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9. ABSTRACT This document is part of the Syncrisis series, which consists of country profiles, describing and analyzing health conditions in particular countries and the relationship of those conditions to the country's socioeconomic development. The primary purpose of these studies is to provide a concise and up to date introduction to the health situation in a country. This report on Jamaica examines: the policies, problems, and issues of the Jamaican Health Environment; health risks; health services and the delivery of health care; health manpower resources; population and family planning; nutritional deficiencies; maternal and childhealth; mental health; dental health; environmental inadequacies and problems; financing; and the Jamaican health environment, problems and prospects. In some aspects, the Jamaican health environment resembles more nearly that of a developed industrial state rather than an LDC. This seems especially true of diseases associated with the cardiovascular and cerebrovascular systems as well as malignant neoplasms and pulmonary infections. However, Jamaicans, especially children under five years of children under five years of age, continue to be threatened by and infected with typhoid, tuberculosis, diphtheria, whooping cough, tetanus and malnutrition. The health environment, while showing the heaviest mortality from industrial, degenerative diseases, is nevertheless, vitally affected by other factors no longer common to wester, industrialized states. These factors are long-term and dereive from sociological-cultural-economic aspects of the Jamaican society rather than from degenerative or communicable diseases, although the latter are enhanced thereby.

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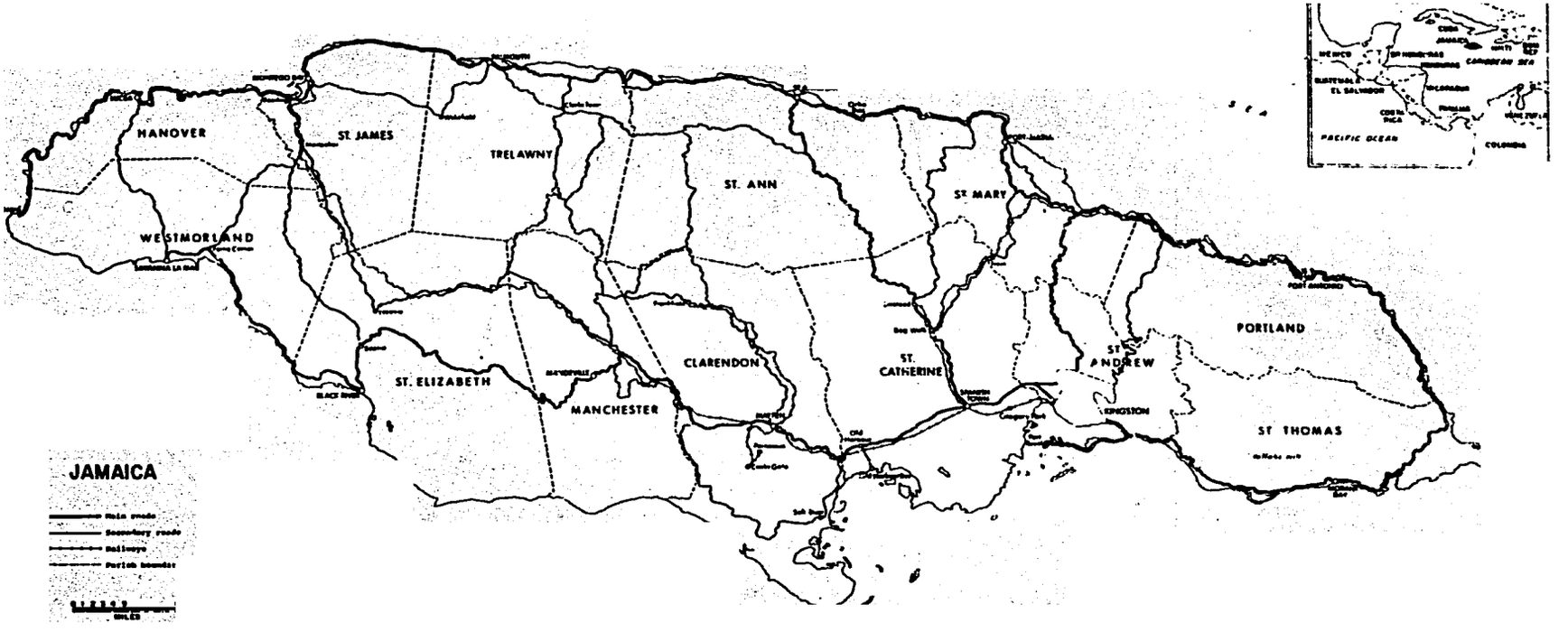
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YNCRISIS

THE DYNAMICS OF HEALTH

An Analytic Series on the Interactions
of Health and Socioeconomic Development

XX: JAMAICA

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Office of International Health
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PREFACE

This document was prepared within the Division of Program Analysis of the Office of International Health, Public Health Service, U.S. Department of Health, Education, and Welfare at the request and with the support of the U.S. Agency for International Development (AID). It is part of the Syncrisis series, which consists of country profiles describing and analyzing health conditions in particular countries and the relationship of those conditions to the country's socioeconomic development.

The primary purpose of these studies is to provide a concise and up-to-date introduction to the health situation in a country, for use by AID and throughout the international health community. The studies do not necessarily reflect United States government policy, and they do not include recommendations for specific programmatic actions by AID. They do provide a background against which further analysis and health program development may occur.

Specifically, Syncrisis studies are intended to acquaint the generalist in development administration with (1) interventions in the health system of the country which will contribute to socioeconomic development, and (2) the effects of other developmental activities on health. To the specialist in comprehensive health planning, they will provide both a preliminary document for his work, and an indication of the sources of information available for health planning in that country. For the specialist in a specific aspect of health care, Syncrisis studies are intended to provide insight into the relationship of the subsystem with which he is concerned to the comprehensive health system and the larger society. For each of these professionals, Syncrisis studies are intended not as a final definitive document, but rather as a point of departure from which their own professional skills can be applied to develop activities which will benefit the country.

In addition to the principal target audience, which will probably include a few dozen persons for a specific country, it has been demonstrated that Syncrisis studies are useful to others. For this reason the studies are published and made available for sale to the public. Some consideration is given in the preparation of the documents to their possible use in health science education in the subject country, in international health education, and by scholars concerned with more general aspects of the country or with closely related sectors.

Syncrisis studies form an unusual resource for the student of comparative health systems. They present, in a uniform format, parallel descriptions of health systems in countries with widely varying cultural, social, economic, and government systems. It is hoped that in the future this aspect of the Syncrisis series can be of increasing value.

The sources for the Jamaican Syncrisis derive from recent Government of Jamaica documents, USAID information papers and analyses, and various studies, reports and analyses by private consultants employed both by the USAID and the Government of Jamaica. In addition, studies and monographs by specialists from universities and international institutions concerned with Jamaican affairs were also utilized. These data, in turn, were supplemented by correspondence with PAHO and USAID personnel having first-hand knowledge of Jamaica's health environment.

Such diverse sources of information, although credible, nevertheless produced varying and, at times, conflicting data. In particular, some Government of Jamaica documents provided data which conflicted with other Government of Jamaica documents and with various consultants' reports. Through extensive citations an effort was made to record these differences so as to provide the reader with a basis upon which to evolve his own judgements.

Nevertheless, the limitations of the research effort and the conflicting data must serve to inhibit our conclusions. All figures and analyses, therefore, are tentative and must be viewed with caution.

I would especially thank Dr. Robert de Caires for his invaluable guidance in developing the format and substance of this study, and Mr. Frank W. Campbell, USAID General Development Officer in Kingston, for the very useful data he made available to the author as well as his constructive critique of the original draft of this study. I wish to thank Ms. Laurie Solow and Ms. Debbie Brown for their patient typing of the several drafts of this document.

Arthur H. Furnia

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SUMMARY

The stratigically located island of Jamaica, situated about 90 miles south of Cuba and 100 miles west of Haiti, is a mountainous island inhabited largely by a Black population, with a tropical, maritime climate in which such crops as sugar cane, bananas, cocoa, coffee, spices and citrus fruits thrive. It is also an island with myriad socioeconomic problems including: a huge poor class (about 85% of the population, 2,025,000 in 1974); a labor force with a very high percentage of unskilled workers who contribute significantly to a high unemployment rate (21.0% plus); a deteriorating, international debt laden economy (GDP increase of 1.0% in 1975 and projected 5.0% decrease in 1976) based upon a stagnant agricultural sector, a capital rather than labor intensive industry and a faltering tourist trade; and emigration which reduces the island's limited technicians and entrepreneurs; folkways not conducive to stable marital relations and family life which create conditions propitious to an increasingly burdensome population growth rate; and widespread urban and rural slums set amidst a thoroughly unsanitary environment.

These adverse conditions led Prime Minister Michael Manley, political and moral leader of the ruling People's National Party (PNP) who has described himself as a "Democratic Socialist", to attempt to arrest the deteriorating Jamaican economy while simultaniously promoting the upward mobility of the Jamaican people through improved housing, education, social and health services. His success has been very limited, however, due, to a large extent, to forces and circumstances beyond his control. Moreover, during the past two years, in the face of this distressed economy, Jamaican internal stability has steadily declined, violence has ensued and the PNP appeared to be drifting toward the Left. Notwithstanding these unsettling conditions, the overwhelming success of the PNP in the December 1976 national elections appeared to confirm Prime Minister Manley in the continued pursuit of his "Democratic Socialist" policies.

One of the relatively successful activities undertaken by the Manley Government has been the improvement in the Jamaican health environment. Building upon two decades of health progress by the British and prior Jamaican governments, which were able to diminish or virtually eradicate several communicable diseases in Jamaica, the Manley Government have sought to confront fundamental problems which were undermining the health of the Jamaican people.

These fundamental problems, both in the recent past and currently, are not unlike many of those confronting other LDCs and include: a) inadequate and insufficient health facilities, particularly in parts of rural Jamaica; b) limited capabilities of the Ministry of Health and Environmental Control (MOHEC) espeically respecting planning and gathering and analyzing data; c) a shortage of health manpower including physicians, dentists, Community Health Aids (CHAs); midwives and technicians; d) an excessive population growth rate which averaged about 1.6% in the sixties but which has been hovering around 1.93% in the early seventies and does not appear to be decreasing; e) widespread malnutrition, especially among the pockets of rural and urban poverty, which exercises a telling influence on the morbidity and, to a large extent, on the mortality of Jamaican children; f) acute deficiencies in maternal and general child health care which allowed a maternal death rate of 13.6 per 10,000 live births in 1971 and enteritis and other diarrheal diseases which contributed to a death rate among children 0-4 years of 192.5/1000, high for a country PAHO/WHO regard as generally having a "satisfactory" health environment; g) poor dental health and poorer dental services with a ratio of 1 dentist to 18,600 Jamaicans; and h) extremely hazardous environmental health conditions with much substandard housing, substantial slums and shanty towns and poor or non-existent water supply and waste disposal.

As recorded above, the Manley Government has devoted significant effort and substantial revenues (between 10% and 12% of GOJ gross annual expenditures) to the Jamaican health environment. Mr. Manley has undoubtedly reaped political benefit from this effort but more importantly, despite the formidable continuing health problems delineated above, the health establishment and the health condition of the Jamaican people have continued to improve. Thus, the crude death rate has decreased from 11.8/1000 in 1950 to 7.1/1000 in 1974 while the infant mortality rate has also declined from 78.3/1000 in 1950 to 25.3/1000 in 1974. By the early seventies, 61% of all deaths in Jamaica occurred after age 50 while life expectancy at birth had reached 69.0 years. The number and capabilities of Jamaican health facilities have also improved over the past several years with the latest data revealing 67 hospitals with 7,585 beds and 154 other health facilities consisting of 91 health centers and 63 dispensaries although several rural areas lack sufficient health facilities, health manpower and thus, adequate health care.

There has also been a dramatic decline of communicable diseases in Jamaica despite unsatisfactory conditions of environmental sanitation suggested previously. "Notificable diseases," as reported by the MOHEC, in fact, are confined largely to Jamaican children under 5 years of age and include a limited number of cases of chicken pox, diphtheria, influenza, measles, mumps, tetanus, tuberculosis, typhoid and whooping cough. The principal diseases producing the greatest mortality in Jamaica include those stemming from the cardiovascular-cerebrovascular systems (about 49% in 1973, up from 34% in 1969), malignant neoplasms (about 16% in 1973, up from 12% in 1969), pneumonia, (about 9% in 1973, up from 7% in 1969) and enteritis and other diarrheal diseases (about 7% in 1973, up from 6% in 1969).

The Jamaican health environment, therefore, is an anomaly, not disimilar to the various levels of economic and social development of the nation itself. Thus, the health environment, while deriving the heaviest mortality from degenerative diseases of the type found in an industrial society such as those associated with the cardiovascular, cerebrovascular and pulmonary systems and malignancies, nevertheless, is also vitally affected by other factors no longer common to western industrialized states. These "other" factors are long-term and derive from sociological-cultural-economic aspects of Jamaican society rather than degenerative diseases. They include widespread poverty (about 85% of Jamaicans are poor), very limited opportunities for upward mobility in a stagnant economy, and a heterogeneous cohabitational relationship consisting of widespread common law and visiting unions as well as legal marriages. These factors contribute heavily to, or may be the principal causes of, an excessive population growth rate, negligent and improper care of infants and children, malnutrition among young children and lack of discipline and a stable family life leading to increased violence and social turmoil.

The GOJ under the leadership of Mr. Manley as emphasized above, has been acutely aware of the socioeconomic conditions impeding Jamaican development and of their effect upon the Jamaican health environment. Thus, in the context of general socioeconomic progress, the GOJ has launched several projects and programs to improve the Jamaican health environment. These include the general improvement of the health establishment by constructing more health facilities, improving the quality and quantity of health manpower, increasing the planning and analysis functions of the MOHEC, and supporting environmental sanitation projects in both urban and rural areas. The most enterprising project and that with the greatest potential for the general improvement of the health of the Jamaican populace is the newly launched Cornwall County Project. This project embraces the several parishes of Cornwall County and focusses upon MCH/FP/Nutrition programs in an effort to promote family planning leading to a reduction in the population growth rate, proper nutrition for infants and children and the reduction of those remaining communicable diseases among Jamaican children leading to a decline in their morbidity and mortality. The MOHEC hopes to achieve these objectives by utilizing IBRD loan funds for the Cornwall County Project to construct more rural health facilities and train many more community health aids (CHAs) and midwives who will provide primary health care to the rural Jamaicans of Cornwall County. If this project proves feasible it may be extended island-wide.

Thus, the MOHEC has suggested a number of specific health objectives to be achieved throughout the island by 1980-81, most of which are in the MCH/FP/Nutrition areas where the MOHEC believes the most pressing health and social needs are present. These objectives include:

1. Reduction of maternal mortality to 7 per 10,000;
2. Lessen maternal morbidity and complications associated with pregnancy by 50%;
3. Reduce incidence of malnutrition by at least 60%;
4. Reduce female fertility (15-44 years) from 180 to 150/1000 and reduce the crude birth rate (1974) from 30.4 to 25.0 per 1000 by 1980-81;
5. Increase pre-school immunizations to 80%;
6. Attempt to vaccinate all pregnant women and reduce the neonatal death rate from the current 19 to 15/10,000 live births;
7. Increase the clinical sessions at Family Planning Clinics by 50% by]
8. Involve the male population in family planning programs; and
9. Train upwards of 3,000 CHAs as well as many new midwives to provide primary health care, nutrition and family planning services throughout the island by the beginning of the next decade.

BASIC COUNTRY DATA

Population	2,025,000 (1974)
Population Density	462/square mile (1973)
Percent 0-15 years	46% (1973)
Population Growth Rat	1.6% (1960-1970) 1.9% plus (1972-1974)
Crude Death Rate	7.1/1,000 persons (1974)
Crude Birth Rate	30.4/1,000 persons (1974)
Infant Mortality	25.3/1,000 persons (1974)
Maternal Mortality	13.6/10,000 live births (1974
Average life expectancy at birth	69.0 years (1973)
Gross National Product	$2,377 million
Gross Domestic Product	$2,226 million
GNP Per Capita	$1,174 (1974)
Total Labor Force	820,000 (1974)
Adult Literacy Rate	86.0%
School Enrollment	
Primary (1-6)	86%
Secondary (7-9)	N.A.
Secondary (10-13)	9.3%
Population Distribution (% of total)	
Urban	37.0%
Rural	63.0%
Percent Unemployed	21.0% plus
Currency Equivalents from January 1973 to present	U.S. $1.00 = J$ .909 J$ 1.00 = U.S. $1.10

Population per physician	2,500 (1971)
Population per nurse	900 (1971)
Population per midwife	,400 (1971)
Population per hospital be	57 (1974 estimate)

Housing and Environmental Sanitation (1973)

Urban Houses	188,671	Population	750,951
Rural Houses	231,488	Population	1,062,643
	420,159		,813,594

Urban Houses	% of Urban Houses
Urban Houses with piped-in water	40%
Urban Houses with public stand or yard pipe	55%
Other or no water	5%

Rural Houses	% of Rural Houses
Rural Houses with piped-in water	6%
Rural Houses with public stand or yard pipe	49%
Other or no water	

CHAPTER ONE

SYNOPSIS OF THE JAMAICAN HEALTH ENVIRONMENT: PROBLEMS, ISSUES AND POLICIES

The Setting

Despite an historical association with Europe longer than almost any other nation in th Western Hemisphere, Jamaica still remains a developing country. The data recorded in the appendices delineate this national condition.[1] Indeed, during the past two decades in part lar, substantial government and foreign private assistance and investments have been committ to Jamaican development by the United Kingdom and the United States as well as by several American, British, and Canadian firms. Capital investments have been proferred in such area bauxite extraction, alumina processing, light manufacturing, construction, and tourism, all which have resulted in impressive economic growth.

