

PJ-ABE-772

# FINANCING HEALTH CARE IN JAMAICA

NOVEMBER 1988

## Resources for Child Health Project

---

**REACH**



John Snow, Inc.  
1100 Wilson Boulevard, 9th Floor  
Arlington, VA  
22209 USA  
Telex: 272896 JSIW UR  
Telephone: (703) 528-7474

PA-NOR-772-

**Financing Health Care in Jamaica**

**Maureen A. Lewis  
The Urban Institute**

**November 1988**

**Prepared by the Resources for Child Health (REACH) Project.  
Contract No. DPE-5927-C-00-5068-00.**

## TABLE OF CONTENTS

EXECUTIVE SUMMARY.....	v
I. INTRODUCTION.....	1
Health Status in Jamaica.....	5
Jamaica's Public Health Care System.....	10
Current Financial Issues.....	13
II. MACROECONOMIC PERFORMANCE AND THE PUBLIC HEALTH SECTOR.....	16
Ministry of Health Budget.....	17
Conclusion .....	27
III. CURRENT FINANCING OF PUBLIC HOSPITAL CARE DELIVERY.....	28
Hospital Finance and Performance.....	29
Costs of Hospital Care.....	36
Efficiency of Hospital Care.....	41
Effectiveness.....	44
Equity in Hospital Service Delivery.....	46
Conclusion.....	47
IV. PRIVATE HEALTH CARE DELIVERY AND FINANCE.....	49
Characteristics of Private Health Care.....	49
Outpatient Care.....	49
Inpatient Care.....	50
Financing Private Care.....	53
Fee-for-Service.....	54
Third-Party Payers.....	57
Financial Circumstances and Difficulties of Private Hospitals.....	60
V. HEALTH CARE DEMAND, UTILIZATION AND EXPENDITURE.....	70
Access to Health Care Services.....	72
Utilization of Health Services.....	75
Expenditure on Health Care.....	82
Conclusion.....	88
VI. ALTERNATIVE HEALTH CARE FINANCING PROPOSALS.....	90
Privatization.....	91
Divestiture.....	92
Privatization of Public Hospitals.....	94
Health Facilities Trust.....	95
Outstanding Issues in Privatization.....	98
User Fees in Public Hospitals.....	99
Issues in User Fee Policy.....	103
Administrative and Financial Management Reforms.....	105
Conclusion.....	106
VII. CONCLUSION.....	108
REFERENCES.....	113

## LIST OF TABELS

Table I.1:	Summary of Health Care Financing Reports for Jamaica, 1983-1988.....	3
Table I.2:	Vital Statistics for Jamaica, 1980-1986.....	6
Table I.3:	Number and Rates for Leading Causes of Death in 1981 with Comparative Rates for 1979.....	8
Table I.4:	Number and Rates for Five Leading Causes of Admission to General Hospitals, 1983.....	9
Table I.5:	Distribution, Number, Personnel, Catchment Area, and Service Provided at All Levels of the Public Health Care System.....	12
Table II.1:	Government Expenditures as Percentage of GDP, 1980-86.....	18
Table II.2:	Summary of Total Government Expenditures and Financial Position.....	19
Table II.3:	Ministry of Health Budget as Percentage of Total National Budget: 1982-87.....	21
Table II.4:	Ministry of Health Expenditures: 1981-86.....	22
Table II.5:	Ministry of Health Recurrent Expenditures by Program, 1982/83 - 1986/87.....	24
Table II.6:	Ministry of Health Recurrent Expenditures by Type of Expenditure, 1983/84 - 1985/86.....	25
Table II.7:	Expenditures on Drugs and Medicaid Supplies.....	26
Table III.1:	Characteristics and Utilization of Public Hospitals, 1987-88.....	30
Table III.2:	Operating Budgets for Government Hospitals, by Region, 1982-83 through 1986-87.....	32
Table III.3:	Distribution of Budget Expenditure by Department for Selected Hospitals, Mid-1984.....	34
Table III.4:	Ranking of Operative Workload, Weighted to Reflect Complexity of Procedure, by Hospital 1982.....	37
Table III.5:	Annual Average Costs per Patient Day in Public, Private, and Quasi-Public Hospitals.....	39
Table III.6:	Efficiency Measures for Public Hospitals for Selected Fiscal Years.....	42

Table IV.2:	Hospital Charges for Selected Inpatient Services at Four Jamaican Facilities.....	55
Table IV.3:	Comparison of Selected Laboratory and X-ray Charges for Three Non-Public Hospitals.....	56
Table IV.4:	Premiums, Restrictions, and Copayments for Health Insurance and HMO Coverage in Jamaica, 1986.....	59
Table IV.5:	Summary of Revenues and Expenditures in Two Private Jamaican Hospitals.....	62
Table IV.6:	Efficiency Measures for Selected Private and Public Hospitals.....	65
Table IV.7:	Comparative Earnings by Occupied Bed in the Private Health Care Sector, 1986.....	67
Table V.1:	Selected Characteristics of NIHFA Survey Population by Catchment Area, 1987.....	71
Table V.2:	Access and Average Amount Paid to Reach Public and Private Outpatient and Inpatient Services.....	73
Table V.3:	Health Care Contacts, 1983.....	77
Table V.4:	Trends in Public Health Care Utilization, 1983-1986.....	78
Table V.5A:	Distribution of Outpatient and Inpatient Public and Private Sources of Health Care Over Past Two Years, 1987.....	79
Table V.5B:	Proportion of Patients Using Public and Private Sources of Outpatient and Inpatient Care for Last Illness, 1987.....	79
Table V.6:	Household Expenditure on Health Care by Income Group, 1984..	83
Table V.7:	Number and Proportion of Population Paying for Health Care, Average Expenditure and Total Expenditure, by Last Amount Paid.....	85
Table V.8:	Number and Proportion of Persons Participating in Health Schemes by Type of Scheme and Parish.....	87
Table VI.1:	Jamaica's Public Hospital Fee Schedule.....	100

## EXECUTIVE SUMMARY

### Introduction

Jamaica's health care status is among the best in the developing world. Health care services are provided free or at nominal charge to all citizens. Services range from a broad primary health care network to sophisticated tertiary care, and all Jamaicans have relatively easy access to all levels of health care services.

The comprehensive nature of subsidized care and the expansion of primary health care in recent years, combined with severe macroeconomic difficulties, has taken a toll on the quality of health care, however. Negative economic growth over the past decade, average annual inflation of 16.6 percent and a rapidly climbing debt service prompted government to curtail spending early in the decade. The health sector received modest increments in its nominal budget over the 1980s, and its proportion of the recurrent budget increased. The sector's share of the capital budget, however, almost disappeared. Despite some nominal increments, the real value of total resources available for health was seriously eroded between 1980 and 1987. Moreover, devaluation, which raised the cost of imported medical supplies and pharmaceuticals, further reduced the spending power of domestic resources.

Government hospitals are financed almost exclusively by tax revenues with only modest amounts generated from recently introduced user charges. Hospitals have been receiving an increasingly smaller portion of the already constrained health budget due to the expansion of the primary health care system. Within hospital budgets, 70 percent goes to personal emoluments, only a fraction of which (10% to 15%) pays physicians. Per patient budget allocations by hospital, adjusting for casemix across public, quasi-public and private facilities, suggest a gross underfinancing of public hospital care. Quality of care is lower in the underfinanced public facilities when compared to the quasi-public but better financed University Hospital. A recent study showed quality to be particularly poor in lower level hospitals. The shortage of resources has contributed to deteriorated physical infrastructure and inadequately functioning equipment in public hospitals.

The equity performance of Jamaica's health system is good based on general evidence. Better information on utilization and expenditure patterns could clarify the effectiveness of the public system's efforts to address equity concerns. The primary health care system was meant to reach lower income households, but given the low utilization of the clinic network, it may in fact not be the most efficient use of resources.

Private health care provision is divided into two markets, one for ambulatory care, the other for hospitalization. The former serves all income groups, largely on a fee for service basis, and is expanding. The demand for private outpatient care and the willingness of users to pay for it is well established in Jamaica. Well over a third of outpatients use private facilities and the numbers are increasing. Public clinics are infrequently used, and public hospital use is declining largely in favor of private and public outpatient care.

Private hospitals are far more costly for patients than public facilities, and private hospitals treat only about 7 percent of all inpatients. Private patients are more likely to have insurance coverage; however, the lack of catastrophic coverage under most Jamaican insurance plans results in high utilization of public facilities to husband coverage in case of an emergency. The result is an implicit public subsidy of private insurance companies.

Only one of the seven private hospitals is operating at a profit. Private hospitals are plagued by poor management and antiquated equipment; rising costs due to inflation, devaluation and duties; and, a limited pool of potential patients because of declining real incomes and the nature of insurance coverage.

Despite the extensive network of free public health care, 75 percent of patients, in a recent study, indicated that they paid for (some part of) their last treatment (on average about J\$85.00 or US\$15.00). Only 12 percent of that survey population had health insurance coverage. Thus the majority of users are already paying for health care services. Available evidence further suggests that this practice cuts across all income groups.

### Problems and Issues

The results of this assessment suggest that quality of care in Jamaica has been seriously eroded due to sharp reductions in the Ministry of Health's real budget. Moreover, the hospital capital stock is in serious disrepair, further jeopardizing health care quality. The government is currently providing and subsidizing over 90 percent of all inpatient care, and will continue to provide the bulk of hospital care for the near term. Without rehabilitation, the quality of hospital care will continue to decline due to continuing erosion of existing infrastructure and deterioration of equipment. Although recurrent expenditures are currently underfinanced, the ability and willingness of patients to pay for health care has been demonstrated. Moreover, there are evolving initiatives within the Ministry of Health (MOH) to ensure the sustainability of health programs; these are summarized below. The lack of capital investment is the major constraint in MOH efforts to rehabilitate the health care system.

Government subsidies cover the entire population contributing to the high costs and underfinancing of public health care. A reduction in government expenditures can be achieved by targeting resources to the indigent and promoting greater reliance on private health services, especially for hospital care. This, however, requires that private hospital care is both attractive and affordable. Private facilities need assistance to upgrade and expand their infrastructure since profit margins have historically been modest in the sector, and health care investments are not foreign exchange earners. Both factors limit access to private investment capital. On the demand side third party coverage is key to greater reliance on private providers, and catastrophic coverage is central to private inpatient use.

Thus there are supply problems in both the public and private sectors that pose serious threats to the basic quality and quantity of health care services. The government's expenditures in health care are high and will continue to rise, due to public demand, technological upgrading and inflation. Patient

demand for free health care will continue unabated unless patients shift to private sources of care. Government may well have to provide the necessary incentives to both users and providers to promote that shift, but the returns are likely to be sufficient to offset costs.

### Policy Response

The need to devise alternative means of financing and delivering health care is of paramount concern to the government, and health care finance is the Ministry of Health's number one priority. Recent initiatives to address the problems include:

(1) Revision of user charges in public hospitals and a modification of Jamaican law to allow those facilities to both spend earned revenue and not jeopardize future budget allocations;

(2) Divestiture of nonmedical services. Housekeeping services have been divested in three tertiary care hospitals saving J\$374 million, or roughly half the budget, and raising quality. Catering and laundry are also to be divested in these three facilities as well as four others. In addition, the National Maintenance Unit is slated for divestment so that facilities can rely on contractors for maintenance services;

(3) Privatizing public hospitals experimenting with three approaches: (a) management of a hospital with the entrepreneur assuming all financial risks; (b) management by a private group with the Ministry of Health assuming the financial risk; and (c) establishment of a parastatal hospital with private operation, management and control but with government holding a majority share. In the latter case, facilities and public medical employees would exist in a Health Facilities Trust that would allow government to own but not operate facilities and would allow management to set salaries for all staff; and,

(4) Administrative and financial management reforms that introduce performance based budgeting, computerization to improve financial management, and rationalization of facilities (downgrading or reducing bed size of public facilities).

Equity concerns are addressed under the user fee system and in the privatization initiatives. Food aid recipients are automatically exempt from public charges. Others who demonstrate their inability to pay have public charges waived or reduced. Under the privatization arrangements, the government plans to capitate the indigent and partially subsidize the semi-indigent.

Together these financing initiatives should have a considerable impact on the quality and cost of public health care. Continuing these reforms, evaluating performance and service impact, and revising actions accordingly should move the public health care system toward greater financial solvency and higher quality services.

The evidence compiled suggests the need for significant investment in capital infrastructure for the health sector, especially for hospitals. On the financing side there is an ability and willingness to pay for health services,

which suggests the acceptability and viability of raising charges in public facilities and privatizing public hospitals. However, more focused data collection and more detailed analysis could help to refine policy in this area. Some consideration should also be given to establishing government incentives for employers to extend insurance coverage to their employees, especially covering catastrophic care.

Management improvements and ongoing reforms have not addressed a particularly pressing and central concern of sustainability: professional training for hospital administrators. The administrator's role in hospital operation is vague in Jamaica and training is marginal or nonexistent. This needs to be modified if sustainable programs are to be established.

Another area that should be considered in complementing the upgrading and financial solvency to be introduced by the social adjustment program and possible donor investments is the need to assist the private sector gain a foothold. This will be partly accomplished by promoting greater insurance coverage, but direct technical and perhaps some financial assistance can help the private institutions upgrade their services and attract patients otherwise reliant on subsidized government facilities.

Lastly, it is crucial that the experiments and reforms be evaluated to assist the government refine its programs and hone its investments. Moreover, assessment of the planned initiatives will serve to assist the rest of the developing world consider some of the innovations and experiments launched by Jamaica.

## I. INTRODUCTION

Jamaica's health care system is based on the provision of free universal care to all citizens. Services range from basic primary through sophisticated tertiary care and are provided through an extensive public outreach network. The broad nature of the health services as well as universal eligibility for free care have begun to take a financial toll on the government's health care investments, however. The financial pressures have been exacerbated by a deteriorating economic climate.

Government commitment to the provision of health care has remained steady over the financial crisis of the last seven years, and the sector has received a growing proportion of total central government funds for recurrent expenditures despite the fact that the overall budget has contracted. Capital expenditures in health, however, almost disappeared over the period, and the real value of the recurrent expenditures declined significantly. Thus the health system has continued to function but has deteriorated due to inadequate resources.

The government's social adjustment program in the health sector is aimed at refurbishing the health care infrastructure and making health investments a priority. In the move to improve the capital stock, there are important financial and economic issues that need to be addressed, which affect the sustainability of the proposed investments. This paper summarizes the current context for financing health care delivery in Jamaica and discusses the many supply and demand factors that are involved. It is meant to address financing in a broad fashion and lay out and raise issues that relate to questions of sustainability and equity.

A great deal has recently been written about the Jamaican health system. Aside from specific articles, descriptions of recent efforts to summarize what is known and not known about the system are contained in the Ross Institute Report (1983), and Swezy et al. (1987). Health status has been analyzed in considerable depth by Samuels (1987) and somewhat extended in the aforementioned Swezy et al. study. The question of health care financing, currently the major priority of the Jamaican Ministry of Health, has also received considerable attention beginning with Stevens (1983), and is currently continuing. The extent and nature of activity in this area is summarized in Table I.1. Efforts range from the identification of the problem (Project Hope, 1985; Danzon, 1985) to specific financing options (Ogle Committee, 1988) to implementation proposals (Ogle Committee, 1988) to evaluations of experiments (Lewis, 1988). The proliferation of studies in this area has largely occurred at the request of the government and has therefore contributed to the evolution of policy and action in health care financing.

This paper draws on most of these studies in describing the current state of financing in the health sector, the problems that exist in paying for health care, and the range and feasibility of a number of alternatives. The discussion in the paper is divided into sections that cover key topics in health care financing. The balance of this introductory section briefly outlines Jamaica's health status, the health care system and the major financing issues.

3

Table I.1

Summary of Health Care Financing Reports  
for Jamaica, 1983-1988

Author (Date) Funding Source	Purpose and Focus of Effort	Recommendation/ Subsequent Actions
Stevens (1983) USAID	Diagnoses and review of the underfinancing of public health care services.	Recommended a revamping of the financing system with introduction of user fees, changes in management of facilities and fee revenue and greater reliance on private payers.
Rawlins & Segree (1983) USAID	Survey of physicians in Jamaica, their number, practice, costs of practice, and opinions and attitudes toward the health care system.	Recommendations on the priorities in health, as articulated by the surveyed physicians, and assessment of the desirability and viability of each.
Ross Institute Report (1983) U.K.	Reviews of existing work and new surveys as basis for an overview of the operation, quality, utilization, and resources in health care.	Provided a full picture through detailed data collection and analysis for policy development in MOH.
Project Hope (1985) USAID	Discussion and analysis of alternative financing of health care.	Workshops with MOH policy-level staff.
Danzon (1985) World Bank	Review of possible health care financing options in Jamaica.	Highlighted most useful avenues for action.
Zukin & Weinberg (1986) USAID	Test the feasibility of establishing a health maintenance organization in Trelawny parish.	Assessment concluded that under current resource levels an HMO in Trelawny was not viable. A high proportion of indigents was an important hindrance.
Trevor Hamilton & Associates (1987) USAID	Management Review of Medical Associates Hospital.	Set out key areas for re-designing and operating the management and administration of the facility.

Author (Date) Funding Source	Purpose and Focus of Effort	Recommendation/ Subsequent Actions
Swezy et al. (1987) USAID	Review existing evidence on economic and financing issues in health.	Set of recommendations for improving the breadth and quantity of policy-relevant information and for subsequent initiatives in health care financing.
Abel-Smith (1987) USAID	Reviews health care financing studies to date.	Sets out assessments of each proposal and provides extensive comments & recommendations on each.
Ogle Committee Report <sup>a</sup> (1988) GOJ	The Committee designed alternative privatization options for the public health system keeping in mind both equity and efficiency objectives. Health Facilities Trust proposed to meet government obligation to public servants and to allow government to own but not operate the hospital care system.	Government is moving to implement the recommendation on an experimental basis.
McFarlane & McFarlane (1987) USAID	Survey and tabulations on income, access to, utilization of, expenditure on, and attitudes toward public care, and hypothetical willingness to pay for that care.	Contributed to design and site selection for privatization experiment.
Lewis (1988) USAID	Evaluation of the earnings, expenditures, and operation of the user fee system in all public hospitals.	Preliminary evidence indicates that earnings have been considerable in comparison to earlier years & are allocated to basic maintenance & refurbishing.

- a. Report prepared as part of the proceedings of the Committee on Alternative Methods of Financing the Health Services, set up by the Ministry of Health to advise the government on health care financing directions. The Committee, established in 1984, had originally provided a service of financing options. The government requested that the privatization area be pursued, and the report reflects that focus.

### Health Status in Jamaica

Health status in Jamaica is among the best in the developing world, with an official infant mortality rate in 1984 of 13.2/1000 live births, and life expectancy of 70 years. Along with improvements in health status measures over the past few decades has come a shift in disease incidence toward chronic diseases of adults such as diabetes and heart disease. Thus, as health problems evolve toward the developed country patterns, the health system is meant to address both the historically important infant and childhood illnesses and emerging adult health problems through the preventive primary health care network as well as the hospital system. This has led to a broad and all encompassing set of services that includes home visits, pre- and postnatal care, and dental care, among other services, in addition to the full range of curative care services.

Jamaica's vital statistics shown in Table I.2 for certain years between 1980 and 1986 indicate how well the country is managing its health, and the trend is toward further improvement. Crude death rates and the infant mortality rate approach levels for developed countries. Although the crude birth rate is high, once the adjustment is made for age distribution, which is strongly biased toward the childbearing ages of 14 to 49 due to earlier high fertility, the measures are low by developing country standards. Indeed, total fertility is 3, down from 5.5 in 1970 and below the 4.8 1984 average for lower middle income countries (World Bank, 1986).

