wouters, Olusoji Adeyi and Richard Morrow. (December 1993) (Order No. MAR 8)

This paper looks at the interrelationship of cost recovery and quality improvements in the health sector of developing countries as well as at people's willingness to pay for perceived improvements in health services. Included in this document are in-depth literature reviews of five major types of studies: facility-based studies of the effect of cost recovery on utilization, econometric health care demand studies, hedonic pricing studies, contingent valuation studies and cost-recovery intervention studies. By reviewing these studies, the paper provides a conceptual framework within which one can consider people's willingness to pay for quality improvements in health care by looking at how demand behavior interacts

with supply, especially in terms of promoting the financial sustainability of government services. This paper also presents a preliminary design of possible field research activities.

HFS Major Applied Research Paper No. 9: *Factors Affecting the Development of Private Health Care Provision in Developing Countries (Phase I)*, by Peter Berman and Ravindra Rannan-Eliya. (October 1993) (Order No. MAR 9)

Privatizing existing public health care services and enhancing development of private health care provision are two of the main health policy innovations being promoted throughout the developing world since the 1980s. However, little is known about health care privatization. This paper analyzes the development of the private health care sector in the developing world, outlining what is known about the development of the private sector in developing countries and the major components of a conceptual framework that can be used to address these issues in future research. Included is a typology of private health care providers that is based on variation in organizational form and other characteristics, such as economic or commercial orientation, and therapeutic system. Major regional patterns are summarized and some of the important factors determining them are highlighted. Case studies of four countries—Papua New Guinea, the Republic of South Africa, Chile and the United Kingdom—are included.

Key factors that influence the demand of private health care include income, price, quality, private and social insurance, transport infrastructure, the structure of the medical referral system, demographic and epidemiological factors, education and cultural factors, health-seeking behavior and previous historical experience. Key factors that influence the supply of private health care is determined by demand, availability of inputs—which include medical labor, capital, and medical technology—and by the impact of insurance mechanisms on the nature of competition in the market for health care services. Governments critically influence the development of private health care provision—either directly through effects on the general social and macroeconomic environment, or directly through specific interventions. Government actions can be divided into those that affect the demand side or the supply side and can be further categorized as public provision or production, economic incentives or disincentives, regulation and licensing, interventions in factor or input markets, and public information.

HFS Small Applied Research Paper No. 1: *Analysis of the Demand for Inpatient and Outpatient Care from Imbaba Hospital, Cairo, Egypt*, by Randall P. Ellis and Elizabeth Stephenson. (November 1992) (Order No. SAR 1)

The authors use an econometric analysis of household data collected earlier by the Health Financing and Sustainability Project to determine the impact of changing fee structures to improve cost recovery at Imbaba Hospital, a public hospital in Cairo, Egypt. Their analysis includes a description of present health care utilization patterns, estimations of the determinants of demand and simulations of changes in demand in response to changes in certain key variables. The analysis, conducted separately for inpatients and outpatients, shows that Imbaba Hospital is considered to be of low quality and that demand for inpatient care is less responsive to fee levels than demand for outpatient care. While the authors find that there is a significant willingness to pay for perceived higher quality of services, they caution that the results do not provide a clear indication of the potential demand response to increasing fees at Imbaba Hospital.

HFS Small Applied Research Paper No. 2: *Expenditure Patterns and Willingness to Pay for Health Services in Belize: Analysis of the 1991 Belize Family Life Survey*, by James North, Charles Griffin and David Guilkey. (February 1993) (Order No. SAR 2)

The authors combine information on expenditures and health care use patterns with hypothetical responses about willingness to pay. The data on use patterns indicate considerable success in the public sector in delivering prenatal and obstetrical services, but with little or no selectivity about targeting public subsidies for those services to specific groups of women. The result is considerable self-targeting. While prenatal care is widely delivered through health centers, higher educated, wealthier, urban women are most likely to deliver their babies in government hospitals, while less educated, poorer, rural women tend to deliver at home. There is some informal targeting by virtue of the fact that a small proportion of the women opt out of the public system and use private physicians for deliveries. Public subsidies reach those who use the public system.

For acute outpatient care, the private sector—broadly defined to include physicians, pharmacists, and traditional healers—is a much more important supplier of services, accounting for about half the visits. Roughly 65 percent of the sample incurs some expenditures for outpatient, well over 90 percent of those using the private sector and about 60 percent of those using the public sector. Drugs and medicines account for well over half of the expenses. Expenditures are quite high: the estimate on an annualized basis indicates that households are spending 3 to 7 percent of their incomes on acute health care alone, not counting expenditures related to pregnancy and young children.

The willingness-to-pay questions reveal extremely high willingness to pay for existing government health services and a virtually unanimous willingness to pay at least B\$15 for improved government services offering reasonable waiting times, supplies of drugs, and pleasant waiting rooms. Although these willingness-to-pay responses are almost certainly over-estimates of what people will actually pay, they are so high that they leave plenty of

flexibility for public action. The favorable willingness-to-pay responses, coupled with surprisingly high actual health care expenditures, suggest that the government has considerably more room to maneuver in considering cost recovery in the health sector than it has exercised in the past. The simple cross tabulations used in this paper also indicate that there are substantial opportunities to improve the targeting of public subsidies under a user fee system.

HFS Small Applied Research Paper No. 3: *Local Retention of User Fees in Government Health Facilities*, by Keith McInnes. (June 1993) (Order No. SAR 3)

The author examines the theory of locally retaining user fees collected from government health facility cost recovery programs. Benefits of such a theory, such as improved motivations for fee payment and collection and new accountability at the local level, are discussed. In addition, critical viewpoints, including the problem of perceived earmarking of funds, are presented. The cost recovery programs of four countries—Belize, the Central African Republic, Cameroon and Swaziland—are detailed as examples, and information offered about their legal considerations or legislation, fee management and use of funds.

Conclusions drawn from these studies indicate that health centers in developing countries which retain fees locally would enjoy benefits such as increases in the percentages of costs recovered and in health center utilization and quality. Local fee retention, however, should be recognized as only one of several factors affecting the cost recovery and the sustainability of health services. Another important factor is the level of prices charged.

HFS Small Applied Research Paper No. 4: *Health Insurance Practice: Fifteen Case Studies from Developing Countries*, edited by Gerard LaForgia and Charles Griffin, with contributions by Nuria Homedes, Patrice Korjenek, Joseph Scarpaci and Taryn Vian. (March 1993) (Order No. SAR 4; see MAR 3)

As a companion piece to HFS Major Applied Research Report No. 3, this document details organizational and economic factors in 15 case studies on insurance programs in developing countries. Each case study regards the structure of the insurance scheme, the framework, how it works, what it costs, and the conditions under which it is effected.

The 15 approaches are grouped into five categories:

1. Community-Based Risk Sharing/Rural Health Insurance (Zaire, Thailand, Guinea Bissau)

2. Social Security Coverage Extension (Panama, Costa Rica, Ecuador, Mexico)
3. National Insurance Systems (Korea, Chile, China)
4. Limited Catastrophic Coverage (Philippines, Kenya)
5. Pre-Payment Plans (Uruguay, Dominican Republic, Philippines)

Each case study addresses three objectives: 1) The scheme's organization and how it pertains to insurers, consumers, providers and employers; 2) The scheme's economic considerations, such as cost control and moral hazard; and 3) A summary of each scheme's advantages and weaknesses, and its probability for use as an effective health insurance model for other developing countries.