Nevertheless, during 1974 and 1975 real GDP grew at only 3.5% and 1.0% respectively, a significant decline from the general 5.0% - 6.0% growth rate in the sixties. This precipito reduction resulted from the world wide recession, inflation and a decline in public and priv investment.[2] In any event, these recent economic difficulties again illustrate that Jamaica development remains tenuous and incomplete, resulting in several problem areas. These areas include:

1. a high rate of unemployment (approximately 21%) and under-employment which appears be exacerbating under capital intensive-low employment investments;[3]

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[1] See especially the following sources: J.M. May and D.L. McLellan, The Ecology of Malnutri in the Caribbean. N.Y.: Hafner Press, 1973; Ransford W. Palmer, The Jamaican Economy. N.Y Frederick A. Praeger, 1968; K.L. Standard et al, Health Manpower Development in the Commo wealth Caribbean, Kingston: U. of the West Indies, 1976; Dr. C.E. Taylor and Mr. R.J.Arms Report on Consultation Hanover Parish Project-Jamaica. 1976; Jamaica: The Making of a Nat London: British Information Service, 1962; Five Year Independence Plan, 1963-1968. Kings Jamaica: Jamaican Information Service, 1964; A Food and Nutrition Policy for Jamaica. Kingston: Nutrition Advisory Council, 1974; Systems Development Project for Rural Health Kingston: MOHEC, 1975; Official Statement by the Jamaican Minister of Health to the WHO/P 1970; Economic and Social Survey: Jamaica, 1973. Kingston: GOJ/National Planning Agency 1974; Jamaica: Situation Report. London: IPPF, 1974; Country Profiles: Jamaica. N.Y.: T Population Council, 1971; Background Notes: Jamaica. Washington, D.C.: Department of St 1974 and Health Conditions in the Americas, 1969-1972. Washington, D.C.: PAHO, 1974.

[2] See USAID Briefing Paper, Jamaica, 1976, data for which was derived form the 1974 Economic and Social Survey and the Bank of Jamaica Reports.

[3] Official Jamaican government statistics list unemployment at over 21% but the GOJ includes this figure persons not actively seeking work.

2. the high unemployment is further influenced by a labor force which is unskilled and with many workers who are functionally illiterate;

3. a rapid growth in population stimulated by sociological/cultural patterns[4] producing unstable marital relationships hardly conductive to healthy family planning;

4. an agricultural sector plagued by unproductive, tiny units and growing increasingly stagnant;

5. a balance of payments position, which has deteriorated over the past several years, and falling foreign exchange reserves;[5] and

6. this worrisome international financial condition is currently in danger of further deterioration due to rising petroleum prices, reduced tourist revenues, lower foreign investment in such areas as construction and light industry (due to apparent saturation and the general economic deterioration in the West.

These deficiencies in national economic development occur within the context of abject provincialism marked by cultural determinants stemming from a colonial and African heritage. Jamiacia is further retarded by an inefficient, outmoded educational system. An environment is thus created in which the people are forced to tolerate certain primitive social and economic conditions which inhibit, particularly in certain areas, the pursuit of good health practices. Among the more pervasive of these conditions are:

1. poor income distribution;
2. subsistance agriculture for a large minority of the population;
3. substantial urban migration;
4. loss of competent technicians through heavy emigration;
5. deficient housing and substantial urban and rural slum conditions;
6. high crime rate;
7. unstable marital relationships leading to large-scale illegitimacy, higher birth rate, and overpopulation;
8. concomitant venereal diseases;
9. chronic malnutrition and generally inadequate health care for many Jamaican children, thus insuring noticeable incidence of childhood diseases; and
10. general social instability resulting from matriarchal oriented family life.

[4] See May and McClellan, op. cit., pp. 90-91 and Appendix II.

[5] See USAID/Jamaica, op. cit., Current Economic Situation; the Jamaican balance of payments deficit for 1975 was $72.8 million and is expected to be substantial for 1976.

From the circumstances delineated above, it is noteworthy that a health environment has been created which is subject, indeed, is conducive to significantly improved health care. This is not to suggest, however, that the health status of Jamaica is uniformly poor, for by current mortality criteria, Jamaican health is "advanced" compared to many developing countries. Moreover, circumstances here reveal that the Jamaican Government and the British colonial administration previously, have devoted substantial effort and revenues toward improving the Jamaican health environment. In the brief period between 1938, when social and political unrest beset the island (see Appendix I) and 1962, with the achievement of independence, not only was the basis for a system of national health care established, but encouraging progress was recorded in combatting communicable diseases and attendant medical problems.

In 1950, for example, the crude death rate was 11.8 per 1,000 but had declined to 8.9 per 1,000 in 1960.[6] The infant mortality rate declined from 78.5 per 1,000 live births in 1950 to 51.0 per 1,000 in 1960. Malaria, yaws and typhoid, which were major health problems in colonial Jamaica, and even in the period following World War I, were substantially reduced during the 40's and 50's.

Health expenditures for the year 1950-51 were estimated to be about J$1,142,500. By the year 1960-61 this expenditure had increased to approximately J$4,100,000 and thence to J$16,500,000 in 1968/69, and J$34,700,000 in 1972/73.[7] In addition, during the fifties, substantial assistance was provided the GOJ by the WHO, UNICEF, and the U.S.A.I.D. to combat malaria, tuberculosis, and to institute an infant feeding program. By 1961 there were 26 government hospitals, including specialist institutions to deal with maternity, tuberculosis, neonatal and leprosy cases, with a total of 6,720 beds. The then Ministry of Health, which administered the GOJ health programs including the government hospitals and special services, was also expanded and the competence of its professional and administrative aids improved duri the two decades prior to the sixties.

When Jamaican independence took place in 1962, the Ministry of Health, in addition to its functions described above, was also administering a public health program which included provi ing medical services at 146 health centers and dispensaries, administering a poliomyelitis rehabilitation center, and providing personnel to control epidemics, enforce quarantines, cond health education and promote industrial health. It also operated six mobile units, a blood bank and X-ray units. Finally, it provided personnel to supervise the public departments of t 13 parishes (see Chapter 3 for details of the organization and functions of the current Minist of Health and Environmental Control (MOHEC).

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[6] See Jamaica: The Making of a Nation, op. cit. pp. 28-30, hereinafter referred to as Jamaica op. cit., p.___.

[7] See Economic and Social Survey: Jamaica, op. cit., pp. 197-198; this GOJ publication estima government expenditures for health in 1971-72 at J$33.4 million, for 1972-73 at J$33.7 milli and for 1973-74, J$40.1 million. These figures are somewhat, but not radically, different f those recorded in Chapters 3 and 11 on Table 22. These differences may be explained by estimates provided at differing times and the inclusion or exclusion of certain soical servi

Utilizing the achievements of the two previous decades, the GOJ continued to provide health services for the Jamaican people during the sixties and to institute plans for more ambitious programs. These services were readily reflected in the improved health statistics. The crude death rate for 1974 was 7.1 per thousand population, compared to 11.8 in 1950 and 39 per thousand in 1900.[8] The infant mortality rate for 1974 was 25.3/1,000 compared to 33.4/1,000 in 1969, to 51.0/1,000 in 1960 and 78.3/1,000 in 1950. (The infant mortality rate in the U.S. was 22/1,000 in 1968.)[9] Significantly, the crude birth rate for 1974 was 30.4/1,000 down from 33/1,000 in 1969. Thus, in 1974, there was a rate of natural increase of about 23/1,000 and a population growth rate of approximately 1.7 percent. We suspect, however, that since 1972 the growth rate has averaged about 1.93% per annum.

By the early seventies, facilities for treating Jamaicans had also increased significantly over the previous decades. In a 1971 report to PAHO, the GOJ estimated that there were 7,585 hospital beds available, about 92% of which were in government operated hospitals. In 1968 there were 179,721 casualty cases and 371,986 outpatients treated in 27 government operated hospitals. By 1972 these figures had increased to 245,632 and 449,478 respectively.[10] There are also several private hospitals, the most prominent of which had 244 beds available. In addition, there were in operation in 1972, 154 health centers and dispensaries, and 1 mobile health unit covering the areas of major population in Jamaica. In addition to new training programs for medical technicians, public health inspectors and midwives, more professional training for physicians and nurses became available at the University of the West Indies in Kingston and at the various nursing schools during the late sixties. These opportunities have been expanded still more since 1970 (see Chapters 2,3, and 4). Finally, in belated recognition of a growing population problem, a National Family Planning Board was established in 1968 to help guide the Jamaican family planning program. Recently, the MOHEC has expanded its programs in MCH/FP/Nutrition substantially in such programs as the Cornwall Project (see Chapters 5,6, and 7).

Problems, Issues and Policies

Thus, this very brief synopsis of the Jamaican health environment set forth above and, more importantly, the data recorded in detail in the subsequent chapters, suggest that Jamaica has made significant progress along the road from colonial domain to twentieth century state. Nevertheless, the data reflect the fact that Jamaica is still essentially a developing country. Due to its long history, growing industrialization, and influence on its neighbors, however, Jamaica also shares many of the problems of the more advanced, industrial nations. The Jamaican health environment can similarly be described.

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[8] See Dr. G.E. Ebanks, Dr. L.M. Jacobs, and Mrs. S. Goldson, Country Profiles: Jamaica. N.Y.: The Population Council, 1971, p. 2.

[9] See Situation Report (IPPF), op. cit., p. 1; Economic and Social Survey: Jamaica, op. cit., p. 202; the GOJ estimated infant mortality at 26.2/1000 in 1973.

[0] See Statement by Ministry of Health, GOJ, to the WHO/PAHO in 1970; in 1972 the GOJ reported 22 general and 6 specialized government operated hospitals.

Thus, very broadly, the litany of Jamaican health problems include those from both worlds, industrial and developing nations alike. Diseases of the heart and circulatory system, malignant neoplasms and pulmonary diseases appeared to claim the most lives in the early seventies in Jamaica. But these were closely followed by diseases of early infancy, enteritis, and various other diarrheal diseases. Nor have other communicable diseases, including influenza, whooping cough and chickenpox, been eliminated. Veneral diseases also constitute a growing threat. Other diseases are also present but less prominent.

But Jamaica is tormented by other health problems apart from the specific disease, some of which were recorded above. There is an ever more serious problem of overpopulation, which has its roots not in the lack, or incompetence, of the GOJ technical programs, but in the socio-cultural attitude of the Jamaican citizens toward marital relations, family life, and social responsibility.[11] Nutritional deficiencies and grossly inadequate maternal and child care also constitute serious problems. The unavailability of consistently, potable water in more than two-thirds of rural Jamaica and the deplorable lack of sewage and waste disposal facilities also constitute a severe compromise of adequate health care. Beyond these problems loom those of the health budget, construction of health facilities and training of more health personnel.

Fortunately, the GOJ has come to recognize the immediate danger to the viability of economic and social progress in some of these problems such as overpopulation, malnutrition, insufficient maternal and child care, and training inadequacies. With the assistance of the USAID and the World Bank new programs are being introduced to help cope with these traditional health care problems (see Chapters (4-7). On the other hand, however, the GOJ has not come to grips with the root causes of some of its deepest problems, root causes such as marital instability, matriarchy, and an inefficient educational base.

There are recorded in Chapter 2, in any event, details of the principal diseases afflicting Jamaica, as well as a summary of other major health problems and conditions affecting the Jamaican health environment. Thereafter, in the following chapters, an effort has been made to analyze in some detail the circumstances of those major health problems recorded in chapter 2 and the policies undertaken by the GOJ to deal with them.

[11] See especially May and McCellan, op. cit., pp. 90-91 and Appendix II.

CHAPTER TWO

HEALTH RISKS, DISEASES AND OTHER PROBLEMS AFFECTING THE JAMAICAN HEALTH ENVIRONMENT

Physicians and public health authorities believe, as was noted in Chapter 1, that the general level of health in Jamaica is "fairly good" compared to most other developing countries Their evaluation derives in part from the distributive causes of death which weigh heavily amon cardiovascular diseases, cancer and infectious diseases, which is indicative of a "fairly advanced stage of development."[2] This stage is further substantiated, it is claimed, by the relatively low level of infant deaths and by the fact that the latest data available reveal 61 percent of all deaths occurred after the age of 50.

Nevertheless, we believe such data must be treated with caution in view of the primitive sanitary engineering in rural Jamaica, unavailability of health care in some rural areas, and the very likley underreporting of mortality and morbidity data. In any event, it is now appropriate to examine in some detail those areas of significant health risk in Jamaica.

Areas of Prominent Health Risks

Diseases of the Heart and the Circulatory System

Heart disease and other diseases of the cardiovascular circulatory systems are the principal source of mortality in Jamaica, according to the latest detailed data.[3] Diseases in this category accounted for 34.2 percent of Jamaican mortality at the end of the sixties, but by 1971 mortality from this category had risen to 49.6 percent.[4] Included among the diseases in this category by the GOJ, are rheumatic fever, hypertensive diseases, ischemic heart disease, and cerebrovascular diseases.

Among these diseases, cerebrovascular diseases, ischemic heart disease and hypertensive diseases were most prominent in producing the greatest number of fatalities. Other forms of heart disease were not seperately differentiated by the GOJ. Jamaican health authorities attribute the high mortality rate of heart and circulatory diseases to the higher standard of living of the Jamaican people, as Jamaica becomes more developed economically, and to the decline of communicable diseases so prevalent in those countries just emerging into the industrial age. The MOHEC, in any event, has become increasingly concerned with cardiovascular and circulatory diseases and has begun a campaign to inform the urban public, especially, on preventive therapy. This category is also the leading cause of mortality in the rest of the Americas.

[1]See Quadrennial Projections, 1972-1975: Jamaica, Kingston: GOJ, 1975, p. 119.

[2]Ibid, p. 119, and pp. 57-59, reproducing the Structure of Mortality (Number of Deaths by Groups of Causes of Diseases, Causes and Age) 8th Division of the International Classification of Diseases.

[3]Ibid, pp. 56-59 and 119-120; see also Abstract of Births and Deaths Registered in Kingston and Lower St. Andrews, February 1970, GOJ; see also Tables 2a, 2b and 2c below.

[4]In the 1968-1969 survey, cerebrovascular disease was included with heart disease to provide a 34.2 percent Jamaican mortality rate for that category. Although Table 2b for 1971 delineates cerebrovascular disease, for consistency we have included it with all heart and circulatory illness.

Neoplasms (Malignant and Benign)

Malignant neoplasms together with benign neoplasms and neoplasms of an unspecified nature, constitute the second highest cause of mortality in Jamaica. Cancer, was responsible for about 12 percent of all mortality in Jamaica in 1969. By 1971 this category represented 16.8% of all Jamaican mortality as reported by the GOJ.[5]

Pneumonia and Influenza

Pneumonia and influenza together (about 71:1, respectively), constitute the third most important category of causes of mortality in Jamaica, about 7.2 percent in 1969.[6] By 1971, this category constituted 9.6% of major causes of mortality in Jamaica.[7] It is assumed that pneumonia and influenza are of more relative importance among children 1-5 in Jamaica as in the other American areas.

Enteritis and Other Diarrheal Diseases

Enteritis and other diarrheal diseases represent the fourth most persistent cause of mortality in Jamaica in 1969 with about 6.2 percent of all disease related deaths attributable to this category of disease.[8] By 1971, this disease category was attributable for 7.2% of Jamaican mortality. Even so, it is much less prevalent in Jamaica than in several other Latin American countries such as Nicaragua, where about 17 percent of deaths are attributable to this category. Enteritis and diarrheal diseases stem, in part, from unsatisfactory sanitation conditions relating to drinking and cleaning water and sewage disposal. The GOJ, according to the Minister's statement to the WHO, is very much aware of the sanitary deficiencies in rural Jamaica and programs are underway to correct these deficiencies, although the scope of these programs are hardly adequate to the task.

Diabetes

Jamaicans also suffer from a high mortality rate deriving from diabetes. In 1971, 6.3% of Jamaican mortality derived from diabetes, the fifth most prominent cause of Jamaican mortality During 1971-72, approximately 23.5 female Jamaicans per 100,000 population succumbed to this disease. Death rates from diabetes in Jamaica exceeded all other Latin American countries except Trinidad and Tobago in the year 1971-72.[9]

5 See Quadrennial Projections, op. cit.,p. 58 and Statement by Minister of Health, op. cit. See also Table 2b.

6 See Quadrennial Projections, op. cit., p. 57.

7 See Table 2b.

8 See Quadrennial Projections, op. cit., p. 57.

9 Ibid., p. 23, Figure 22; see also Quadrennial Projections, op. cit., p. 58.

Perinatal Mortality

Causes associated with perinatal mortality represent the sixth most serious category of diseases leading to mortality in Jamaica. Perinatal mortality represented about 4.2 percent all Jamaican mortality in 1969. Again, these deaths stem in large part from unsanitary conditions and the ignorance of the local midwives and mothers in caring for newborn infants. The GOJ is also sponsoring programs to promote both maternal and child health which are examined in some detail below.

Nutritional Deficiencies

The category of nutritional deficiency is the seventh most prevalent cause of mortality in Jamaica. In 1969 mortality from nutritional deficiencies represented about 4.3 percent of all Jamaican mortality. By 1971 this had increased to 4.6%. In 1972 mortality from avitaminosis and other nutritional deficiencies among all children from birth through 4 years of age was 22.7 per 100,000 population. This had declined from 37.8 per 100,000 in 1968. Nevertheless, the rate of mortality among children in Jamaica was only exceeded by that of Guatemala (31.5) and Colombia (25.0) in 1972.[10] There remains, in fact, a severe nutritional problem in Jamaica for which new programs are being introduced with foreign aid and which will be explored in detail in a subsequent chapter.

Morbidity Survey of Most Prominent Health Risks[11]

According to a MOHEC survey of discharges from two typical rural hospitals in 1969, the following diseases, illnesses and accidents were representative of the highest morbidity incidents among rural Jamaicans:

a. Accidents other than automobile accidents accounted for the highest morbidity rate i this survey of rural Jamaicans, 15.7 percent of all incidents in the survey;

b. Enteritis and other diarrheal diseases accounted for the second highest rate of morb ity for rural Jamaicans, 6.8 percent, according to this MOHEC survey;

c. Complications of pregnancy, child birth and puerpurium represented the third highest rate of morbidity for rural Jamaicans, 6.4 percent;

d. Heart and circulatory system diseases were the fourth highest source of morbidity fo rural Jamaicans, 6.0 percent. It should be recalled that diseases of the heart and circulatory systems were the single, most important category of mortality in Jamaica recorded above;

e. Diseases of the genitourinary systems represented the fifth largest source of morbidi among rural Jamaicans, 4.8 percent;

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[10] See Health Conditions in the Americas, op. cit., p. 31, Table 31.