The only area where progress has lagged is in maternal mortality. In 1982 the maternal mortality rate was roughly forty times the developed country

6  
Table I.2

## Vital Statistics for Jamaica, 1980-1986

Rate	1980	1982	1984	1986
Population Size (million)	2.14	2.22	2.30	2.35
Crude Birth Rate (births per 1000 population)	27.0	29.3	25.2	22.6
Crude Death Rate (deaths per 1000 population)	5.8	5.7	5.9	5.5
Total Fertility Rate	3.5	n.a.	3.0	n.a.
Infant Mortality Rate (deaths under one year per 1000 live births)	27.0 <sup>a</sup>	n.a.	13.2 <sup>a</sup>	n.a.
Maternal Mortality Rate (maternal deaths per 100 live births)	1.1	1.1	n.a.	n.a.
Life expectancy	70	70	70	70

Source: Samuels (1987).

n.a. = not available

a. Based on deaths registered in those years. However, there is evidence that 35-50% of infant deaths are not registered (Swezy et al., 1987).

average (Samuels, 1987). Maternal deaths are concentrated among women over age 34, which suggests a link to fertility at older ages.<sup>1</sup>

The sources of Jamaican mortality also parallel those of the developed world at least for the main causes. Table I.3 provides data on the leading causes of death for 1979 and 1981. For the most part, the rankings are roughly the same for the two years. The rate has declined for the lower ranked causes and have risen slightly for three of the four major killers, cerebrovascular disease, heart disease, and hypertensive disease. Morbidity measures offer additional detail on the frequency of health problems. Table I.4 lists the major reasons for hospitalization for 1983. After normal deliveries, accidents, poisoning and violence show the highest rates for hospital admittance.<sup>2</sup> At the health center level, hypertension and leg ulcers account for the largest proportion of curative visits.

Thus, the disease pattern underlying mortality and morbidity in Jamaica is heavily biased toward chronic diseases and accident-related problems, not unlike the developed countries. The exceptions are the high maternal mortality rate, and the relatively high incidence of gastroenteritis and sexually transmitted diseases which are detailed in Swezy et al. (1987), and are largely treated at outpatient facilities.

The implications of Jamaica's disease pattern is that the health system must provide and finance both simple prevention and treatment interventions for

- 
1. A cautionary note should accompany the vital statistics figure in Table I.2, as special surveys have brought their accuracy into question. See Samuels (1987) and Swezy et al. (1987) for a discussion of the data, the special surveys, and their implications for vital statistics figures.
  2. Swezy et al. (1987) suggest that the majority of accidents go unreported so that the relative importance of accidents in morbidity and mortality are not accurately reflected.

8

Table I.3

Number and Rates for Leading Causes of Death in 1981  
with Comparative Rates for 1979

Cause	Number 1981	Rate <sup>a</sup>	
		1981	1979
Cerebrovascular Disease	1,967	91.0	87.4
Heart Disease	1,933	89.4	86.2
Malignant Neoplasms	1,558	76.2	81.6
Hypertensive Disease	762	35.2	33.7
Diabetes Mellitus	484	22.4	33.8
Pneumonia and Influenza	400	18.5	20.7
Infectious Intestinal Disease	365	16.9	17.9
Nephritis, Nephrotic Syndrome and Nephrosis	220	10.2	9.8
Accidents and Adverse Effects	208	9.6	12.7
Certain conditions originating in the perinatal period	188	8.7	17.5
Nutritional Deficiencies	183	8.5	7.5
Bronchitis, Emphysema, and Asthma	175	8.1	9.6
Ulcer of the Stomach and Duodenum	120	5.5	6.9
Chronic Liver Disease and Cirrhosis	102	4.7	5.4
Athero Sclerosis	98	4.5	5.0
All other causes	3,815	176.3	144.1

Source: Registrar General's Department, Jamaica. From Samuels (1987).

a. Rates expressed per 100,000 population based on Registrar General's tabulations of deaths by cause and by year of occurrence.

9

Table I.4

Number and Rates for Five Leading Causes  
of Admission to General Hospitals, 1983

First-Listed Diagnosis	Patients Number	Discharged Rate <sup>a</sup>	Average Length of Stay
ALL CONDITIONS	104,506	557.4	7.4
Normal Delivery	25,002	133.4	2.1
Accidents, Poisoning, and Violence	13,519	72.1	9.4
Fractures, dislocations & sprains	3,652	19.5	15.4
Lacerations	3,188	17.0	7.3
Burns	773	4.1	28.6
Adverse and toxic effects	980	5.2	2.9
Other accidents, poisonings & violence	4,926	26.3	4.6
Complications of Pregnancy, Childbirth and the Puerperium	10,347	55.2	4.8
Abortion	2,948	15.7	4.1
Other complications of pregnancy, childbirth and the puerperium	7,399	39.5	5.0
Diseases of the Genito-Urinary System	7,005	37.4	7.6
Cardiovascular Diseases	6,462	34.5	12.4
Hypertensive diseases	1,598	8.5	11.7
Other diseases of the circulatory system	4,864	25.9	12.7

Source: Health Information Unit, Ministry of Health. Adapted from Samuels (1987).

a. Per 10,000 population.

mothers and children as well as sophisticated tracking, prevention and treatment for adults who are plagued by chronic diseases that are costly to treat because of their long term nature and oftentimes by the expense of the technologies used to treat them (eg. radiation, chemotherapy, dialysis). The disease transition in Jamaica is in effect contributing to the problem of underfinancing because the breadth and costs of treatment are expanding, placing additional pressure on public sector resources.

### Jamaica's Public Health Care System

Jamaica's public health care system includes a hospital network, a clinic network, environmental health, and centralized services in the Ministry of Health to serve these networks (National Laboratory, Blood Bank, Island Medical Stores, and National Maintenance Unit). This section is primarily concerned with the hospital and clinic systems with an emphasis on the former, as these are the financing units of interest. Both systems are overseen by the central Ministry of Health although some functions have been decentralized and local and facility control play an important role in some decisionmaking.

There are 24 hospitals and 447 primary health care clinics that in theory are an integrated whole with hospitals providing the necessary higher level referral for primary health care clinics. However, the catchment areas for the clinics and hospitals are different and they are controlled and operated vertically. The kinds of clinics and hospitals, their functions and catchment population are summarized in Table 1.5. As the sophistication of services rises, the catchment area broadens, the total number of facilities declines,

-11-

Table I.5

Distribution, Number, Personnel, Catchment Area, and Service  
Provided at All Levels of the Public Health Care System

Health Center/ Hospital Level	Number	Level of Personnel	Location/ Immediate Catchment Area	Services Provided
Type I	203	Midwife, 2 CHW <sup>a</sup>	4,000-5,000 population	MCH home visits
Type II	89	Public health nurse, public health inspector; RN, MD and dentist visit	10,000-12,000 population	Curative, pre- ventive and promotive
Type III	78 <sup>b</sup>	MD, nurse practitioner & dentist (who also serve Type II centers)	Parish center	Curative and pre- ventive at more sophisticated level
Type IV	b	Combination of Type III center and the parish office	Parish center	Curative and pre- ventive at more sophisticated level
Type V	2	MD, some specialists, nursing care, dentist	Undefined	Specialty out- patient care & PHC
Type C Hospital	11	Basic, district hospital with x-ray & lab. Surgeon for emergency; 2-3 MDs	Parish center	Inpatient and out- patient care in medicine & MCH
Type B Hospitals	4	MD specialists	Urban centers	Inpatient and out- patient, specialist service at least in surgery, inter- nal medicine, OB/GYN & pediatrics
Type A Hospitals	5 <sup>c</sup>	MD specialists	Kingston, Montego Bay	Full range of secondary and tertiary care
Other Hospitals	4 <sup>d</sup>	MD specialists	Kingston	Chronic or specialized care

Source: PHC Unit, MOH, 1986.

- a. CHW = community health workers.
- b. Includes Type III and IV together.
- c. Includes University of the West Indies Hospital.
- d. Maternity, Children's, Psychiatric, and Chest hospitals.

and thereby the access and level of sophistication help to promote a hierarchical referral system.<sup>3</sup>

The public primary health care delivery system is divided into four administrative strata: national, regional, parish and district, with 374 health centers. The national level is the nucleus of policy development, resource allocation, and overall technical, financial, and administrative responsibility for the public health system. The regional level is in the process of establishment but is meant to improve monitoring and coordination between the center and the periphery. The Medical Officer in charge at the parish level is the basic administrative unit that coordinates the delivery of primary care at all parish and district health centers.

Hospitals are divided into hospital regions with the largest hospital carrying the financial management responsibility for the region. Thus in one region, Cornwall Regional, a Type A facility, would be the highest level facility while in another such as Port Antonio a Type C facility represents the highest level of care. However, all patients have a right and opportunity to seek care at tertiary care facilities in Kingston. The Ministry of Health oversees the financial, technical and administrative functions of hospitals and sets policies and user charges centrally. At the hospital level, the administrator, senior medical officer and matron run the hospital with the concurrence and involvement of a Hospital Board appointed by the Minister of Health. The board is very involved in hospital operations in some areas, such as St. Ann's Bay, but in other locations it is largely a figurehead. However, the boards are made up of prominent local individuals many of whom have a direct interest in the local availability and delivery of medical care.

---

3. See PAHO, 1987 for a full discussion of the structure and operation of the public health care system.

The referral arrangement between clinics and hospitals does not appear to be working as hoped, according to hospital administrators who are frustrated by excess demand for hospital outpatient services that is exacerbated by self referrals of individuals who could be treated at lower level facilities. The Ross Institute Report (1983) also indicated that over 90 percent of casualty patients in 5 sampled public hospitals were self referred. Although casualty generally entails some self referral the over 90 percent figure is high and suggests a minimal use of clinics in emergency, although even Type II clinics are meant to handle simple emergencies. Low risk births are also increasingly being attended at hospitals. Hospital medical staff suggest that because only midwives are available for deliveries at the local level, and they too charge—although their fees are below the J\$50.00 paid at public hospitals—the more modern if more costly hospital services are a desirable option.

The public health care system offers the full range of services from primary health care through tertiary hospital care. The clinic network and the hospitals are administered separately despite the intended system interdependence. Moreover, public health care providers indicate that the referral system between primary health care and hospitals is not operating as envisioned and utilization patterns effectively mirror the dichotomized administrative responsibilities.

### Current Financial Issues

The Jamaican government's social adjustment program in health is meant to refurbish a health system that has deteriorated due to forced neglect caused by insufficient resources, past policies that provided inadequate incentives for performance, and public facilities' inadequate resources as well as insufficient control over resources and operation. The austerity measures that

were an essential part of the agreement with the International Monetary Fund squeezed the public health system, although the same catchment population and extent and sophistication of medical care were expected. With no additional resources from the center and no ability to legally raise revenues while costs rose and budgets declined in real terms the system necessarily deteriorated. Exacerbating the problem, especially at the hospital level, was a lack of expertise for improving efficiency or containing costs.

The social adjustment effort is aimed at regaining the excellence in infrastructure and service that the Jamaican health system once represented. However, as part of that effort the need to sustain the investment and ensure that the necessary policy framework and financial structures are in place is essential to avoid the pitfalls of the recent past.

The Jamaican government has recently introduced a number of financial reforms, some of which are already implemented and others are in various stages of development. Most crucial among these are a set of financial innovations that include: introduction of user charges in public hospitals, rationalization of public facilities (downgrading small hospitals to polyclinics to narrow their scope and reduce costs), computerization of budgets to improve management, and privatization of public facilities.

These efforts all have the potential of enhancing sustainability. Moreover, in every experiment where equity is relevant, the needs of the indigent are considered and accommodated. However, it should be noted that equity objectives have historically driven pricing and resource allocation within the health system to the neglect of efficiency or financial solvency objectives. The need to improve and refine these initiatives, while addressing equity concerns as one component of the system, is key to sustainable programs. The structure is already in place to generate resources and reduce the costs of

the system. Improvements and refinements of these experiments and implementation of planned reforms are needed.

The following sections will expand and elaborate on these financing issues, and provide greater detail on both the current circumstances as well as the potential for improvements in health care financing. The next section discusses macroeconomic performance and its effects on public health. Section III summarizes the current financing of public health care delivery, particularly with regard to hospital care. In Section IV, the characteristics, prices, efficiency and financial standing of the private health care sector are analyzed. Section V summarizes existing evidence on demand, what individuals can and will pay for health care. In Section VI, the current public sector financing experiments are discussed at some length. The concluding section provides a summary of health care financing in Jamaica and offers recommendations regarding gaps in knowledge, research and policy.

## II. MACROECONOMIC PERFORMANCE AND THE PUBLIC HEALTH SECTOR

Jamaica's economy has deteriorated over the last decade or more, although economic circumstances have begun to improve since about 1986. The measures of economic performance over the period indicate that:

- between 1965 and 1984 GNP grew at -0.4 percent;
- GDP dropped by 25 percent from 1974 to 1987;
- inflation increased at an annual average rate of 16.6 percent between 1973 and 1984;
- the public and private debt service increased from 1.1 percent of GDP to 13.8 between 1970 and 1984; and
- unemployment hovered around 25 percent per year during the 1980 to 1985 period.

The fall in bauxite prices, civil unrest that deterred tourists, and a heavily government-controlled economy combined to impede economic growth. In addition to slow growth, high unemployment was due to a large jump in the working-age population resulting from high birth rates 15 to 20 years earlier.

Recent reforms aimed at raising exports, containing inflation, and promoting employment have led to marked improvements in economic performance. Gross domestic product (GDP) was J\$ 13,328.1 million in 1986 in current Jamaican dollars, up 2.2 percent from 1985. Inflation has fallen from 26 percent in 1985 to 14.8 percent in 1986 to just over 7 percent in 1987. Unemployment in 1986 fell to 22.3 percent, falling for the first time in four years. Much of the improvement is due to the reduction in oil prices, the revival of the bauxite market and the rise in tourism. The 105 percent real devaluation of the Jamaican dollar relative to the US dollar, to which it is tied, between 1983 and 1984 also contributed to improved export performance. The passive devaluation accompanying the sharp fall in the US dollar has further lowered the world price of Jamaican exports to non-U.S. markets. A

more attractive investment climate combined with tax reform and privatization efforts (e.g., of hotels, National Commercial Bank) have contributed to economic recovery as well.

The current government has been involved in a long-term shift to less government involvement in the economy and more reliance on the private sector. As a result, the government budget as a percentage of the GDP has declined since the beginning of the decade, as indicated by the figures in Table II.1. Total government expenditure in 1986-87 was projected to be 42 percent of the GDP, but this reflects the high debt service of the government. Net of amortization and interest on both foreign and domestic debt, the government budget is only 24 percent of GDP. Total recurrent expenditure is projected at 28 percent of GDP, 11 percent of which covers interest payments.

The trend in government expenditure, both capital and recurrent, is shown in Table II.2. Nominal expenditures between (Jamaican) fiscal years 1983/84 through 1986/87 have increased modestly, with a considerable proportion of the increase due to rising amortization and interest payments. The latter claimed about 26 percent of total expenditure in 1984/85 and about 42 percent in 1986/87. Moreover, the total deficit has fluctuated during the period but has not been significantly reduced. Net of amortization, reductions in expenditures have been achieved, however, as indicated by the almost halving of the budget deficit over the four year period.

### Ministry of Health Budget

Despite the budget pressures, and the high inflation of recent years, the Ministry of Health (MOH) has received increasing dollar support from the government, particularly for operating costs. The MOH budget for recurrent costs has grown as a percentage of the government budget over the last three

10

Table II.1  
Government Expenditures as Percentage of GDP, 1980-86

Expenditure	1980/ 81	1981/ 82	1982/ 83	1983/ 84	1984/ 85	1985/ 86	1986/ 87
Total	50.3	48.5	47.2	48.7	37.4	37.7	42.1
Total (net interest & amortization)	39.8	37.6	35.2	32.5	22.6	21.3	24.3
Recurrent	32.9	32.2	32.6	35.0	28.8	27.1	28.3

Source: Social and Economic Survey of Jamaica, 1986.

19'

Table II.2

Summary of Total Government Expenditures and Financial Position  
(J\$ millions)

Expenditure	1983/ 84	1984/ 85	1985/ 86	1986/ 87	1987/ 88
Total Expenditures	4,529	5,832	5,733	5,599	
Recurrent Expenditures	2,415	2,774	3,252	3,761	
Interest Payment	n.a.	1,697	1,303	1,468	
Capital Expenditures	945	838	1,277	1,838	
Amortization	609	400	671	902	
Recurrent Surplus/ (Deficit)	(477)	(151)	(42)	(507)	
Budget (Deficit) <sup>a</sup>	(813)	(589)	(648)	(429)	
Total Surplus/(Deficit)	(1,422)	(989)	(1,319)	(1,331)	

Source: Economic and Social Survey Jamaica, 1986

a. Deficit net of amortization.

years from 7.8 to 9.2 percent, as shown in Table II.3, reflecting a relative increase in the government's commitment to health care; the MOH has publicly stated that the 9.2 percent is expected to remain stable for the near term (Project Hope, 1985). The proportion of government expenditures allocated to health has actually declined in total, however, due to the limited capital investment in the sector. The MOH receives much less of the government capital budget, and neglect of major health infrastructure has resulted. Most of the recent capital investments in health have come from donor-supported projects, although some equipment purchases have been undertaken.

Still, despite the rise in nominal and proportionate allocations, real spending by the MOH has declined significantly during the decade, and has only recently begun to recover, as indicated by the expenditure levels provided in Table II.4. The smaller real budget reflects the shrinking role of the national government in the economy and a high rate of inflation. Real per capita spending has declined as well, with public sector spending falling by about one-third in real terms between 1982/83 and 1985/86.

High inflation eroded the value of budget allocations while the sharp devaluations between late 1982 and the end of 1984 raised the cost of imported medical inputs, which compose a significant portion of the non-personnel costs of health care. Leroy Taylor's preliminary estimate of price rises in the health sector, based on changes in a basket of pharmaceuticals and other medical products, exceeds consumer price index measures, indicating that health care costs have risen disproportionately in comparison with aggregate prices (Taylor, 1988). Thus in real terms the health sector has been hit particularly hard by Jamaica's inflation and devaluation.

The allocation of central government funds in health is shown in Tables II.5 and II.6. Table II.5 indicates the allocation across programs by year for

Table II.3  
Ministry of Health Budget as a Percentage  
of Total National Budget: 1982-87

Year	Capital	Recurrent	Total
1982/83	n.a.	n.a.	7.5
1983/84	n.a.	n.a.	6.5
1984/85	1.4	7.8	6.3
1985/86	0.7	8.4	6.1
1986/87	2.0	9.2	6.5

Source: Economic and Social Survey of Jamaica, 1986; Hospital Statistics Report, 1983.

Table II.4  
Ministry of Health Expenditures: 1981-86  
(J\$ millions)

Expenditure	1981/ 82	1982/ 83	1983 84	1984/ 85	1985/ 86
Total	186.5	200.5	203.4	235.9	290.8
GDP deflator	1.08	1.19	1.38	1.88	2.33
Total (real) <sup>a</sup>	172.38	168.71	147.83	125.79	124.8
Per capita	84.53	89.2	90.7	102.5	125.8
Per capita (real) <sup>a</sup>	78.13	75.06	65.92	54.66	53.99

Source: Economic and Social Survey of Jamaica, 1986

a. GDP deflator has 1980 as the base year (1980 = 1.00).

the 1982/83 to 1986/87 period. Primary health care has been the clear gainer over the five years, rising by J\$43 million and increasing its share of the MOH budget by over 6 percentage points. This gain was largely attained at the expense of the shares normally allocated to secondary and tertiary care, and the support services primarily used by hospitals.