HFS Small Applied Research Paper No. 5: *The Effects of Population Aging on Health Care Utilization and Costs for the Centro de Asistencia del Sindicato Médico de Uruguay (CASMU)*, by Michael Micklin, Holly Wong and Stephen Heinig. (August 1993) (Order No. SAR 5)

The authors estimate the effects of population aging on costs and utilization of hospital services. In particular, their study focuses on expected changes over the next two decades for a single Uruguayan health care organization, the Centro de Asistencia del Sindicato Medico del Uruguay (CASMU).

Using baseline data from 1991, utilization and average cost figures are calculated for three illness categories: all diagnoses, neoplasms and cerebro/cardiovascular diseases. Four different projections of the CASMU population are made for the years 2000 and 2010. These projections incorporate different assumptions about the speed of the aging of the population, and about the size of the CASMU membership. Combining the baseline data with the four projections, it is possible to estimate the effects of aging on costs and utilization. These results are available for the CASMU population as a whole, and for specific age and sex categories.

One of the primary objectives of the study was to discern the costs of the demographic and epidemiologic transitions occurring in many developing countries. Since that aging process has already occurred to a large extent in Uruguay (with more than 10 percent of the population aged 65 and over), this study went beyond simply forecasting changes for the next two decades. The paper includes the development of an indicator of how costs may change as the proportion of elderly in the population changes. This indicator, termed an age elasticity of cost, is estimated for each of the four projections, using varying assumptions and time periods.

HFS Small Applied Research Paper No. 6: *Quality of Health Care in Relation to Cost Recovery in Fiji: Focus Group Study*, by E.B. Attah and Nii-K Plange. (September 1993) (Order No. SAR 6)

This research is related to one of three HFS studies of current health financing policy in Fiji. The review was based on an earlier HFS report on the role of and potential for cost recovery in government facilities and services, which summarized the probable need to improve the quality of care at public facilities so that a clientele could be maintained as fees were introduced or increased. To accurately define the term "quality of care," an appraisal was conducted of consumer preferences to define general perceptions of quality care in Fiji health services, particularly in the public sector. The results from using the focus group technique over a two-week period are presented in this paper.

Nine focus group sessions were conducted. Recommendations are based on immediate, intermediate and long-term actions that would act as catalysts for changes needed to induce patients to choose government health facilities when fees are instituted in the future.

HFS Small Applied Research Paper No. 7: *Cost Recovery and Quality of Care in the Congo*, by Basile Tsongo, Carla Willis, David Deal and Holly Wong. (September 1993) (Order No. SAR 7)

This report documents a study conducted in the summer of 1992 to examine the relationship between quality of services and fees in the Congo. The study hypothesized that private facilities can charge higher fees than public facilities because private health care is perceived as providing higher quality services.

The authors also based conclusions on data that compared pricing practices in rural and urban areas and analyzed patient characteristics in conjunction with their choice of facility. A total of 399 out-patients at eight health centers were surveyed. Five general topics were addressed in the questionnaire: patient and household identification, socio-economic information, curative care, patient satisfaction and payment.

HFS Small Applied Research Paper No. 8F: *Synthèse des études relatives au financement de la santé*, par Robin Barlow, François Pathé Diop et Ngcné Touré Sene. (Septembre 1991) (Order No. SAR 8F)

Au moment où le gouvernement Sénégalais étudie des plans de réforme du financement du système de santé, il semblait souhaitable de passer en revue toute

l'expérience déjà acquise avec les autres méthodes de financement utilisées pendant ces dernières années; une expérience qui a fait l'objet de plusieurs études dans le passé. L'examen de ces documents a été confié à une équipe de trois consultants, lesquels ont lu et fait la synthèse des trente neuf rapports qui ont été publiés depuis 1980. Les résumés individuels de tous ces rapports sont joints au document.

Dans les dits documents, certains aspects du financement de la santé ont été abordés de manière assez approfondie. Parmi ceux-ci, on note le financement de la santé en général et les opérations financières des hôpitaux, le système d'approvisionnement en produits pharmaceutiques, et les projets de soins de santé primaires au Sine-Saloum et à Pikine.

HFS Small Applied Research Paper No. 9: *Estimating the Willingness to Pay for Quality of Care: Comparison of Contingent Valuation and Two-Step Health Expenditure Methods*, by Marcia Weaver. (October 1993) (Order No. SAR 9)

There has been strong interest in establishing user fees as a source of revenue for public health facilities to be used to improve the quality of health care services. This study provides an analysis of how facility utilization can be affected by increased fees and improved care.

Two methods were employed to estimate the willingness to pay for improved quality of care: contingent valuation and a two-step health care expenditure model. This report documents median willingness to pay for seven quality improvements: 1) facility maintenance; 2) personnel supervision; and pharmaceuticals to treat: 3) malaria, 4) sexually transmitted diseases, 5) acute respiratory infections, 6) intestinal parasites, and 7) diarrheal diseases.

The results, using the two methods, demonstrated that willingness to pay would exceed the estimated cost for each quality improvement.

HFS Small Applied Research Paper No. 10: *Health Subsidies Model for the Chilean System*, by Jorge Claro, Gabriel Bitrán and Bernardo Luque. (November 1993) (Order No. SAR 10) Also available in Spanish as *Modelo para la asignación de subsidios de salud*. (Order No. SAR 10S)

The right to health care has been proclaimed from various angles and points of view. In Chile, this right is constitutional in nature ("The State protects free and equal access to health promotion and recovery activities and the rehabilitation of the individual"). The

routes to achieving this objective, however, are not so obvious, and are therefore the subject of wide debate. For this reason, the appropriate selection of the best alternatives and their application requires a detailed and systematic analysis.

This study is intended to be a contribution to the solution of these problems, by performing an analysis of what it would mean for Chile to implement a health system based on the allocation of subsidies to individuals, and in which the presumptive providers of health services would be private firms participating in competitive markets.

HFS Small Applied Research Paper No. 11: *Unit Cost and Financial Analysis for the "Hospital 12 de Abril" in Bolivia*, by Manuel Olave and Zulma Montaña. (December 1993) (Order No. SAR 11)

To determine whether underutilization of Bolivian Social Security System facilities exists, one sample hospital—the Hospital 12 de Abril—was studied over a period of four months. Unit costs of in-patient services were determined, alternate financing mechanisms were proposed and results were discussed with the Social Security management.

The Social Security System is one of three major subsectors that provide health care to Bolivians. The Hospital 12 de Abril, a referral hospital in this jurisdiction, has 58 beds and cares for children 15 years old and younger with infectious diseases.