[11] Ibid., pp. 61-64; these data derive from a MOHEC survey of discharges from 2 rural hospital during the whole year of 1969. These data are regarded as reasonably representative of the patterns of demand for health services in rural Jamaica.

f. Bronchitis, emphysema and asthma were recorded as the sixth largest source of morbidity among rural Jamaicans, 4.1 percent;

g. Malignant neoplasms were the seventh largest source of rural morbidity, 2.8 percent;

h. Other less prominent sources of rural morbidity include various communicable and non-communicable diseases as well as non-disease related problems (see immediately below). Finally, the largest category of rural hospital incidents was for delivery without complication, 20.4 percent.

The diseases recorded above represent the most prominent health risks to Jamaican citizens both with respect to mortality and morbidity. These prominent health risks by no means represent the totality of the Jamaican health environment problems, however. Indeed, some of the other problems confronting the GOJ such as nutritional deficiencies, overpopulation, lack of potable water and sewage disposal, and maternal and childhood diseases are potentially very destructive to the Jamaican health environment and, indeed, contribute directly and indirectly to the record of mortality and morbidity already recorded above.

The intent herein, therefore, is to proceed to a review of other diseases which still affect Jamaicans, such as the remaining communicable diseases, but which appear to be generally well controlled, and then to set forth briefly those other problems which beset the Jamaican health environment but which are also sociological-cultural and/or organizational and financial in nature. Family planning, maternal and child health care, nutrition, environmental health problems such as adequate water and sewage, and health manpower fall into these latter categories. Each of these major problems, then, will be reviewed in separate chapters in some detail.

Other Diseases Subject to Increasing Control by the GOJ

Communicable Diseases

As the Minister of Health implied in a recent report to the WHO and PAHO, and as the MOHEC morbidity report cited above suggests, communicable diseases in Jamaica appear to have come under increasing control by the MOHEC. Except for a few such diseases as the venereal diseases, tentanus, influenza, and other respiratory diseases, which in turn are scarcely rampant, reports of communicable diseases in Jamaica during the past several years are limited. One suspects, of course, that there is some underreporting due to faulty data and collection and perhaps official fiat, but this cannot be substantiated.[12]

The following is a list of the communicable diseases reported in Jamaica in recent years in a generalized order of importance:[13]

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[12] See Health Conditions in the Americas, op. cit., pp. 46-47; this PAHO document also suspects underreporting in several diseases including tetanus. Unlike the sample morbidity survey derived from the rural hospitals and cited above, these data represented national mortality data rather than local morbidity data.

[13] Based on 1969 figures and judgements of relative importance of some diseases is subjective.

a. Tetanus

In 1969 there were 123 deaths reported from tetanus in Jamaica. In 1970 this number dropped to 86 and rose to 90 in 1971. PAHO believes that tetanus is a serious problem throughout Latin America, especially among infants under one year of age.

b. Tuberculosis

Between 1964 and 1968 the number of deaths from tuberculosis in Jamaica averaged 339. In 1969 this figure dropped to 60 but increased to 63 in 1970 and 66 in 1971. To combat th disease, the GOJ has increased its BCG vaccinations for those under 15 in the last few yea

c. Influenza

In 1969 there were 50 deaths in Jamaica due to influenza. No other data are available.

d. Syphilis

Syphilis and other venereal diseases appear to be an increasing problem in Jamaica. In 1969 there were 46 deaths which increased to 49 in 1970 and 61 in 1971. At the same time there were 1,176 cases reported in 1969, but this figure had increased to 2,611 cases in 19 and 2,806 cases in 1974. Again, PAHO suggests that collection of data may be incomplete.[14]

e. Measles

In the years 1964-1968, there were approxmiately 1,122 cases of measles per year report in Jamaica. In 1969 this figure dropped to 424 but increased to 2,328 in 1970. It decreased again to 1,068 in 1971, to 678 in 1972 and to 594 by 1974. Mortality was minimal, resulting in 2 deaths in 1969, 21 in 1970, and 27 in 1971. There is no explanation for the increased ratio of deaths to cases.

f. Whooping Cough

Both deaths from and cases of whooping cough have declined dramatically since 1969. In that year there were 28 deaths and 1,267 cases.[15] In 1971 there were only 6 deaths and 264 cases, while in 1972 there were 133 cases reported. By 1974 there was an increase to 163 cases. The increased use of vaccine against whooping cough by the GOJ apparently has had considerable success.

g. Diphtheria

Between 1964 and 1968, according to one source, cases of diphtheria averaged 29 per year.[16] Since then, the number of cases has fluctuated slightly with 33 cases reported for 1969, 41 cases for 1972 and 26 cases for 1974. Deaths declined slightly from 11 reported in 1969 to 8 in 1971.

[14] See Health Conditions in the Americas, op. cit., p. 45.

[15] See Health Priorities Study, Jamaican Section, OIH/DHEW, 1974 which reported average annual cases of 828 between 1964-68.

[16] Ibid., "Jamaica", section; see Table

h. Tyhpoid

During the period 1964-1968 Jamaica experienced about 129 cases of typhoid per year.[17] Since 1968, however, there has been something of a fluctuation. In 1969, 48 cases were reported; in 1970, 67 cases; in 1971, 62 cases; in 1972, 99 cases; in 1973, 66 cases and 90 cases in 1974. There were only 5 deaths from typhoid reported in 1969; 3 in 1970; and 4 in 1971.

i. Yaws

The data available on yaws are not complete. Thus, the PAHO has reported only 4 cases of yaws in Jamaica in 1969, 3 cases in 1970, 1 case in 1971; but 62 cases in 1972. There are no data on mortality from yaws.

j. Dengue

Jamaica has radically reduced cases of dengue in the decade since 1963. In that year there were reported 1,578 cases, but by 1967 this figure had been reduced to 6 cases. In 1968 and 1969, however, there were 367 and 545 cases of dengue, respectively. In 1972 this figure had again been reduced to 4. No data are available on mortality.[18]

k. Infectious Hepatitus

In 1969 there were 132 cases of infectious hepatitis reported. This increased to 185 i 1970 and then decreased in 1971 and 1972 to 109 and 30 cases, respectively. In 1973 there were 35 cases reported. There was a relatively high mortality rate relative to the number of cases during these years, however. There were 32 deaths in 1969, 24 in 1970, and 20 in 1971.[19]

1. Viral Encephalitis

Viral encephalitis has been reported only infrequently in Jamaica during the past decade. Between 1963 and 1972 the number of cases reported averaged from 2 cases in 1963 to 8 cases in 1965, 6 cases in 1967, and 2 cases in 1972. Obviously, this disease is not of major concern to the MOHEC, but the number of cases recorded above may also reflect underreporting.

m. Malaria

Malaria is another disease which the MOHEC has brought under control. Reported cases amounted to 2 in 1970 and 1 in 1972, with 1 death in 1970.[20]

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[17] Ibid.

[18] See Health Conditions in the Americas, op. cit., pp.

[19] Ibid. p. 35.

[20] See Ibid., p. 210.

Non-Disease Related Problems Leading to Mortality

According to PAHO data,[21] one of the five principal causes of mortality in the Americas is accidents. In fact, it ranks fourth behind heart disease, influenza, and pneumonia and malignant neoplasms as the leading cause of death in the Americas. Jamaica appears to epitomize this pattern of accidents as a principal cause of mortality. In addition, Jamaica suffers from a relatively high rate of suicide and homocide as factors in Jamaican mortality.

Utilizing 1969 as a base year, the following data illustrate the importance of non-disease related mortality in Jamaica:

Motor Vechilce Accidents

In 1969, there were 150 deaths due to motor vehicle accidents in Jamaica. Sixty-eight of these occurred in the 15-44 year age group, with 30 in the 5-14 age group, and 30 in the 45-64 age group. In 1970 and 1971, 107 and 153 deaths from motor vechicle accidents were reported.

Other Accidents

In 1969, other accidents accounted for 10 deaths. These appeared in the 15-44, 45-64, and over 65 age groups. Again, these data would appear to be incomplete since not a single childhoc accident leading to mortality was reported.

Suicide and Homocide

During 1969 there were 32 deaths reported from suicide and 31 from homocide. (It should be recalled that there were only 67 deaths from chronic rheumatic heart disease reported in 1969.)

Other Non-Communicable Diseases

Jamaicans also suffer illness and mortality, as might be expected, from a number of non-communicable diseases in addition to those of a more severe and threatening nature recorded initially in detail above. These diseases, which will be recorded immediately below, are not widespread nor do they pose any serious threat to the Jamaican people. They are noted here so as to complete this general survey of the apparent diseases in the Jamaican health environmen

Anemias

The Jamaican mortality from anemias from 1968 through 1971 was reported at 97,98,108 and 131 deaths, respectively.

Cirrhosis of the Liver

Deaths from cirrhosis of the liver between 1968 and 1971 were reported as 136, 129, 106, and 123, respectively.

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[21] Ibid,. pp. 16-17.

Complications of Pregnancy, Childbirth and Pueperium

Mortality from these conditions was extremely light according to PAHO data. Between 196 and 1971 there were only 85, 74, 59 and 85 deaths respectively for these four years

Congenital Anomalies

Between 1968 and 1971, 133, 135, 103, and 109 deaths were reported, respectively, from these causes.

Peptic Ulcer

For the four years 1968 through 1971, 132, 134, 126, and 109 deaths were reported due to peptic ulcer.

Appendicitis

Within the four year period 1968-1971, only 48 deaths were reported due to appendicitis: 11, 19, 8, and 10, respectively.

Intestinal Obstruction and Hernia

Between 1968 and 1971, 77, 84, 74 and 83 deaths respectively were reported from the conditions noted above.

Other Diseases of the Digestive Tract

Other, unspecified diseases of the digestive system claimed a relatively larger number of Jamaicans during the period 1968-1971. The number of deaths reported were 146, 190, 149, and

Nephritis and Nephrosis

Similarly, a relatively larger number of Jamaicans died from nephritis and nephrosis betw 1968 and 1971. The reported deaths numbered 146, 121, 117, and 137 respectively.

Hyperplasia of the Prostate and Other Genitourinary Diseases

Genitourinary diseases also claimed a relatively larger number of victims between 1968 an 1971. The number of reported deaths for these years were: 275, 255, 237, and 245, respective

Symptoms and Ill-Defined Conditions

There were a substantial number of deaths within this catch-all category between 1968 and 1971. The numbers of reported deaths were 1,531; 1,555; 1,452; and 1,401.

Table 1*: MAIN NOTIFIABLE DISEASES REPORTED: 1962, 1971-1973, 1974

Diseases	1962	1971	1972	1973	1974
Chicken Pox	1,690	456	313	170	N.A.
Diphtheria	80	38	41	25	26
Dysentery	295	54	16	11	N.A.
Gonococcus - all infectio	30,740	24,775	32,285	34,500	N.A.
Hepatitis - epidemic	118	109	30	35	N.A.
Influenza	1,184	872	580	1,210	N.A.
Malaria	5	0	1	0	N.A.
Measles	441	1,058	678	506	594
Mumps	121	290	248	128	N.A.
Pneumonia - broncho	655	296	131	78	N.A.
Pneumonia	834	100	54	38	N.A.
Poliomyelitis	25	0	0	0	0
Syphilis	2,776	2,657	2,611	2,200	2,806
Tetanus	136	68	72	53	0
Tuberculosos - respiratory	321	247	359	372	N.A.
Typhoid	163	62	99	66	90
Whooping Cough	3,157	264	133	63	163

Source: Derived from Annual Report of the Director, 1974. PAHO, 1975, pp. 1-32 and Economic and Social Survey: Jamaica, op. cit., p. 202.

Aspects of the Jamaican Health Environment: Special Problems and Conditions

In some aspects, the Jamaican health environment resembles more closely that of a developed industrial state, rather than a developing or underdeveloped country. Comparing the principal causes of death with rates per 100,000 population in Jamaica and the United States, for example; there is a striking similarity between the principal diseases leading to mortality in each country, and even some correlation in the percentage of mortality attributable to these diseases.

In both Jamaica and the United States, diseases of the heart produced the greatest mortality 38.0 percent in the U.S. and 26.3 percent in Jamaica in 1971. The second leading killer in Jamaica in 1971, depending upon categorization, was cerebrovascular disease, with 23.3 percent of deaths attributable to this disease, while in the United States it was the third leading cause of mortality with 10.8 percent of all deaths.[22] In the U.S., malignant neoplasms was the second

[22] See Quadrennial Projections, op. cit., pp. 119-122; Health Conditions in the Americas, op. cit pp. 116, Table 11-3. It will be recalled that earlier we had lumped together cardiovascular and cerebrovascular diseases, attributing a total of 34.2 percent of deaths in Jamaica to this disease in 1969. The above publication utilizes the following delineation: cardio-vascular mortality: 34 percent; infectious diseases: 19 percent; and cancer: 12 percent. Although the Jamaican MOHEC separates cardiovascular and cerebrovascular mortality, in its 1971 survey, other public health officials record both as heart and circulatory diseases. Also, the projections have listed all infectious diseases together, including pulomonary an gastro-intestinal.

most important cause of death, with 17.5 percent attributable, while in Jamaica maligant neoplasms was the third most important cause of mortality, with 16.8 percent. Influenza and pneumonia are also highly important, causing 9.6 percent of all deaths in 1971 in Jamaica[23] and 3.0 percent in the United States.

In any event, the similarities between diseases leading to mortality and even the statistical percentages of death for these diseases in the U.S. and Jamaica are quite apparent. It is also clear that, whereas both Jamaica and the U.S. lose the services of some of their most productive citizens each year to degenerative diseases, these diseases do not constitute a serious threat or dangerous deterrent to the economic development of Jamaica as schistosomiasis or malaria so constitute for other developing nations.

In summary, then, Jamaica's crude death rate of 7.1 per 1,000 population indicates a satisfactory general level of health, while the distribution of the causes of death, delineated above, indicate an "advanced" state of development but within the context of a developing country.[24] Further substantiation of this stage is the relatively low infant death rate (about 25.3 per 1,000) and the fact that 61 percent of all deaths occur after the age of 50.

This is not to negate the obvious and not so obvious dangers emanating from diseases in Jamaica. Mortality from cardiovascular, malignancies, pulmonary and gastro-intestinal infection, present serious challenges to Jamaican health officials. In addition, it is suspected that due to faulty statistics, the magnitude of the venereal disease problem is many times greater than reported. None of these diseases, acutal or suspected, however, constitute serious problems to Jamaican development on the scale that shistosomiasis or gastro-intestinal infections do to a nation such as Egypt.

There are, nevertheless, other, more serious challenges in the Jamaican health environment. These challenges are long-term and derive for the most part from sociological-cultural factors rather than degenerative or communicable diseases. Such challenges or elements exercising negative influences of various degrees of seriousness on the Jamaican health environment have been noted previously. They include:

1. General health services, which although currently adequate in most urban areas and superior to those of many developing countries, nevertheless require upgrading and expansion, especially in the agrarian areas, if they are to meet the requirements of an exapnding population;

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[23] Quadrennial Projections, op. cit., p. 120; among infectious diseases, the most important group is acute pulomonary infections (49 percent of all deaths in this group), followed by gastro-enteritis (33 percent), while diseases preventable by immunizations constitute only 9 percent of the total. This publication also notes, "the high percentage (43 percent) of cerebro-vascular diseases in the group of deaths due to cardiovascular accidents."

[24] Ibid., p. 119.

2. An excessive population growth rate which, although kept to 1.6 percent annually during the sixties by considerable emigration, nevertheless contributed to a demoralizing unemployment rate of about 21.0 percent and, with a probable future decline in emigration, poses an increasing threat to Jamaican health standards as well as its economic development;

3. Deficiencies in maternal and child health care which contribute heavily to the deaths of Jamaican infants under 28 days which in turn represent a third of all deaths under one year of age;

4. Nutritional deficiencies and avitaminosis which promote a variety of childhood illnesses and contribute to a large number of deaths in the young age group;

5. Sanitation and health engineering inadequacies including the lack of rural potable water and effluent disposal;

6. Health manpower, again, although superior to that of many developing countries, requires more trained personnel in certain physician specialties, nurses, midwives, and some technicians, especially community health aids (CHA), since Jamaican medical services have been impaired by excessive emigration of health manpower during the sixties;

7. Inadequate services in mental health including drug control;

8. Significant deficiencies in dental health; and,

9. Additional financing to undertake expanded health services as well as to improve the existing health care system.

ffort will be undertaken in the remainder of this paper to review, in as much detail as ces permit, each of these long-term elements set forth immediately above, which influence Jamaican health environment and Jamaican economic and social development.

Table 2a: GENERAL MORTALITY RATE AND SELECTED SPECIFIC MORTALITY -YEAR 1969*

Categories	Population End year	Number of deaths	Rates
General	1863000	14014	7.6
Maternal	64668	76	1.2
Deaths under 28 days	64668	723	11.2
Deaths under 1 year	65000	2382	36.6
Deaths from 1-4 years	240000	992	4.1
Deaths under 5 years	305000	3374	11.1

Source: Registrar General provisional report.

Table 2b

DEATHS BY MAJOR CAUSE: 1970-1971*

Cause of Deaths	1970	1971
Malignant Neoplasms	1,320	1,583
Cerebrovascular Disease	1,939	2,200
Enteritis and Diarrhoeal Disease	882	688
Pneumonia	838	903
Hypertensive Disease	663	638
Ischaemic Heart Disease	724	798
Other Heart Disease	953	1,054
Aditaminoses and Nutritional Deficiency	534	431
Diabetes Mellitus	562	593
Prenatal Mortality	489	562
TOTAL	8,904	9,450

* Economic and Social Survey: Jamaica, op. cit., p. 203.

Table 2c

DEATH RATES PER 100,000 POPULATION FOR SELECTE COMMUNICABLE DISEASES: 1970 AND 1971 **

Disease	1970	1971
Malaria	0.05	0.10
Measles	1.10	1.50
Whooping Cough	0.70	0.30
Tetanus	4.60	4.70
Tuberculosis	3.40	3.50
Enteritis and Other Diarrhoeal Disorders	47.00	36.00
TOTAL	56.85	46.10

** Economic and Social Survey, Jamaica, op. cit., p. 203.

Table 3

MORBIDITY RATES PER 100,000 POPULATION FOR SELECTED COMMUNICABLE DISEASES: 1970 AND 1971

Diseases	1970	1971
Diptheria	2.4	2.0
Poliomyelitis	0.3	0
Malaria	0.1	0
Syphilis (new cases)	85.0	140
Gonorrhoea (new cases per 1,000 population)	22.4	16.2
Tuberculosis	18.6	13.4

* onomic and Social Survey, Jamaica, op. cit., p. 204.