Table II.6 divides the budget by type of expenditure for the three years between 1983/84 and 1984/85. Unsurprisingly, personal emoluments claim the single largest proportion of MOH allocations, ranging from 56 to 60 percent of the total budget over the three years. Allocations to supplies, which include drugs, medical supplies, nonmedical supplies and maintenance, remained largely stagnant over the three years, 1983/84 to 1985/86, although in proportional terms supply allocations were reduced.

The issue of allocations to supply is an important one because the deterioration in the health infrastructure is at least partly due to the lack of resources for basic supplies and maintenance. The lack of capital expenditures has also contributed importantly. In 1985/86 supplies were 15 percent of the budget, down from 18.6 percent three years earlier. During that same period, the Jamaican dollar fell by 105 percent thereby raising the cost of all imported inputs both medical and nonmedical. Table II.7 summarizes the drug expenditures for a sample of hospitals, including the largest facilities Kingston Public Hospital (KPH) and Cornwall Regional. Between 1983/84 and 1985/86, drug expenditures rose sharply in most hospitals, which suggests a rise in allocations for drugs forced at least in part by the devaluation. Since the budget figure for all supplies in the system remained close to constant (Table II.6) the rising level of pharmaceutical expenditure required a contraction in resources available for other supplies and maintenance. In short, supply expenditures dropped not only in real but also in nominal

Table II.5  
 Ministry of Health Recurrent Expenditures  
 by Program, 1982/83 - 1986/87  
 (J\$ millions)

	1982/83		1983/84		1984/85		1985/86		1986/87	
	Amount	%								
Primary Health Care	31.7	17.9	34.7	18.2	43.3	19.6	60.5	21.7	74.6	24.0
Secondary & Tertiary Care	122.2	69.2	133.8	70.1	150.5	68.3	182.8	65.4	198.5	64.0
Support Services <sup>a</sup>	11.1	6.3	10.0	5.2	12.1	5.5	14.7	5.3	14.8	4.2
Training	3.5	2.0	3.8	2.0	3.9	1.8	5.3	1.9	5.4	1.7
Administration	7.1	4.0	7.5	3.9	9.0	4.1	14.0	5.6	15.1	4.9
Subventions <sup>b</sup>	1.1	0.6	1.2	0.6	1.8	0.8	1.7	0.6	1.9	0.6
<b>Total</b>	<b>176.7</b>		<b>191.0</b>		<b>220.5</b>		<b>279.3</b>		<b>310.3</b>	

Source: PAHO (1987)

- a. Support services includes laboratory and other medical support, medical stores, maintenance and health education.
- b. Subventions are financial allocations to public bodies, internal institutions and private organizations.

Table II.6  
 Ministry of Health Recurrent Expenditures  
 by Type of Expenditure, 1983/84 - 1985/86  
 (J\$ millions)

	1983/84	1984/85	1985/86 <sup>a</sup>
Personal Emoluments (Percent)	125 (57%)	134 (60%)	153 (56%)
Travel	6	6	10
Supplies	41	41	43
Rental	1	1	2
Utilities	7	9	11
Other Operational Expenses	6	6	6
Contribution	31	36	46
Interdepartmental	20	4	30
Other	b	3	b
Total Gross	237	242	302
Less Appropriations in Aid	17	19	28
Total Net	220	223	274

Source: PAHO (1987)

a. Revised budget estimate, not actual expenditure.

b. Under J\$ 5,000.

26  
Table II.7

Expenditures on Drugs and Medical Supplies  
(in thousands)

	1982/83	1983/84	1985/86 <sup>a</sup>
Kingston Public	3,284	3,750	5,219
Cornwall	2,905	2,729	3,337
St. Anns Bay	195	657	1,237
Sav-la-mar	883	536	716
Spanish Town	1,423	1,898	2,743
Port Antonio	264	249	296
Falmouth	381	242	556
May Pen	405	260	419
Linstead	424	297	494
National Chest	708	737	757
Bustamente	1,460	1,002	1,707
Total			

Source: Hospital Statistics Reports 1983-1985.

<sup>a</sup>Preliminary figures.

terms. The impact on the hospitals of this circumstance is severe and is discussed in greater detail below.

A noteworthy element in the table is the sharp rise in appropriations in aid (revenues raised by the MOH system), which went from J\$19,000 in 1984/85 to J\$28,000 in 1985/86, an almost 50 percent increase. Nineteen-eighty-five was the first year under the new user fee policy, which allowed facilities to retain half the revenue which may account for the rise in appropriations in aid.

### Conclusion

The Jamaican government has attempted to maintain its commitment to health care, despite severe macroeconomic difficulties and pressures on the national budget from debt servicing. The devaluation of the Jamaican dollar and the not unrelated rise in the rate of inflation have had a direct effect in raising the cost of health inputs.

Although the Ministry of Health received an increasing share of the recurrent budget since 1980, the capital allocation almost disappeared and inflation eroded the value of resources. The establishment of the primary health care system claimed resources formerly allocated to hospitals, which further contributed to the underfinancing problem in health care. Cutbacks were felt disproportionately in supplies and maintenance.

Thus the health care system has been severely affected by the macroeconomic difficulties of the country over the past 8 years. Some key capital investments are clearly warranted at this point.

28

### III. CURRENT FINANCING OF PUBLIC HOSPITAL CARE DELIVERY

The financing for publicly provided primary health care and hospital services comes almost entirely from central government resources. Recent introduction of user charges in hospitals has allowed facilities to supplement their government allocations, and charity provides intermittent resources for some hospitals.

Aside from the insufficient level of resources discussed in the last section, the major issue in public health care delivery is a shortage of medical staff at all levels of the health care system. In 1987, position vacancies included 32 percent of physicians, 23 percent of nurses, 38 percent of medical technicians, and 62 percent of radiographers (Sweezy et al., 1987). Understaffing is chronic in all hospitals and has a range of ramifications, from simply understaffed operating wards to limiting specialized care to impeding revenue earnings. For instance, opening up of private wings in public hospitals is hampered by the lack of nurses to staff them, and KPH cannot open its intensive care unit due to staff shortages. Low public salaries offer little incentives for physicians and nurses and other skilled medical technicians, since employment among these categories of workers is low or zero and demand for their services is high in the better paid private sector. The uncompetitive wage and benefit package, coupled with the thriving private sector options, is undermining government's ability to staff public facilities properly.

Shortages of physicians and nurses represent the most critical problem because they are key to the delivery of even basic medical services in hospitals. In 1983 it was estimated that 850 physicians practiced medicine in Jamaica, but only 20 percent worked exclusively in the public sector (Rawlins and Segree, 1983). Nurses are in short supply island-wide, due to outmigration

in response to the high demand and high salaries offered them in the developed countries, especially the United States. U.S. hospitals advertise aggressively for Jamaican nurses. Even in the private sector, nurses are hard to recruit and even harder to keep. For instance, Hargreaves Memorial Hospital in Mandeville had more than a 50 percent turnover rate among nurses in 1987.

Vacancies of such key staff will have a damaging effect on quality and/or quantity of care. However, because public health positions come under civil service control there are salary ceilings that must be adhered to. Indirect measures to increase salaries such as direct provision of housing, shorter working hours and no restrictions on after hours practice offer some incentive to physicians in the public system. Another major attraction is the ability to admit and treat patients in public facilities, which is only open to physicians who work for the public system. Nurses are housed on the hospital grounds and receive additional training but have few other advantages offered to them. Thus there are returns to public service, especially for physicians, but often these do not compensate for the bureaucratic environment and low salary of public service.

### Hospital Finance and Performance

Table III.1 lists the 24 public hospitals listed by type of facility, along with information on bed size as well as patient load in inpatient, casualty (emergency) and outpatient departments. Bellevue Psychiatric Hospital is by far the largest facility with 1,600 beds. The Kingston Public Hospital (KPH) cluster that includes Victoria Jubilee Maternity Hospital (VJH) and Bustamente Children's Hospital (BCH) represents two of the seven specialty hospitals and together offers the most specialized public care in the country. The only other significant institutions are Cornwall Regional and the quasi-

20  
Table III.1

## Characteristics and Utilization of Public Hospitals, 1987-88a

Type	Number of Beds	Number of Discharges	Casualty	Outpatient Attendance
<u>Type A</u>				
Kingston Public	514	12,715	73,823	84,655
Cornwall Regional	326	10,745	53,079	51,663
University <sup>b</sup>	472	13,322	56,703	123,149
<u>Type B</u>				
St. Ann's Bay	140	7,827	23,306	7,349
Sav-la-mar	194	6,821	20,281	13,082
Mandeville	163	7,629	32,957	24,171
Spanish Town	252	12,721	44,216	23,528
<u>Type C</u>				
Princess Margaret	164	5,862	22,820	5,106
Port Antonio	125	3,724	11,518	6,357
Annotto Bay	122	2,930	8,454	407
Port Maria	94	2,541	8,343	5,696
Falmouth	102	2,555	5,127	2,566
Noel Holmes	55	2,286	5,508	189 <sup>c</sup>
Black River	115	4,675	16,689	n.a. <sup>d</sup>
Percy Junior	122	5,054	11,793	6,127
May Pen	70	3,177	15,909	1,529
Lionel Town	60	1,937	23,583	10,195
Linstead	50	2,427	10,792	1,869
<u>Specialty</u>				
Victoria Jubilee (maternity)	229	15,732	0	51,169
National Chest	116	1,032	1,231	2,921
Bustamente (children's)	215	6,598	48,850	23,758
Bellevue (psychiatric)	1,600	525	0	4,988
Hope Institute (hospice)	52	188	N/A	N/A
Mona Rehabilitation	111	n.a.	N/A	N/A

Source: Hospital Statistics Reports (1986, 1988).

n.a. = not available.

N/A = not applicable.

- a. Data are estimates.  
 b. University Hospital is not a public facility per se, but is considered part of the system because of the significant government transfers it receives.  
 c. Outpatient department but no clinic.  
 d. Visits included in casualty.

public University Hospital of the West Indies (UH). There is no discernable pattern to the number of patients treated on an inpatient or outpatient basis, but the figures provide a sense of the level of activity within each public hospital.

Budget and other financial management tasks are the responsibility of the regional hospital. These are listed in Table III.2 along with their budget allocations for fiscal years 1982/83 through 1986/87. Although the total allocation increased by about 66 percent during the four years, it represents a decline in real terms. Budget allocations have historically been pegged to some rough multiple of past years' allocations. The introduction of performance-based budgeting in the 1987/88 budget cycle will amend the somewhat random budgeting process to better reflect relative resource needs. Past practices may help to explain the lack of a clear pattern in use rates implied by the figures in Table III.1.

Beginning in 1985, hospitals have been able to retain (half) their earnings from user charges for general hospital operation.<sup>1</sup> Budget levels have not been cut accordingly as occurred in the past, which has in effect increased hospitals' budgets by the amount of revenue raised. The new policy offers facilities incentives to collect the established government fees and at the same time offers the potential of augmenting facilities' budget allocations. Evidence from Lewis (1988) on the first few years of the program suggests that revenues have increased every year since the inception of the program, despite declines in hospital use.

Hospital budgets are divided into personnel and functional accounts, which cover all nonpersonnel expenditures. On average, 70 percent of hospitals'

---

1. Until 1987 hospitals could only claim half their earnings but currently facilities can request the remaining half.

32  
Table III.2

Operating Budgets for Government Hospitals,  
by Region, 1982-83 through 1986-87<sup>a</sup>  
(J\$ '000)

Region	1982-83	1983-84	1985-86	1986-87
All Regions	101,931	116,561	139,696	167,733
Kingston	29,867	32,949	40,819	53,067
St. Thomas	2,791	3,885	4,092	4,627
Port Antonio	3,372	3,894	3,997	4,171
Port Maria	4,080	4,591	5,468	6,211
St. Ann's Bay	4,203	4,685	5,997	6,435
Montego Bay	17,739	20,003	25,220	29,981
Sav-la-mar	6,799	8,371	8,479	10,167
Mandeville	5,858	7,049	8,069	9,940
Spanish Town	11,162	13,043	16,969	19,067
Liguanea	3,888	4,575	4,633	4,924
Bellevue	12,171	13,546	15,953	19,143

Source: Hospital Statistics Reports, 1983-1987.

a. 1984-85 data not available.

budgets are allocated to personnel. The Ross Institute Report (1984) collected detailed hospital budget data for seven sampled hospitals in 1984. The percentage of budget going to personnel ranged from 62 percent at St. Ann's Bay Hospital to 80 percent at Victoria Jubilee Hospital. Personal emoluments include all medical and nonmedical staff costs. Surprisingly, on average a third of all salary payments are to nonmedical staff, and the percentage rises to 50 percent at Alexandria Hospital.<sup>2</sup> Physicians make up only 10 to 15 percent of the salary budget. The allocation suggests overstaffing of nonmedical personnel. The divestiture experience at KPH, VJH and BCH, where half the budget has been saved with a private firm performing nontechnical services with fewer staff, reinforces this view.

When comparing the proportion of resources allocated to personnel across public and private facilities, public facilities allocate almost twice as much to personnel as do private groups. Comparing the private hospital in Mandeville, Hargreaves Memorial, with the average for public facilities, 40 percent versus 70 percent goes for personnel costs. Although public facilities pay physicians out of their operating budgets and private doctors are generally paid separately, the discrepancy is still quite large since only 10 to 15 percent of the 70 percent goes to pay physicians. This provides further evidence of likely overstaffing of nontechnical personnel in public hospitals.

The allocation of funds across categories of service in the Ross Institute sample is shown for eight hospitals in Table III.3. Of particular relevance is a comparison of the University Hospital and the public facilities. The sharpest differences are between administration, maintenance, and the operating theater, where the UH spends a significantly larger proportion of its budget,

---

2. Alexandria Hospital has since been "rationalized" down to a polyclinic.

34

Table III.3

Distribution of Budget Expenditure by Department  
for Selected Hospitals, Mid-1984

Department	KPH	VJH	BCH	St. Ann's Bay	Alexan- dria	Sav-la- Mar	Black River	UH
Administration	4.5	4.0	4.3	4.3	4.3	5.5	5.5	16.2
Transport	4.7	4.1	4.0	3.9	3.6	5.8	3.9	-
Sanitation	2.8	6.4	11.1	2.7	7.7	0.6	2.2	0.6
Housekeeping	5.4	10.2	9.6	4.2	16.4	14.2	0.3	3.5
Maintenance	0.2	-	0.4	2.2	2.8	3.5	3.9	13.0
Utilities	-	-	-	6.0	1.7	-	4.4	4.0
Dietary	8.1	7.6	4.3	7.3	8.2	7.2	9.1	4.8
Linen	1.8	1.9	0.4	0.5	0.8	3.1	1.7	2.8
Medical Records	2.5	2.5	2.9	3.4	0.8	0.5	3.4	1.5
Pharmacy	13.1	7.5	8.2	13.3	18.6	10.4	12.5	14.5
X-ray	3.7	-	0.9	1.5	-	0.4	0.4	2.2
Physiotherapy	1.7	-	0.3	0.5	-	-	-	0.3
Laboratory	-	-	1.2	0.9	-	0.7	1.2	2.6
Operating Theatre	6.8	-	9.7	9.3	3.9	5.0	5.4	10.8
Inpatients	32.5	48.8	34.6	31.8	27.8	35.6	39.8	17.9
Casualty and Outpatients	12.1	6.9	8.0	8.3	3.2	7.5	6.1	5.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Ross Institute Report (1984)

and housekeeping and inpatient services where the public sector spends the bulk of its budget. If we assume that budget levels at UH better reflect true costs or resource needs, then the higher allocations to these functions may reflect a more efficient allocation. Reducing allocations to maintenance and administration may be a logical short-term solution to inadequate resources in public facilities since postponing nonmedical expenditures will allow scarce resources to be concentrated on service provision. The patterns in Table III.3 suggest such a strategy on the part of public hospitals, and evidence on allocations of user fee revenue almost entirely to maintenance reinforces this interpretation.<sup>3</sup> The drawback of this strategy is that it has not been a short term phenomena but a chronic situation.

The Ross Institute Report (1984) suggests that the centralized services received from the Ministry of Health—for blood, laboratory services, equipment maintenance, and pharmaceutical ordering and management—supplement hospital budgets. These services, however, are of reportedly limited availability and quality. Indeed, every hospital interviewed by Lewis and Dor (1988) expressed dissatisfaction with maintenance services, and the unit is in the process of divestment. Although Island Medical Stores takes advantage of bulk purchases through the Jamaica Commodities Trading Corporation, there is some suggestion, although no firm evidence, that the procedure is more costly than direct procurement. The major benefit aside from bulk purchases is the waiver of 15 percent duty imposed on pharmaceutical imports. Although hospitals receive some benefit from these services, the services might be better purchased directly, financed by budget increases for hospitals rather than received as services extended via an additional bureaucratic layer. Moreover, it is not

---

3. See Section VI for a further discussion of user fee revenue expenditures.

clear how the resources distributed by these centralized units are allocated across hospitals.

### Costs of Hospital Care

The costs of health care are difficult to measure in government facilities, especially where budgets are drawn up without sufficient attention to performance. Because facilities must operate with the resources allocated from the center, the "costs" of care merely reflect the amount allocated to hospitals' operating budgets and the number of patients treated. Hence a decline in allocation without a change in use would mean a decrease in "costs," *ceteris paribus*. Thus to measure the cost of care, this subsection provides data on the factors which affect costs, including a comparison of the average cost per patient day in public facilities and private ones—under the assumption that private facilities' expenditures reflect actual costs—and explores the broader question of the adequacy of resources.

The important factors which affect costs in public systems include patient demand, casemix, efficiency of service provision, and provider mix. The health center network and the rationalization of facilities was meant to address the last item by substituting less costly procedures and lower level staff who earn less at downgraded facilities.

Hospital casemix is difficult to measure without resorting to some variant on diagnostic related groups (DRGs); however, the Ross Institute Report (1984) devised a far less involved scale which ranks all public and selected private facilities by the complexity of their constructed casemix.<sup>4</sup> The measure captures hospitals' capacity to undertake certain procedures. The scores and ranking are shown in Table III.4. Those with the highest ranking were

---

4. The details of the measure are provided in Footnote a. of Table III.4.

31

Table III.4

Ranking of Operative Workload, Weighted to Reflect  
Complexity of Procedure,<sup>a</sup> by Hospital 1982

Hospital	Operation Casemix Score	Rank
<b>Public</b>		
University Hospital	11,685	1
Kingston Public	7,755	2
Cornwall Regional	6,615	3
Spanish Town	4,710	4
Victoria Jubilee <sup>b</sup>	3,160	5
Mandeville	3,105	6
St. Ann's Bay	2,630	7
Savanna-la-Mar	1,685	8
Bustamante Childrens	1,380	9
Percy Junor	1,345	10
Princess Margaret	1,070	11
Black River	755	12
Lionel Town	660	13
May Pen	560	14
Port Antonio	555	15
Port Maria	530	16
Falmouth	520	17
Linstead	350	18
Chapleton	305	19
Annotto Bay	295	20
Noel Holmes	155	21
Buff Bay	15	22
Alexandria	10	23
Ulster Spring	0	24
Isaac Barrant	0	25
<b>Private</b>		
Nuttall Memorial	3,520	1
St. Josephs	2,670	2
Community Medical Association	2,085	3
Andrew's Memorial	530	4

Source: Ross Institute Report (1984)

- a. Operations have been allocated to one of three groups: major, e.g., cholecstectomy; intermediate, e.g., herniorrhapy; or minor, e.g., tubal ligation. Numbers have been scored (three for major, two for intermediate, and one for minor) to reflect the comparative complexity of the procedure.
- b. Operative procedures undertaken for delivery are not included.