To conduct the study, data was collected on factors such as production, occupancy level and length of stay, and a break-even analysis was performed to determine cost recovery schemes used. It was determined that, generally, the hospital's inefficiencies stemmed from a high level of staffing and a low number of patients served. The results were presented by the researchers to hospital administrators. Cost recovery recommendations resulting from the discussion included the policy that the hospital begin competing for patients in the private market. In addition, it was suggested that a similar cost analysis be undertaken at other Social Security facilities, and processing of cost and utilization would be performed at the hospital using desktop computers.

HFS Small Applied Research Paper No. 12: *The Role of Quality in the Demand for Health Care on Cebu Island Province, The Philippines*, by David Hotchkiss. (December 1993) (Order No. SAR 12)

A mixed multinomial logit model is used in this document to estimate the effects of quality, price, distance and individual demand for health care on Cebu Island in the

Philippines. Data collected from both households and health care facilities ensures that information concerning individual characteristics and facility attributes of all relevant obstetric care alternatives—alternatives that vary greatly in quality and price—are included.

Estimation results confirm that factors such as facility crowding, practitioner training, patient education and family economic level are all important considerations that influence consumer choice.

TECHNICAL REPORTS

HFS Technical Report No. 1: *Kenya Ministry of Health Preventive and Primary Health Care Resource Gap Study*, by Larry Forgy, Mutsembi Manundu, Joanne Bennett, et al. (October 1990) (Order No. TR 1)

This study examines the gap in resources used to provide preventive and primary health care (P/PHC) at Ministry of Health (MOH) facilities in Kenya. The study, performed in collaboration with other donor organizations, determines the current expenditures for P/PHC services, estimates the costs of offering P/PHC services at facilities operating at full capacity, and calculates the resource gap. MOH facilities do not provide P/PHC services at full capacity because of a lack of staff, drugs, supplies, transportation and maintenance. The HFS team finds that the annual recurrent expenditure gap (approximately 423 million Kenyan shillings, or US \$20 million) represents 37 percent of current expenditures for P/PHC services and 20 percent of the entire MOH budget. An additional capital outlay of 326 million Kenyan shillings would be required to upgrade facilities and equipment to conditions required to provide P/PHC at full capacity.

HFS Technical Report No. 2: *Health Services for Low-Income Families: Extending Coverage Through Prepayment Plans in the Dominican Republic*, by Gerard La Forgia. (December 1990) (Order No. TR 2)

This study explores the potential for extending health services to low-income families in Santo Domingo through private, prepaid HMO-type health plans known as *Igualas Médicas*. Since their founding in the late 1960s and early 1970s, the Igualas have demonstrated impressive growth and increasing market share. The growth has occurred in the lower-end market of minimum wage employees in small and mid-size firms and parastatals. Based on a sample of eight Igualas, this report examines the strengths and weaknesses of these prepayment plans as extension mechanisms. Several features of these plans are reviewed: ownership, organization, provider arrangements, benefit packages, premium structures, membership characteristics and cost containment procedures.

Lending associations that provide loans to informal sector microenterprises are another major focus. The report identifies two associations which could serve as grouping mechanisms for microenterprise owners, workers, and dependents. Through an analysis of Iguala and lending association operations, this report explains the financial and administrative arrangement whereby the Igualas can be matched with this large yet specific segment of the

informal work force. Currently, these groups receive what is widely regarded as inadequate health care at state health facilities or pay high-priced, fee-for-service practitioners.

HFS Technical Report No. 3: *Assessment of Health Systems, Financing and Policy Options in Arequipa Region, Peru*, by Josh Coburn. (Order No. TR 3) Also available in Spanish as *Evaluación de los sistemas de salud, financiación y opciones de política en la región de Arequipa, Perú*. (February 1991) (Order No. TR3S)

This report presents the results of an assessment of health systems and health financing in the Arequipa Region of Peru. Detailed quantitative and qualitative information is presented on the structure, utilization, operating costs and financing systems of public (Ministry of Health), quasi-public (Social Security) and private health services in the Arequipa region. Also presented are the results of a household survey, carried out to obtain information on health service utilization patterns. The information, which serves as a baseline for development of sound health resource allocation and financing policy, generates recommendations for ways in which the regional government can take a more active leadership role in health policy formulation, more effectively generate revenue within MOH facilities, and more appropriately allocate scarce public health resources to the region's population.

HFS Technical Report No. 4: *Tools for Break-Even Analysis and Financial Control at Mirebalais Hospital, Haiti*, by Kirsten Frederiksen and Serge Fernandez. (Order No. TR 4) Also available in French as *Instruments d'analyse de point mort et de contrôle financier à l'Hôpital Mirebalais, Haïti*. (July 1991) (Order No. TR4F)

To achieve financial self-sufficiency, Mirebalais Hospital, a rural facility in Haiti run by the private voluntary organization (PVO) Eye Care Management and Resources for Community Health (MARCH), has instituted a cost recovery system. However, fees charged do not generate sufficient revenues to cover costs, and collection of fees is not strictly enforced. A break-even analysis shows that if fees for most services (excluding surgery, deliveries, and maternity care) were increased by 25 percent in real terms, the hospital could break even in six years. This assumes fee collection rates are 100 percent, and a 50 percent increase over current rates.

Fee collection and financial administration can be improved by: assigning fee collection tasks to specific individuals, separate from patient registration responsibilities; improving reporting forms and the chain of reporting cross-checks; improving patient tracking through a numerical reporting system, instituting accountability for fees collected;

and using a one-book accounting system and revised chart of accounts. To improve monitoring and financial control, regular reports on financial status can be utilized.

HFS Technical Report No. 5: *Cost Recovery in Public Hospitals in Belize*, by Gerard La Forgia and Charles Griffin. (January 1992) (Order No. TR 5)

The authors report options for improving the current cost recovery system. Although user fee policy implementation is legally mandated, it has not been a priority of the Ministry of Health (MOH). Pressure from the government to improve efficiency and reduce budget deficits in Belize's health care system initiated the MOH search for a workable cost recovery program. This document provides the Government of Belize (GOB) with a method for choosing the level of cost recovery. The study finds that simple adaptations of the current fee schedule could be used to develop partial and full cost-recovery simulations that assist policymakers in deciding which changes in fee structure and total revenue estimates would work best in the system.

The report concludes that enforcing the current fee schedule would recover ten percent of the costs, and the MOH should grant autonomy to the health facility managers as an incentive for fee collection. In addition, the authors recommend that means testing should be transferred to the Social Development Department of the Ministry of Social Services and Community Development. An analysis of Belize's current cost recovery system for health services reveals that user fee implementation is a viable option for successful cost recovery, but the HFS project team recommends that the GOB run demonstration projects for one or two years.

HFS Technical Report No. 6: *El Régimen legal de los servicios de salud en el Ecuador*, by Alberto Wray, Ivette Haboud, Elizabeth Garcia and Lucia Cordero. (March 1992) (Order No. TR 6S)

This report examines Ecuadorian law and the regulation of health services. The report outlines: user fees for health services provided by the public health sector; health services as an obligation of the state; collaborative agreements between the Ministry of Health (MOH), municipalities, and nongovernmental organizations (NGO); the legal framework for financial assistance from the government to private health insurance; free choice—private health insurance or the Ecuadorian Institute of Social Security (IESS) scheme; the laws and regulations related to the practice of private medicine.