Table 4

orbidity for notifiable diseases** 1969

Disease	No. of cases	Rate per 100,000
Typhoid fever	58	3.11
Paratyphoid fever	-	
Bacillary dysentery	31	1.67
Amebiasis	-	
Tuberculosis	302	16.21
Plague	-	
Diphtheria	38	2.04
Whooping cough	1265	67.90
Scarlet fever and streptococcus sore throat	-	
Tetanus	172	9.23
Poliomyelitis	4	0.215
Smallpox	-	
Measles	357	19.16
German measles	-	
Yellow fever	-	
Infectious hepatitis	113	6.06
Malaria	-	
Syphilis	1176	63.12
Gonococcal infection	34701	1062.64
Other venereal disease	-	
Dengue Fever	542	29.09

**Source: Weekly Report of Notifiable Diseases, National Board of Health.

Table 5

Immunizations*

Three-year period: 1967-69

Type of Vaccine	Mean population in the intermediate year (3)		In past three years		Levels of immunization in percentage	
	Base	Number	Total doses	Total persons (1) immunized	Achieved	Recommended
Smallpox	as recommended	550,000	179,950	179,950	33%	100% newborn 20% adults
DPT	Under 5 years	298,000	196,348	32,342	11%	100%
Tetanus Toxiod	Pregnant women	65,000	24,675	1,632	2.5%	100% pregnant women
Poliomyelitis	Under 5 years	298,000	351,401	69,039	23.2%	80%
BCG	Under 15 years	740,000	77,663	77,663	10.5%	100% (2) PPD positive

(1) Persons having received three doses of DPT, tetanus toxoid, poliomyelitis respectively.

(2) 1968 PPD positive: 32.2% out of 44,287 tested.
1969 PPD positive: 30.2% out of 39,407 tested.

On a 31% PPD positive average, the under 15 susceptible population would be around 510,000 and the achieved level of immunization around 16%.

(3) The mean 1968 population was estimated at 1,800,000, having the same age-group distribution as the 1959-61 average population.

*Source: Quadrennial Projections, op. cit., p. 67.

CHAPTER THREE

ORGANIZATION AND FUNCTIONING OF THE JAMAICAN HEALTH SYSTEM: HEALTH SERVICES AND THE DELIVERY OF HEALTH CARE

The Jamaican Health Sector

Private Health Care

The private sub-sector provides medical care on a fee for services basis to the small part of the population that can afford it. The size of the private hospitals are very small. They provided 615 beds in 40 hospitals out of a total of 7,585 beds available in Jamaica in 1972.[1] Health insurance is also very limited since the population expects the state to provide free health services, all of which restricts the services from the private health sector to a very few upper class Jamaicans.

This very limited private health service is supplemented again, to a small extent, by certain industrial enterprises such as sugar estates and bauxite concerns which provide some health services for their workers, i.e., X-rays, immunization, general diagnostic services. A few voluntary organizations such as St. John's Ambulance, the Red Cross and the Salvation Army also provide some services in a few areas.

The Public Health Sector: Ministry of Health and Environmental Control

It is to the Jamaican Government, therefore, that the vast majority of Jamaicans look for health services. And it is the Ministry of Health and Environmental Control (MOHEC) which has the primary responsibility for administering the public health sector.

The MOHEC is divided essentially into two broad divisions, administration and technical services, the latter providing preventive medical services, pharmacological services and regulating GOJ health manpower (see Table 6).[2] In addition to these two broad divisions with their several departments, the MOHEC also has a number of statutory boards and committees through which policy is implemented (See below). The Ministry is subordinate to the Prime Minister who delegates authority to the Minister of Health and thence to the Permanent Secretary. Through the operation of the previously referenced boards and committees, key personnel meet regularly to discuss programs and review progress of the MOHEC and Jamaica's health status.

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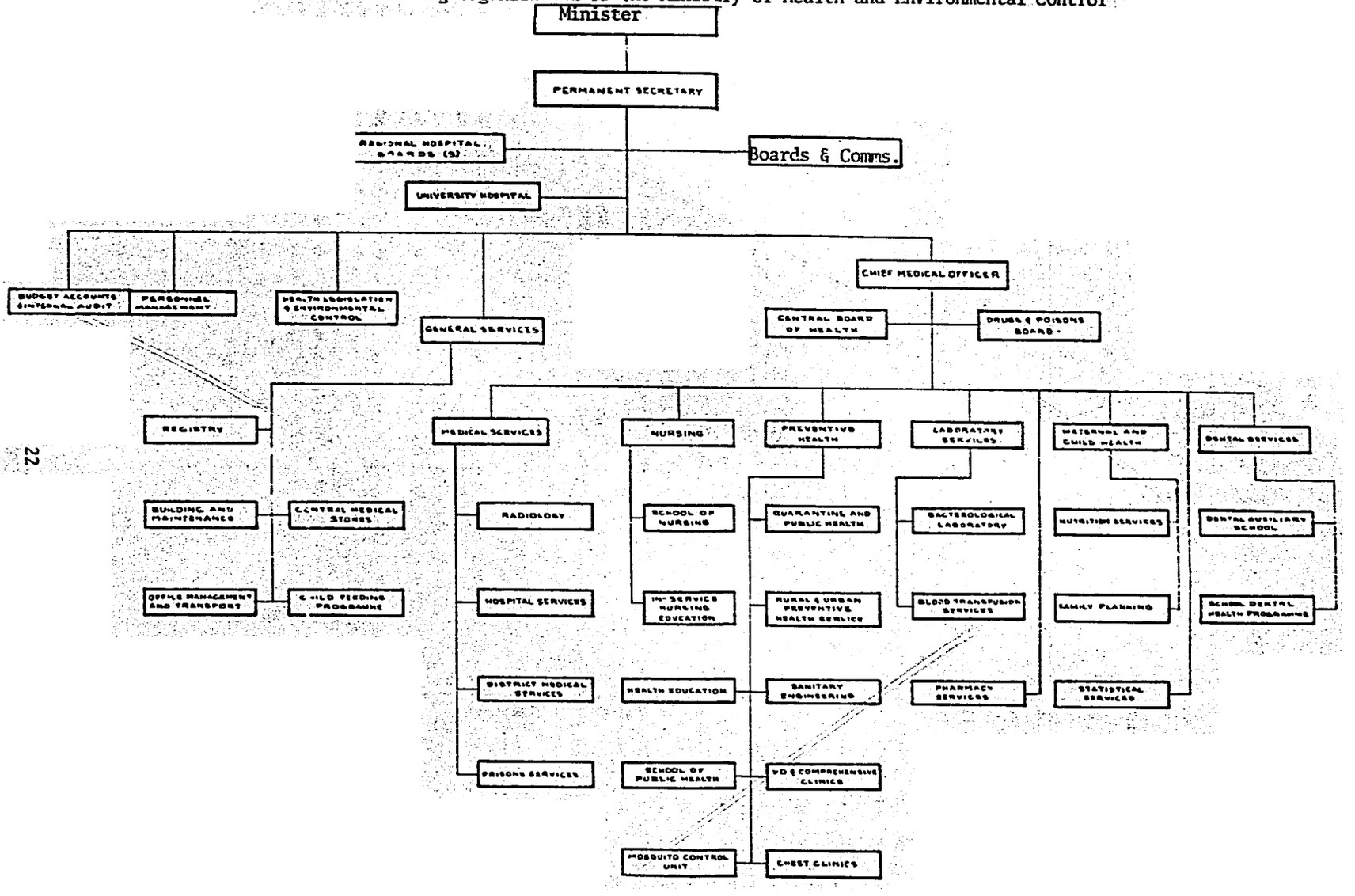
[1] See Health Conditions in the Americas, op. cit. p. 222; see also Economic and Social Survey: Jamaica, op. cit., p. 204; this GOJ publication places the number of hospital beds available in 1973 as 4,632 a much lower figure than reported by the PAHO publication. As noted previously, this figure most probably did not include the 3,000 plus psychiatric beds.

[2] See The Ministry of Health and Environmental Control. Kingston: Jamaica Information Service, 1975, hereinafter cited as JIS, op. cit; One source indicated that the Ministry was reorganized in 1964 with three divisions, administration, preventive services and facilities. But the Quadrennial Projections, op. cit. p. 13 illustrate only two general divisions. We were also advised in September 1976 by the PAHO representative in Jamaica that the organization of the MOHEC still conforms to Table 6.

Table 6: Existing Organization of the Ministry of Health and Environmental Control



a. Functions of the MOHEC

The Ministry of Health and Environmental Control is responsible for assisting the Prime Minister to formulate health policies and to implement these policies which include protection of the environment against pollution. In effect, the MOHEC, in consultation with the Prime Minister and the cabinet, plans Jamaican health policies and establishes the requisite machinery with which to implement the various MOHEC projects and programs. The Jamaican Information Service maintains that "the chief aim of this government body is to make good health services available through Jamaica."[3]

Operating through its various departments, boards and institutions, the MOHEC provides a number of services for Jamaican citizens including: a) hospitals and health centers; b) laboratory services (including blood transfusion services); c) nutrition assistance; d) education in professions associated with medicine; e) family planning combined with maternal child health and nutrition services (MCH/FP/Nutrition); f) dental services; g) health education; h) industrial health services; i) quarantine services; and j) insect vector control.

b. Structure and Organization of the MOHEC

The general organization of the MOHEC as of September 1976 has been delineated in Table 6. As indicated, there were a number of statutory boards and committees in addition to the two broad divisions, administrative and technical. There is also a new planning and evaluation unit which was being considered but, to our knowledge, has not yet been implemented nor phased into the MOHEC organization, (see below and Table 7a). These boards and committees include: the Government Chemist; the Bellevue Hospital; the Registar General; the Environmental Protection Advisory Council; the Medical Council; the Dental Board; the Medical Appeal Tribunal; the Central Board of Health; the Nursing Council; the Nurses Appeal Tribunal; the Nursing Homes Appeal Tribunal; the University Hospital Board; the Quarantive Authority; the Bellevue Hospital Board of Visitors; the Drugs and Poison Control Board; the National Family Planning Board; the Anti-Biotics Control Board; and the Regional Hospital Boards.

Some of the more pertinent of these boards and committees relative to this study and their ecific functions include:

1) The Government Chemist - provides analytical and advisory services for the GOJ and private firms. This office also does forensic examinations, quality control and analysi of drugs;

2) The Registrar General - maintains records of births, deaths, marriages and registration of medical and dental practitioners, opticians and veterinarians;

3) Medical Council - was established in 1872 and is responsible for determining the right of registration for medical practitioners in Jamaica;

4) The Dental Board - regulates dental practice in Jamaica by certifying qualified dentists

[3] Ibid.

5) the Central Board of Health - investigates and advises on all matters, national and local, connected with health and implements measures to insure public health;

6) the Nursing Council - maintains the Register of Nurses, Midwives and Assistant Nurses; conducts exams for admissions to Register; approves hospitals as training schools and exercises discipline;

7) the Quarantine Authority - this authority consists of the Chief Medical Officer, who is Chairman of the Board, and others who draft laws concerning the sanitation of ports and airports and governs quarantining of mooring stations, anchorages, etc.;

8) the Drugs and Poison Control Board - reviews and assesses new drugs before they are marketed and approves and registers drugs, pharmacies and pharmacists;

9) the National Family Planning Board - established in 1970 and consisting of an Executive Director and 4 to 11 members appointed by the Minister of MOHEC. The Board supervises the promotion of Family Planning in Jamaica and coordinates the work of the various departments of the GOJ and private organizations involved in family planning;

10) The Antibiotics Control Board - established in 1949 to issue licenses for the importation of antibiotics, the manufacture of antibiotics, and the sale of antibiotics in Jamaica; and

11) The Regional Hospital Boards - appointed under the Public Hospital Law by the Minister of MOHEC to manage the day-to-day operation of the regional hospitals.

c. The MOHEC and Local Health Services

Each Jamaican parish has a local Board of Health attached to the Parish Council, the local unit of government. The staff of each of these Boards of Health (Health Departments) consists of a Medical Officer, who is actually in charge of the Board although carried as an advisor. He is assisted by Public Health Nurses, Public Health Inspectors and District Midwives. In some parishes, Community Health Aids are also attached to the staff of the Health Departments (see the Cornwall Country Project, Chapters 4-7).

The functions of the several health workers on the parish level are as follows:

1) Public Health Nurse - conducts clinics for expectant mothers, gives vaccinations, visits schools and takes part in home services;

2) Public Health Inspectors - inspects restaurants, slaughter-houses, shops and mark e food is prepared or sold to ensure adherance to sanitary codes;

3) District Midwife - assists expectant mothers at the time of delivery;

4) Community Health Aids - work in homes in their communities to provide first aid, primary health care, and basic health information.

The MOHEC, in addition to providing a Medical Officer to operate the local Boards of Health, also assists these boards in such areas as nutrition, family planning activities, health education, industrial health services, quarantine services and vector control. The areas of health activity will be examined in more detail in subsequent chapters.

To summarize, then, the MOHEC both guides and assists the parish Boards of Health with personnel, material and advice seeking to improve local health conditions. The local Boards of Health are especially concerned with environmental sanitation for which they receive MOHEC directions and support. Local health regulations, for example, are subject to the approval of the Central Board of Health (see above) and the Minister of Health. Hospital boards have also been created on a regional basis (see above) with responsibility for the routine management and operation of hospitals in various parts of the island. These efforts at the decentralization of medical care functions appear to be working under the general direction of the Minister of MOHEC and the Chief Medical Officer.

As of this writing, it appears that the reorganization envisaged in Table 7a has not yet been formally implemented but is under active consideration, i.e., regarding the creation of a Planning and Evaluation Unit.[4] The functions of this unit would include establishing standards and evaluating health programs generally but would focus especially on maternal-child health, family planning and nutrition programs (MCH/FP/Nutrition - Chapters 5-7 for details).

In any event, although official confirmation of the status of this proposed Planning and Evaluation Unit is not available at this time, recruiting for this new unit may have begun informally with the intent of activating the unit once the World Bank loan for the Cornwall Project is implemented. It is anticipated that this new unit consisting of a team of technicians supported by staff, will serve in an advisory capacity to the Permanent Secretary of Health. This unit will also be responsible for the management of a health information system.

d. The MOHEC Budget

The Ministry of Health had a budget of J$ 20.8 million in 1970-71 with which it employed about 6,000 persons in pursuit of both preventive and curative medicine.[5] This represented 11.1% of the total budget for all of the GOJ Ministries. The Ministry of Local Government also grants to the Parish councils the salaries and expenses needed to carry out public health activities in the parishes. In addition, this Ministry also provided over J$ 6,000,000 during 1970-71 for water and sewage works.[5]

Health Services	1969-70	1972-73	1973-74	1976-77	980-81
J$ -	17.8 M	34.7 M	36.9 M	52.1 M	70.0 M

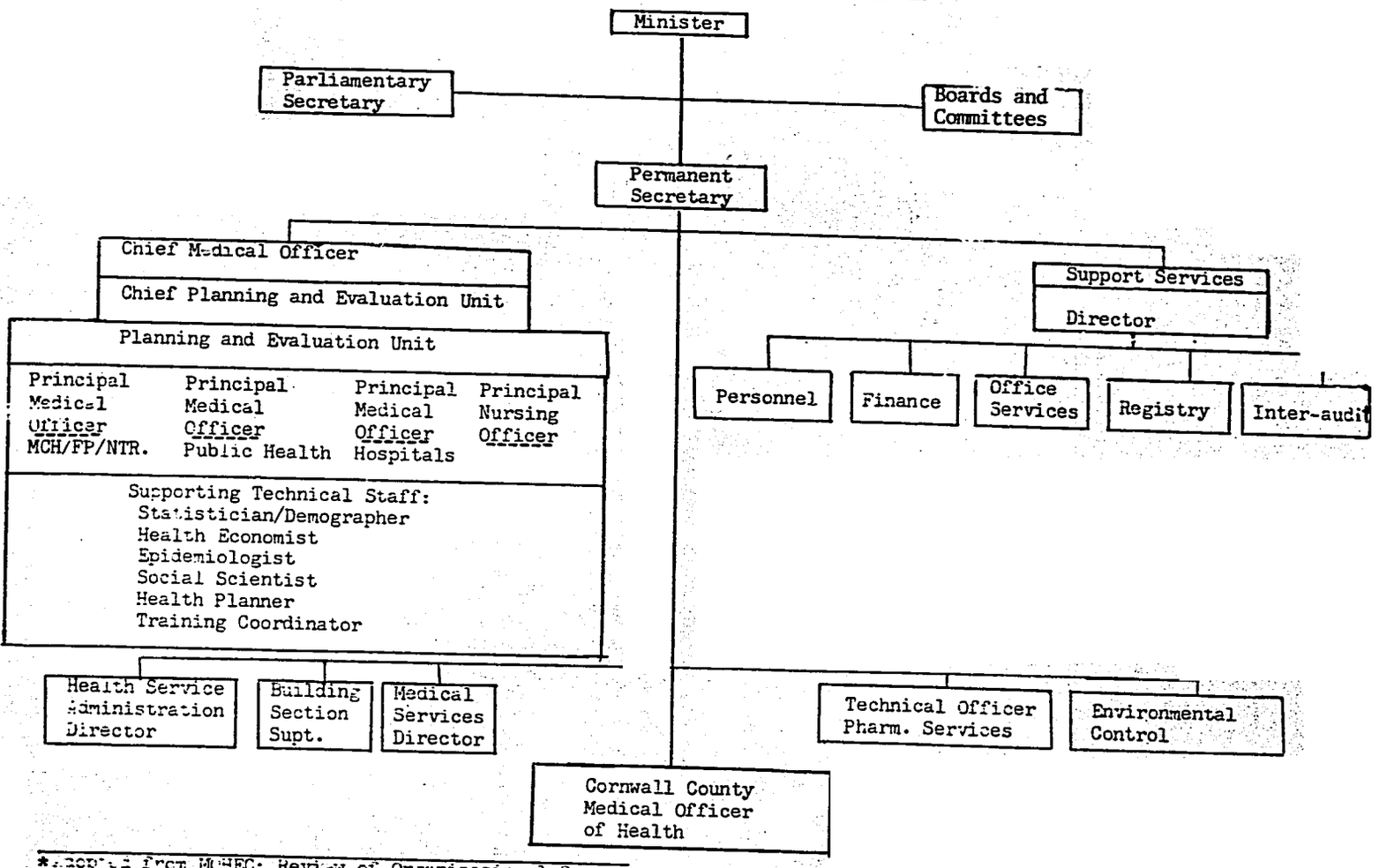
[4] See Table 7a

[5] See Table 7a

[6] See Quadrennial Projections, op. cit., p. 127; from January 1973, U.S. $1.00 = J$ .909 and J$ 1.00 = U.S. $ 1.10; see also Economic and Social Survey Jamaica, op. cit.,p. 197; as noted in Chapter 1, this official GOJ publication estimated GOJ health expenditures at J$ 33.4 million for 1971-72, and J$ 33.7 million for 1972-73. Per capita income was estimated to be about J$ 520.00 (US$ 624.00) in 1970.