University Hospital, Kingston Public and Cornwall Regional. UH's score was over 50 percent higher than KPH's, suggesting a sharp variance in the complexity and range of services between the two hospitals. The score of subsequent hospitals follows the designated relative capabilities of the facilities as determined by the Ministry of Health. It is also of interest that the four lowest scoring hospitals performed virtually no operations and their status as hospitals was brought into question. All of these facilities have since been rationalized into polyclinics.

The private hospitals' casemix are closest to the Type B facilities, with the exception of Andrew's Memorial, which is equivalent to a Type C hospital. Thus in some cases private health care is not an option. Where the sophistication of care is high, only public facilities will be able to provide the needed services. These specialized services tend to be very costly and by necessity are borne by the public system.

The implication of these simple scores is that costs will be greater at higher level facilities in comparison to those at lower levels because of the differences in casemix and the associated patient cost differential. The highest cost facilities should be UH, KPH and CRH.

Comparing aggregate costs in private and public facilities may shed light on the relative efficiency of hospitals and, more importantly, on whether public facilities are allocated sufficient revenues. Economic theory and evidence from the U.S. Veterans Administration hospitals (Lewis, 1988) suggest that publicly provided health care is more costly than private care. Hence, public facilities are likely to spend more per patient day than private hospitals, adjusting for casemix, location, and other factors that differentiate the facilities. Table III.5 summarizes the number of inpatient days and average cost per patient day for Hargreaves Memorial, representing the

39'

Table III.5

Annual Average Costs per Patient Day in Public,  
Private, and Quasi-Public Hospitals

	Number of Inpatient Days	Average Cost Per Patient Day (J\$)
Hargreaves Memorial (1987/88)	12,066 <sup>a</sup>	336.84
University Hospital (1984/85)	162,293 <sup>b</sup>	305.37
Public General Hospitals, Average (1985/86)	818,649	127.00
Kingston Public	108,138	138.00
Mandeville	41,999	100.00
St. Ann's Bay	35,674	128.00

Source: Hospital Statistics Report, 1985; Data collected by The Urban Institute.

- a. Total number of patients calculated based on first ten months of the 1987/88 fiscal years and extrapolation from that for annual estimate.
- b. Number of total patient days, including inpatient, casualty and outpatient services. Outpatient is calculated as 1 inpatient day equals 5 outpatient visits.

for-profit private sector, University Hospital, the quasi-public facility, and the average for all general public hospitals, as well as three public facilities with similar casemix (University Hospital and Kingston Public) and location (Hargreaves and Mandeville), as well as a typical general hospital outside of the capital area (St. Ann's Bay).

Although Hargreaves and UH figures are for different years, the average cost per patient day is very similar. Given that UH data are for three years earlier and the inflation rate during the period was about 20 percent, costs should have risen, which suggests possible greater discrepancy between the two facilities than these figures indicate. The greater sophistication of care and the availability of a wider range of services should result in higher costs at UH than at Hargreaves.<sup>5</sup>

The more dramatic differences in costs per patient are between the public and non-public facilities. These data alone suggest that "costs" are low—or, more accurately, that resources are insufficient—in all public hospitals, since the average "cost" in public hospitals is about 40 percent of UH's costs. Since, as mentioned, public sector "costs" are merely the total public allocation divided by the number of patients, comparisons such as these are useful in determining whether the public allocations are sufficient to provide quality care to patients. Moreover, since evidence from elsewhere suggests the greater efficiency of private hospitals and therefore their lower average costs, the magnitude and direction of the discrepancy are important. Public costs are so much lower that quality or quantity of care or both must be

---

5. It is implicitly being assumed that the annual government allocation is offsetting the larger proportion of charity patients that frequent UH, but the quasi-public standing of UH and its responsibility to not turn away patients may raise costs above those of a purely private institution.

affected. Thus, the data in Table III.5 suggest that public hospitals are seriously underfinanced.

Where hospital care is free to patients use is typically very high, and under free care policies governments have few options in containing demand or the costs associated with demand. In Jamaica, a queuing system is in place that involves waits for elective hospital services because, despite the wide network of providers, the full demand for hospital services cannot be met with existing resources and supply of medical services. In 1985 patients waited for over 12 months to enter a medical, eye or gynecology clinic (Hospital Statistics Report, 1985). Although inconvenient, waiting is the only means of controlling costs under the present system. Pricing services would offer an alternative method, however.

Thus, the "costs" of public health care suggest that resources are inadequate, based on comparisons of the resource costs from University Hospital and the private sector. Better data and departmental-based expenditures could assist in measuring the cost of treatment in public facilities. Available data cannot measure the true costs of care.

#### Efficiency of Hospital Care

The efficiency of hospital operation also contributes to the cost of services. The most commonly applied efficiency measures are average length of stay and occupancy rate. The longer the length of stay the greater the cost. Thus the more efficient the hospital the more likely it is to keep stays to a minimum. A more complex casemix will mean longer stays on average. Similarly, if occupancy rates are low then fixed resources are not being used at or near capacity and costs are distributed across a smaller number of patients, and therefore per patient costs are higher. In the interest of completeness,

47  
Table III.6Efficiency Measures for Public Hospitals  
for Selected Fiscal Years

	1982/83		1984/85		1987/88 <sup>a</sup>	
	Occ. Rate	ALOS	Occ. Rate	ALOS	Occ. Rate	ALOS
All Hospitals	72	—	73	—		6.9
Type A						
Kingston Public	86	10.8	86	11.8	84	11.9
Cornwall Regional	103	8.5	105	5.1	81	8.3
University	78	10.2	76	9.5	78	9.3
Type B						
St. Ann's Bay	102	5.0	104	5.0	95	4.8
Sav-la-mar	53	5.7	60	6.4	77	6.6
Mandeville	79	6.6	79	5.9	82	5.1
Spanish Town	76	6.6	74	6.7	102	6.6
Type C						
Princess Margaret	75	6.8	60	5.6	72	4.4
Port Antonio	70	7.3	62	6.4	66	6.7
Annotto Bay	39	6.7	71	10.8	57	7.7
Port Maria	72	6.6	66	7.2	58	6.7
Falmouth	52	6.1	53	6.4	56	8.2
Noel Holmes	48	7.7	62	6.0	85	6.7
Black River	79	6.7	70	5.9	68	5.6
Percy Junor	82	6.0	67	5.6	83	4.7
May Pen	86	5.2	103	5.8	78	5.4
Lionel Town	51	7.8	52	7.7	66	7.1
Linstead	76	6.7	66	6.3	63	4.8
Specialty						
Victoria Jubilee	89	2.6	78	2.7	71	3.0
National Chest	57	19.9	65	20.4	86	26.0
Bustamente	69	9.6	81	9.3	70	6.7
Bellevue	—	—	—	—		
Hope Institute	53	37.3	42	39.1	51	48.8
Mona Rehabilitation	64	—	64	—		

Source: Hospital Statistics Reports, 1982-1988.

a. Estimates.

Table III.6 provides both average length of stay (ALOS) and occupancy rate for every hospital for fiscal years 1982/83, 1984/85 and 1987/88.

Average length of stay figures appear to reflect casemix as the rankings in Table III.4 show, although some lower-level facilities have exceptionally long lengths of stay over time (Annotto Bay, Lionel Town, and Falmouth Hospitals). The highest ALOS are in the chronic care hospitals, National Chest and Hope Institute, and the Type A hospitals, including UH, that have a more complex casemix as compared to the other hospitals. The high bed turnover and high use are characteristic of free health care systems. In Jamaica, ALOS are often kept to a minimum because of chronic bed shortages and the waiting lists for elective treatment that put pressure on facilities to discharge patients. Thus, the highest occupancy hospitals are also those that have the lowest ALOS, suggesting that in these hospitals discharges occur as soon as possible because bed demand is so high. This also implies that small facilities with lower demand have long lengths of stay that unnecessarily raise the cost of care.

Occupancy rates are high for most public hospitals averaging above 70 percent for all facilities. The distribution is quite wide ranging from just over 50 percent (Hope Institute, the national hospice) to over 100 percent in some facilities, especially the Type B hospitals. Although not shown, certain departments tend to be utilized more intensively than others. In 1985, average occupancy in maternity departments across all public hospitals was 105 percent. Pediatrics and general medicine tend to have occupancy rates above capacity in some hospitals as well. At the same time, hospitals with high occupancy rates overall have departments that exhibit occupancy rates that are well below 50 percent, suggesting a misallocation of beds within the facility. This latter pattern is not evident in hospital occupancy figures since the aggregate figures will often mask the poor allocation. In 1985 six public hospitals had

occupancy rates of 100 or more in at least one department. Thus, although occupancy rates are quite high in most public hospitals, it is not a true reflection of bed use since departmental occupancy is so variable.

The efficiency of resource use appears to be quite good in higher level facilities with high occupancy rates and relatively low lengths of stay once casemix is taken into account. Lengths of stay are somewhat long for some of the lower level facilities whose capacity for the more sophisticated care is limited. These same facilities are underutilized, unlike the Type A and B hospitals whose beds are almost constantly in use. Given the availability of free health care, the higher level facilities are likely to continue to be in constant demand. Thus it is efficient to keep utilization high and continue the queuing system as an implicit cost of service.

#### Effectiveness and Quality of Hospital Care

The quality and effectiveness of public hospital care is more difficult to measure than costs. Part of the problem is a lack of standard, measurable criteria. This subsection pieces together evidence to draw some sense of the quality and effectiveness of public health care in Jamaica.

The physical plant and equipment of most hospitals is seriously deteriorated, as detailed by PAHO (1987) in their review for the over \$50 million Inter-American Development Bank health loan. The study identifies inadequate maintenance of plant and equipment over the last 10 to 15 years, the lack of resources to replace or repair equipment, and the lack of manpower to both operate and maintain equipment as the major reasons for deterioration. For instance, they found that x-ray services were only available at 25 percent of Type C hospitals due to equipment failure and manpower shortages. The shortages and down time for equipment result in extended waits for patients,

decreases in provider efficiency, and additional transportation costs for referrals to facilities with the necessary services.

A more facility-specific analysis was performed by the Ross Institute (1984) that measured quality in terms of the degree to which treatment criteria were adhered to for 13 different illnesses, including gastroenteritis in children under age 5, incomplete abortion, appendicitis, diabetes and maternal care. Physicians at a cross section of public hospitals contributed to development of relevant acceptable standards of satisfactory care for each illness, which were used as the benchmark for assessing hospital performance. Data were collected at seven hospitals with the sample for each illness defined by how many of the included facilities provided the service.

The results indicate that inadequate resources and staff reduce the quality of service, and that the quality of service rises with the level of the facility. The scores at University Hospital and Bustamante Children's Hospital were considerably above those of levels B and C hospitals in the treatment of gastroenteritis. The differences between levels B and C were not clear cut, however. The higher level facilities received more severe cases, and may have been more familiar with the proper interventions due to the frequency of such cases. The differences in BCH and UH scores were virtually all in UH's favor.

Resources at Bustamante are inadequate given the demand for services, and it, like the other public hospitals, is short of staff. Moreover, the infrastructure is sufficiently deteriorated to warrant a special grant from the Italian government to totally refurbish the hospital. Together with the fact that childhood diseases should be best treated in a tertiary facility devoted to such problems, and that a general acute care hospital provides more consistent treatment, the pattern suggests that resources may indeed be a constraint. Walker et al. (1988) suggest that poor quality is due to

inadequate training for physicians and nurses rather than merely resource levels. Nonetheless, in both cases, additional resources will be required to address the problem.

Scores for appendicitis and incomplete abortion show a similar pattern with Type A facilities scoring considerably above the lower level hospitals, and the scores for B and C facilities showing no consistent ranking among them. (University Hospital also has the highest aggregate score across all seven facilities for appendicitis (but does not handle incomplete abortions).

These results support the common perception that higher level facilities provide better care. Jamaican's greater dependence on hospitals as opposed to clinics is a rational decision given the results of the quality review by the Ross Institute.

The efforts by PAHO and Ross Institute imply that there is a need for additional resources to address the infrastructure and equipment problems, and to improve the quality of service. Refurbishing is already developing as part of the social adjustment program, although those resources will probably not suffice to meet the full range of needs. Addressing the problem of quality implies additional resources to upgrade staff and, if implemented as proposed by the Ross Institute, establish a quality assurance program. In addition to these proposals, greater efficiency in hospital management could also contribute to improved resource allocation and use. Moreover, implementation of planned reforms, such as expanding hospitals' ability to contract out equipment maintenance, should also improve effectiveness.

### Equity in Hospital Service Delivery

All public hospitals are open to Jamaican citizens. Unlike a number of developing countries with multiple health care systems, Jamaica has one that

serves all income groups. Hospitals, particularly Type A and specialty hospitals, are concentrated in Kingston, but the population has access to these facilities either directly or through other hospital referral. The latter also entails free hospital-provided transportation to the referral site. Those residing in Kingston, particularly those with higher incomes and better connections, may gain admittance more quickly and may be more apt to seek sophisticated care from the onset of illness, but that is beyond the control of government. On the supply side there appears to be good access.

The primary health care network is extensive and gives the majority of Jamaicans direct and easy access to the system.<sup>6</sup> The new fee structure specifically waives the modest charges for all patients who either receive food stamps or demonstrate they are unable to pay. Although the health care system may be over subsidizing those who can pay, it does appear to provide for those in lower income groups. There is no clear evidence of discrimination or limited access.

### Conclusion

Echoing the conclusion of previous analyses, the public health care delivery system is underfinanced. The resource shortfall is not only for operating costs but is even more pronounced for neglected capital investments. Budgets are inadequate, and the budget allocation per patient is far lower in public than in private facilities after accounting for hospital casemix, suggesting that resources are not only inadequate but inhibit the proper delivery of hospital care. Efficiency of hospital use varies by level, with Type A and B hospitals keeping average lengths of stay low and occupancy high.

---

6. See Section V on the degree and extent of access.

Lower level facilities are less efficient with higher lengths of stay for less serious conditions.

The shortages of resources has resulted in a deteriorated physical infrastructure and inadequately functioning equipment in public hospitals. The quality of care delivered in public facilities is directly related to the level of the facility. Moreover, the quasi-public University Hospital provides higher quality care than the public hospitals.

The equity performance of Jamaica's health system is good based on general evidence. Indeed, in some respects, the equitable structure of the system undermines efficiency. A broad network of underused clinics while providing good access is also costly. A more efficient, less accessible arrangement might allow the government to concentrate resources on a smaller number of facilities serving a larger community.

Hence the equity and breadth of the system is sound. The difficulties are in paying for the breadth and depth, and for upgrading the quality of the health care system.

49'

#### IV. PRIVATE HEALTH CARE DELIVERY AND FINANCE

The private health care market accounts for 32 percent of all health care expenditures but for only 5 percent of all facilities in Jamaica. The Jamaican private health care market is actually two different markets, one for outpatient, the other for inpatient care. There is only minimal overlap in services, and marked differences in market shares. Outpatient services are thriving; inpatient services are in financial difficulties with little prospect of growth in the near term.

##### Characteristics of Private Health Care

Outpatient care. Outpatient services are mainly provided through physicians in private practice, although some care is provided at private ambulatory care clinics. Between a third and half of all ambulatory health care is provided through private sources (Ross Institute Report, 1984). Although trend data for the private sector is not available, use of public outpatient services declined between 1984 and 1986 by 23 percent (Health Statistics Reports, 1984 - 1986), suggesting a shift to private providers since there is no indication of a change in the demand for health care.

A 1983 survey of physicians in a sample of nine parishes found that about 800 of the country's 1200 physicians and interns were in private practice, and that about 60 percent of the 350-400 public sector physicians had private practices on the side (Rawlins and Segree, 1983). The majority of these physicians were exclusively providing outpatient care. The survey also indicated that about half of all private physician visits are covered by private insurance, and another 5 percent are treated gratis. The remaining 45 percent pay directly for medical treatment.

The survey asked providers to categorize their patients based on their impressions of patient income class. According to their responses, only five percent of their outpatients were from the wealthiest class; 19 percent were classified as indigent. The latter individuals were charged the established fees. The rest represented a mix of lower middle and middle income individuals (Rawlins and Segree, 1983). Fifty-seven percent of the sampled physicians treated some indigent patients on a fee for service basis. Although based on impressionistic data, the results suggest that it is not only the upper classes that seek private health care services. Indeed, the wealthiest families could not fully employ all private Jamaican physicians. Thus, even the indigent and near indigent pay for quality outpatient services.

A number of private outpatient clinics operate on the island. Probably the largest and most established is Oxford Medical Center in Kingston that not only serves walk-in patients but has established prepaid arrangements for outpatient treatment for employees from some of Jamaica's largest firms. A recent addition to private supply is the Eureka Medical Center that offers routine and specialized radiology services. Little information is available on their clientele and operation; however, Eureka Medical Center has been in chronic financial trouble for some time and the problems have not yet been identified or resolved. Otherwise the private outpatient sector appears to be solvent.

Inpatient Care. Private hospitals serve only 7 percent of all inpatients. Table IV.1 lists the six private hospitals and the University Hospital—that is a public-private hybrid—their location, and bed size. All but the University Hospital are quite small. Only St. Joseph's and Medical Associates have increased their bed capacity recently: by 20 beds each between 1984 and 1986.

Table IV.1  
 Private Jamaican Hospitals: Location  
 and Number of Beds, 1986

Hospital	Location	Number of Beds
St. Joseph's	Kingston	66
Medical Associates	Kingston	64
Nuttall Memorial	Kingston	65
Andrews Memorial	Kingston	45
Hargreaves Memorial	Mandeville	40
Maxfield Medical Centre	Ocho Rios	12
Doctors Hospital	Montego Bay	10
Subtotal		292
University Hospital	Kingston	471
Total		763

Source: Economic and Social Survey Jamaica, 1986

The private sector bed capacity of 292 represents a mere fraction of the 5308 public beds in 1985.<sup>1</sup>

Private hospitals provide basic inpatient care and treatment, a few have outpatient departments as well, and only two have 24-hour casualty services. However, the private sector cannot compete with the public sector in sophisticated forms of care, such as chemotherapy or radiation. Indeed, anecdotal evidence suggests that the highest income households seek such services in developed countries, thereby narrowing domestic demand for sophisticated services to those who cannot afford private hospital care.

The best and most sophisticated care is probably provided by University Hospital, the premier teaching facility in Jamaica. Although University Hospital receives substantial annual allocations from the Jamaican government, it also receives nominal transfers from other Caribbean countries. The facility has autonomy to set fees within the guidelines of its board, and its government allocations are made independent of revenue earnings. Nonetheless, University Hospital is considered part of the public system and unlike the private facilities has accommodated the indigent in its operating and fee structure.

The competitiveness of private inpatient care is a major issue in Jamaica. Private hospitals do not offer the full complement of services, this combined with the availability of free tertiary care from the public sector, limits the private hospitals' market. Moreover, it is difficult and costly for private hospitals to compete with the new technology and equipment in public hospitals that are purchased with tax monies or provided by donors or foreign charitable organizations.

---

1. This public total excludes the 471 University Hospital beds.

The distribution of income groups frequenting any single hospital is only available for University Hospital. Fifteen percent of patients earn over J\$400 a week, 1.4 percent earn between J\$100 and J\$400, 60 percent earn between J\$40 and J\$100, and 23 percent are classified as indigent and are provided free services. The proportion of upper income patients is extremely high. Since these patients are most likely to have insurance, the hospital is better able to afford the subsidies to the indigent. This pattern differentiates University Hospital from other public facilities, which with a few notable exceptions in tertiary care treat only a very few upper income patients. Private hospitals are likely to have a greater bias toward upper income patients.