Chapter one discusses the juridical context of charges for health services provided by the public sector and examines the administration and use of collected funds. Chapter two analyzes the legal administration of medical care in hospitals and health centers and the obligations of the government to provide these services. Chapter three addresses the juridical environment which applies to agreements between the MOH and other institutions. The purpose is to analyze the context of the agreements and legal possibilities for the MOH to enter into agreements with nongovernmental organizations to manage the health services. Chapter four refers to the legal implications and obstacles to the Government of Ecuador in providing financial assistance for health insurance. Chapter five reports the legal obstacles for the IESS to use contributions as a payment for private health insurance. Chapter six analyzes the legal environment for the private practice of medicine in Ecuador. It includes the Ecuadorian tax code, regulations, and salary levels. This chapter also presents: an inventory listing the requirements and licenses necessary to operate hospitals and clinics; an evaluation of the legal aspects of pharmaceutical importing; a procedural explanation on custom duties for imported equipment and medical supplies; and finally pharmaceutical trade and price controls.

HFS Technical Report No. 7: *Health Financing in Fiji: The Role of and Potential for Cost Recovery*, by Holly Wong and Salik Govind. (July 1992) (Order No. TR 7)

This paper examines the existing cost recovery system in Fiji's health sector and evaluates its potential for policy reform. The study analyzes the costs of providing services at government hospitals, assesses current fee structure and revenue generated at the hospitals, and lays out various options for improving the cost recovery system. Some cost recovery improvement options laid out in this report include: charging at hospitals only versus charging at all levels of facilities; charging all inclusive fees versus charging individual services; and, charging fees to encourage patients to lower levels of health care facilities. The paper also outlines additional factors that need to be considered for increased cost recovery programs: the need for policy reform in the area for fee retention, strengthening the means testing system, simultaneously increasing the quality of care in government health facilities, and developing an effective health insurance system.

HFS Technical Report No. 8: *The Ecuadorian Social Security Institute (IESS): Economic Evaluation and Options for Reform*, by Carmelo Mesa-Lago. (September 1992) (Order No. TR 8) Also available in Spanish as *Instituto Ecuatoriano de Seguridad Social: Evaluación económica y opciones para reforma*. (Order No. TR 8S)

This report analyzes the current economic-financial situation of the Ecuadorian Institute of Social Insurance (IESS), including its organization, population coverage, financing, expenditures, and financial equilibrium, and advances policy recommendations and options for the future. Although all IESS programs are covered herein, the report concentrates on the two most important: pensions and maternal health care. The final section of the report provides policy guidelines for the future reform of social security, as well as a research agenda for the future. The author recommends reform of the IESS through the creation of a mixed system combining a reformed IESS, that would provide basic benefits, with private-sector participation.

HFS Technical Report No. 9: *The Potential for Sustained Provision of Health Services by Sector PVOs in the Dominican Republic*, by Gerard LaForgia and Stephen Heinig. (January 1992) (Order No. TR 9).

This report is an economic and institutional analysis of the potential for sustained provision of health services by sector private voluntary organizations (PVOs) in the Dominican Republic. A sample of 12 Dominican PVOs, chosen to illustrate variations in size, mission, and scope, were assessed to determine the extent, effectiveness, and efficiency with which they provide maternal and child health care and family planning services to the community. Unlike earlier investigations of PVOs and their roles in society, this report viewed PVOs as possible alternatives to governmental units, due to the shortcomings of the current Dominican Ministry of Health delivery system (SESPAS).

The authors interviewed the PVOs and examined internal records to determine their strategies, administration, programs, services and beneficiaries. They also examined the management capacities of the PVOs and the success rate of their incentive systems to improve the effectiveness of semi-volunteer workers. PVO methodologies, institutional capacities (including information management systems), and coordination are also addressed. The authors propose options to expand or sustain the capability of the PVOs to continue their services in terms of financing and efficiency.

HFS Technical Report No. 10: *Policy Options for Financing Health Services in Pakistan*, a compendium of five volumes edited by Marty Makinen. (September 1993) (Compendium Order No. TR 10)

▲ Volume I *Summary Report*, by Marty Makinen. (Order No. TR10/VOL1)

This is the executive summary report of the work done by the Federal Ministry of Health (FMOH) of Pakistan with the assistance of USAID's Health Financing and Sustainability project (HFS). The task was to design four financing and organizational reform initiatives aimed at improving quality, efficiency, and equity in the Pakistani health system.

The four initiatives are mutually reinforcing. Autonomy for government hospitals will allow them to more easily meet quality standards. Hospitals also will benefit from the development of private managed-care insurance plans. Managed-care insurance plans, in turn, will use the independent assessment of hospital quality to choose facilities with which to associate. Strengthened rural services will reduce the burden on government hospitals. As government hospitals improve, they will better serve as referral sites for rural care providers.

This volume summarizes the major findings and recommendations in each of the four program areas chosen by the FMOH. In addition, summaries of the studies done on the role of Muslim religious funds to assist the indigent, and on legal issues of health sector reform are provided. Lastly, an overall implementation plan is presented which integrates the four initiatives, the legal work, and the recommendations concerning consensus and capacity building.

▲ Volume II *Hospital Quality Assurance through Standards and Accreditation*, by Greg Becker. (Order No. TR10/VOL2)

Public and private leaders in the field of health care in Pakistan have agreed that establishing national standards for the delivery of health services would improve the quality of patient care that is delivered in hospitals. This document describes the steps that could be taken to develop a national system that would: (1) create standards to measure the quality of health services offered through medical institutions, (2) develop an accreditation process based on these standards, (3) monitor these standards and the accreditation initiative, and (4) develop, over time, a province-based system of registration and licensing of hospitals, health care personnel, and clinics.

▲ Volume III *Hospital Autonomy*, by Stan Hildebrand and William Newbrander. (Order No. TR10/VOL3)

The authors base this report on the assumption that concrete benefits would result from allowing hospitals currently owned and run by the Government of Pakistan to begin to operate as autonomous entities. These benefits would include reducing the amount of government funds needed to run these institutions by replacing much of the public subsidy with user fees. Autonomous hospitals would operate using private-sector management principles which are expected to improve efficiency in operations, contain costs, and raise the quality of health services. This would be done while still retaining the hospital's social mission of providing free care to those who are unable to pay.

This document presents principles in the areas of governance, management, and finance that would guide the running of an autonomous hospital. It recommends a phased approach to conversion starting with the Pakistan Institute of Medical Services and the Federal Government Services Hospital.

▲ Volume IV *Development of Private Health Insurance Based on Managed-Care Principles*, by Zohair Ashir, Harris Berman, and Jon Kingsdale. (Order No. TR10/VOL4)

This report focuses on the potential for developing in Pakistan private health insurance programs based on managed-care principles. Fostering such programs would benefit the Government of Pakistan because encouraging private coverage of health care costs would reduce the burden that the government currently bears in financing health services. At the same time, promoting the development of a private-sector insurance industry with the managed-care approach would contain the costs of health services while improving the quality of care provided. This study surveys employers in Karachi and Islamabad to ascertain the market potential for private insurance programs and makes recommendations about developing these markets. It also presents the basic elements of a model managed-care health insurance program for Pakistan.