Table 7a

Proposed Organization of the Ministry of Health and Environmental Control*
(including the Planning and Evaluation Unit)



*Adopted from MCHEC: Review of Organizational Structure by Ministry of Public Service, October 1975

Health Facilities in Jamaica

In the MOHEC Budget during the early seventies, medical care was allocated 70 percent of the total budget while public health was provided 15 percent. Administration was afforded 12 percent and training about 3 percent.

As suggested previously, health data on the many aspects of the Jamaican health environment differ, sometimes markedly, depending upon the source. In this study we have, of course, used official GOJ publications wherever available. We have also sought to report data from other pertinent sources such as PAHO but also to indicate discrepancies where they existed. Thus, the GOJ socioeconomic report of 1973 estimated that there were about 4,632 hospital beds available in Jamaica of which at least 244 were in private hospitals. The remainder of these beds were in 27 government operated hospitals.[7]

On the other hand, in 1971 PAHO reported that Jamaica had 67 hospitals of which 27 were government operated while 40 were in the private sector. There were 7,585 beds of which 6,970 beds were in government operated hospitals and 615 were in private hospitals.[8] Still another GOJ report to PAHO indicated that there were 7,247 beds available in 33 government hospital in 1968.[9] We believe this discrepancy occurred because the GOJ socioeconomic report failed to include the psychiatric beds in the total number of available beds.

The average length of stay in the short-term hospitals was 10.2 days. The percentage of occupancy in the short-term hospital was 85.6 percent.

Data available on out-patient facilities covering only through 1968 revealed that 22 hospitals had out-patient departments, including the university out-patient department. By 1972 1974 there were 154 health centers and dispensaries located throughout the island.[10] There was also available one mobile health unit.

[7] See Ibid., p. 207.

[8] See Health Conditions in the Americas, op. cit., pp. 22, annex V-3.

[9] See GOJ Health Minister's Report to PAHO, op. cit., p. 1; according to this report, in 1968 Jamaica had 7,247 beds distributed as follows:

Category & Number of Hospitals		Number of Beds
General Hospitals	27	3,244
Tuberculosis	1	222
Maternity	1	164
Pediatric	1	200
Psychiatric	1	3,115
Physiotherapy and Rehabilitation	1	116
Leprosarium	1	186
TOTALS	33	7,247

[10] See JIS, op. cit.; see also Economic and Social Survey: Jamaica, op. cit.,p. 207; according to the JIS publication there were between 1972-74 in Jamaica a total of 154 health centers and dispensaries.

Most of the hospitals are small with approximately 200 beds but foreign health officers believe these hospitals are well distributed in the country area. Kingston, on the other hand, is the only area that has specialized services, namely; a paediatric hospital, a maternity hospital, a rehabilitation center, a TB sanitorium and a psychiatric hospital. The 400 bed University of West Indies hospital does provide specialized services for the whole island, nevertheless. In the countryside the medical officer in charge of the local hospital is employed part-time by the GOJ and does both medicine and surgery.

MOHEC rural statistics compiled between 1968 and 1970 revealed that there was an average of one short term hospital bed for every 6,300 persons and an average of one long stay hospital bed for every 5,100 persons.[11] For the entire country, however, by 1974 it was estimated that there was one hospital bed for every 267 people in Jamaica.

The MOHEC also operates a number of specialized facilities in addition to the hospitals, out-patient clinics, health centers and dispensaries. These included 75 dental clinics that served 191,000 people in 1968 and 15 mental health clinics and 1 rehabilitation center. Jamaica also possessed 19 public health laboratories which conducted 920,000 examinations in 1972.[12]

Aspects and Problems of the Jamaican Health Sector

During the decade of the sixties the GOJ Ministry of Health concentrated its efforts and funds on four broad areas the improvement of which it was hoped would significantly raise the general level of health care. These areas were: a) hospital and laboratory renovation and construction; b) construction of health centers; c) public health programs in communicable diseases; and d) medical and para-medical training. From the data cited previously, the Ministry of Health was reasonably successful in promoting these four objectives:

In hospital construction, the GOJ focussed on building regional hospitals such as those in Kingston and Montego Bay as the most efficient use of funds, facilities and personnel. This construction was designed to relieve pressure on the smaller and older public hospitals while providing wider regional coverage and the services of more specialists. The Ministry's objective was to provide 1 bed for each 600 of the population.

The long term objective of the GOJ in its health center construction program was to distribute centers throughout the island so that no person would have to travel more than 4 miles to seek medical attention. By 1963 it was reported that 85 centers had been constructed and had been integrated with the services provided by local Parish Health Authorities. Maternity and Child Welfare Clinics were also being used in the immunization campaigns against infectious diseases. The latest data available reveal a total of 154 health centers and dispensaries.

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11 Quadrennial Projections, op. cit., p. 124.

12 Health Conditions in the Americas, op. cit., pp. 62-63; see also JIS, op. cit., and Five Year Independence Plan, op. cit., pp. 179-184. A more detailed review of Jamaican hospital services follows:

> Twenty One General Hospitals are to found in Kingston (Kingston Public Hospital), Morant Bay (Princess Margaret Hospital), Golden Crove, St. Thomas (Isaac Barrant Hospital), Port Maria, Annotto Bay, Buff Bay, St. Ann's Bay, Ulster Spring, Alexandria, Montego Bay (St. James Hospital), Falmouth, Lucea (Noel Hlomes Hospital), Savanna-la-mar, Black River Mandeville, Spaldings, Chapleton, Spanish Town, Lionel Town, Linstead and Port Antonio.

The MOHEC program against communicable diseases since 1963 focussed on such diseases as diphtheria, whooping cough, tetanus and typhoid. According to the data provided above, it has been largely successful. Nevertheless, the Ministry has reported epidemics of influenza and Dengue in 1969 and 4th yearly peaks of whooping cough and chicken pox.

Considerable funding and substantial effort has been devoted to medical and para-medical education during the past decade by the GOJ. Nor has the program been without success. Nevertheless, due to immigration and other factors there remains a shortage of medical and para-medical personnel in Jamaica, a situation which will be explored in detail in Chapter 4.

In view of the data recorded previously and the GOJ plans and programs, the analysis of the Jamaican health environment proffered by the Quadrennial Projections and the MOHEC statement to PAHO may have some relevance here. This analysis may be summarized in the following several points:

1. It is agreed by both sources that the general level of the Jamaican health environment is satisfactory. The structure of health can be characterized as that of a "near" developed country with a medium-level per capita income and favorable geographic conditions leading to continued improvement in the Jamaican health status;

2. Thus, it is anticipated that half of all deaths due to infectious disease in the under 15 age group will disappear together with 25% in the 45-64 year group. This is based on the assumption that gastro-enteritis would be substantially diminished along with a certain number of cases of acute pulomonary disease;

3. The Jamaican health environment does appear to pose future problems rather than current difficulties for economic development due to some communicable and degenerative diseases, a situation which is examined in some detail in the final chapter of this study. Other weaknesses and excesses in the system also constitute warnings and/or omnipresent dangers. These include:

    a. One very unfavorable element to the development of completely adequate health care in the past has been the lack of systematic planning by the MOHEC and the lack of an adequate planning section in that organization. It was observed that those services were equipped to deal with problems of the forties rather than the seventies. As recorded above, however, MOHEC is in the process of creating a new planning office. Its effectiveness remains to be determined.

The Kingston Public Hospital, with its 464 beds, is the largest of these general hospitals. It offers services in Surgery, Gynaecology, Orthopaedics, Ophthalmothy, Dermatology, Plastic Surgery, Cardiology, Neurology, Neuro Surgery, Medicine, Otorhinolaryngology, Denistry, Dental surgery, Psychiatry, Radiotherapy, Speech Therapy, Nuclear Medicine, Physiotherapy, and Out-patient and Casualty Services.

At the other general hospitals, services are available in Surgery, Medicine, Obstetrics, Paediatrics, Dentistry and Family Planning. The Mandeville, St. James and Spanish Town Hospitals offer additional specialist services in Gynaecology. Services in Psychiatry, Ophthalmology and Otorhinology and Otorhinolaryngology are available at the hospitals in Mandeville and Montego Bay.

b. A second negative factor is the deficiencies in health manpower (see Chapter 4 f details);

third element is the lack of trained personnel at almost every level of both he technical and administrative branches of the MOHEC, which, we suspect, has l o inadequacies in data collection with the underreporting of certain communicab iseases;

d. Still another is the very high level of malnutrition among the 0-5 year age grou (see Chapter 6 for details);

e. Another is the long-term danger of overpopulation due to the continued compromisi of the family planning program (also see Chapter 5 for details);

f. Another is the deplorable lack of continuously reliable potable water systems for the rural areas where the last report revealed only 26.1% of the rural areas had such a system; similarly, the GOJ is also faced with the problem of the sanitary disposal of effluents and other wastes;

g. We also suspect that the skimpy data on the construction of health centers may be correct, that only 6 new health centers have been constructed since 1963 thereby leaving large areas of rural Jamaica without effective health care. Indeed, the inadequate health care in agrarian Jamaica, abetted by lack of medical manpower and facilities, has been judged to be one of Jamaica's most pressing health priorities, along with nutrition and family planning;

h. Finally, the GOJ appears to be locked into permanently providing the vast majority of the health care to the Jamaican population. This present system, which looks almost exclusively to the GOJ for health care and services, not only discourages private health care and private health insurance systems but provides scarce incentive to foster biomedical research or train Jamaican science students at home.

Anyone wishing to receive treatment in these general hospitals is first examined by a doctor in the out-patient department and then referred to a specialist if this is thought necessary. (Private doctors may also refer their patients to specialists at the general hospitals). The patients' incomes are assessed and they are then charged according to a moderate scale of fees as scheduled by law. For those who cannot afford to pay, the services offered and the medicine prescribed are free of charge.

Except for the Hansen Home which is in Spanish Town, all the Specialist Hospitals are situated in the Corporate Area.

- The National Chest Hospital (formerly known as the George Vth Jubilee Memorial Sanitorium) treats people with chest conditions including tuberculosis.
- The 200 bed Children's Hospital is the only paediatric hospital in the Commonwealth Caribbean. It provides services in Casualty, Medicine, Surgery, Orthopaedics, Plastic Surgery, Denistry, Otorhinolaryngology, and Physiotherapy.
- The Victoria Jubilee is a maternity hospital which also provides a Home Delivery Service for mothers in the Corporate Area, who have been examined regularly at their pre-natal clinic and whose homes are considered suitable for delivery.
- At the Mona Rehabilitation Centre, people who have suffered from polio, spasm, amputation, paraplegia, and orthopaedic aliments receive Physiotherapy and Occupational Therapy.

Table 7b

An Example of the GOJ Funding of Ministries By Order of Budgetary Importance (1970-71)
(in J$ million)

	TOTAL	RECURRENT	CAPITAL	PERCENT TOTAL
1. Finance and Planning	72.7	50.8	21.9	29.0
2. Education	33.7	25.8	7.9	13.5
3. Communications and Works	27.8	14.8	13.0	11.1
4. Local Government	24.5	16.0	8.5	9.8
5. Health	22.8*	18.5	4.3	9.1
6. Home Affairs	12.3	11.8	0.5	4.9
7. Rural Land Developmer	12.0	4.5	7.5	4.8
8. Agriculture and Fishe	10.3	6.1	4.2	4.1
9. Trade and Industry	8.5	2.0	6.5	3.4
10. Youth and Community Development	5.7	4.9	0.8	2.3
11. Public Utilities and Housing	5.0	3.0	2.0	2.0
12. Defense	4.9	4.7	0.2	1.9
13. Labour and National Insurance	2.9	2.3	0.6	1.2
14. External Affairs	2.6	2.5	0.1	1.0
15. Legal Affairs	2.1	2.0	0.1	0.8
TOTAL	250.4	172.2	78.2	

- The Bellevue Hospital with its 2,500 beds, provides psychiatric treatment.
- The Hansen Home offers medical treatments to lepers.
- The University Hospital of the West Indies is the only Teaching/Specialist Hospital in the country. It is a public general hospital, one of whose main functions is to provide facilities for the training of medical students from the University of the West Indies.

* This table derives from Quadrennial Projections, op. cit., p. 12. The total for the MOHEC of J$ 22.8 million of 1970-71 cited herein is in excess of the J$ 20.8 million recorded above in this Chapter and in Table 22 in Chapter 11. The J$ 22.8 million may have included some social services not reported in Table 22.

CHAPTER FOUR

HEALTH MANPOWER RESOURCES

The Scope of the Jamaican Health Manpower Problem

Available sources indicate the presence of a serious health manpower problem in Jamaica. This paucity in health manpower exists because Jamaica is still very much a developing country with limited training facilities. It also derives from Jamaica's loss of considerable trained personnel to emigration, especially during the decades of the fifties and sixties.

In any event, health manpower is especially lacking in the rural areas at both the professional and paramedical levels.[1] Many deliveries are unattended by trained personnel and many of the existing health centers are not fully utilized since they are not regularly visited by physicians and nurses from the rural parishes. In the past, this has been reflected in the low level of coverage by immunizations and the substantial number of cases of tetanus.

Not only is there a shortage of physicians and especially nurses, but there is also a severe shortage of the ancillary health manpower, a condition which one might expect in a "near" developed country. There were, for example, in 1971 only four sanitary engineers in a nation of almost 2 million.[2] This represents an especially grave danger to the rural areas of Jamaica where potable water systems and adequate sewage are in very short supply. It also suggests a substantially larger number of cases of gastro-enteritis than is reported by GOJ officials.[3] There is also a lack of health educators, actually 7 in Jamaica in 1971, and, as suggested previously, qualified statisticans of which there were 2 in 1971. These shortages are felt in every other health discipline in Jamaica.

Jamaican Medical and Allied Personnel

In its document, "Health Conditions in the Americas, 1969-1972," PAHO reported that in 1971 Jamaica had 752 physicians, including all the practitioners working on the UWI campus and all public health physicians, or a ratio of one physician for every 2,500 persons. In a later report, however, the GOJ suggested that information given PAHO was erroneous and that in 1972 there were only 490 practicing physicians in Jamaica but there had been a significant increase in the number of nurses and assistant nurses during 1972-73 (see Table below). There was also a very uneven geographic distribution of physicians since most of them were concentrated in the urbanized areas of Kingston.

[1]See Quadrennial Projections, op. cit., pp. 129-130.

[2]Ibid., p. 130; see also Health Conditions in the Americas, op. cit., p. 8.

[3]Quadrennial Projections, op. cit., p. 130.

The following table delineates the principle Jamaican health personnel available in 1971 and 1972-73.[4]

Disipline	Number (1971)	Number (1972-1973)
physicians	752	490
dentists	88	n.a.
graduate nurses	1066	1437
nursing auxillaries/assistant nurses	198	666
pharmacists	288	n.a.
midwives (graduate)	482	n.a.
sanitary engineers	4	n.a.
sanitarian inspectors	351	n.a.
laboratory technicians	150	n.a.
X-ray technicians	53	n.a.
dieticians	6	n.a.
social workers	250	n.a.

Health Manpower Training Facilities

Training facilities in Jamaica for health manpower are better than the numbers of available personnel would suggest. As noted previously, this limited number of health personnel is due in part to the heavy emigration during the decades of the fifties and sixties and even into the early seventies.

The University of the West Indies (UWI) in Kingston has a medical school but it also has the responsibility of training physicians for a large portion of the Caribbean area. Thus, the number of Jamaican medical students is somewhat limited. Seventy-five Jamaican medical students graduated in 1970 from the UWI. Unfortunately, there are no facilities, either in Jamaica or in the English speaking Caribbean, for the training of dentists, veterinarians or sanitary engineers.

Prior to this current period, 1975-76, there have been only limited facilities in Jamaica for training other health workers. This condition is presently being remedied somewhat by new projects such as the Cornwall County Project (see below). Public Health Inspectors (sanitarians) were trained at the West Indies School of Public Health.[5] In 1970 there were 33 students enrolled in this non-degree course, all of whom graduated. For the nursing profession there is a three-year course in Jamaica offered at two schools of nursing (Kingston Public Hospital, School of Nursing and the University Hospital, School of Nursing). In 1970 there were 197 nurses enrolled in these nursing schools. There were also 107 students enrolled in two midwifery schools. Laboratory technicians are trained on an in-service basis at the government laboratory and at the UWI. Jamaica also has one school for radiology technicians which provides a two-year course (see Table 10 for details on training of health manpower).

[4] See GOJ Ministry of Health Statement, op. cit., p. 2: Economic and Social Survey, op. cit., pp. 200-201; Health Conditions in the Americas, op. cit., pp. 82 and 226; see also Table 9 for more complete data on Jamaican health manpower. The authors of the Survey suggest that the 1971 figure of 752 was inflated and that their figure of 490 practicing physicians in 1972-1973 was more realistic. Actually, both figures may be reconcilled with a small margin of error due to heavy Jamaican emigration between 1970 and 1973, especially among the more qualified Jamaicans

[5] See GOJ Ministry of Health Statement, op. cit., p. 2.