#### Financing Private Care

Private facilities' resources come from patient fees, insurance (and HMO) reimbursement, and charitable contributions. In some cases, labor costs are implicitly subsidized by the religious group operating the facility. Charitable assistance through friends of the hospital or wealthy firms who are asked for assistance frequently donate to both private and public hospitals. Major capital investments are typically achieved through donations, for example. Despite multiple sources, revenues at private facilities have not kept up with costs. The rising cost of imports with the recent devaluations have hit the private health sector particularly hard as it has the public sector since most supplies and pharmaceuticals must be imported. Moreover, private providers must pay the 15 percent duty on pharmaceuticals, and there are difficulties in the importation of the lower priced generic drugs. Available evidence further suggests inefficiency on the part of hospital management that serves to keep costs high.

Fee-for-service. Hospital fees are set at each private facility in loose conjunction with the other private hospitals. This collusion allows competition to be kept to a minimum. Table IV.2 provides a comparison of fees at three private hospitals and the University Hospital (UH).<sup>2</sup> Daily inpatient charges are quite similar across the three private hospitals, but are significantly lower at UH. The differences and ranges in daily rates among the private facilities reflect variations in the type, degree of privacy, and amenities offered by each room. Prices for operations and anesthesia are tied to costs. Nuttall Hospital ties costs closely to the actual time involved in service delivery, whereas Medical Associates makes up-front estimates. Maternity charges are dramatically different at UH and Hargreaves—the only hospital that has priced out a delivery—with UH's fees representing about 20 percent of the for-profit sector's price. The degree and importance of UH subsidy are evident in the comparisons for all inpatient care.

X-ray and laboratory services charges are shown for three facilities in Table IV.3. As would be expected given the admitted collusion of private hospitals, prices are very similar between Medical Associates and Hargreaves Memorial. Again, UH's base charges are well below those of its counterparts. However, given the profitable nature of x-ray and laboratory services and the willingness of patients to pay for these, UH's charges may well reflect the actual cost of the service. Private hospitals typically subsidize other hospital operations through higher charges on x-ray and lab.<sup>3</sup>

---

2. The listed UH fees do not apply to all patients. Patients with insurance are charged at their maximum reimbursement rate, and those with low incomes are charged on a sliding scale basis.

3. For example, a chest x-ray costs about J\$35.00 including physician and technician fees, but one hospital charges J\$75.00 for the service. UH charges J\$40.00.

59

Table IV.2

Hospital Charges for Selected Inpatient Services at  
Four Jamaican Facilities, 1987

Service	University Hospital <sup>a</sup>	Nuttall Memorial	Medical Associates	Hargreaves Memorial
Daily Rate	J\$60	J\$155-320	J\$140-220	J\$145-200
Daily ICU	J\$90	J\$285		
Operation				
Minor	J\$75	J\$175 or J\$250 if exceeds 3/4 hours	J\$450	n.a.
Major	J\$175	J\$220 for 1st half-hour; J\$110 for each additional half-hour	J\$750 <sup>b</sup>	n.a.
Anesthesia				
Minor	J\$25	J\$100 + cost of other drugs	J\$325	n.a.
Major	J\$75	J\$130 + cost of other drugs	J\$300	n.a.
Physiotherapy	J\$12/session up to 6 treatments	n.a.	n.a.	n.a.
Maternity & Delivery	J\$212 + pre- and postnatal care	n.a.	n.a.	J\$1300 <sup>c</sup>

Source: Data collected by The Urban Institute.

n.a. = indicated data not available.

a. 1986 data.

b. Medical Associates charges considerably more for specialized operations such as plastic surgery (J\$1200) or a laminectomy (J\$1500).

c. This represents the average cost for a normal delivery.

- 56 -

Table IV.3  
Comparison of Selected Laboratory and X-ray Charges for  
Three Non-Public Hospitals

Selected Charges	University Hospital 1984	Medical Associates 1987	Hargreaves Memorial Hospital 1987
<b>Laboratory:</b>			
Bleeding time	J\$ 5	J\$ 12	J\$ 15
Hemoglobin electrophoresis	18	30	45
Acid phosphatase	8	25	18
Calcium	7	20	18
Electrophoresis-protein	14	45	50
Triglycerides	9	25	30
Uric acid	6	20	15
VDRL	6	12	15
Blood culture (clot)	15	30	45
Rubella	30	44	50
Urine culture	12	25	30
Gram stain	5	15	15
<b>X-ray</b>			
Chest	40		75
Pelvis	50		85
Shoulder	40		85
Cervical	50		90
	(4 views)		(5 views)
Hand	40		70
Thoracic	60		105
Casualty	5		

Source: Data collected by The Urban Institute.

The fees listed in both tables are in sharp contrast to the J\$50.00 per inpatient day for private patients in public hospitals. Similarly, in public facilities a single or series of x-rays is J\$10 and 20, respectively, and for a single or series of laboratory tests the price is J\$10 and 50, respectively. Both sets of charges apply to private patients, most of whom are covered by insurance. Thus, although the University Hospital has rates consistently below market, charges are much closer to costs than are public hospital fees. Government is in effect subsidizing insurance companies when insured patients use public facilities.

Third-party payers. Health insurance is extended through six Jamaican health/life insurance companies and covers roughly 15 percent of the population. Insurance coverage among patients at private hospitals is significantly higher than at public facilities. For 1986, Nuttall Hospital estimates that 65 to 70 percent of patients had insurance; Medical Associates estimates 80 percent; and, Hargreaves Memorial in Mandeville estimates 42 percent. By contrast only 11 percent of patients in the quasi-public University Hospital carried insurance. The proportion in public facilities has only recently become relevant with the new fee system, and facilities are unsure of the percent of insured patients. Moreover, some patients do not submit insurance claims so hospitals have no real information on the extent of coverage among users.

A major problem in promoting private care is the cap on insurance benefits since most policies do not include catastrophic care. The incentives are for patients to use the free public facilities so as to husband their coverage for possible catastrophic needs. Thus, if a patient expects high medical bills in a given year, maximizing public care early in the year is in the patient's interest. Such risk-averting behavior also benefits insurance companies who

save when enrollees rely on public services, particularly if patients end up not requiring further care and do not need to claim for their coverage.

In addition to commercial insurance for individuals and groups, Life of Jamaica established a health maintenance organization (HMO) in 1986, which offers pre-paid care on a preferred provider organization (PPO) model to firms with five or more employees. As of mid 1988, 38 medical provider groups of 120 physicians, 35 pharmacists, and all of the private hospitals in Kingston and Mandeville were participating. Participating MDs receive 45 percent of the individual or family premium for each of the patients or patient families that have selected them as their primary care physician. That allocation covers all annual visits by the patient. Thus, physicians have an incentive to both attract and keep patients, and at the same time to limit patient visits. Hospitals received their normal rate for semi-private accommodations.

Employee enrollment has risen rapidly, and as of mid 1988, some 9,000 individuals had signed up. Enrollees are largely recruited away from health insurance coverage. Thus enrollees are more often insured individuals opting for HMO coverage. It is typically not new clients seeking third-party coverage for health care for the first time.

The differences in costs and benefits between health insurance and prepaid group practices can be seen in Table IV.4. Although the number of elements included in the table is limited, the data provide some sense of the two options. Blue Cross/Blue Shield of Jamaica, representing the insurance sector, has a basic plan for employee groups and a non-group community plan for the self employed. HMO participants are all enrolled under group plans, although eventually the plan will be extended to individuals.

Table IV.4

Premiums, Restrictions, and Copayments for Health Insurance and HMO Coverage in Jamaica, 1986

	Blue Cross/Blue Shield of Jamaica		Life of Jamaica HMO
	Basic Plan	Community Plan	
Premium			
Individual		J\$324/year	J\$636/year
Family	J\$360/Year	J\$660/year	J\$1,836/year
Inpatient Care			
Room and Board	up to 120 days <sup>1</sup>	up to 120 days	unlimited (semi-private room)
Restrictions	J\$100/day max	J\$90/day max	none
Copayment	none	none	none
Maternity			
Restrictions	J\$1,847 max	J\$800 max, plus pre- and postnatal visits	must be in plan 284 days
Copayment	J\$6/outpatient visit	J\$6/outpatient visit	J\$350 copayment <sup>2</sup>
Outpatient Visit			
Restrictions	J\$200 max/contract	J\$250 max/contract	no maximum
Copayment	J\$6/visit	J\$6/visit	J\$7/visit <sup>3</sup>
Ambulance-Emergency			
Restrictions	J\$150 max <sup>4</sup>	J\$150 max <sup>4</sup>	none
Copayment	none	none	none
Prescriptions			
Restrictions	J\$100 max (indiv.)	J\$100 max (indiv.)	none
Copayment	J\$200 max (family) 20%	J\$200 max (family) 20%	J\$3/prescription J\$10/prescription for chronic condition
Catastrophic Coverage	no	no	yes

Source: Prospectuses for Blue Cross/Blue Shield Jamaica (1986) and HMO Jamaica.

1. Up to 120 days for both programs and J\$12,000 per annum maximum under the Basic Plan.
2. Benefits include all pre- and postnatal care, hospital and delivery services.
3. Treatment at non-HMO participating MD or outside normal working hours copayment is J\$25.00.
4. Free only to Kingston, St. Andrew, or St. Catherine.

Premiums are significantly lower for health insurance. The insurance plan, however, does not cover catastrophic care, which HMO Jamaica does (even up to evacuation and care outside the island). Moreover, all services have maximums, although for normal demand only the prescription ceiling is likely to prove costly for participants.

Deductibles are not applied in either system, although both use co-payments to discourage overutilization of physician visits and drugs. HMO Jamaica imposes a significant J\$350.00 co-payment for maternity, which includes all pre- and postnatal care and any and all special inpatient services (e.g., multiparous birth, Cæsarian section). Participants are constrained under both plans in where they can obtain drugs. Co-payments to nonparticipating physicians under the HMO are more than four times the normal J\$6.00, which discourages such practices, and reduces the convenience of using any accessible pharmacy.

Both BC/BS and HMO Jamaica have built-in incentives to discourage overconsumption of health services. HMO Jamaica has found, for example, that the average number of visits to a physician among its participants has dropped below the national average of 6 to 4 per patient per year. Physicians have an incentive to discourage multiple visits, because as the number of visits increases, per visit earnings decline.

As discussed, BC/BS establishes an incentive for underutilization by not covering catastrophic care. Underutilization is most likely to mean greater reliance on public facilities for routine care, not foregone care. Anecdotal reports from public hospitals suggest that patients rely heavily on the public system often not admitting that they have insurance to save that coverage for possible private care at a future date. The prevalence or reliability of this information is not known.

### Financial Circumstances and Difficulties of Private Hospitals

All private and public hospitals have chronic problems with patients not paying their bills. Virtually all private facilities ask that inpatients pay a deposit roughly equivalent to the estimated cost or the expected insurance co-payment for services needed. In casualty, Medical Associates and Hargreaves offer a 24-hour respite before they request a down payment. The UH has attempted to implement a similar set of policies, despite the public policy of treat first, pay later. All casualty patients must pay the UH's J\$5.00 fee, and all maternity deliveries are prepaid. Despite such safeguards, all private hospitals have mounting debts from nonpayment. Medical Associates estimates their loss as 15 percent of their gross, and Nuttall as 10 percent.

Table IV.5 summarizes the level and sources of revenues and expenditures for two private hospitals, Hargreaves Memorial and Nuttall Memorial. Although Hargreaves has made its calculations on a departmental basis and Nuttall's is on a functional basis, some comparisons are possible. Moreover, because Hargreaves has its own in-house laboratory and x-ray services it modifies the relative profitability of other revenue sources. The pharmacy provides the lion's share of Hargreaves revenues (34%), followed by inpatient hotel services (23.2% for all admissions), and supplies and miscellaneous services. Nuttall earns the largest proportion from its hotel services (44.4 for all admissions) and medical supplies. Because x-ray and laboratory services are provided by companies that lease space from Nuttall Hospital, the facility does not profit significantly from these functions.

In comparing revenue and expenditure categories for the two facilities, pharmacy, x-ray, and laboratory services, are the most profitable, partly because these require minimal allocation of shared expenses such as management or housekeeping. Medical supplies and room and board provide large profits.

67

Table IV.5  
 Summary of Revenues and Expenditures in  
 Two Private Jamaican Hospitals

	Revenues		Expenditures	
<u>Hargreaves Memorial, 1987<sup>a</sup></u>				
Total	3,528,464	100.0%	3,356,253	100.0%
Room and Board				
General and Pediatric				
Wards, and Casualty	598,365	17.0%	309,783	9.2%
Maternity	217,540	6.2	167,264	4.9
Laboratory	271,099	7.8	151,002	4.5
X-Ray	357,491	10.1	232,334	6.9
Pharmacy	1,203,650	34.1	937,547	27.7
Physiotherapy	28,730	0.8	22,954	0.7
Operating Theater	66,304	1.9	53,490	1.6
Physician Payments	337,607	9.6	285,323	8.4
Management & Administration			935,859	29.7
Utilities			115,921	3.4
<u>Nuttall Memorial 1985/86</u>				
Total	5,172,963	100.0%	5,201,399	100.0%
Room and Board	1,623,243	31.4	557,868	10.7
Maternity	674,898	13.1		
Recovery Room	118,920	2.3		
Nursery	151,202	2.9		
Operating Theater	467,826	9.0		
Drugs	675,568	13.1	480,065	9.2
Medical Supplies	1,284,030	24.8	667,092	12.8
Other and Misc.	176,266	3.4		
Nonphysician Salaries			1,895,889	36.5
Repairs and Maintenance			365,222	7.0
Management & Administration			196,814	3.8
Utilities			880,194	15.4

Source: Data collected by The Urban Institute.

a. Data are for 10 months, April 1987 through January 1988.

but claim a disproportionately large share of indirect costs, particularly room and board.

Personnel costs for non-physician services are 36.5 percent at Nuttall and about 40 percent at Hargreaves, which are roughly comparable. Utilities cost almost eight times as much at Nuttall as at Hargreaves; utilities claim 15.4 percent of Nuttall's budget as compared to 3.4 percent at Hargreaves. The reason for the discrepancy is not evident, but it may be important given the considerable expenditure by Nuttall and its 1986/87 deficit of J\$28,436, a fraction of the almost J\$700,000 difference in utilities costs between the two facilities. Maternity is a much larger relative earner at Nuttall. Hargreaves' low occupancy rate in maternity makes profitability difficult and the figures suggest that on net, including indirect costs, maternity is likely to be an unprofitable service in that hospital.

Crude comparisons of the two facilities, suggest that greater profitability could be attained at Nuttall Hospital by selling x-ray and laboratory services as Hargreaves does, and lowering its utility costs. Leasing out profitable x-ray and lab services to another entity deprives the hospital of much needed revenue, which contributes to its continued operation in the red.

Among the private hospitals only Hargreaves Memorial Hospital in Mandeville operates at a profit, having earned J\$86,466 in 1987/88. The reasons for the financial difficulties of private hospitals are varied. They include mismanagement, inefficient scale of operation, cost increases due to devaluation and high inflation, outdated equipment and limited access to credit to rehabilitate infrastructure, and limitations on insurance benefits.

First, none of the hospitals in deficit is run by a hospital administrator and by default are operated by the chief physician or the board of directors. USAID supported a management review of Medical Associates in 1987 which

identified a number of fundamental management and financial problems (Trevor Hamilton and Associates, 1987). The management review emphasized the following managerial limitations: no management organization; no strong administrator to control the operation; a board of directors made up of physicians without management experience that effectively substitutes for an administrator and decides on minor as well as major operating issues; no accounting or financial management system; and poor mix of medical and nonmedical staff with costly staff carrying out simple tasks easily taken on by less trained individuals. This last abuse is particularly applicable and troublesome among registered nurses who are in short supply. It also contributes to inefficiently operated casualty (a major revenue earner), which reduces efficiency and the number of patients treated. Casualty staff also have an abnormally high turnover rate.

Second, the efficiency of the private hospitals varies widely. Table IV.6 summarizes the occupancy rate and average lengths of stay—two efficiency measures—for two private hospitals, University Hospital, and an average of Type B and C public hospitals. The different case mix at University Hospital may explain its much higher average length of stay (ALOS), which is more than double that of the country's profitable facility, Hargreaves Memorial. Since Hargreaves and Medical Associates have a similar case mix, the data may suggest an excessive length of stay by almost a day at the latter institution. Occupancy rates are quite similar at all facilities except Hargreaves where occupancy is 48 percent, up from the previous year's 42 percent. Despite low occupancy, Hargreaves is able to remain solvent.<sup>4</sup>

---

4. Occupancy rates at Hargreaves vary by department with general medicine, pediatrics and maternity showing occupancy rates of 84.7, 26.8, and 21.4, respectively for 1986/87.

Table IV.6  
Efficiency Measures for Selected Private  
and Public Hospitals

Facility (Date)	Average Lengths of Stay	Occupancy Rate
Hargreaves (1986/87)	4.3 days	48%
Medical Associates (1986)	5.0 days	75%
University Hospital (1985/86)	8.9 days	73%
Public Hospitals (1985/86) <sup>a</sup>	6.6 days	70%

Source: Hospital Statistics Report, 1985; data collected by The Urban Institute.

- a. Public hospital figure is an average for all Type B and Type C hospitals.

These traditional efficiency measures do not appear to determine the likely earnings per bed. Table IV.7 lists Medical Associates and three other (anonymous) hospitals and their occupancy and earnings per bed. There is almost an inverse relationship between occupancy and earnings (Trevor Hamilton and Associates, 1987). Some of this may be explained by the many different prices/bed, but a number of other factors are also important.

The poor financial circumstances of private hospitals may actually overwhelm the relevance of ALOS and occupancy rates. Low occupancy may therefore be a minor difficulty compared to the inefficiency caused by poor management; and, the record of mismanagement at most facilities suggests that it may not be uncommon to find longer than necessary lengths of stay due to poor tracking of patients. A major mitigating factor to high ALOS would be the per day and maximum ceilings of insurance companies, which make the number of hospital days of concern to the patient. Merging facilities and services among the various hospitals and outpatient clinics has been discussed to take advantage of economies of scale, but no mergers have yet occurred. Some pooling of resources and risk might improve private sector efficiency and solvency in the hospital sector.

Third, health care costs have risen by an estimated 250 percent over the past decade when both devaluation and inflation are taken into account. Pharmaceuticals prices have risen particularly rapidly and, combined with the 15 percent duty on drugs, have caused the cost of treatment to increase significantly. During this same period, as already discussed, real economic growth was stagnant and unemployment high. The combination of rapidly rising costs, which raised the price of health care, and decreases in income, which constrained demand for private inpatient care, may well have reduced the market

Table IV.7  
 Comparative Earnings by Occupied Bed in the  
 Private Health Care Sector, 1986  
 (J\$000)

Hospital	Number of Beds	Average Number of Occupied Beds	Occupancy Rate	Earnings Per Bed (J\$000)
Medical Associates	64	48	75%	J\$179
A	45	20	44%	J\$206
B	66	36	54%	J\$129
C	14	11	78%	J\$ 62

Source: Trevor Hamilton and Associates (1987).

for private inpatient care, at least temporarily. The price differential between free public care and the rising cost of private care may also have contributed to reduced demand. The continued demand for ambulatory services may reflect the better quality, shorter waits, and greater access that are affordable amenities in outpatient services. On the margin, outpatient care is affordable, but private inpatient services are on average much more costly than comparable publicly provided care.

Fourth, in addition to the opposite trends in costs and income, private sector equipment and infrastructure have deteriorated due to limited access to foreign exchange and credit. Small operating margins prevent capital expenditures from current income. The Trevor Hamilton and Associates Report (1978) noted the need for additional and upgraded equipment in casualty, operating theater, and laboratory if Medical Associates were to improve its net financial position. These three services are the most profitable services and the most underutilized due to shortages of important equipment, among other things. In some cases the lack of equipment may compromise quality. The operating theater is meeting only about one-quarter of potential demand. An additional theater and some key pieces of equipment in the existing theater are needed to meet demand. The laboratory is only meeting an estimated 40 percent of demand, and casualty has a utilization rate of 55 percent.