▲ Volume V *Organizing and Financing Rural Health Services*, by Richard Yoder, Sikandar Lalani and Marty Makinen. (Order No. TR10/VOL5)

The purpose of this report is to explore an alternative approach to organizing and financing rural health services in Pakistan. The proposed model calls for the government to assign directly to rural communities the financial resources currently allocated to their local health facilities. The communities would then take responsibility for managing a contracting process whereby providers would compete to offer them a basic package of health services using existing government facilities and equipment. At the option of the community, additional services could be asked

of the contractor in return for giving the provider the right to charge limited user fees. This report addresses the financing of different packages of services, including: the provision of financial support for the needy; the development of a medical referral system; defining the contractual and oversight roles of the community; attracting providers to bid; and implementing, monitoring, and evaluating the proposed approach. Also included are a sample Request for Proposal and contract form that could be used in carrying out this alternative approach to the management of rural health services.

HFS Technical Report No. 11: *Health Financing in Tuvalu*, by Holly Wong. (September 1993) (Order No. TR 11)

The author assesses the cost recovery system in the health sector of Tuvalu, a country of nine island groupings with a population of approximately 9,000 people. She analyzes the costs of providing services at Princess Margaret Hospital in Funafuti, the capital of Tuvalu, and assesses the current fee structure at the hospital and the revenues generated.

A step-down allocation method is used to analyze the costs of providing services at the hospital. Results demonstrated that personnel accounted for a surprisingly low 38 percent of operating costs. The study findings suggest that, while there is some potential for generating additional revenues in the sector, the likelihood of raising significant revenues in this manner is limited. Additional means of generating cost savings are discussed, along with policy reforms that would have to be undertaken if cost recovery measures were to be successful.

TECHNICAL NOTES

HFS Technical Note No. 1: *Pharmaceutical and Medical Supplies System Assessment, Kenya Ministry of Health*, by Jonathan Quick and Dr. Francis Ndemo. (November 1990) (Order No. TN 1)

The authors carry out an assessment of Kenya's Ministry of Health (MOH) pharmaceutical and medical supply system. They interview MOH officials, medical supply and essential drug staff, Provincial Medical Officers, and senior staff from the United Nations Children's Fund (UNICEF), the World Health Organization (WHO), local pharmaceutical manufacturers, the United States Agency for International Development (USAID), The World Bank, The Danish International Development Agency (DANIDA), the Swedish International Development Agency (SIDA), the Overseas Development Administration (ODA) and the Japan International Cooperation Agency (JICA). The team visits hospitals, supply depots, health centers, and dispensaries in two provinces. Finally, the team reviews and incorporates into its work the results of more than 12 reports prepared over the last five years.

Specific findings, actions, priorities and timetables are described in ten areas of drug policy management. It is estimated that improvements in these ten action areas could increase current supplies of pharmaceuticals by 50 percent or more. In this report, potential roles are outlined for the MOH, the World Bank-assisted Health Sector Rehabilitation Project, the WHO Drug Action Programme, the USAID-sponsored Health Care Financing Project, and the DANIDA/SIDA-supported Essential Drugs Programme.

HFS Technical Note No. 2: *Cost Recovery and Applied Research in Belize*, by Jerry La Forgia and Charles Griffin. (November 1990) (Order No. TN 2)

These technical notes present the applied research findings for cost recovery activities in Belize's hospitals and health centers. The cost recovery work done in Belize is applicable to cost recovery activities throughout the world. The report provides valuable information projecting potential revenue for the public health system, gathering prices for medical services in the public and private sectors, and discussing the main policy issues that must be resolved for cost recovery to progress.

The notes also detail how supply-side and demand-side issues determine the success of cost recovery for public health service in Belize; population-based surveys provide this

beneficial information. On the supply-side, cost recovery succeeds when the necessary administrative and legal arrangements are in place and work effectively. Demand-side issues, often overlooked by technical assistance to governments, are important for the political and economic feasibility of cost recovery. From a political standpoint, facts about how fee structure changes could improve the allocation of government resources are essential.

HFS Technical Note No. 3: *Egypt Cost Recovery for Health Project: (CRHP) Cost Recovery Hospitals: Project Design and Implementation—Some Issues*, by Carl Stevens. (December 1990) (Order No. TN 3)

As candidate hospitals and health centers are selected for conversion to cost-recovery status, various problems arise that need to be resolved. The issues are identified and possible resolutions are suggested: first, these notes address recent public finance and policy issues in Egypt; second, a pricing policy for pay beds in cost-recovery hospitals (CRHs); third, some possible objectives of CRHs' pricing policy; fourth, some additional factors for the success of cost recovery; fifth, the issue of government subsidies for the CRHs are considered in two parts: existing Ministry of Health (MOH) and Ministry of Finance (MOF) budget policies for government facilities that earn revenues by marketing services, and alternative policies favored by the CRHP Project; sixth, the organizational status given to the CRHs because of their increased autonomy; seventh, resource constraints on quality and efficiency; and, eighth, cost recovery implementation problems due to lack of financial resources needed to initiate the cost recovery cycle.

HFS Technical Note No. 4: *Cost Recovery Project in MOH Facilities, Arab Republic of Egypt: Facility Assessment Instrument*, by Greg Becker. (February 1991) (Order No. TN 4)

Technical assistance to the Egyptian Cost Recovery for Health Project (CRHP) led to the development of facility standards and a Facility Assessment Instrument. It is a tool to assess the condition of candidate facilities for conversion to cost recovery and measure needs. Specifically, the Facility Assessment Instrument provides project management with information to make resource allocation decisions based on the facilities prioritized needs.

HFS Technical Note No. 5: *Health Financing and Management in Belize: An Assessment for Policymakers.* Compendium of technical notes in six separate volumes. (July 1991)
(Order No. TN 5)

Vol. I ***Summary Diagnosis***, by Gerard La Forgia and Ruth Levine. (Order No. TN 5/VOL 1)

This overview provides a synopsis of the six volumes that form a detailed and comprehensive study of health care financing and provisions in Belize. The paper cites the sources contributing to the deterioration of the public health care system and emphatically recommends, at the risk of political turmoil, a governmental shift away from "socialized medicine." Furthermore, this document summarizes the current issues facing Ministry of Health (MOH) policymakers and recommends changes in the health care system as well as the mechanisms for formulating and implementing health sector policy.

Vol. II ***Health Sector Cost Recovery in Belize: Current Situation and Prospects for Change***, by Gerard La Forgia and Charles Griffin. (Order No. TN 5/VOL 2)

This report examines the current user fee system in Belize. Only two percent of recurrent costs are recovered through fee revenues. The authors suggest using simple adaption of the current fee schedule to develop partial and full cost recovery simulations. They also conclude that autonomy for health facility managers is necessary, as a first step, for the development of a successful cost recovery policy. In addition, the same rates should be charged to all patients, public and private; although, some accommodations should be made for people too poor to pay. Final suggestions include conducting a few large scale experiments for one to two years.