Recent Developments and Future Prospects for Health Manpower Training

By the late sixties the GOJ was becoming increasingly aware of Jamaican deficiencies in health manpower and of the limited training facilities for providing additional health manpowe both professional and allied health workers. The serious, inhibiting affect of this lack of health workers and the realization that such a situation was correctable became even more evident to the GOJ and the MOHEC by two projects between 1969 and 1972; the "First Jamaican Population Project" and the "Elderslie Nutrition Program."

The First Jamaican Population Project

In 1970 the World Bank approved a $2 million loan to support, in part, a Jamaican Populat Project involving the construction of a new wing on the Victoria Jubelee Hospital and construc ting and staffing 10 rural maternity centers.

The MOHEC attempt to implement this program brought about considerable frustration to the GOJ. It soon became apparent that this project suffered not only from construction and facili utilization problems but also both from quantitative and qualitative health manpower shortages

The GOJ and MOHEC soon came to appreciate that a crude birth rate of 25/1000, the initial objective of this project, could hardly be attained by 1975 with available manpower. A substantial increase in health manpower was required to improve educational efforts, provide better clinical services and secure more acceptors for family planning methods.

The Elderslie Nutrition Program

At almost the same time that the World Bank loan was being prepared for consideration in 1969, the MOHEC launched a very small, pilot project in Elderslie, St. Elizabeth to promote better nutrition among the children of this limited area. The MOHEC introduced Community Health Aides (CHA's) to help initiate and implement this project.

By 1972, after two-three years of CHA activities, the MOHEC determined that young-child mortality for this geographic area had been cut in half. As a consequence, the MOHEC decided to expand this project to include and to train a total of 150-CHAs to service the entire Parish of Hanover.[6]

Integration of MCH/FP/Nutrition Programs by MOHEC

In 1972 the GOJ in its Five Year Plan, reflecting upon its experiences with the CHAs since 1969, called for the integration of family planning activities with regular MOHEC health and social services. The MOHEC hoped to utilize CHAs in the family planning program so as to reach the maximum number of fertile women. The CHAs new functions involved motivating prospective recipients to undertake family planning as well as providing basic medical care. In effect, the CHA's became a combination of medical assistants and barefoot doctors.

Finally, in April 1974, the integration step recommended almost two years previously became a reality when the delivery services of the national Family Planning Board (NFPB) were formally integrated into the regular MOHEC services. The details of the implementation of this step will be examined in Chapters 5-7. Suffice it to note that this move not only increased the demand for CHAs but also for other health workers. Developments in 1974 and 1975 only exacerbated this trend.

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[6] See Systems Development Project for Rural Health Care. Kingston: MOHEC 1975, p. 6.

In 1974 the GOJ created a Nutrition Advisory Council, drawing upon its recent experiences in the Elderslie program. The task of this council involved developing and implementing nutrition policy for all Jamaicans but especially for women and children under 5 years. With the new emphasis on nutrition and family planning the demand for more specialized health workers, midwives, health educators and nurses at various levels to join with the CHAs to create new health teams, soon appeared.

The Cornwall Project

Finally, in order to promote and accelerate the MCH/FP/Nutrition integrated program in Jamaica, the GOJ proposed a new project, the Cornwall Project. This project, also supported by the World Bank, was launched in 1976 and has as one of its tasks, the training and equipping of CHA's and midwives, who shall be the principal field workers responsible for delivery of integrated MCH/FP/Nutrition services at the primary health care level. This pilot project, which will benefit considerably from the previous experience with CHAs, will serve five parishes in Cornwall county.

Recent Past Status of Jamaican Health Manpower and Current Training Plans

The recent past status of Jamaican health manpower is interesting to note in view of the current, increased demands. According to PAHO data of 1970, the ratio of Jamaican physicians to each 10,000 Jamaicans in the largest cities was 10.0. This compares to 10.8 physicians for every 10,000 inhabitants in the largest cities of the region as a whole. In the remainder of the country, however, Jamaica had only 1.3 physicians per 10,000 population and in 1970 had the lowest ratio in the entire region except for El Salvador, Guatemala, Guyana and Haiti.[7]

On the other hand in 1971, according to GOJ data, the physician ratio per 10,000 Jamaicans for the island as a whole was 4.048. For other major categories of health workers the ratio per 10,000 Jamaicans was 5.72 for graduate nurses, 2.6 for graduate midwives, .806 for lab technicians and 1.55 for pharmacists (see Table 9).

As a result of the new demands for health manpower, steming from the pilot projects discussed above and the Cornwall County Project which promotes the MCH/FP/Nutrition integration program, the following plans and programs for health manpower development in Jamaica have or are materializing:

1. Generally, apart from the Cornwall Project, the GOJ and MOHEC have undertaken several health manpower training programs since 1970 to attempt to repair the deficit in Jamaican health manpower. These programs include:

   a. An Advanced Nursing Education Unit for training tutors in nursing, teaching, and administration was opened and operating by 1972;

   b. Post-graduate level training was instituted at the UWI for physicians in anesthesiology, pathology and public health;

   c. A new Laboratory Aide Training program was also initiated to supplement available medical technologists. This lab Aide training is also being provided by the UWI and by the West Indies School of Public Health in Jamaica;

   d. With the assistance of UNICEF, PAHO, and WHO a new Dental Auxiliary School was opened in 1971; and

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[7] Health Conditions in the Americas, op. cit., p. 77; it will be recalled that a 1971 PAHO report indicated there was 1 physician for 2,500 Jamaicans, utilizing a figure of 752 available Jamaica physicians. Later, however, the GOJ revised this figure downward to 490 physicians available in 1972 which would increase the ratio of Jamaicans to physicians considerably.

e. Of considerable importance, as a result of the Elderslie Nutrition Program and the current Cornwall Project, it has been reported that the MOHEC is now training 1,200 CHAs for assignment throughout the island.[8] The MOHEC has taken this decision since the GOJ/MOHEC believe the Elderslie/Hanover project demonstrated that entry - level health workers equipped with locally available resources could significantly affect local health conditions. These indigenous entry - level health workers, operating under careful supervision of nurses and medical students and with a minimal training program in basic medical services including nutrition, education, family planning, hygiene and first aid, were ultimately successful due to: 1) their conviction that they could promote better health conditions; and 2) their ready acceptance by the members of the community they served who believe the CHAs had the capacity to translate the distant physician's medical advice into pragmatic community benefits.

2. Under the Cornwall Project additional training and recruiting programs are underway or planned:

a. Medical Officers to administer the new and existing (type III) health centers to be constructed in Cornwall County. These Medical Officers are to be trained in community medicine at the Cornwall Regional Hospital;

b. Public Health Nurses will be trained to practice in the new health centers in part at the West Indies School of Public Health;

c. Nurse Practitioners are currently in training so as to provide five pediatric nurse practitioners and five family health nurse practitioners for 1977;

d. District Midwives will be trained at the rate of 20 per year with the expectation of meeting the requirements of Cornwall County by 1979-80.

e. Community Health Aides are the backbone of this project as well as the principal workers in all of the future MCH/FP/Nutrition programs of MOHEC. Currently 80 are being trained in Westmoreland Parish with others taking training in two other parishes, presumably as part of the 1,200 CHAs the MOHEC is currently training for island-wide service. In addition, we have been informed that the GOJ/MOHEC recently set a target of 3,000 CHAs to be trained before the close of the decade.[9] When the CHA training in Cornwall County is completed in 1978, it is anticipated that the current number of CHAs in the country, 300, together with those newly trained, will provide a ratio of CHAs to population in Cornwall of 1/1000.

f. Nutrition Officers and Assistants are currently in training so that by the end of 1976 there should be one senior nutrition officer, 5 nutrition officers, and 33 nutrition assistants available for the nutrition component of this project.

[8]This information was obtained in correspondence with the USAID representative in Jamaica.

[9]Ibid.

Table 8

Practicing Doctors in Jamaica in December 1972*

Government Hospitals (excluding doctors employed on a sessional basis)	1972
Specialist M.O's.	36
Senior M.O's.	6
Senior Paediatricians	1
Senior Radiologists	1
Radiologists	3
Radiotherapists	1
Pathologists	2
M.O's.	100
	150
Blood Transfusion	
Director	1
M.O's.	3
	4
Laboratory Services	
Director	1
Microbiologists	1
Pathologists	4
M.O's.	1
	7
Clinical Field	
Special M.O's.	5
M.O's.	31
	36
Public Health	
Senior M.O's. (H)	6
M.O's. (H)	21
	27
Other	
U.W.I.	154
Private Hospitals	12
	166
Total practising doctors (excluding General Practitioners)	390
General Practitioners (estimate)	100
Estimate of Total Practising Doctors	490

*Source: Economic and Social Survey: Jamaica, op. cit., p.

Table 9: Resources

Human resources (First Part) Structure

Categories of personnel and their geographical distribution (Ratio per 10,000 inhabitants in Jamaica) Year: 1971

Categories		Entire area	
		No.	Ratio
Physicians	TOTAL	752	4.048
Engaged principally in:			
General clinical practive			
Special fields			
Administration			
with courses in Public Health			
Special paramedical fields			
Medical Assistants	TOTAL		
Dentists	TOTAL	88	.472
Dentists who work in public Health (part-time)		54	.294
with course in Public Health			
Dental Assistants	TOTAL	43	.231
Engineers who work in public health	TOTAL		
Sanitary engineers		4	.0.1
Sanitary Inspectors	TOTAL	351	1.88
Graduate Nurses *	TOTAL	1066	5.72
with postgraduate qualifications in public health		94	.505
Nurse-midwives *	TOTAL		
with postgraduate qualifications in public health			
Nursing auxiliaries *	TOTAL	198	1.07

(Continued)

Categories		Entire area	
		No.	Ratio
Graduate midwives *	TOTAL	482	2.6
Empirical midwives	TOTAL	n.a.	n.a.
Veterinarians ***	TOTAL	30	.16
Professional lab. staff	TOTAL	10	n.a.
Laboratory technicians *	TOTAL	150	.806
Professional nutritionists	TOTAL	3	.01
Dieticians *	TOTAL	6	.03
Prof.pharmac. chemists	TOTAL	288	1.55
-pharmac.auxiliaries		8	.04
X-ray technicians *	TOTAL	53	..294
Health educators ****	TOTAL	7	.04
Social workers *****	TOTAL	450	2.42
Professional		40	.21
Auxil.social workers	TOTAL		
Auxil.social workers	TOTAL	310	1.7
-trained		100	.54
Statisticians	TOTAL	2	.01
Public administrators employed in the public health field	TOTAL	35	.19

* Personnel employed in Ministry of Health and University Hospital of the West Indies

*** Source: PAHO Survey

**** Source: Bureau of Health Education

***** Source: Dept. of Social Work, U.W.I. (rough estimate)

Comments: Figures do not include personnel working in private institutions or private practice.

Table 10: Manpower Training Through Regular Courses in Non-university Centers in the Last Three Years

Years: 1968-1970

Institutions and courses	Previous Schooling	Duration (y)ears (m)onths	Number enrolled			Number graduated		
			1968	1969	1970	1968	1969	1970
Public Health Nurse	yes	10.5 m	4	4	4	4	4	
Public Health Inspector		10.5 m	22	31	33	20	31	3
Laboratory Technicians		3 y	19	31		13	9	
		1 y	15	15		15	15	
technical assistants		5.5 m			10			8
Radiographers		2 y	-	-	-	6	9	-
Midwives **								
Victoria Jubilee H.		18 m	39	46	36	30	47	3
Victoria Jubilee H.		6 m	61	36	46	43	46	5
University Hospital		10 m	31	25	25	30	23	1
Assistant Nurses		18 m	42	53	75	23	37	6
Career Nurses		3 y	212	220	197	239	207	2
School Dental Nurses		2 y			20			
Meat & other foods		3.5 m	22	23	21	22	20	2

Sources: Ministry of Health, Dept. of Statistics.

** Kingston Public Hospital, School of Nursing.
University Hospital, School of Nursing.
Nursing Council Reports to Ministry of Health.

Note: * Exams not completed.

CHAPTER FIVE

POPULATION AND FAMILY PLANNING

Background: Statistical Data and the Context of Overpopulation

Basic Demographic Statistics

The Jamaican population is largely descended from Africa although there are limited numbers of Jamaicans of Indian, Chinese and various European national descent. Rates of natural population increase have averaged between 2.5 and 3.0% per year over the past decade and a half. Since the late nineteen forties, however, and especially during the decade of the sixties, this natural rate of increase has been effectively diminished by considerable emigration. In effect, therefore, the average rate of population growth in the decade of the sixties was only about 1.6% per annum. Heavy emigration has not been an unmixed blessing, however, since a substantial number of the highest skilled and employable Jamaicans have departed the island.

The GOJ reported a Jamaican population in 1960 of 1,639,000. By 1970 the population had increased to 1,891,000 and in 1974 it stood at an estimated 2,025,000. Previously, early in 1973, the GOJ had estimated the Jamaican population at 1,960,000 for that year which gave a population density of 462 per square mile or an increase of about 87 persons per square mile since 1960.[1]

In 1970 about 40 percent of the population lived in towns of 2,000 or more and 35 percent in towns of 10,000 or more. At the same time 37 percent lived in parish capitals while 28 percent of the population lived in the Kingston-St. Andrews metropolitan area. The other four major urban areas, Montego Bay, Spanish Town, May Pew, and Savanna la Mar had a combined total of 62,190 in 1960 or about 4 percent of the population at that time.[2] The population in these areas has undoubtedly increased both absolutely and proportionately since 1960.

The census also revealed that there were 401,771 households with an average of 3.9 persons per household.[3] Of this total number of households, 274,780 had male heads and 126,991 had female heads. These data illustrate the prevalent pattern of family formation and structure in Jamaica with its high percentage of visiting unions, commonlaw unions and illegitimate births which have been recorded previously but which have a determinant effect upon population growth in Jamaica.

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1 Demographic Statistics. Kingston: Department of Statistics 1973, the GOJ revised its estimate to 1,990,100 people.

2 See Country Profiles, op. cit., p. 2.

3 Ibid., p. 1.

Table 11: Ethnic groups

The vast majority of the people of Jamaica are of African or Afro-European descent. Other elements of the population include people who originated in Great Britian, India, China, Lebanon, Portugal and Germany. The original inhabitants, the Arawaks, were decimated by the Spaniards, who introduced diseases and imposed slavery on the Arawaks. A breakdown of the population, prepared from the 1960 census, follows:

Census Year	1960 - Jamaica
All Races	100
African	76.3
Afro-European	15.1
European	0.8
Chinese, Afro-Chinese	1.2
East Indian, Afro-East Indian	3.4
Other Races	3.2

The Population Growth Data

As recorded above, the Jamaican population increased at a rate of about 1.6 percent per annum during the decade of the sixties. Although this rate was relatively low in comparison with many other developing countries, this rate was deceptive since it contained a number of significant differential and divergent components. The table below helps clarify these components:

Age Groups	Average Annual Growth Rate, 1960-70
All Ages	+ 1.5%
0 - 14	+ 2.6%
15 - 29	+ 0.5%
30 - 40	+ 0.8%
45 - 59	+ 0.4%
60 +	+ 3.7%

Thus, the rate grew at considerably different rates among various age groups, while the net growth rate is the difference between a high rate of natural increase and a high rate of emigration. In 1970 children under 15 years, for example, constituted about 46 percent of the population, high for a country with a birth rate of only 35 per 1,000 population in 1970. The CBR declined to 30.4/1,000 by 1974. The rate for dependents, therefore, was high and that for the population in working ages very low. As a result of the differential rates, the dependency ratio increased from 834 per 1,000 population in working ages (15-64) to 1,065 or an increase of 28 percent during a ten year period.

Since 1970 the population growth rate has fluctuated, but generally, it has been higher than in the previous decade. The most recent GOJ data available show the growth rate for 1973 to be about 1.9 percent and for 1974 to be approximately 1.7 percent.[4] (See Table 15).

Fertility Trends

The Jamaican fertility rate has never been very high and, according to reliable analysis, over a fifty year period has shown some fluctuation. Four phases of fertility change are cited as examples: (continued on page 45).

Table 12:

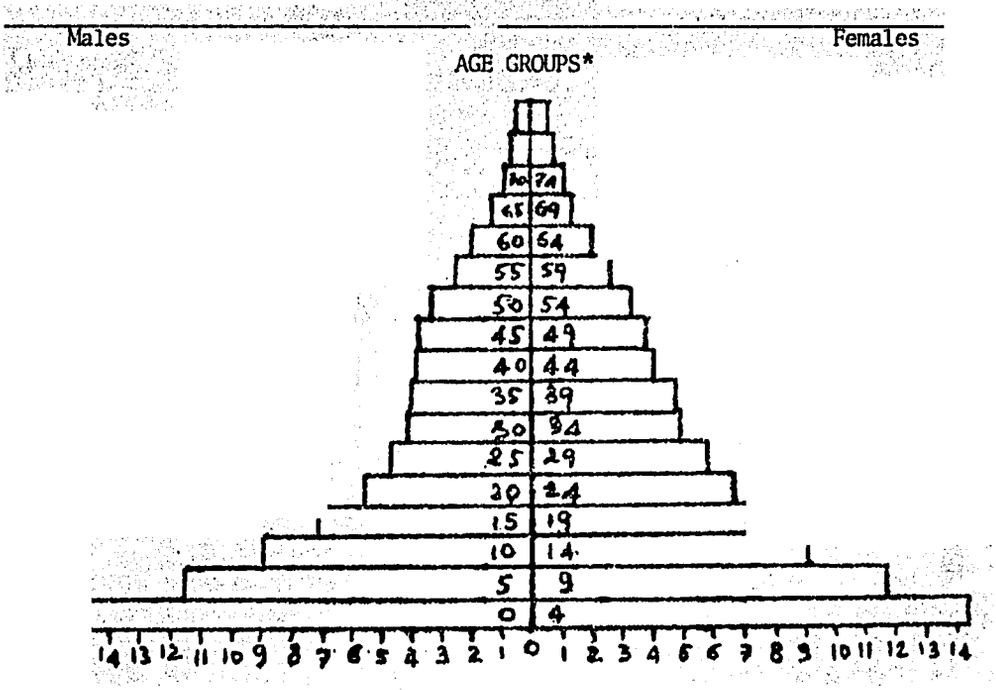
Number and Population of localities by number of inhabitants

Size of Localities	Number of Localities	Population	
		Number (in thousands)	Percent
TOTAL	3,199	1,861	100.0
100,000 and over	1	506	27.2
50,000 - 99,999	0	0	
10,000 - 49,000	6	146	7.8
2,000 - 9,000	24*	85	4.6
Under 1,999	3,168*	.124	60.4

* Estimated from 1960 Census data

4 See also Economic and Social Survey of Jamaica, op. cit., p. 56.

Table 13: Jamaica



POPULATION IN 10,000

*Source: 1960 Census

Table 14:

VITAL STATISTICS

Year	Live Births	Deaths	Natural Increase	Net Migration	Net Increase	Infant Deaths	Still Births
1970	64,375	14,352	50,023	-23,000	27,023	2,071	529
1971	66,277	14,078	52,199	-31,500	20,699	1,798	744
1972	66,219	13,970	52,249	*-10,197	42,052	2,048	675
1973	61,857	14,157	47,700	-18,448	29,252	1,622	616

*Source: Economic and Social Survey: Jamaica. op. cit.. p. 57.