The tenuous nature of the health care establishment, the fact that health services do not generate foreign exchange, and recent financial difficulties raise the risks to lenders of extending credit to private hospitals for capital projects. Managers of hospitals and outpatient clinics are aware that they cannot raise the necessary capital to expand and upgrade. New investors are similarly restricted.

The Physician Survey (Rawlins and Segree, 1983) noted physicians' articulated priority for better and more x-ray and laboratory services. The aforementioned Eureka Medical Center was a response to the former, but it is in poor financial condition. No significant increase has been observed for the supply of laboratory services. Moreover, little capital is available and accessible to deal with these problems. Even where capital is available, a 25 percent interest rate and possible exposure to foreign exchange risk deters private borrowers in this sector. However, borrowing is the only realistic avenue for modernizing and upgrading the private medical sector.

The final constraint is the cap on insurance benefits, which both reduces demand for catastrophic care and to some extent for routine care because patients use public services to maximize resources for a possible major medical problem later on.

Thus, the private sector is a functioning and valuable element in Jamaica's health care system. The outpatient market appears to be flourishing, but private inpatient services deserve some attention either in terms of direct performance incentives or in stimulating demand through broader third-party payer coverage. The former entails loans, seed money, and technical assistance, especially in management; the latter involves promoting expansion of third-party payers through incentives to companies and individuals for purchasing coverage, and better access to catastrophic coverage.

V. HEALTH CARE DEMAND, UTILIZATION AND EXPENDITURE

The degree to which the costs of health care can be shared with users and their insurers is a function of patients' demand, that is, their willingness and ability to pay for health care services. Consumer demand for insurance will also affect willingness to pay. Examination of current patterns of use and expenditure provides some indication of the population's willingness and ability to pay, especially since patients have relatively easy access to free public and private fee for service health care options. This section reviews published information on the subject as background to an assessment of the ability of government to recover costs in public systems and the likelihood of expanding private sector alternatives to public health care provision.

A 1987 household survey of eight parishes by the Statistical Institute of Jamaica for the Ministry of Health entitled "A Survey of New Initiatives in Health Finance and Administration" (NIHFA Survey) explored consumer access to health care as well as utilization and expenditure patterns (McFarlane and McFarlane, 1987). One adult from each of 3,600 households was interviewed for the survey. The survey included questions on income, patterns of health care use, expenditures for health care, and attitudinal questions regarding willingness to pay for services.

Table V.1 summarizes some of the key characteristics of the three catchment areas in the survey each of which is anchored by a regional hospital: St. Ann's Bay, Cornwall, and Spanish Town. The survey included eight parishes covering roughly half the Jamaican population. The differences in individual income and household income (a constructed measure using the survey data and supplementary information from the Statistical Institute of Jamaica) are quite large; for instance, average parish incomes vary by as much as J\$2,400 across

11

Table V.1

Selected Characteristics of NIHFA Survey Population  
by Catchment Area, 1987

Selected Characteristics	Catchment Area		
	St. Ann's Bay Hospital Region	Cornwall Regional Hospital	Spanish Town Hospital Region
Parishes	St. Ann St. Mary	St. James Westmoreland Hanover Trelawney	St. Catherine Clarendon
Population Size	259,000	413,600	574,000
Average Number in Household	3.8	4.1	4.4
Economic Dependency <sup>a</sup>	1.8	1.7	2.1
Percent of Persons Employed <sup>b</sup>	53.4%	56.0%	48.9%
Average Annual Income of Employed	J\$7,600	J\$7,700	J\$6,700
Average Annual Household Income	J\$9,800	J\$11,900	J\$9,500

Source: McFarlane and McFarlane, 1987.

- a. Dependents include all those unemployed, children, and the elderly.
- b. Figure is the proportion of unemployed relative to the total population, not just those in the prime employment ages. It is not restricted to those who are looking for work either.

catchment areas. The population size of all three catchment areas was very different with Spanish Town having almost twice the population of St. Ann's Bay. Spanish Town is the least well off with the highest dependency rate, and the lowest average individual and household incomes.

This survey represents the best available information on the demand for health and is the major source of data for this section.

### Access to Health Care Services

The degree to which health care services are easily available reduces consumer time and transportation costs associated with obtaining health services. Moreover, the degree of service supply will also affect demand because supply constraints reduce utilization.

The population's access to health care is very good in Jamaica. In 1985 the number of hospital beds per 1000 population was 2.5, a high proportion by developing country standards. The distribution of primary health care facilities and hospitals is also quite equitable with every parish having at least one hospital and multiple lower level facilities; most of the population is a half hour or less from a primary health care center.

The access measures in the above-mentioned NIHFA survey were average distance to public, private, inpatient and outpatient services, the average cost of transportation to each, and the distance to each set of facilities in terms of time.<sup>1</sup> The results are presented in Table V.2 for the eight parishes. Everyone is less than three and a half miles from a public clinic and on average is only 2.6 miles away. With the exception of St. Mary parish, 80 percent or more of the population in the other seven parishes live within a

---

1. Although these data were collected for individuals, data are only available in tabular form, preventing both different presentations of the data as well as analysis of the data.

TABLE V.4

Access and Average Amount Paid to Reach Public and Private  
Outpatient and Inpatient Services  
(Jamaican Dollars)

Catchment Area Parish	Average Distance (miles)		% of Population within 1/2 Hour of Facility		Average Cost of Transportation	
	Public	Private	Public	Private	Public	Private
Outpatient						
St. Ann's Bay						
St. Mary	2.7	4.4	70.2	33.6	3.11	4.55
St. Ann	3.2	7.0	95.8	51.9	2.77	5.11
Cornwall Regional						
St. James	2.6	5.7	87.5	49.1	3.67	4.31
Trelawney	1.2	7.0	85.6	39.0	3.68	13.22
Hanover	1.9	10.4	80.0	30.1	3.18	9.45
Westmoreland	3.5	8.4	85.5	39.4	4.26	9.78
Spanish Town						
Clarendon	2.6	5.8	81.9	32.9	3.38	5.29
St. Catherine	3.0	4.5	80.8	48.2	3.11	3.96
Inpatient						
St. Ann's Bay						
St. Mary	7.8	6.6	21.2	—	7.60	2.50
St. Ann	8.7	24.1	41.2	—	5.10	35.75
Cornwall Regional						
St. James	5.3	3.2	68.6	100	6.29	6.56
Trelawney	6.1	4.5	39.7	100	16.99	— <sup>a</sup>
Hanover	11.4	—	35.3	—	7.57	9.64
Westmoreland	9.6	19.5	42.8	—	8.70	20.53
Spanish Town						
Clarendon	5.5	3.9	60.6	—	7.58	4.15
St. Catherine	6.4	8.3	59.0	60.0	5.08	13.03

Source: McFarlane and McFarlane, 1987.

a. Reason for missing data not provided, but it may mean no access since distance and time from facility were left blank.

half hour of a public health center. Private physicians, the comparable source of ambulatory care, are virtually half as accessible as private outpatient care. As a result, the proportion of the population that has a private physician within a half hour of their residence is less than half with one exception (St. Ann). The overall average is 6.7 miles to a private physician's office.

The transportation cost differential shows lower costs to public clinics, consistent with the distance and time variations. However, the difference in transportation costs between public and private sources on a parish basis suggests that the marginal deterrent of transportation is, in general, not as great as that of distance. There is a fixed cost to reaching any facility and the marginal transportation cost of the added distance to a private provider is therefore not solely a function of the additional distance. Moreover, as will be discussed, the added distance does not deter users nor does it appear to add enough to the cost of care to make private outpatient care unaffordable.

Hospitals are not inaccessible for the sampled population either, although not surprisingly, inpatient facilities are less accessible and generally, but not always, more costly to reach. Public hospitals are usually closer to residents being on average 7.6 miles away, only slightly farther than private physicians. Private hospital distribution is far more random and less available. Although on average private hospitals are only 10 miles away, one parish (Hanover) did not even consider a private hospital accessible at all and the average distance from residence ranged from 3.2 (St. James) to 24.1 (St. Ann) miles. On the other hand, in St. James and Clarendon parishes, private inpatient services are on average closer to households than private outpatient care. The more extensive distances are considerably more costly to reach. In short, few households have private hospitals easily accessible to them.

Thus, within the eight parishes, public clinics and hospitals, and private physicians are close by. Private hospitals are somewhat farther away. Nonetheless, the surveyed population has relatively easy access to a full range of services from a number of modern providers.<sup>2</sup>

The eight parishes in the survey are not necessarily representative of Jamaica as a whole as these are less geographically isolated in comparison to some other areas of the country. Nonetheless, the sample represents roughly half of the population and over half of Jamaica's parishes so it captures a significant segment of the country. The data indicate that despite the differences in cost and distance, both public and private sources of outpatient care are highly accessible by developing country standards. Supply is not a major constraint for all outpatient care or public inpatient services. It is only private hospitals that can be difficult and costly to reach.

#### Utilization of Health Services

The choice patients make where they seek inpatient and outpatient care reflects their preferences and tradeoffs across time, perceived quality, and cost. This is particularly measurable in Jamaica where a number of alternative sources of care are readily available. The options of free public clinics, public hospitals with nominal charges for those who can pay, relatively expensive private ambulatory care and very costly private hospital care provide a broad range from which to select. The quality dimension cannot be directly measured, however, the willingness of patients to pay for health services includes a perception of quality differences to warrant the (additional) expenditure. Although hospital and clinic services are not perfect

---

2. The supply and use of traditional medicine was not explored in the study and is reportedly an insignificant market in Jamaica.

substitutes, a number of health problems are treated on an outpatient basis, which offers a certain amount of substitutability.

National health care service utilization estimates for 1983 are provided in Table V.3. Hospital care is overwhelmingly consumed at public facilities. Only 7 percent of all discharges are from private hospitals. The pattern for ambulatory care is quite different, with over one-third of all visits to private providers. Private physicians are the single most frequented source of outpatient services (Ross Institute Report, 1984).

The trend in public hospital service use is declining, as Table V.4 indicates. Between 1983 and 1986, hospital discharges declined by 12 percent, and hospital outpatient use fell by 23 percent. At the same time, public health service investment rose and utilization increased at least modestly for most clinic-based services. The pattern from this and other information suggests a growing reliance on ambulatory care and on purely outpatient facilities and a parallel reduction in hospital care.

The 1987 NIHFA Survey provides additional information on the utilization of health care services by consumers in the eight sampled parishes. Tables V.5A and V.5B summarize the overall health care utilization rates as well as the sources of care over the last two years and for the last illness, respectively.

Private physicians are by far the most likely providers to have been consulted, even though these facilities are less accessible and more costly to reach. However, facility use over the past two years suggests that multiple sources are used by those who seek care. The likelihood of using private as opposed to public outpatient services is even more pronounced for the last illness episode; a visit to a private provider is on average four times as likely as a visit to a public clinic. Anecdotal evidence points to the lack of

77'

Table V.3  
Health Care Contacts, 1983

Type of Contact	Number ('000)	Percentage (%)
Hospital Discharges	159	100
Public	148	93
Private	11	7
Outpatient Contacts	5161	100
Hospital OP/casualty	1206	23
Clinic, MCH	782	15
Clinic, curative	931	18
Home visits	372	7
Private practitioners	1870	36

Source: Ross Institute Report, 1984

- 78

Table V.4  
Trends in Public Health Care Utilization, 1983-1986  
(000's)

	1983	1984	1985	1986
<b>Hospital</b>				
Discharges	154	147	133	129
Outpatient		552	447	421
Casualty		531	402	429
<b>Health Clinics</b>				
Antenatal	141	144	146	144
Postnatal	61	62	66	69
Child health	360	352	352	429
Family planning	228	298	367	359
Curative	927	1,138	1,064	1,015
Home visits	376	463	303	231
Dental visits	80	115	129	126
<b>Total</b>	<b>2,173</b>	<b>2,571</b>	<b>2,426</b>	<b>2,373</b>

Sources: Economic and Social Survey Jamaica, Planning Institute of Jamaica, and Statistical Yearbook of Jamaica, Statistical Institute of Jamaica.

79'

Table V.5A

Distribution of Outpatient and Inpatient Public and Private Sources of Health Care Over Past Two Years, 1987

Parish	Percent of Population Using Any Facility	Outpatient		Inpatient		
		Public Clinic	Private Physician	Percent of Population Hospitalized <sup>a</sup>	Public Hospital	Private Hospital
St. Mary	61.1	34.4	68.8	7.7	30.9	0.0
St. Ann	55.6	36.6	81.0	4.7	16.2	1.7
St. James	69.2	33.1	67.9	10.0	31.5	0.0
Trelawney	54.1	41.3	68.1	7.7	31.9	0.0
Hanover	45.6	67.6	78.9	6.6	21.1	0.0
Westmoreland	45.9	55.1	86.1	6.4	12.0	0.0
Clarendon	63.9	40.6	66.1	6.7	25.1	0.3
St. Catherine	64.0	36.5	74.0	8.0	23.1	1.0

Table V.5B

Proportion of Patients Using Public and Private Sources of Outpatient and Inpatient Care for Last Illness, 1987<sup>b</sup>

Parish	Outpatient			Inpatient	
	Public Clinic	Private Physician	Self Treatment	Public Hospital	Private Hospital
St. Mary	15.9	39.6	10.2	16.5	0.3
St. Ann	9.3	55.1	13.5	6.8	0.0
St. James	8.6	43.9	17.7	20.1	0.0
Trelawney	12.2	43.2	9.2	17.3	0.0
Hanover	16.8	45.8	21.2	9.8	0.8
Westmoreland	11.1	64.3	5.4	9.8	0.0
Clarendon	10.9	40.7	22.5	15.6	0.0
St. Catherine	15.0	51.2	6.8	15.0	0.9

Source: McFarlane and McFarlane, 1987.

a. Some individuals had multiple hospitalizations.

b. Proportions not stating or who do not remember are excluded.

physicians in public clinics and the waits associated with hospital outpatient departments; however, no information on either point has been produced.

Inpatient care is almost exclusively publicly provided, as was the case in 1983, as mentioned. The proportions using a private hospital for the last illness or during the last two years are well below the national average for 1983. This experience suggests that the vast majority of private hospital use is among those living in Kingston-St. Andrew where most of the facilities are located. There are only two private hospitals in the sampled areas: the 12 bed Maxfield Medical Centre near Ocho Rios and the 10 bed Doctor's Hospital in Montego Bay.

The cost of private hospital care (see Section IV for summary of private facility prices) is prohibitive for most households. Since only about 12 to 15 percent of the population is covered by private insurance, it is not surprising that public services are more popular. Moreover, as discussed, most insurance policies have implicit incentives for policyholders to use public as opposed to private inpatient facilities.

The pattern of strong preference for private physician services remains when controlling for age, sex, or employment status. Women are more likely to visit a private physician and men are more likely to be hospitalized.<sup>3</sup> Although there are no data to link the reasons for the visits, Jamaica's age distribution with a bulge of population in early adulthood suggests that women may be using outpatient (and inpatient) maternity services and young males may well be victims of accidents, a growing health problem among all ages, which could explain some of the hospital use patterns. Private hospitals do not appear to offer a viable alternative for the sampled population as indicated by

---

3. The proportion of women exceeds the proportion of men being hospitalized, however.

their strong reliance on public hospitals. Whether this is due to cost or distance is not evident with available data.

Although as mentioned, private physicians are the most frequent source of care for all categories and ages of the population, public clinics seem to be most frequented by the very young and the elderly. The frequency of visits to health providers common among both age groups may make repeated visits to private providers unaffordable and public clinics provide the affordable backup.

The only other factor introduced into the tabular analysis of the consumption data was unemployment, which produced confusing results. Employed individuals were more likely to be hospitalized, and, of course, hospitalized in a public hospital. Hospital services—as measured by the number of days in the hospital—were used more intensively by employed men and unemployed women. The employment-unemployment distinction is difficult to evaluate, however, without complementary information on the extent of unemployment, income, and health care coverage by third parties. Analyzed together, the data could shed some light on the health care consumption patterns of adults and help to explain the role of income, and insurance and other financial arrangements in the use and choice of health services. The existing data allow almost no meaningful conclusions on the importance of employment or other economic and financial factors in health care decisions.

Together the utilization data suggest an increasing reliance on private ambulatory care and minimal use of private hospitals. All segments of the society prefer private physician services and rely on public hospitals for inpatient care. Children and the elderly are most likely to frequent public clinics, although they too are most likely to visit a private provider.

A better understanding of use patterns and their determinants could be produced by applying a multivariate analysis because only then can the multiple factors which affect decisionmaking be controlled for simultaneously. The McFarlane and McFarlane results, while useful in understanding the components of the data set, are of limited policy use because of the richness of the data, which are cumbersome to analyze in tabular form. A good deal more could be learned for policy purposes by extending the analysis.

### Expenditure on Health Care

The strong reliance on private providers suggested by multiple sources combined with the introduction of fees in public hospitals in 1985 indicates that private expenditure on health care is common. Estimates for 1983 (Ross Institute Report, 1984) suggest a total private expenditure on hospital inpatient care of J\$103.8 million, which based on McFarlane and McFarlane (1987) and Lewis (1988) represents only a fraction of what is currently expended at public hospitals. Ross Institute estimates of expenditures on private practitioners in 1984 are also low given the change in hospital user-fee policy and the sharp increase in the use of private ambulatory care suggested by the amounts reported below for only half the population.

Households at all economic levels purchase health care services. Table V.6 reports the national aggregate expenditure divided by income group. Consistent with evidence from other countries, the elasticity of demand for health care is well over one, based on the table; however, these figures underestimate expenditures because they exclude self treatment. Thus, health care expenditures are directly related to income, and as income rises the amounts and percentage of income devoted to health increase.

82

Table V.6  
Household Expenditure on Health Care  
by Income Group, 1984

Income Group (J\$)	% of All Households	Health Care Spending	
		Percent	Avg. Amt.
0 - 3,000	11.82	1.12	20.41
3,001-6,000	19.08	1.02	46.49
6,001-9,000	17.63	1.15	94.02
9,001-12,000	13.18	1.05	109.25
12,001-15,000	10.29	1.20	161.45
15,001-18,000	6.88	1.62	265.19
18,001-21,000	5.30	1.63	316.40
21,001-24,000	4.11	1.68	375.97
24,001-27,000	2.99	1.84	467.95
27,001-30,000	2.28	2.02	574.39
30,000+	6.44	2.25	948.51

Source: Household Expenditure Survey, Statistical Institute of Jamaica (1984).

Table V.7 provides household level estimates for the eight parishes in the NIHFA Survey, including the number and percent of the population paying for their most recent treatment, the average expenditure, and the total private expenditure for the last illness.

The proportion of the population paying for health care is well over half in all eight sampled parishes, and reaches a high of 82 percent in Westmoreland. The average amount spent is about J\$85.00 (roughly US\$15.50 at the 1988 exchange rate) without distinguishing type of service purchased. Expenditures are highest on average in St. Ann's Bay Hospital Region and lowest in Spanish Town Hospital Region. The total amount of private expenditure in all three catchment areas for the last illness over the last two years sums to almost J\$100,000, excluding insurance and other third-party payments.

The low expenditure in Spanish Town may have to do with the fact that its two parishes are the least well off and have the highest dependency ratios. Despite the higher insurance coverage, little is known about the specifics of that coverage. Given the low reimbursement ceilings under some insurers, the greater coverage might not meaningfully affect use.