Vol. III ***Social Security in Belize: Current Situation and Prospects for Health Care Benefits***, by Gerard La Forgia. (Order No. TN 5/VOL 3)

To help facilitate an informed public debate on the constraints to Social Security Board (SSB) participation in health care financing, this report examines SSB coverage, benefits, financing, and claims experience during the scheme's first decade of operation and provides an in-depth analysis of the Social Security system. This study recommends a long-term strategy that prepares for a comprehensive health insurance system. For a short-term strategy, this report recommends three courses of action for Social Security: (1) establish a cost-based reimbursement system with the MOH to finance medical care provided to injured workers under the current regimen; (2) develop an occupational health program focusing on the agriculture sector; and (3)

expand the purview of the recently initiated Social Security Development fund to include grants and loans for the expansion or improvement of public and private health services.

Vol. IV ***The Private Medical Sector in Belize***, by Gerard La Forgia, Harry Cross and Ruth Levine. (Order No. TN 5/ VOL 4)

The authors analyze the factors constraining expansion in the private medical sector in Belize. The recommendations in this report focus on increasing lower income groups access to private medicine. The private medical sector in Belize is limited in terms of the number of providers and range of services. The report identifies the factors contributing to the lack of growth in the supply of private medicine in Belize: among other things—licensing regulations that restrict the number of physicians authorized to practice privately, the proximity of higher quality services in Mexico, and low population coverage of group medical insurance.

Vol. V ***Resource Allocation in the Public Health Sector in Belize***, by Ruth Levine and Gerard La Forgia. (Order No. TN 5/ VOL 5)

The distribution of human and financial resources in Belize's public health sector is analyzed in this resource allocation study. The analysis provides information for planning health care reformations: the current and projected health needs of the Belizean population; the allocation of resources at the national level; the supply of manpower; and the demand and utilization of human and financial resources in public health services. The data analyses conclude that the need for health services in Belize will grow. Recommendations to improve efficiency of health services delivery conclude the study.

Vol. VI ***Pharmaceuticals and Supplies Procurement in Belize***, by James Rankin. (Order No. TN 5/ VOL 6)

This report documents the major problems in public sector drug management in Belize and presents options to resolve the problem. The author collected data on procurement, budgeting, distribution, and monitoring. Three major problems found in public sector drug management include: first, the annual budget is too low to cover the population's medical needs; second, procurement is ineffective; third, the distribution system is sound in theory but dysfunctional in practice. The annual budgetary allocations are consistently insufficient to cover the costs of pharmaceuticals and supplies in Belize, and the budgeting process is haphazard.

The author provides a framework for forecasting the quantity and cost of necessary drugs and supplies to be used to estimate financial needs. The report also identifies several options to improve the procurement programs managed by the Pan American Health Organization/Fondo Rotario de Medicamentos Esenciales (PAHO/FORMED).

HFS Technical Note No. 6: *Economic Analysis Section of the Strengthening Health Institutions Project (SHIP) in Peru*, by Marty Makinen. (September 1991) (Order No. TN 6)

This portion of the study of the Strengthening Health Institutes Project (SHIP) in Peru describes the costs and benefits of the project design; analyzes the cost-effectiveness of the project components; estimates recurrent costs and impact on the health budget of the Government of Peru; and analyzes the target populations ability to pay for the proposed costs of health services. To examine the affordability and sustainability of the project, the author uses cost-effectiveness analysis to evaluate the project design and its primary health care delivery system. The analysis reveals that the project design is economically sound, and the benefits of the project outweigh the costs. The author concludes that the beneficiaries are willing to pay for the majority of the recurrent costs, and the rest of the expenses can be covered by fundraising activities and regional government contributions.

The author reports that health care service prices are accessible to the majority of the targeted population; however, cross-subsidies should be implemented for people too poor to pay. The overall project benefits include: reducing morbidity and mortality in project areas; contributing to the implementation of the GOP's decentralization policy in the health sector; and developing, evaluating, and disseminating new private-sector approaches to service delivery and promotion. Follow up and baseline studies are recommended to further evaluate the SHIP Project's impact on the targeted groups and their use of preventive services.

HFS Technical Note No. 8: *Assessment Report for the Central African Republic*, by James Setzer and Marcia Weaver. (June 1991) (Order No. TN 8)

This paper provides an overview of the Central African Republic (CAR) and its health problems. Since independence in 1960, CAR's health policy has been based upon government provision of free health services to the population. The Ministry of Public Health and Social Affairs (MSPAS) is searching for alternative methods to generate resources for the sector. The paper includes: an assessment of government laws and policy regarding alternative delivery and financing arrangements; an analysis of government expenditure

trends in health service; an analysis of resource allocation trends; a study of social financing arrangements; a collection and study of documents, papers, and research on health financing-related topics; a summary of efficiency problems and gaps in knowledge; a draft workplan using data collection, analysis, research needs and priorities; the willingness of CAR to affect change; and possible donor organizations and potential donor activities.

HFS Technical Note No. 10: *Health Finance Policy Simulation Model*, by Larry Forgy and Jim Knowles. (1991) (Order No. TN 10)

This computer program is a planning tool that provides a method for a quantitative approach to health finance policy analysis. It simulates policy interventions and predicts the effect the proposed policy change will have on different areas of the health sector. The model operates by presenting the viewer with menus providing the projections of per capita expenditure and services and the financial condition of both the public and private sector. An additional set of menus allows input of data on the current health care situation and the proposed policy changes for the health care sector. The model simultaneously considers several relationships and influences on the health sector, useful for generating informed policy dialogue.

HFS Technical Note No. 11: *Operating Costs and Market Analysis for the Bon Repos Hospital, Haiti*, By Bradley Barker, Laurie Emrich, Ricardo Bitran, Serge Fernandez and Francoise Pean. (September 1991) (Order No. TN 11) Also available in French as *Analyse des coûts d'exploitation et du marketing de l'Hôpital Bon Repos* (Order No. TN 11F).

This report contains a financial analysis for a hospital, a marketing analysis for an insurance program, and a computerized menu-driven demand model. The cost projections were based on a relatively stable price index. The insurance program was based on a relatively stable level of urban employment. The financial viability of the Bon Repos hospital depended upon: the government's continuing its support in terms of cash payments and provision of personnel; the poor's not getting significantly poorer; and the willingness of the wealthier population of the Bon Repos zone to use the up-scale services that Bon Repos would offer.

Due to the military coup and the subsequent embargo, all socio-economic and financial conditions upon which this analysis is based have changed. The report is still a useful resource for the general discussion of insurance principles and the computerized demand model that it contains.

HFS Technical Note No. 12: *Selected Bibliography of Health Insurance Options in the USA*, by Basile Tsongo with Cheryl Bailey. (July 1992) (Order No. TN 12)

The researchers compile literature on issues in the reform of health insurance in the United States between January 1990 and April 1992. A descriptive summary of the three major approaches for reducing the number of uninsured Americans introduces the bibliography. The proposals include: (1) "play or pay," employment based coverage by private insurance; (2) "Bush Administration Proposal," tax credits for the purchase of private insurance; and, (3) a government health insurance system.