Table 15

Population Trends, 1960-1974*

Year	End of Year Population (in 000's)	Crude Birth Rate (per 000)	Crude Death Rate (per 000)	Natural Increase Rate (per 000)	Growth Rate (per 000)
1960	1639	42.1	8.8	33.3	14.7
1961	1652	40.0	8.6	31.4	8.2
1962	1674	39.1	8.5	30.6	13.3
1963	1718	39.0	8.9	30.1	26.2
1964	1760	39.3	7.6	31.7	24.2
1965	1811	39.0	7.9	31.1	29.2
1966	1859	38.9	7.8	31.1	26.5
1967	1893	35.9	7.1	28.8	18.3
1968	1923	34.2	7.6	26.6	15.8
1969	1954	35.1	7.6	27.5	30.6
1970	1891	34.4	7.7	26.7	12.5
1971	1911	34.9	7.4	27.5	10.9
1972	1954	34.3	7.2	27.1	22.0
1973	1991	31.3	7.2	24.1	19.2
1974	2025	30.4	7.2	23.4	17.1

*Source: Department of Statistics, Jamaica. Demographic Statistics 1974

a. 1921 - 1943 during which time the crude birth rate declined from 37 to 32 per 1,000 and the gross reproduction rate (GRR) declined from 2.64 to 2.08.

b. 1943 - 1960 showed the crude birth rate and GRR both increasing to 42 and 2.77 respectively; and

c. 1960 - 1970 when the crude birth rate declined from 42 to 35 and the GRR declined slightly from 2.77 to 2.71.

d. 1970 - 1974 wherein the crude birth rate declined to 30.4 per 1,000.

From these and other data the following conclusions concerning the population growth rate e been derived:

a. the Jamaican family planning program has only had limited success since the crude birth rate now stands at 30.4 per 1,000 while between 1936 and 1945 it stood at 32 when there was no family planning program, public or private (see Table 16 for current fertility rates);

b. about 87 percent of the decline may be attributed to compositional changes arising from fresh and past migration and only 13 percent due to fertility decline and other factors

c. if migration were to stop completely after 1975 and if fertility rates remained constan it has been estimated that the population would increase to 2,313,400 in 1980 and 3,319,700 in 1990.

Emigration and Population Growth

During most of the Twentieth Century, emigration has been an important component of population growth in Jamaica. Although emigration was never large enough to institute a decline in population, it did significantly influence population growth. The net loss of 288,000 people, o about 29,000 per year between 1960 and 1970, which was especially heavy among females of reproductive ages (15-49), was an important factor in restraining Jamaican population growth and keeping it to 1.6 percent.[5]

Since 1971, however, emigration appears to have slowed somewhat as the U.S., the U.K. and Canada have imposed greater restrictions on Jamaican immigrants (see Table 17). Currently, it is believed that emigration in the seventies will continue but at a reduced rate from the sixties in the range of about 15,000 per year or less perhaps, depending upon economic condition in the industrial states.

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5 Ibid, p. 57; these emigration figures reported herein are only estimates, however, since the NPA has recorded that the GOJ has never had a system for processing migration data and, therefore, does not have exact figures on the number of Jamaicans emigrating or the number of Jamaicans returning home to live.

Table 16

Estimated Fertility Rates[1/] by Parish, 1970-1974*

	PARISH	1970	1971	1972	1973	1974
1.	Kingston & St. Andrew	180	188	178	161	161
2.	St. Thomas	203	183	206	218	206
3.	Portland	185	210	203	192	177
4.	St. Mary	188	195	199	184	197
5.	St. Ann	185	195	188	183	170
6.	Trelawny	199	219	211	204	187
7.	St. James	184	190	196	185	198
8.	Hanover	215	197	207	180	176
9.	Westmorelan	189	177	181	166	174
10.	St. Elizabet	196	202	202	190	180
11.	Manchester	224	220	230	216	211
12.	Clarendon	179	180	188	183	176
13.	St. Catherine	195	215	224	219	236
	Overall	189	195	196	182	182

1/ Per 1000 women aged 15-44 years.

*Source: Ministry of Health and Environmental Control

Table 17

In 1973, a total of 18,448 Jamaicans migrated to the United States, Canada and the United Kingdom. This migration has maintained the 1972 level which was lower than previous years.

MAIN STREAMS OF JAMAICAN MIGRATION

Countries	1970	1971	1972	1973
United States	15,033	14,571	13,427	9,963
Canada	4,659	3,903	3,092	7,000
United Kingdom	2,372	1,759	1,620	1,485
Total	22,064	20,233	18,139	18,448

e=estimated

UNITED STATES

Migration to the United States continued on its downward trend. The number of migrants decreased from 13,472 in 1972 to 9,963 in 1973. This is a fall of 26 percent the largest since the tightening of the United States immigration policy in 1965.

*Source: Economic and Social Survey: Jamaica, op. cit., p. 57.

The following projections are set forth to illustrate possible interactions between emigration, fertility and population growth:[6]

Assumptions	Total Population		
	1980	1985	1990
No emigration, constant fertility	2,313,400	2,793,500	3,319,700
No emigration, declining fertility	2,205,700	2,334,500	2,896,500
Emigration, constant fertility*	2,225,300	2,645,700	3,075,700
Emigration, declining fertility	2,150,800	2,401,100	2,681,700

* Assume 10,000 emigrants between 1976-1989

Population Growth and the Labor Force

The GOJ reported that in a population of 1,990,100 in October 1973, the labor force constituted 801,200 Jamaicans.[7] Of this number 621,600 were employed while 179,600 were unemployed. Thus, 77.6% of the total labor force was employed while 22.4% of this force represented the unemployed of the Jamaican labor force. The GOJ also reported that the labor force in October 1972 was 808,900, the 1973 figure constituting a decrease of 7,700 or 1.0% over the previous year.

There is general agreement that several factors combined to render such an unacceptable unemployment rate. Among these are economic, social and, of course, demographic factors all of which limited the growth of employment especially after 1969. Since capital investment is a key factor in the growth of employment and much of the capital investment was in intensive technology rather than intensive labor, this type of investment was obviously one of the principal culprits. Another was the loss of managerial talent through emigration during the 60's with the result that talent was not available to initiate new enterprises in Jamaica which would have created new employment.

But the demographic factors also played an important role and, may be expected to play an even greater role in the future. A recent unpublished analysis, for example, portrays a rather grim future for Jamaican employment, at least through the seventies, even if the population growth rate should remain about as modest as it has been during the sixties a condition which our data above do not seem to suggest. Utilizing an assumption of 15,000 annual emigration, rather than 10,000 employed in the table above, an increase in the Jamaican labor force of about 175,000 could be anticipated. But of more significance will be the unbalanced age structure of this growth. Whereas there would be an increase of 172,000 in the 14-34 age group there would be a decline of 8,000 in the 35-64 age group, that group which provides the managerial talent for the creation of new businesses and more jobs. Unemployment then could well exceed the current 21% plus and extend into the decade of the eighties, hardly a bright omen for the future economic development of the island.[8]

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[6] Derived from an unpublished source.

[7] See Economic and Social Survey, op. cit., pp. 223

[8] See Country Profiles, op. cit., p. 2. This publication, using 1970 fertility and mortality rates, assumed a Jamaican population of 2,200,000 in 1975, 2,500,000 by 1980 and 3.5 million in 2,000. The authors believed, however, that by increasing family planning activities, the population could be held to 2,100,000 in 1975, 2,250,000 in 1980 and 3 million in 2000.

The Jamaican Family Planning Program

Early Efforts at Family Planning

Private efforts in family planning were initiated in Jamaica over 30 years ago. In 1939 a private program, the Jamaican Family Planning League, was organized. The League opened a clinic in Kingston and in 1954, a second clinic was opened in St. Ann's Bay. In 1956, the Jamaica Family Planning Association was founded and it later became a member of the International Planned Parenthood Federation (IPPF).[9]

Thereafter, all efforts in population studies were consolidated under the IPPF and most of its activities were limited to major urban areas. The GOJ did not participate at this time in any way. The GOJ, however, did approve of a study on the attitudes toward family planning and the structure of the Jamaican family undertaken by private authors.[10]

The study suggested that the majority of Jamaican women favored family planning.

Government Policies, Priorities and Programs

Due to the efforts of the JFPA and the IPPF, pressure for family planning activities gradually escalated in Jamaica during the fifties and early sixties. This movement received substantial impetus in 1964 with the publication of the book entitled, "The Control of Human Fertility in Jamaic providing evidence that Jamaican women were in favor of utilizing contraception to limit the size of their families. In 1965 the Roman Catholic Church opened a marriage guidance clinic in Kingston to teach the rhythm method of contraception and let it be known that it would not interfere with family planning activities as long as pressures and coercion were not used to promote these activities.

The GOJ, of course, had been concerned over the rising Jamaican population and the social and economic consequences of this phenomenon since the early fifties. The first public concern expressed by the GOJ occured in the Five Year Plan, 1963-1968, in which the populace was urged to undertake family planning responsibilities. The GOJ, as noted above, also approved of the Stycos-Back study on human fertility in Jamaica published in 1964.

Between 1964 and 1966 the GOJ formally entered the family planning activities in Jamaica by establishing a national family planning program within the MOHEC.[11] At its inception, the National Family Planning Program (NFPP) was made a unit within the MOHEC. By 1968 the National Family Planning Board (NFPB) had been created. The board was established to serve as a semi-autonomous, policy making agency. The Board was appointed by the Minister of Health and Environmental Control and was largely responsible to him. Since 1968 and until recently the Board assumed responsibility for operating the Jamaican family planning program which was a unipurpose, clinic oriented program divorced from the delivery of health services. The Board also was responsible for sponsoring National family planning policies and coordination with private family planning programs.

[9] See the Situation Report, Jamaica, op. cit., p. 4 for background materials by the IPPF.

[10] J.M. Stycos and K.W. Back, The Control of Human Fertility in Jamaica, Ithaca, N.Y.: Cornell U. Press, 1964.

[11] Country Profiles: Jamaica, op. cit., p. 4.

The 12 members of the Board were selected from the professions, business, government and the university. At the head of the Board was the Chairman who was assisted by a Chief Executive Officer who is also the Director of the program. The Board itself was divided into three sections: 1) Manager/Secretary with overall supervision of operations; 2) Program Officer who was in charge of clinical services, supplies, publicity, education and training programs; and 3) Statistical Officer, in charge of record keeping, data collection and processing and evaluation.

Evolution of Family Planning Under the NFPB

The headquarters for this program was located in Kingston from where the family planning clinics throughout the island were supervised. In 1971 there were approximately 150 clinics. By 1973 this network of family planning clinics had grown to 161 including two mobile units.[12] Seventeen of these clinics were reported to be full time clinics, 134 "part-time clinics" and 10 were termed "satellite outposts".

The part-time clinics, the majority of these clinics, operated on a sessional basis. Each session lasted for about 4 hours and was served by a physician, two nurses or midwives and an interviewer. The frequency with which sessions were held at any one location depended upon the availability of staff and the level of client demand. Some clinics were open for several days during a week while others operated as infrequently as once a month.

The response to this program was mediocre at best, and the results were significantly less than the GOJ had hoped. Between November 1968 and August 1969 the number of admissions and readmissions was reported to be 25,830. By August 1970 this number had reportedly increased to 47,000.[13] By 1973 the number of clients, both new admissions and readmissions, was reported to have risen to 149,000 of whom 123,000 were being served by NFPB clinics.

These data may be substantially inflated, however, since many of these women clients may have been only some-time users of contraceptives. In the light of the population trends summarized below, a figure of 40,000 active women users in 1974 may be more accurate:

a. the Jamaican crude birth rate has declined from 42.0/1000 in 1960 to 30.4/1000 in 1974;

b. but, the crude death rate also decreased from 8/1000 in 1960 to 7.1/1000 in 1974 with infant mortality decreasing from 50.9/1000 live births in 1960 to 25.3/1000 in 1974, and

c. net migration in the decade of the sixties amounted to approximately 290,000, a large number of whom were females between 15-49 which, a competent analyst believes, had a very significant effect on the decline in the CBR, much more so than the family planning program, and

finally, it is believed the rate of natural population increase in Jamaica since 1970 has been in the range of 2.5 to 3.0% but the actual population growth rate has been kept to about 1.93% by the heavy emigration noted above.

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[12] See Statement by the Minister of Health, op. cit., p. 3 and Situation Report: Jamaica, op. cit., p. 4.

[13] Country Profiles: Jamaica, op. cit., p. 4.

In any event, in 1974 the GOJ set a CBR target of 25/1000 to be achieved by 1978. This goal could be achieved, the GOJ anticipated, if the family planning program could enroll 100,000 family planning practitioners (women between 15-44) by 1977. Other caveates involved reducing the general fertility rate to 120/1000 women (the fertility rate was believed to be 182/1000 in 1974) by 1977 and obtaining 22000 new acceptors each year through 1977.

The Cornwall Project: Family Planning Component

Such objectives as deliniated above necessitated ordaining family planning as one of Jamaica's highest priorities. This priority became official on January 22, 1974 when the Minister of MOHEC issued a policy directive on Family Planning. Under the new guidelines set forth in this policy directive, in the first instance family planning activities were to be integrated with regular health service activities and secondly, in pursuit of an extremely important principle, the delivery of three formerly separate health services, maternal-child health care, family planning and nutrition (MCH/FP/Nutrition) were to be integrated. Numerous studies have confirmed that smaller families result when the parents are assured that existing children are healthy and will survive; that there is a definite relationship between low childhood mortality and low fertility.

As part of the initial implementation of integrated MCH/FP/Nutrition services, 143 family planning workers were transferred from the NFPB into the MOHEC organization. A large part of the former role of the NFPB, such as information, coordination and evaluation, was retained by the NFPB but, as suggested above, the delivery of FP services as well as much of the training function was now to be provided as regular MOHEC services. Thus, plans were drafted to provide suitable equipment, supplies and personnel to enable each GOJ health center to offer family planning services upon request during the health center's regular hours.

The first practical, large scale implementation of these new services can be found in the experimental, pilot program known as the Cornwall Project, a program funded in part by the IBRD (the agreement between the GOJ/MOHEC and the IBRD was signed in 1976) designed to give pragmatic expression to integrated services for MCH/FP/Nutrition. As part of the MOHEC effort to improve the delivery of these combined services, a Cornwall County Health Administration was created as a regional branch of MOHEC. By decentralizing the administration of health services it was anticipated that more efficient delivery of the integrated MCH/FP/Nutrition services could be achieved. The Cornwall Project will provide much of the sustenance for this new delivery scheme and if the Cornwall County Health Administration proves effective during the four year period of the Cornwall Project, the other two Jamaican counties will be similarly organized for health care delivery.

With respect to the Family Planning component of the Cornwall Project, the immediate objectives are to reduce fertility from the rate of 182/1,000 women, age 15-44, in 1974 to 150/1,000 in 1980 and to promote MCH and Nutrition programs, which will be reviewed in subsequent chapters, so as to provide better leverage in promoting fertility reduction.* It is anticipated that this kind of family planning program can be organized and sustained if competent medical advice along with supplies are provided at the health centers but especially, if an adequate number of midwives and CHAs are trained and equipped to carry the program to Jamaican women. The midwives and CHAs, as recorded previously, are to be the field workers responsible for delivery of integrated MCH/FP/Nutrition services to the Jamaican families.

* GOJ/MOHEC officials readily conceded the impossibility of achieving a fertility rate of 120/1000 women by 1977 as suggested above.

The backbone of the Cornwall Project, for all its aspects, are the CHAs and midwives. The CHA's are paramedics recruited from the communities in which they will eventually work. They will serve as the link between the rural community and the health systems. They will perform the functions of the familiar "barefoot doctor" of rural China and, as far as family planning is concerned, they will provide the motivation as well as information and supplies. The midwives will also serve as first-line, primary care health workers and, in addition to their traditional roles, will help train indigenous midwives and will also promote family planning.

In addition to providing the link between community and the health system through CHAs and midwives, the project also proposes the renewal and/or new construction of 128 health centers consisting of four categories. Type I, for example, would serve up to 4,000 Jamaicans, would be staffed by CHAs and a midwife and would provide emergency primary care and dispense FP and nutrition information. Type II would serve up to 12,000 Jamaicans and would also have a Public Health Nurse. Type III would have a Medical Officer plus nurse, CHAs and midwife and would provide referral services. Type IV would have more, highly trained personnel and would provide advanced referral services.

The MOHEC obviously anticipates significant contributions to the health and welfare of many thousands of rural Jamaicans through the Cornwall Project and its successors. The salient points of the nutrition and MCH aspects of this program will be dealt with in chpaters 6 and 7 within the structural framework set forth in this chapter. As of this writing, the Cornwall Project Agreement between the GOJ/MOHEC and the IBRD has been signed and a number of CHAs and midwives are in training. We are not privy, however to the construction progress of the health centers, their staffing or supplying. We must await, therefore, the implementation of this obviously sound project to ascertain its ultimate effect upon the Jamaican population growth rate and other aspects of their health environment.

Private Efforts

As recorded above, the Jamaican Family Planning Association (JFPA), an affiliate of the IPPF, is the other organization principally involved in family planning activities in Jamaica. The division of activities between the MOHEC programs and the JFPA had been generally delineated by 1974 when the former began to expand its Family Planning operations. Under the agreement operative at that time, the JFPA could maintain its existing clinics but not expand its activities.