Private expenditure is significant, but, unfortunately, has not been linked to income, participation in health insurance schemes, or specific purchases (i.e., outpatient or inpatient, public or private). Insurance co-payments are modest compared to the full cost of provider services, but the distribution of how much is paid by which groups to which facilities has not yet been explored, but would assist policymakers in determining who is willing to pay for what.

One major factor that usually determines the extent of private health care use, particularly hospitalization, is health insurance or other third-party coverage. The extent of coverage by insurance, employers, or other health

Table V.7  
Number and Proportion of Population Paying for Health Care,  
Average Expenditure and Total Expenditure,  
by Last Amount Paid

	Number Paying for Treatment	Percentage Paying for Treatment	Average Private Expenditure (J\$)	Total Private Expenditure (J\$ M)
St. Ann's Bay	259,000	67.4	94.73	23.967
St. Mary	112,300	54.0	97.79	10.719
St. Ann	146,700	77.7	93.03	13.361
Cornwall Regional	313,000	74.9	84.32	34.187
St. James	148,100	77.7	90.46	13.147
Trelawney	73,000	67.1	75.00	5.372
Hanover	65,500	62.7	75.89	4.973
Westmoreland	127,000	82.4	85.28	10.576
Spanish Town	574,000	78.4	73.37	41.664
Clarendon	214,300	80.8	70.60	15.012
St. Catherine	359,700	77.0	74.99	26.628

Source: McFarlane and McFarlane, 1987.

plans is indicated in Table V.8. On average, 12 percent of the sampled population is covered, which is in keeping with national estimates. Spanish Town Hospital Region is the most thoroughly covered with about 16 percent of the population participating in third-party health care coverage, primarily in health insurance. In St. James over 13 percent are participating in a health care coverage scheme, but it is the exception in the catchment area, which averages 7.7 percent and falls to 3.6 percent in Trelawny parish. Because of the limitation of the available analysis it is not clear whether the additional coverage in Spanish Town accounts for the much higher utilization of health care services, a common by-product of insurance-financed health care. Indeed, there is little explanation of the links between use and expenditure patterns as these variables have only been examined independently.

Analysis of the coverage data was not extended beyond that reported in Table V.8, but the information is important to issues of utilization and source of care and deserves attention. The survey did, however, pose hypothetical questions to consumers regarding their predicted willingness to pay for public care. In six of the eight parishes, 71 percent or more expressed a willingness to pay for public clinic and hospital care. When comparing what individuals said they would be willing to pay (averaged J\$10 - 19) with the average amount expended during the last illness (J\$70 - 90), hypothetical willingness-to-pay should be evaluated with caution. A better picture could be provided through individual-based analysis. Averages inhibit firm conclusions regarding individual motivation and deterrence toward paying for health care. Nevertheless, given current patterns of health care seeking behavior and the amounts expended as well as individuals' admitted willingness to pay, raising fees in public facilities should not be viewed as a problem provided the

87

Table V.8  
 Number and Proportion of Persons Participating in Health Schemes  
 by Type of Scheme and Parish

Parish	% of Population Covered	Numbers Participating in Health Scheme				
		Total	Health Insurance	Other Health Plan	Employer/Company Plan	Special Arrangement/Other
TOTAL	12.0	149,400	76,200	36,000	31,100	5,000
St. Ann's Bay						
St. Mary	7.9	8,900	5,500	1,700	1,700	—
St. Ann	9.1	13,400	9,000	2,200	1,500	700
Cornwall Regional						
St. James	13.2	19,500	10,900	4,300	4,000	300
Trelawny	3.6	2,600	800	300	600	900
Hanover	5.8	3,800	3,000	400	400	—
Westmoreland	8.0	10,100	2,700	3,700	3,400	300
Spanish Town						
Clarendon	16.0	34,300	16,300	9,000	8,400	—
St. Catherine	15.8	56,800	28,000	14,400	11,100	2,800

Source: McFarlane and McFarlane, 1987.

quality of care warranted consumer payments, nor should promotion of greater reliance on private providers be considered risky.

### Conclusion

Health care is accessible to the vast majority of Jamaicans, and costs of reaching health facilities for even the most isolated are not high by developing country standards. Use of private health care is rising, particularly for ambulatory care, and it is the provider of choice for the majority of the population for which there are readily available data. The bias toward private outpatient care is strong across all age groups, both sexes, and the unemployed. Public clinics are not used with great frequency, nor are private hospitals. The bulk of hospital care is consumed in publicly subsidized facilities. And although use of public hospitals is declining, use of public and private outpatient services is rising.

The broad use of private providers also indicates a significant expenditure on health care. User charges in public hospitals are requiring additional expenditures for formerly free, public hospital care. On average about 75 percent of patients paid for (some part of) their last treatment, spending on average about J\$85.00. Only 12 percent of the sampled population have some form of health care insurance coverage, so that most of the purchases of health care are out of pocket expenditures.

In addition to the evidence on use and expenditure, a recent survey has confirmed the population's theoretical willingness to pay for services, including public clinic and hospital care. The levels potential users say they are willing to pay are well below what is already being spent, suggesting that patients are willing to pay for quality services. This further suggests that user charges in public facilities can be raised if the quality of services (e.g., waiting time and qualifications of medical personnel) can be improved.

The move from public to private services over the past few years suggests that the qualitative differences may be leading patients to pay for services, especially for outpatient care.

90

## VI. ALTERNATIVE HEALTH CARE FINANCING PROPOSALS

The severity of the financing shortfall within public health is already apparent to the government, and a number of innovative initiatives to address the problem are either underway or planned. The importance and the priority to the Jamaican government of identifying alternative sources of finance for the sector has been articulated in a number of fora, and discussed above. Moreover, current initiatives reflect support from the Prime Minister and endorsement by the Cabinet. Together these actions indicate a serious reassessment of the government's free universal health care policy.

In 1985, Prime Minister Seaga established the Ogle Committee to determine alternative means of financing health care. While a number of different options were discussed, that of privatization of public facilities was identified as the cornerstone for reforming financing of health care in Jamaica. At roughly the same time, the Cabinet endorsed the establishment of user charges in public hospitals and for the first time allowed facilities to benefit from the revenues they raise. A third part of the reform effort was streamlining the health care system and improving financial management.

The growing concern over financing in the sector is reflected in the number of consultancies, considerable activity on a number of fronts, and a reordering of MOH priorities. These workshops, studies, and discussions have assisted in identifying the underfinancing problem in Jamaica's public health care as well as alternative means of addressing the problem.<sup>1</sup> The September 1987 three-day retreat of senior Ministry of Health policy staff at Mallards Beach designated health care financing as the Ministry's major priority (Vincent, 1987).

---

1. See Table I.1 for a summary of these actions.

The specifics of the proposals and experiments of the Ministry are important to understanding the scope and prospects for financing health care, identifying the gaps in financing, and assessing the prospects for sustainability of further investments. The next three sections review the initiatives in privatization, the experience under a new user fee policy, and the ongoing reorganization and financial management reforms.

### Privatization

Privatization is seen as a means to bring private incentives and management to bear in improving the efficiency and effectiveness of health services, and in sharing the cost of health care with patients. Through raising management capability of the hospitals, attracting and keeping competent professional staffs and shifting some of the government's burden for health care delivery to the private sector, the government of Jamaica expects to improve services and save money. Greater patient reliance on private providers or payments for public services would allow public funds to be concentrated on citizens unable to pay for services.

Two separate privatization efforts are being pursued. The first is the divestment of nonmedical and nontechnical services in particular facilities, and privatizing some hospital services. The second effort is a more radical initiative designed by the Ogle Committee that will privatize three hospitals under three different models. Eventually a fully privatized system is envisioned that will be guided by the experiences of the three privatized hospitals. Each of these efforts is discussed separately below. The coordination and tracking of the privatization efforts is being undertaken by the Alternative Financing Secretariat in the Ministry of Health.

Divestiture. Hospital divestiture of nonmedical services was launched in 1987. Three areas of hospital service are slated for divestment including: (1)

housekeeping, janitorial and portering; (2) catering (i.e., food services); and, (3) laundry. Each of the divestiture initiatives is or will be introduced first in the three major hospitals in Kingston: Kingston Public Hospital (KPH), Victoria Jubilee Maternity Hospital, and Bustamente Hospital for Children. Subsequently, Spanish Town Hospital, Cornwall Regional Hospital, Bellevue Psychiatric Hospital, and Kingston School of Nursing will divest their nonmedical services.

The divestiture process has involved a number of difficult and complicated steps, including Cabinet approval to make existing government employees redundant, negotiating an acceptable settlement with government employee unions, and rearranging Ministry of Health responsibilities in oversight of hospital services.

In October 1987, the government workers in the housekeeping services of the three Kingston hospitals were made redundant and provided with severance leave and pay, and the private contractor—selected through a formal bidding process—took over housekeeping, janitorial, and portering services. After five months of operation, the quality of the environment is obviously improved, and the government is saving about J\$374 million, or half its annual budget, on these services. The facility is clean, better maintained, and basic amenities such as grass and shrubs are being introduced and maintained by the contractor.

The smoothness of the transition is attributed to careful planning by the Ministry. In particular, negotiations with the unions was successfully accomplished and the promised severance pay and severance leave were made available as promised. Moreover, the dilapidated state of the facilities made it impossible for union representatives to defend the quality of services being provided by government employees. Minor demonstrations outside the facilities occurred at the time of transition, but these were shortlived and contained.

Catering services are in the process of divestment at KPH, Bustamante and Victoria Jubilee. The Ministry received four bids in February 1988 for providing catering services to the three Kingston hospitals in response to its solicitation. This second phase should be operational in the next few months. Prior to the shift, the government had planned to refurbish the catering infrastructure; however, due to delays the refurbishing will not take place until later in 1988. All four bidders agreed to operate with the existing equipment and kitchen until then.

The privatization of laundry services is planned for late-1988. Equipment and the laundry areas are also expected to be renovated and updated prior to the transfer.

In order to facilitate the transition, certain key staff will be retained (e.g., the morgue janitor) for some period of time because of the specialized nature of their functions. Three or four months of transition with some existing staff will ensure that vital functions continue even if a replacement is eventually put in place. The initial contractor can and has hired some of the redundant government employees on a more permanent basis.

In collaboration with the Ministry of Health, bids for each hospital will be solicited separately for each of the three services, which suggests that some combination of Ministry and hospital oversight for these services will be essential. This poses a potential problem of regulation and establishment of performance standards. The current plan is to have the hospital boards that are appointed by the Minister of Health to oversee the operation of the hospital establish standards, and manage and evaluate contractor performance. This element is still in the planning stage.

In addition to the support service divestiture, efforts are underway to divest the Ministry of Health's National Maintenance Unit which under the

current plan would be scaled back to a cadre of specialists within the Ministry, with hospital equipment maintenance services contracted out to private firms. A feasibility study and pilot plan are currently in the design stage.

Thus, the political environment for divestiture exists, and the divestiture has been successfully established for five months in one service area of three tertiary care facilities. The completion of all three services in the six additional facilities is expected to be completed in 1989.

Privatization of Public Hospitals. The government is looking to privatization to increase efficiency and reduce costs, improve management, raise quality of health care in public facilities, and share the delivery and cost of health care with the private sector. The privatization concept and the means of achieving the objective were originally proposed and designed by the Ogle Committee. The current plan is to experiment with three different privatization arrangements to determine which of these is the most appropriate and cost effective model to serve as a basis for a revamped private oriented structure for public health care delivery in Jamaica. The proposal for full privatization of the public health care system would occur over an extended period of time to allow orderly transition and adoption of a cost effective system. These actions are still in the design stage and will not be finalized and implemented until mid-1988 at the earliest. The descriptions here are therefore subject to modification.

Three separate experiments are envisioned under the Ogle Committee recommendations: (1) management of a hospital in a single parish with the entrepreneur assuming all financial risks. A contract for five years would be drawn up with an option for extension upon review; (2) management of a hospital by a private group in one parish with the Ministry of Health assuming the

financial risk. A three year contract would be negotiated with the possibility of extension upon review; and, (3) establishment of a parastatal hospital with private operation, management and control but with government holding a majority share.

The three hospitals contemplated for privatization are Cornwall Regional, Spanish Town and St. Ann's Bay Hospitals. Cornwall and St. Ann's Bay are slated for renovation under the planned Inter-American Development Bank project; Spanish Town is part of the second stage of IDB renovations and it is not certain that the upgrading will occur.

Under the three privatization experiments, the Ministry of Health is looking to the private sector to provide certain preventive and curative health care services to a defined population with government only subsidizing the needy. Currently that entails contracting with private firms to operate but not own a hospital and its infrastructure and equipment.

In each of the experiments, the government would capitate the indigent and pay a partial capitation fee for the near indigent on a sliding scale basis. The company could operate the facility on a capitation or fee-for-service basis. The precise mechanisms for operation have not yet been worked out, but the general structure of each experiment is determined.

**Health Facilities Trust.**<sup>2</sup> The Ogle Committee has proposed the establishment of a Health Facilities Trust (HFT) to provide a structure for the private delivery of service with public responsibility. A trust would allow the government to own facilities without operating them, place management decisions outside the public sector, meet government's commitment to public

---

2. This section draws heavily on Philmore Ogle's "Proposal for a Health Facilities Trust."

employees, and upgrade personnel and the physical plant and equipment of public hospitals.

The functions of a HFT would include:

- ownership of the government's land, buildings, equipment, furniture, and hard and soft furnishings, which would be leased to a private contractor;
- responsibility for expansion, upgrading and maintenance of facilities;
- raising capital and borrowing money, using government assets as security but without government guarantees;
- employing physicians, nurses and some medical technicians; and,
- entering into contract for operation of health facilities by private sector enterprises.

Thus, the Health Facilities Trust could borrow and authorize expenditures of funds to enhance, upgrade or replace existing infrastructure. Any improvements or acquisitions made by the contracted company would be approved and financed by the Trust and thereby remain part of the government's assets. The Trust would act as the employer for physicians, nurses and some medical technicians. Nontechnical staff would be hired by the private contractor directly. In all cases, the selected contractor would have the option of retaining existing staff, and would cover their government retirement and insurance costs. In cases where staff were not kept, the Trust would provide a holding position for those employees until they could be transferred elsewhere in the public system. This holding arrangement is to be financed through earnings from the management company's rent payments.

The Trust allows maximum flexibility to the contractor while retaining government's ownership of assets. Moreover, it allows government to honor its commitment to employees without constraining the private contractor's

initiative. Thus it maximizes maneuvering room and minimizes constraints while at the same time meeting public objectives.

The HFT will be guided by two classes of trustees, Supervisory Trustees who are responsible for ensuring compliance with the Trust and setting overall direction, and Executive Trustees who are responsible for the custody of Trust property and executing directives of the Supervisory Trustees. The Supervisory Trustees would be primarily nominated by the Minister of Health, possibly supplemented by others not appointed by the Minister. There will be an Executive Trust for each region.

The Health Facilities Trust will adhere to the overall policy objectives of the Ministry of Health through the oversight of the Supervisory Trustees; however, the Trust's personnel and employment policies will not be subject to government regulations. Issues, such as fees, will be discussed by the Trustees, but the specific mechanism for fee setting and other financial questions has not yet been finalized.

A trust arrangement was selected because of the ease of creation and the difficulty of dismantlement. A trust is not a legislated body and dissolution of a trust requires that it can be demonstrated that the trust can no longer provide benefits to its beneficiaries.

The "Proposal for a Health Facilities Trust" is under review by the Ministry of Public Service and the Attorney General for conformance with Jamaican law and policy.

A first initiative toward selection of appropriate parishes for hospital privatization is the McFarlane and McFarlane (1987) survey discussed in Section V above. Concurrently with these other activities, a model request for proposal is being drawn up under contract by an outside firm, based on preliminary guidelines devised by the Ogle Committee. It is intended that the

three experiments be sent out for bids at roughly the same time in order to allow a maximum opportunity of comparison across the experiments.

Outstanding Issues in Privatization. The privatization proposals and experiments are carefully planned and designed to conform to the objectives of the government. How well the effort has been designed to successfully accomplish the broad set of financial goals is not clear. The lack of meaningful precedent in Jamaica or elsewhere hampers the government's ability to avoid pitfalls in the design and implementation of its privatization effort. The plan appears sound; although some key issues such as fee setting have not yet been specifically considered.

The issues of oversight criteria and methods for evaluating the efficiency and effectiveness of alternative privatization options or of the divestitures are still unresolved. Some attention needs to be given to considering how the public sector will regulate the contractors and how the latter will be assessed. Similarly, given the government's strong desire to obtain guidance from these experiments in revamping the public health system, some standardized method(s) for evaluating the alternative approaches is vital. Assessments from the onset are important since direct comparisons are contemplated.

The most important outstanding issues on the privatization of facilities are the degree of interest among private enterprises and the determination of what constitutes a potentially profitable endeavor for private firms. Some type of bidders conference is warranted to determine whether a viable plan is being proposed and if possible roadblocks exist for attracting the interest of private enterprises. Such a discussion could help to finalize a realistic offer for privatizing the three public facilities.

The proposals and actions taken offer creative and important means for dealing with insufficient resources in the health sector. They may well serve

as blueprints for other countries attempting to address resource constraints through greater reliance on the private sector. In the process, the Jamaican health system may develop a broader financial base, and hopefully raise the quality and efficiency of health care services.

### User Fees in Public Hospitals

User charges in Jamaican public hospitals have been in effect since the early 1960s, although fees were eliminated in 1972 and 1973. In 1984, a revised fee schedule was published that is still in effect and direct incentives to hospitals were established to encourage collection efforts. Table VI.1 summarizes the charges for public and private patients, and indicates the deviations from the standard schedule. The Ministry's fee schedule also stipulates that "patients covered by Health/Accident Insurance Policies shall pay the fees payable by private patients or the maximum payable under the terms of the policy, whichever is greater."

The fees are very modest in comparison with those charged by the private sector or even the University Hospital that receives grants from the government of Jamaica but has the freedom to set charges.<sup>3</sup> Moreover, the charges do not cover a significant fraction of the cost of care. Insured patients are typically charged the private patient fees rather than the "maximum payable under the terms of the policy." Those exempted from paying fees include visits for family planning, immunizations, high-risk pregnancies, Food Aid recipients, children in school uniform, members of the armed forces, and pensioners.

---

3. University Hospital applies a sliding scale. See Section IV for a comparison of fees across public and private facilities.