HFS Technical Note No. 14: *Beneficiary Analysis of Five Cost Recovery for Health Project (CRHP) Facilities in Egypt*, by Eltigani Eltahir Eltigani and Marty Makinen. (September 1992) (Order No. TN 14)

This report offers a beneficiary analysis of five public-sector health facilities that are targeted in the first phase of the Egypt Cost Recovery for Health Project: Embaba Hospital, in the Giza Governorate; 15 May Hospital, in the Cairo Governorate; El Kantara Gharb Hospital, in the Ismailia Governorate; Kafr El Dawar Polyclinic, in the El Bahira Governorate; and Shark El Medina Hospital, in the Alexandria Governorate. Profiles of the communities in the catchment areas of the five facilities are presented, as well as information on the currently operating facilities, including staffing, patient visits, common health problems served, and problems impacting the quality of care. Other health facilities in the four catchment areas are also briefly discussed.

The report attributes the decline in out-patient visits at the four currently operating facilities to inefficiency and poor quality of care. Greater autonomy of the management of each facility in the areas of staffing and procurement of medicines and supplies is recommended, as is an improved system of subsidies for indigent patients. It is estimated that 40 to 65 percent of the population served by these facilities may require some form of subsidy. The report concludes by suggesting improvements to the current patient registration system in order to develop reliable profiles of the beneficiary populations and gather data on usage of the health services offered at each facility.

HFS Technical Note No. 15: *Current Health Care Cost Recovery Systems in the Central African Republic*, by Emmanuel Nguembi, Jacques Senwara-Defiobona, Faustin Vuomo, Marcia Weaver, Jim Setzer and Léon-Patrice Ngueretia. (February 1992) (Order No. TN 15)

This study was performed to analyze cost recovery systems currently in use in the Central African Republic (CAR) and to provide decision makers with recommendations for the system which is best suited to the population's health needs, in preparation for possible implementation of a nationwide system. The study focused on systems which recover a significant amount of facilities' recurrent costs; cost recovery systems were considered financially effective if they recovered at least 45 percent of operating expenses. The study looked at 35 health facilities (28 public, seven private), including hospitals, health centers, maternity centers, and dispensaries.

Of the four types of cost recovery systems studied by the authors, they recommend two for nationwide implementation: fee for service and payment per illness episode. These are the most popular and widely used systems. Constraints to implementation of a national cost recovery system include: widespread indigence and identifying the poor who are unable to pay fees; relatives of civil servants and others who are required to pay for care currently do not pay at all or receive highly subsidized care; and ministries do not pay for their employees who use health services. The authors recommend steps to be taken in preparation for a nationwide cost recovery system.

HFS Technical Note No. 16: *The Effects of Cost Recovery on Demand for Health Care at Cairo's Embaba Hospital, Egypt*, by Keith McInnes. (February 1993) (Order No. TN 16)
Also see Small Applied Research Paper No.1 and Technical Note No. 14.

This report summarizes two surveys conducted to understand how utilization at Embaba Hospital would be affected by the upgrading of the facility and an increase in prices. Under the hospital conversion component of the Cost Recovery for Health Project in Egypt, five public facilities, including Embaba hospital, will be given autonomy in a pilot experiment to increase the efficiency and the quality of services. Econometric results of a household survey indicate that outpatient price increases will result in a significant reduction in utilization, but have a minimal effect on inpatient utilization. An alternate provider survey identifies existing competition to Embaba Hospital. Fees range widely and the extent to which other providers refer patients to Embaba is also assessed.

The overall analysis of the surveys suggests that upgrading the quality of care at Embaba, through improvements in the infrastructure, the equipment, and the management, along with a general increase in user fees is unlikely to reduce utilization of the hospital; in fact, it is likely to increase. Differential fees are recommended to protect the poorest segments of the population who could not afford the increases.

HFS Technical Note No. 17: *Financing Health Care in Kenya: Background and Framework for Strategic Planning*, by Charles Griffin, T.N. Kibua, Mary Kilonzo, B. Obonyo and J.K. Wangombe. (October 1992) (Order No. TN 17)

The authors adapt the strategic planning process to the public sector, specifically the health sector, to provide advisory policy support to the Government of Kenya on health care financing reform. It is not a strategic plan; it is a description of the process whose final product is to be a strategic ten year plan.

The authors describe a framework for the process based on four main points:

- ▲ Set goals in terms of the ultimate beneficiaries.
- ▲ Focus on economic issues.
- ▲ Separate financing and service delivery issues as much as possible.
- ▲ Remember people pay for the health system, directly or indirectly; "nothing is for free"; therefore, the efficiency and equity of expenditures are important.

The paper concludes with a proposal for institutionalizing the process in the Ministry of Health and an action plan for carrying out the planning process.

HFS Technical Note No. 18: *The Expansion of Health Services Outside the Public Sector in Mozambique*, by Keith McInnes, Antonio Jorge Cabral and Jorge Almeida Simoes. (August 1992) (Order No. TN 18).

This report examines the potential for expansion of non-profit and for-profit private sector healthcare delivery in order to increase coverage for the population. The legal and regulatory environment for private sector collaboration is examined and necessary legislative reforms conducive to this participation are cited. The authors find that there is sufficient demand, willingness to pay, and ability to pay to support private medical practice in Mozambique. The National Health System (NHS), the major provider, would be buttressed by for-profit providers mainly in urban areas and not-for-profit providers in rural areas.

HFS Technical Note No. 19: *Mozambique Public Sector Budgetary Resource Needs and Allocations in Health*, by Keith McInnes, Estrela Polonia and Francisco Ramos. (January 1993) (Order No. TN 19)

This document details a technical assistance effort in Mozambique with the objective of establishing a health budget and allocation process. HFS Project staff and consultants worked with the Ministry of Health (MOH) and USAID/Maputo's Office of Health to outline

processes for correcting health financing problems. Based on this effort, the authors document expenditures on health by the Government of Mozambique (GOM) and donors, current MOH budgeting and planning procedures, and existing financial information systems

In a recently completed post-war plan analyzing Mozambique's health financing situation, it was found that, compared to other sub-Saharan African countries, Mozambique had relatively low per capita spending on health; a relatively small percentage of GOM spending; and a high percentage of spending from donors. Funds are unevenly allocated to health facilities, with about 60 percent of combined donor and GOM capital directed to high-level facilities, such as central hospitals, while lower level facilities, such as rural hospitals, receive about 40 percent. In addition, some provinces are economically favored.

MOH budgeting is plagued by related activities that run independent of each other. Resources for health programs are not defined, and health expenditure programs are not properly monitored or evaluated. Budgeting is not conducted by the same sources that develop health programs.

To correct these imbalances, the MOH has created a plan that will gradually lessen dependence on external donors and re-allocate existing resources to develop primary and secondary care services. In addition, the authors recommend installation of a financial management information system and training of MOH personnel in accounting and financial management systems.

HFS Technical Note No. 20: *Health Insurance in Fiji*, by Deborah McFarland. (October 1993) (Order No. TN 20)

The Government of Fiji is exploring options for reforming the way in which health care services are financed and delivered. This document examines the role that health insurance may play in such a reform. Health insurance in Fiji is limited to the private sector; there is currently no comprehensive social insurance mechanism designed to ensure the availability of affordable health care services. Examination of existing group plans and data collected on insurance participants can provide guidance in making policy decisions about financing future health care systems in Fiji.

HFS Technical Note No. 23: *Means Testing in Cost Recovery: A Review of Experiences*, by Ruth Levine, Charles Griffin and Timothy Brown. (January 1992) (Order No. TN 23)

The Health Financing and Sustainability (HFS) Project provides technical assistance and training, conducts applied research, and disseminates information to developing countries in health economics, health sector policy development, and health services management. The applied research work is to increase knowledge of the complex issues underlying health financing problems in the following policy areas: cost recovery, productive efficiency, social financing, and the private sector.

As part of the project's studies on cost recovery, one activity examines means testing as a method of protecting the poor under cost recovery systems. This document presents a review of experiences with targeting and means testing worldwide and contributes to the HFS applied research on this topic.

HFS Technical Note No. 24: *Review of Cost Recovery Experience in the Central African Republic*, by Charlotte Leighton, Gregory Becker, Yann Derriennic and Evelyne Laurin. (January 1994) (Order No. TN 24) Also available in French as *Examen de l'expérience de recouvrements des coûts en République Centrafricaine*. (Order No. 24F)

This paper covers the findings from a field review of the cost recovery experience at all levels of the health system in the Central African Republic (CAR). It supplements and updates an earlier study undertaken in 1991 to assist the CAR develop a national cost recovery program. This paper documents the different types of cost recovery being practiced in the CAR, including those at village pharmacies, and notes the lessons learned from a variety of managerial and operational experiences.

Conclusions based on this and the previous study suggest that a nationwide cost recovery program is feasible because the population of the CAR is both willing and able to pay for some essential services, the government has made the fundamental policy commitment, and necessary management systems exist that could be adapted for national use.

HFS Technical Note No. 25: *Summary of Technical Assistance Reports (1986-1993): Health Financing and Cost Recovery Systems in the Central African Republic*, by Keith McInnes. (September 1993) (Order No. TN 25) Also available in French as *Comptes rendus des rapports sur l'assistance technique: Financement des soins de santé et systèmes de recouvrement des coûts en République Centrafricaine*. (Order No. 25F)

For the last decade the Government and Ministry of Health (MOH) of the Central African Republic have pursued reforms in health care financing for health services. With the primary goal of improving the quality and coverage of health care services, policy makers

have sought to increase resources for the health sector. MOH and donor representatives consider current expenditures on health insufficient to provide adequate care to the population. In 1988 it was reported that total government and donor funds for health amounted to approximately 2,400 FCFA per capita annually. Shortages of basic drugs and supplies persist in urban, as well as rural areas, hampering the provision of quality health care services.

In 1986 the Combatting Childhood Communicable Disease (CCCD) Project approached the USAID funded Resources for Child Health (REACH) project, requesting its assistance to examine the population's participation in the financing of CCCD programs and other MOH health activities. REACH fielded a short term consultant, and since then numerous REACH and later Health Financing and Sustainability (HFS) consultants have visited C.A.R. The consultants, and their MOH counterparts, have conducted over 10 studies and analyses of different aspects of health care financing. The principal focus has been on developing a cost recovery program which would require the population to pay for a portion of the cost of government health care services it receives.

This document summarizes ten REACH and HFS reports written by health finance specialists. They encompass broad assessments of the health care sector, descriptions of ongoing cost recovery programs and experiments, and results of a nationwide willingness to pay survey. Exhibit 1 lists the titles and authors of the ten reports, by type of report and in chronological order. To put the reports in context, Exhibit 1.2 provides a chronology of events and studies from 1976-1993.

The rest of this report comprises six sections. Sections 2 and 3 summarize the findings and recommendations, respectively, of the ten reports. They are organized by topic and in chronological order. The remaining sections organize the reports into four categories: Assessments (Section 4), Reviews of Cost Recovery Programs (Section 5), Analyses of Ability and Willingness to Pay for Health Services (Section 6), and Analyses of Costs and Prices of Health Services (Section 7).

HFS Technical Note No. 26: *Expansion of Private Health Insurance in Papua New Guinea*, by Zohair Ashir. (January 1994) (Order No. TN 26)

The expansion of private health insurance in Papua New Guinea is supported by the country's National Department of Health, and believed by that agency to be an important prospective method of financing health services. As the budget for and quality of health services in the public sector continues to decline, it is believed that expanding private health insurance resources and then transferring additional financial burden to them would assist the survival of the public health sector, as well as provide better services for the uninsured.

Introduction of user fees and expansion of the health insurance market are believed to best be accomplished using managed care principles -- payment of a fixed premium providing access to a predefined set of health services for a specific group of people.

To conduct the health insurance assessment and provide recommendations, numerous methods were used, including interviews with insurers, health care providers, and public and private employers. Results were divided into near-term and long-term actions, and included direction on conducting workshops and technical training to improve the current state of health care and assist personnel in making the transition to a larger, private insurance-based system. Development of quality assurance mechanisms to arrest further deterioration of government health facilities; enacting exemptions on employee premium taxes for employers and the eventual development of a more sophisticated, full-scale social security system are just a few of a wide variety of recommendations discussed in this paper.

The study illustrated wide support for the managed care insurance project from employers, insurers, and health providers in Papua New Guinea.

HFS Technical Report No. 27: *Cost Recovery Pilot Tests in the Non-Hospital Sector Household Survey of the Demand for Health Care in Three Districts of Niger*, by Francois Diop. (May 1993) (Order No. TN 27) Also available in French as *Testes pilotes de recouvrement des coûts dans le secteur non-hospitalier: Enquête auprès des menages sur la demande de soins de santé*. (Order No. TN 27F)

The Ministry of Public Health of Niger has been implementing cost recovery pilot tests within the non-hospital sector since April 1992. Through applied research activities, two cost recovery systems for non-hospital services are being tested. This report contains the initial results of the baseline survey conducted between October and December 1992 in the framework of the cost recovery pilot tests. It describes the methodology used for the baseline survey and the types of demand for health care in the three districts of Boboye, Say, and Illela.

Some 600 households were surveyed in each district. The information obtained on what 2,800 sick persons did to get over their illness constitutes the basis for the analysis contained in this report. Analysis of types of demand for health care reveals that in the period prior to the start of cost recovery and before the improvement in the availability of medicine in public health facilities, the inhabitants of the Say, Boboye, and Illela districts mainly relied on household remedies to get over their illness at home.

The informal market, represented largely by street vendors, has become the main source of medicine for the poorest households in rural areas. The frequency with which health care is administered at home and the large sums spent on it suggest that poor

households in the three districts of Boboye, Illela, and Say devote a large share of income to health. The little use made of public health facilities suggests that people have lost confidence in non-hospital health centers. Given the lack of organized private sector health care in the rural areas where 80 percent of the population live, rehabilitation of public health facilities in the non-hospital sector is a prerequisite for any effort to improve the health of the majority of the people of Niger.

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