- 100 -  
Table VI.1

Jamaica's Public Hospital Fee Schedule  
(Jamaican Dollars)

	Public Patients	Private Patients <sup>a</sup>
Outpatient/Casualty Registration fee	\$5.00/visit <sup>b</sup>	\$5.00/visit
Inpatient		
Admission - general	\$30.00/admission	\$50.00/day <sup>c</sup>
- intensive care unit	\$60.00/day	\$60.00/day
Maternity	\$50.00 <sup>d</sup>	\$150.00+
Use of operating theater	\$20.00-\$120.00	\$50.00/day <sup>e</sup> \$20.00-\$120.00
General		
Laboratory tests:		
single <sup>f</sup>	\$10.00	\$10.00 <sup>g</sup>
series <sup>h</sup>	50.00	50.00
X-ray Services		
single <sup>f</sup>	10.00	10.00
series <sup>h</sup>	20.00	20.00
X-ray Therapy	25.00	25.00
Physiotherapy (up to 6 treatments)	25.00	25.00
Blood transfusion	20.00	20.00
ECG	20.00	20.00
EEG	20.00	20.00
BMR	20.00	20.00
Appliances	25% of cost	50% of cost
Ambulances	\$15.00 for 10 mile radius plus \$.50 @ additional mile	\$30.00 for 10 mile radius plus \$1.00 @ additional mile
Dental Services		
Extractions	10.00	10.00
Prophylaxis & Filling	20.00	20.00
Dentures	50.00	50.00
International Vaccination Certificates	5.00	5.00

Exemptions:

- o All family planning-related visits
  - o All visits for immunizations
  - o Food Aid program registrants upon presentation of their green registration cards. (NB. Pregnant Food Aid Registrants will be charged delivery fees)
  - o Persons with high-risk pregnancies, as identified by the health team.
  - o Dental treatment for children already on the school dental program.
- a. Where a registered medical practitioner is attached to a rural hospital, he may be allowed to practice privately. In this case, he may also charge his private patients an additional fee—not exceeding \$600—as well as those fees specified below.
  - b. A \$5.00 registration fee is paid once per year by patients with chronic conditions (diabetics, asthmatics, etc.). A \$5.00 prescription fee is paid each visit. Patients at 6 rural maternity centers (Issac Barrant, St. Thomas, Buff Bay, Portland, Ulster Spring and Falmouth) pay \$2.00/visit.
  - c. Private non-Jamaican resident patients pay \$60.00/day as well as actual cost of drugs, appliances, and other services.
  - d. The exception is obstetrical treatment (not full term pregnancy), charge is \$30.00 per admission.
  - e. Private obstetrical patients at Victoria Jubilee Hospital pay only the \$50.00/day charge.
  - f. A single x-ray or laboratory test is \$5.00 and \$10.00 respectively at Bustamante Children's Hospital.
  - g. Individuals who are not patients at any hospital are charged \$20.00 for a single laboratory test.
  - h. A series of x-rays or laboratory tests is \$15.00 at Bustamante Children's Hospital.

Accompanying the revised fee schedule in 1984 was a new policy allowing facilities to retain at least some portion of the collected revenues. Because Jamaica's public finances were patterned on the British model where all public revenues are placed in general tax receipt coffers (the Consolidated Fund) and all Ministries' operating budgets are reduced by the amount each collected (referred to as "appropriations in aid"), the proposal required Cabinet approval. At the time, it was believed that the lack of incentive to collect charges greatly reduced revenues.

At the inception of the 1984 program, the Ministry indicated that facilities could retain 50 percent of all revenues and budget allocations would not be affected by revenue collection; however, confusion at the central level held this in abeyance until early 1985. The new 50% retention rule actually went into effect in January of 1985. Thus, at the start of the program, a number of facilities lagged in putting a collection system in place in expectation of a reversal of the new policy.

In order to retain central control over budgets, the system was set up such that hospitals submit notional budgets for allocating the expected revenue at the beginning of every fiscal year (April). Hospitals then submit actual budgets to claim reimbursement for 50 percent of the revenue already deposited with the Ministry of Health. The central Ministry of Health reviews the budgets for compliance with legal and policy requirements and then releases the funds. Recently the Ministry agreed to allow hospitals to claim for the second half of their revenues. Another detailed budget is required to release the second half of the revenue.

Preliminary evidence from a study of the Jamaica user fee experience by Lewis and Dor (1988) indicates a strong response to the incentive of discretionary operating resources. Preliminary findings from one of the

sampled hospitals, Cornwall Regional in Montego Bay, shows a significant increase over time from J\$106,383 in 1982/83 before the policy change, to J\$398,658 in 1984/85 to J\$842,238 in 1987/88. Cornwall Regional has been particularly aggressive in ensuring patient compliance, however, and its achievements may exceed those of other facilities. Nonetheless, these figures suggest the level of revenue collection possible given a fixed fee schedule and strict guidelines on exemptions.

The impact on the facilities of the new revenues is not large in terms of their overall budgets, but are critical resources on the margin. Fees have been an important element in keeping hospitals operational as operating budgets have fallen. Nevertheless, fee revenue represents the only source of discretionary expenditure and therefore the major source of funds for replacing the considerable decline in funds for maintenance and supply.

Although information on fee revenues is incomplete as of yet, information on expenditure of those revenues makes clear their importance to public hospitals. The bulk of these funds are for maintenance, which encompasses fixing buildings, plumbing, furniture (e.g., chairs, beds, mattresses) and equipment, painting, wiring, and improved security; and supplies, which includes purchases of sheets, gloves, x-ray film, reagents, uniforms, and the like. These purchases are viewed as emergency expenditures by the hospital managers but have only become affordable with the ability to expend fee revenue. Some hospitals are allocating revenues to establish private wings to attract insured and better off patients, but the opportunity cost of trying to do this is high given other demands, which explains the slow progress in this area. Equipment, drugs, and fee collection personnel account for a smaller proportion of the expenditures. On the margin, the additional revenues are key to continued operation of public health facilities.

Those hospital administrators who have understood the expanded opportunity for allocating the remaining 50% have used these funds for major upgrading, such as fixing plumbing, replacing costly equipment and supplies, and other significant projects.

Issues in User Fee Policy. Fees have made a significant difference in hospital operation, all facilities have some established method for collecting fees and most are attempting to improve and expand efforts, although anyone unable to pay is exempted from paying fees. Improvements are warranted in: collection procedures and incentives within facilities, administration of revenues and, most importantly, raising user charges and revising exemptions.

Greater efforts could be made to establish systems that require assessment/payment prior to reaching treatment stations (i.e., arrangements where stamped tickets or vouchers are required). This may also entail personnel to track and enforce such procedures. Experimentation with different collection and monitoring procedures across hospitals would be useful in designing efficient means of cost recovery. Workshops among managers to assess successes and failures of alternative hospital systems could also be used to assist facilities to improve their collection arrangements.

Currently, hospitals are required to send all proceeds from user fees to the Ministry of Health. They can be reimbursed only after submitting a fairly detailed request to the Ministry. This system appears to be unnecessarily cumbersome, especially since revenues from user fees are typically used for urgent maintenance work and purchasing of supplies. Moreover, allowing hospitals greater control over their revenues, should result in considerable savings in administrative costs.

If the MOH must remain accountable for hospital expenditures, then an alternative to the current system might be an arrangement whereby some facility

autonomy could be extended by only requiring that some portion of revenues be returned to the Ministry. Then submitted budgets could be approved and any inappropriate expenditures disallowed through retention of that portion that would otherwise be reimbursed. In addition to being cost-effective, this would allow hospitals to address needs more immediately.

The user charges that went into effect in 1984 have not been adjusted since, and inflation has eroded their value. Moreover, the current fee system offers incentives for long lengths of stay and disincentives for prudent use of laboratory and x-ray services. The current exemption criteria appears to encompass patients able to pay the modest fees. Private patients and those with insurance are currently being unnecessarily subsidized by the government since both can and do pay more at private facilities (polyclinics).

A number of adjustments could help to raise and improve the fairness of hospital fees:

- Introduce per inpatient day charges to discourage excessive lengths of stay.
- Institute per test charges for x-ray and laboratory services for both inpatients and outpatients.
- Reassess exemptions, perhaps establishing a sliding scale, and subject current exemptions (e.g., those for food aid, pensioners, and the armed forces) to a means test. Reports from hospital managers of food aid patients who can pay and have demonstrated as much by using private physician services, should also be expected to pay for hospital care. Similarly, all pensioners are not destitute, and those who can afford fees should be charged.
- Private patients should pay a larger portion of costs, as should patients who carry insurance. Fees similar to those of the University Hospital could be established for private patients and easily monitored by hospitals.
- Private wings need to be upgraded and the amenities and environment enhanced to attract patients. Promoting these specialized services could also help to raise utilization of private wards.

### Administrative and Financial Management Reforms

In addition to generating resources and rearranging the system of delivering care, the government has initiated efforts to improve efficiency of the public system to reduce the cost of services. The reforms include downgrading facilities (referred to as "rationalization"), introducing performance based budgeting, and computerization of finances.

The rationalization of facilities, begun in November 1984, was meant to terminate more sophisticated care at smaller hospitals. The scaled down facilities would rely more heavily on their referral network for acute care patients and the government would consolidate its hospital resources on the smaller number of secondary and tertiary care facilities. Five Type C hospitals have been downgraded to primary health care facilities. Rationalization has also meant reducing the number of beds in public hospitals. Five general hospitals will go from 100 - 120 beds to 50 - 80 bed units, and National Chest Hospital will reduce its bed size.

The government expects cost savings from rationalization because polyclinic staff are composed of lower level and less expensive personnel, and offer less sophisticated, lower cost services. Preliminary data suggest no cost savings due to the fixed costs of these facilities; however, the program has only recently been put in place.

The nature of the current budgeting system is not designed to match economic costs and resources. Historically, budgets have merely been adjustments based on the previous year's allocation, with little consideration for the needs of the facility, although some facilities have received supplements based on special requests linked to need. The Ministry of Health is currently participating in a government-wide effort to introduce performance-based budgeting. This initiative will allow more realistic

budgeting and better tracking of costs. The system is to be computerized to allow constant monitoring capability as well as the development of practical budgets for both submitting to the center and for guiding planning and resource use within the hospitals.

Computerization is also a means of introducing improved financial management. Combined with the planned training component and linked to the new budgeting system the initiative should help hospital administrators better control and allocate resources. The lack of realistic budgeting is likely to undermine the rationalization effort, especially since facilities have been chronically underfunded. It may be that under a package of reforms the rationalization program will be successful.

### Conclusion

The government has thus launched a number of initiatives on a number of fronts. Given the complexity, political nature, and scope of the changes considerable progress has been made in the last four years. In effect, the way the government delivers, manages, and pays for health care is changing, all simultaneously. The gaps are in finalizing and following up on initiatives. Recommendations on some of these have already been previously discussed under each of the relevant categories.

The real gaps lie in the lagging investment and in poor quality of the physical plant and equipment, the lack of hospital administration training, and the large number of personnel vacancies. The privatization reforms may work to improve the morale and working conditions of personnel, as well as salaries for the highest vacancy categories; separate initiatives are assessing public sector salaries. Salaries will not keep pace with the private sector in health care and may or may not affect recruitment.

Little is being done on serious training for hospital administrators other than short courses which introduce basic concepts. A more focused effort is required to train these key individuals, either through overseas training for two years or, preferably on-the-job training by skilled administrators. Currently the lack of authority and skills are seriously undermining the administration, effectiveness, and efficiency of hospitals.

Thus, the government has been attempting to address the question of sustainability and recurrent costs. The reforms underway and forthcoming are dealing with some of the most pressing problems, and offer a structure to build a strong financial base for the health care system.

## VII. CONCLUSIONS AND RECOMMENDATIONS

Jamaica's health care status is among the best in the developing world. The government provides health care services free or at nominal charge to all citizens. Services range from a broad primary health care network to sophisticated tertiary care, and all Jamaicans have relatively easy access to all levels of health care services.

The comprehensive nature of subsidized care and the expansion of primary health care in recent years, combined with severe macroeconomic difficulties, have reduced the real value of financial resources in the sector, taking a toll on the quality of health care. The direct causes of service deterioration, particularly in hospitals, are attributable not only to insufficient public resources but also to poor incentives in the financing and operation of public facilities, and inefficiency in facility operation.

The government is addressing the underfinancing of health care by a range of initiatives to both raise resources from users and improve the efficiency of service delivery. For example, public facilities have recently been allowed to collect designated fees and allocate them to hospital operation without reductions in the hospital budget allocations; nonmedical services are being contracted out at certain facilities; a set of privatization experiments is designed and on the verge of implementation, and administrative and financial management reforms are being contracted out. The refurbishing of hospitals is a key element in this strategy as it will provide the needed infrastructure for efficient operation.

The recommendations offered here complement and extend the reforms already proposed or implemented by the government. They are designed to both improve the efficiency and effectiveness of public programs, and expand the role of the

private sector in the delivery of health care, as an additional means of reducing public sector costs. As the costs of health care continue to rise due to the labor intensive nature of health care, the increasing sophistication of medical technology, and the high expectations of the population, these two broad areas of reform are central in addressing the underfinancing of health care.

Resources are inadequate to providing free, universal health care. The government already allocates over 9 percent of its recurrent budget to health, and it is unlikely that additional resources can or will be allocated to health care given competing demands and severe budget austerity. Government must, therefore, pursue additional avenues for financing health care. Greater use of the private sector cannot be avoided if quality care is to be delivered to populations that cannot afford private care and must rely on public services.

#### Increasing the Efficiency and Resources for Public Health Care

A number of initiatives could build on the already established efforts of the Jamaican government to improve the financial sustainability of public health programs. Among the most important include:

- o Reform of the user fee system to capture a larger proportion of costs and ensure that third party payers are charged full cost. Some of the administration and management procedures could also be streamlined to reduce the bureaucratic layers and costs. Specific suggestions are contained in the conclusion to Section VI on the health care financing experiments.
- o Better and more accurate information on the population's ability and willingness to pay. The recent survey by McFarlane and McFarlane (1987) could provide better policy guidance with a more thorough analysis. If the planned World Bank Living Standards Measurement Survey can be expanded, some useful health-related information could be obtained to explain health care demand and the population's ability and willingness to pay for care in greater detail.
- o Establish the new National Laboratory with built-in incentive for quality performance and financial solvency by allowing managers to charge for most services (with accommodations for those who

cannot pay), and to use those proceeds to top salaries and otherwise purchase inputs for the facility. Without incentives to keep equipment functioning and maintain quality, the central laboratory could once again deteriorate. The need for autonomy to offer the necessary incentives should be considered. A similar arrangement in the Dominican Republic has had a dramatic effect on the quality, range and quantity of laboratory services provided to the community.<sup>1</sup> Such arrangements are more easily introduced at the inception of a facility, and such reforms are important to establish appropriate incentives for performance and efficiency.

- o Upgrade the skills of administrative and management personnel. The lack of serious training for hospital administrators and their staffs is the most glaring gap among the administrative and financial reforms. Short courses to introduce concepts of management are insufficient for hospital administrators, and some efforts to improve skills in this area through extensive on-the-job training or year-long courses are needed. Such expertise is important to the sustainability of planned improvements of physical infrastructure because it is the administrator who must decide on how to allocate discretionary resources and is the agent for improving hospital management and efficiency.
- o Evaluation of health care financing initiatives. Currently absent in the careful planning and the experiments is a built-in evaluation component to allow a useful comparison across the experiments and the status quo. This missing element needs to be addressed through baseline and follow-up surveys and in-depth analysis of impacts.

### Enhancing Private Sector Delivery of Health Care

Relieving government's financial burden for all health care can only be accomplished by promoting greater reliance on private providers. This, however, will entail incentives to raise the demand for private services, and assistance to upgrade and expand private supplies. On the demand side, expanded insurance and other third party payer coverage is key. Incentives to increase participation include tax breaks for companies that offer health insurance, assistance to employers or the self employed in finding and

---

1. See Lewis (1987) for a discussion of the arrangement and the financial outcome.

obtaining appropriate health care coverage, and subsidizing premiums of low income or high risk groups for some specified period of time.

At the same time, government can promote expanded private sector alternatives through assistance to private entrepreneurs willing or interested in investing in health care through loans to companies that want to expand or begin operation, and technical assistance to private groups that need to access managerial and administrative expertise.

Without the existence of viable private alternatives, demand for hospital care will continue to be met in public facilities. Since resources are inadequate to meet the health care needs of the entire population, there is a strong rationale for the promotion of private facilities.

Together these improvements would contribute to and complement the the government's agenda in health care financing, and are important to the sustainability of planned donor investments in hospitals' physical infrastructure.

## REFERENCES

- Abel-Smith, B. (1987). Mimeo. Jamaica.
- Bernard, G.W. and Gordon, B.A. (1981). "Maternal Mortality: A Continuing Hazard." Presented to C.C.M.R.C. Meeting 1983, Bahamas.
- Danzon, P. (1985). "Alternative Financing of Health Care in Jamaica: Draft Report, July 1985." Washington, D.C.: World Bank.
- Desai, P.; Hanna, B.; Melville, B.; and Wing, B. (1983). "Infant Mortality Rates in Three Parishes of Western Jamaica, 1980." West Indian Medical Journal 32:85.
- Government of Jamaica (1988). The Social Well-Being Programme: A Program for Social Development. April.
- Lewis, Maureen (1988). "User Charges in Jamaican Public Hospitals." Urban Institute Working Paper 3714-05.
- McFarlane, and McFarlane (1987). "Appraisal of and Analytic Report on a Survey of New Initiatives in Health Finance and Administration." Mimeo. Statistical Institute of Jamaica for the Ministry of Health, Jamaica, December.
- Ministry of Health, Health Information Unit (1982-1987). "Hospital Statistics Reports." Mimeo.
- National Planning Agency (1982). Economic and Social Survey, Jamaica, 1982.
- Ogle, P. (1987). "Proposal for a Health Facilities Trust." Mimeo. Kingston.
- \_\_\_\_\_ (1985). "Alternative Methods of Financing the Health Services: Interim Report of the Committee." Kingston, April.
- Pan American Health Organization (n.d.). "Health Care Financing Initiatives in Jamaica." Mimeo. Kingston.
- \_\_\_\_\_ (1987). "Hospital Restoration Project Interim Report," Vol. I, II, III. Kingston, April.
- PRICOR (1987). "Productivity Analysis of Health Facility Staffing Patterns in Jamaica." PRICOR Study Summary. Chevy Chase, MD, March.
- Project Hope (1985). "Workshop on Alternative Health Financing and Delivery Systems for Jamaica: Summary of Proceedings."
- Rawlins, J.M. and Segree, W. (1983). "The Physicians' Survey, Private Sector-Public Sector Health Initiatives Project." Mimeo.
- Ross Institute of Tropical Hygiene (1985). Health Services Evaluation Project Report.

- Samuels, A. (1987). Health Sector Review, 1987. Kingston: Ministry of Health.
- Statistical Institute of Jamaica (1987). Demographic Statistics 1986. Kingston.
- \_\_\_\_\_ (1986a). The Jamaican Economy 1985. Kingston.
- \_\_\_\_\_ (1986b). Statistical Abstract 1985. Kingston.
- \_\_\_\_\_ (1986c). Statistical Yearbook of Jamaica, 1986. Kingston.
- \_\_\_\_\_ (1984). Household Expenditure Survey, 1984. Volume 1. Kingston.
- Stevens, C.M. (1983). "Alternatives for Financing the Demand for Health Services in Jamaica." Mimeo. Kingston: USAID, May.
- Swezy, F. Curtiss; Greenspan, Joel R.; and Forgy, Larry J. (1987). "Review of the Jamaican Health Sector and an Assessment of Opportunities for External Donor Support." Kingston, USAID.
- Taylor, Leroy (1988). Personal communication.
- Trevor Hamilton & Associates (1987). "Management Analysis of Medical Associates Hospital, Final Report." Trevor Hamilton & Associates Report. September.
- Vincent, J. (1987). Health Sector Assessment: Report of the Mallards Beach Workshop Held to Identify and Prioritize Issues. Mimeo. Kingston: Ministry of Health.
- Walker, Godfrey J.A.; Ashley, Deanna E.C.; and Hayes, Richard J. (1988). "The Quality of Care is Related to Death Rates: Hospital Inpatient Management of Infants with Acute Gastroenteritis in Jamaica." American Journal of Public Health, 78(2):149-52, February.
- The World Bank (1988). "Jamaica Summary Review of The Social Well-Being Program." World Bank Report No. 7227-JM, May 20.
- The World Bank (1987). "Jamaica Public Sector Investment Program Analysis, Performance and Prospects." World Bank Report No. 7020-JM, November 5.
- Zachariah, B. (1986). "Productivity Improvement Using Manpower Planning and Clinic Scheduling Models." Mimeo. Kingston: Price Waterhouse.
- Zachariah, B.; Desai, P.; and Nicholas, D. (1987). "Productivity Analysis of Health Facility Staffing Patterns in Jamaica." Socio-Economic Planning Science 21(2):121-129.
- Zukin, P. and Weinberg, T. (1986). Proposed Trelawny Health Plan. Kingston: USAID.