During 1974-75, the JFPA operated two clinics, one in Kingston and one in the rural parish of St. Ann. The JFPA has a field workers program which has been relatively effective in getting clients into the clinics. The JFPA also introduced a mobile unit in the St. James parish in 1972 which was subsequently integrated by the GOJ into the NFPB program.[14]

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[14] Situation Report: Jamaica, op. cit., p. 5.

The JFPA offers its clients the same range of contraceptives as the MOHEC. The JFPA, however, has conducted small-scale special studies and projects from time to time on various aspects of its operations. One of these is its "male motivator" program directed specifically towards encouraging Jamaican men to participate in their contraception program. During 1973 the JFPA received 18,388 visits but were able to report only 1,506 new acceptors including:

Contraceptive Method	New Acceptors in 1973
Oral	678
IUD	91
Condom	364
Others	373

Foreign Assistance

The Government of Jamaica's National Family Planning Program has received substantial assistance from various agencies to help promote family planning. Similarly, the Jamaica Family Planning Association has also received various kinds of assistance.

From the USAID, for example, the GOJ has received approximately $4,479,000 in grants through FY 1976 for family planning activities. These activities, administered through several projects, include: delivery of family planning services in rural areas, family life education programs; commerical distribution of contraceptives; creation of family planning formation system; and administration of the Papaniocolaou smear test. The USAID also assisted the University of the West Indies in training, research and evaluation related to family planning. Additional funding for family planning services is contemplated for FY 1977 and beyond.

There has also been extensive assistance from private sources. The Ford Foundation has provided the national program with a consultant in record keeping and evaluation. The Ford Foundation has also given the University of the West Indies grants totalling $338,000 for training and research in population fields. The Population Council has also been active in the GOJ postpartum program at the General Hospital in Kingston. The Pathfinder Fund has donated contraceptives and family planning literature to the national program. The International Planned Parenthood Federation (IPPF) and the Rockefeller Foundation have also provided assistance for training.

Other agencies have also made extensive contributions to the Jamaican family planning program. In 1970 the World Bank made a loan of $2 million to the GOJ for the construction of rural maternity centers and the expansion of maternity facilities at the General Hospital in Kingston where family planning information is dispensed. As noted above, in 1976 the World Bank also signed a loan with the GOJ in excess of 6.0 million for the combined MCH/FP/Nutrition program. The WHO-PAHO, the Church World Service, and the United Nations Fund for Population Activities have also contributed funds to promote family planning activities.

Evaluation

The latest data available indicate that as of late 1973 there were 161 family planning clinics in operation. During 1969 private sources claimed about 2,300 new clients were being recruited monthly with a total of about 47,000 women clients in late 1970.[15] This number represented about 12 percent of the estimated 400,000 women in the age group, 15-44. By late 1973 it was also claimed that there were a total of 149,000 clients, both new admissions and readmissions of whom, it was noted, 123,000 were being served by the NFPB clinics. A very reliable source believed, however, that these figures were heavily inflated and, in fact, there may have been only about 40,000 active clients in 1974.

In any event, using the earlier privately generated figures for illustrative purposes, over 60 percent of the 25,831 acceptors, the number of acceptors according to information available as of late 1969, chose the pill; about 14 percent, the IUD; 2 percent the diaphragm and 12 percent, vaginal methods. About 66 percent of the women who revisited clinics in 1969 said they were satisfied with their contraceptive method.

The sources of referral are also interesting. During 1969 nurses referred 34 percent of all acceptors to clinics while friends referred 28 percent and field workers, 16 percent. Physicians referred only 5 percent.

Ninety-two percent of acceptors had some elementary education. Only 2.2 percent had no education while 5.8 percent had education beyond the primary grades. The vast majority of these women are housewives, domestics or personal service workers. The urban area of Kingston-St. Andrews accounts for about 40 percent of the clients. In general, the more urbanized the parish, the better represented it is among the clients.

When asked about their reasons for using contraception, 65 percent of the users replied that they were trying to space their pregnancies. About 35 percent said they wnated no more pregnancies.

Future Prospects

Substantial funding and effort have been expended by the GOJ, other governments, international financial agencies and individual institutions in the promotion of Jamaican family planning. Continued funding is anticipated in the future from such agencies as the IDB, the IBRD and USAID for the expansion of the family planning program relative to health centers, training of personnel and provision of contraceptives and other supplies. The program has been oriented, properly so, toward women of lower economic status and, for the most part, has made contact with women in the majority of the urban areas.

[15] Ibid., p. 6; the data appearing on this and the immediately preceeding pages derives from this pamphlet.

The data available are somewhat dated and hardly complete. Nevertheless, these data sugg not only that the Family Planning program has enjoyed only modest success but continues to be confronted with obstacles which are extremely formidable. These obstacles, for which the GOJ have taken some remedial action since 1974, can be described both as technical and cultural-sociological, with the latter seemingly more important than the former.

Such a list would include:

a. Technical

1) lack of administrative, technical and biomedical personnel in the Ministry of Hea to plan and administer a comprehensive Family Planning Program;

2) inadequate service personnel to handle an expanded program, i.e.. one source estimated 4,000 family[16] planning personnel are needed;

3) not enough health units, clinics and/or centers to deal with an expanded pro especially in the rural areas; and

4) an unimaginative and uninspired public relations program in the recent past which, fortunately, appears to have improved over the past year.[17]

b. Cultural-Sociological

1) the continued cultural association of the Jamaican peasant with his African heritag rather than with Anglo-Saxon traditions, all of which renders him highly resistant to change;

2) the Jamaican peasant's African heritage includes several practices which impede family planning including:

a) polygamy
b) loose and unstable marital ties
c) irresponsibility toward children fathered out of wedlock, and
d) a matriarchal dominated family life for a substantial part of the population which the unwed mother is forced to support fatherless children with the aid of the grandmother;

3) a male attitude of machismo in which fathering children allegedly substantiates male's virility and manhood; and

4) economic conditions in rural Jamaica which force the male to seek employment as migrant worker due to the uneconomical size of his farm and which, in turn, fosters temporary liaisons near the large plantations (see appendix II for furth discussion).

[16] Ibid., p. 7.

[17] We have been informed by the USAID representative in Kingston that the public relations pro gram for birth control methods has increased substantially with expanded adveritsing on T.V in the press, on radio and even with bill boards.

In this and the previous chapters the GOJ/MOHEC experiences with the Elderslie Nutrition Program and with the current Conrwall Project have been recorded. These programs and projects were promoted by the GOJ and funded in part by various national and international agencies because they addressed themselves especially to Jamaica's technical problems but to a lesser extent to her cultural-sociological issues impeding a better health environment.

Accordingly, several innovations seeking to rectify the above difficulties have been introduced by the MOHEC. These include:

a. Merging the regular and family planning services so as to render the latter far more viable by using existing health facilities for comprehensive family planning;

b. Introducing a planning unit into the MOHEC organization to attack health environment problems;

c. The decision to utilize local recruits for CHAs and midwives to promote family planning, MCH care and nutrition at the local level;

d. Training of 1200 CHAs with the objective of expanding this number to 3000 for use in the other two counties in addition to Cornwall; and

e. Construction and/or renovation of health centers to be used in an organized system of health centers, a program also applicable to the whole island.

These ongoing reforms reflect substantial study of the Jamaican health environment and consensus by the GOJ and international agencies that the foregoing are proper solutions to basic Jamaican health problems. Nevertheless, in family planning as in other areas, much remains to to accomplished. The current Jamaican population growth rate would be about 3.0% were it not reduced to 2.2% by a heavy emigration which is under threat of reduction. We believe only about 40,000 Jamaican women have availed themselves of family planning services. But most important, the deeply ingrained cultural-sociological problems remain. Thus, 72.4% of Jamaican babies were reported to have been borne out of wedlock in 1960 and evidence that this rate has dropped dramatically is not at hand.[18] It should not be suprising, therefore, that progress in associating Jamaican women with family planning programs may be discouragingly slow.

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[18] See Appendix II for source details on current cohabitational patterns in Jamaica and the effects of these practices on the growth and health of the Jamaican population.

CHAPTER SIX

NUTRITIONAL DEFICIENCIES IN JAMAICA

The General Nutritional Status

Jamaican Diets (General)

Diets in Jamaica are low in animal proteins and high in carbohydrates as one might expect in a developing country. Specifically, this condition stems from a low production of domestic proteins, due to several factors, and the high prices of imported proteins. The basic foods eaten by Jamaicans are rice, roots, coconut products, plantains, oranges and other tropical fresh fruits. Meat and fish are not consumed in nearly adequate amounts.

Generally, it was estimated during the last decade that there was an overall availability of 2,600 calories per capita per day in Jamaica. Studies undertaken in the sixties showed that 76.4 percent of these calories derived from carbohydrates, 11 percent from fats and 12.6 percent from proteins.[1] These data are somewhat misleading, however, as are the import figures for food and food products over the past several years. Illustrative of these misleading data are the following factors:

First, although the 2,600 calories represent a general average assumed to be available to Jamaicans, nutritionists now believe that the majority of rural Jamaicans do not enyoy this caloric level. They believe this despite statistics which show, for example, that during the sixties imports of milk, cheese and butter increased in Jamaica. The nutritionists believe, however, that virtually all of this richer food went to the tourist trade, which also increased over 100 percent during this period, and not to the poor Jamaican farmers living at subsistance levels on a Jamaican mountain or hillside.

Second, the nutritionists also believe that the nutritional situation has deteriorated since these data were published in the middle sixties. The rice crop has declined, for example, and the corn crop has remained static.[2] Moreover, it is believed that the decline in the production of rice and corn has forced the Jamaicans to import costly wheat and wheat flour in an attempt to restore this deficit, especially as it affects the urban areas.

Third, another factor undermining the cited caloric average of 2,600 calories per capita per day, are the pockets of malnutrition where the caloric intake is very low. These pockets occur especially in the Jamaican cities where recently arrived rural people fall into the urban type of malnutrition caused by an acute lack of money. This kind of malnutrition can be worse than the rural type since it occurs on a year-round basis and yeilds to nothing but increased income. And this increased income is hardly assuaged by an unemployment rate of 21.0 percent or more and constant underemployment as well.

Finally, there is widespread malnutrition among Jamaican children. This is a function of poor nutritional education as well as lack of food and other factors, all of which will be discussed below.

[1] See May and McLellan, op. cit., pp. 118-119.

[2] Ibid., p. 119.

Children's Diets

Various studies of Jamaican infant and children's diets revealed widespread malnutrition and nutritional deficiencies.[3] These studies revealed the following data:[4]

About one fifth of recently born infants were underweight. These infants showed improvement, however, until about the age of nine months. Thereafter, about 25 percent of the children between 9 and 24 months had moderately severe malnutrition while about 4 percent between the ages of 6 to 18 months had severe malnutrition. During the second year the malnutrition declined slightly. From 2 years onwards about 20 percent of the children showed moderately severe malnutrition.[5]

As to nutritional deficiencies the situation was scarcely better. A 1970 nutrition survey showed that 79.8 percent of children under five had nutritional deficiencies (Grade 1 - 39%; Grade 2 - 9.4% and Grade 3 - 1.4%). Other studies have shown that between the ages of 6 months, when weaning took place, to 3 years of age, little protein of poor quality was consumed. Between 3 and 6 years the protein intake remained low although the diet was more diversified. Another study showed that of the 665 children (ages 1-6 years) surveyed those weaning to 1 year old received less than 55 percent of the protein they required.[6] The investigators found that animal protein represented 61 percent of the total protein intake in urban areas and 51 percent in rural areas. The children's diet usually consisted of porridge with condensed milk, potato puree, vegetables, fish soup and tea.

Causes of Malnutrition and Nutritional Deficiencies in Jamaica

Several factors in the Jamaican life pattern contribute directly or indirectly to the Jamaican nutritional difficulties. Some of these factors have been recorded previously in connection with the Jamaican population and family planning problems which they also influence. These factors include:

a. the marginal nature of the average Jamaican farm (78% of Jamaican farms are less than 5 acres and are considered uneconomic) necessitates its owner seeking a supplemental wage income which reduces the farm to a part-time operation and further reduces its efficiency and production;

b. the departure of the male member of the family to seek supplemental income further strains the family cohesiveness, which is already fragile due to cultural patterns and "fatherless" children, and thus reduces the discipline required for good nutritional care;

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[3] See Ibid., pp. 120-122; see also Dr. A.J. D'Souza, Country of Cornwall Community Health Project. Kingston, MOHEC, 1975, p. 1.

[4] See Minister of Health's Statement, op. cit., p. 5.

[5] Ibid., p. 5, this survey was undertaken by the Caribbean Food and Nutrition Institute, the Nutrition Unit of the Ministry of Health and U.K. Research Units.

[6] May and McLellan, op.cit., p. 212; others 3 to 6 years got 80 percent and 1 to 3 years had 68 percent of required proteins.

c. the pattern of fragile family life, marital instability and fatherless families is even more pernicious in its urban setting where the unwed mother must work, thereby leaving the children to the grandmother or other relatives who have neither the knowledge nor means to provide the children with balanced diets;

d. the food resources pattern also works against adequate diets for Jamaicans. Recent food import and production tables show that Jamaica imports more food than it grows; in 1969, for example, Jamaica imported 26,000 tons of rice and 53,000 tons of corn while growing only 2,000 tons of rice and 4,000 tons of corn.[7] In addition, over 27,000 tons of meat, 1,500 tons of dry milk and cream and 4,200 tons of butter were imported along with 146,000 tons of wheat and wheat flour. The Jamaican poor, urban or rural, could not afford to purchase much of the corn, rice or wheat much less the meat, milk or butter. This situation, of course, is not an unfamiliar pattern in a developing country nor are the results surprising. Most of this imported food was consumed by the newly urbanized middle class and the wealthy landowners and the tourists while the majority of Jamaicans endured malnutrition and nutritional deficiencies;

e. the road pattern also works against adequate distribution of available food to the rural poor, either on a cash or barter basis, and

f. poor sanitation also leads directly to diarrheal diseases and thence to more malnutrition.

Nutritional Disease Patterns

Studies conducted on Jamaican children during the decade of the sixties and the early seventies uncovered the following mortality and morbidity patterns relating to Jamaican nutritional problems:[8]

1. In a nineteen sixties study of 204 Jamaican children between the ages of 6 months and 3 years, who had died, the researchers concluded that 70 of the deaths were caused by malnutrition and that malnutrition had been a contributory cause of death in 132 cases. The researchers were able to establish that child care and breast feeding as well as protein supplements were deficient. Finally, they concluded that "malnutrition is a major cause of death among children during the first years of life in Jamaica";

2. More recent studies concluded in the early seventies revealed the infant mortality rate for Jamaica to be 25.3/1000 live births in 1974, a figure that compares favorably with other less developed nations.[9] There were significant variations in infant mortality among the several parishes, however. It was 16-17/1000 live births in St. Thomas and 34/1000 in St. James;

3. These studies also indicated that the nutritional status of most Jamaican children has not improved since the late sixties but, in fact, may have even deteriorated. It has now been estimated that malnutrition contributes directly or indirectly to 60-85% of deaths among children between six months and two years of age. It is also understood that malnutrition has been a primary or secondary diagnosis for approximately 50% of hospital admissions of children under two years of age.

[7] Ibid., pp. 132-133, Tables 3 and 4 in this study.

[8] Ibid., pp. 124-126.

[9] Derived from a unpublished private study.

4. The studies in the early seventies tended to confirm the results of the prior nutrition studies of the late sixties with respect to the nature of the malnutrition. The later studies also concluded that protein-calorie malnutrition was the most common form of malnutrition in Jamaica. Xerophthalmia and beri-beri were rarely found. Marasmus or Kwashiorkor also occurred in only 1-2% of Jamaican children under 5 years of age;

5. The earlier studies established that there was a general protein-calorie malnutrition throughout the islands among children between weaning age and 3 years due to energy intakes amounting only to 63% of requirements and protein intakes providing only 55% of needs. The number of Jamaican children suffering from protein-calorie malnutrition in the late sixties was believed by the FAO to be between 35,000 and 50,000. Many children weighed only 60-80% of the standard weight for age, sex and ethnic group;

6. Again, however, the later studies indicated that the situation had not improved substantially over a 5 year period. The early seventies study revealed that 10% of all children under 5 years were suffering severe, medically detectable malnutrition while 40% lived at a suboptimal standard level. Even so, Jamaican children were better off than other children in the commonwealth Caribbean, 53% of whom lived at a suboptimal standard level. The most critical time period when malnutrition appears to gain ascendency among Jamaican children is the period of transition from baby food to family food at 6 to 12 months of age. Factors contributing to this lamentable condition continue to include intense poverty, cultural mores, lack of knowledge, failure to treat the disease adequately and on a timley basis, and inadequate food production all of which were present during the earlier study period.

The GOJ Nutrition Policy: Increased Agricultural Production and Consumption of High Protein Foods

The GOJ has been aware of the nutritional problems afflicting the Jamaican people for some time but only recently undertook positive steps to correct these problems. In 1973, the GOJ established a Nutrition Advisory Council under the MOHEC to advise the GOJ on overall planning for improving the nutritional status of the population.[10] The Council has as its chairman MOHEC's principal medical officer together with representatives from other GOJ ministries and agencies including agriculture, education and finance. The principal function of the Council has been the preparing of a food and nutrition policy and programs to implement this policy, a task which it recently completed.

The new nutrition policy seeks to: 1) increase general agricultural production so as to ensure by 1980 an adequate diet, with appropriate nutrition, for all Jamaicans; 2) to focus especially on the domestic production of high protein foods to aleviate this acute shortage among Jamaicans; and 3) to concentrate on the elimination of calorie and protein deficiencies among the groups most prominent in these areas of malnutrition, i.e., children from birth to 5 years of age and pregnant and lacating women.

In order to implement this policy the Council has recommended a three phased attack consisting of: 1) domestic production and distribution of food to promote better infant weaning practices and to supplement the diet of pregnant and lactating women, (see appendix III for details of the Jamaican agricultural sector); 2) more effective education programs in nutrition as well as an emphasis on the advantages of longer-term breast feeding in conjunction with appropriately timed use of weaning and supplementary foods among infants; and 3) improvement of an ongoing school lunch program.

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[10] See Economic and Social Survey: Jamaica, op. cit., p. 208-209.

In pursuit of these objectives and programs, the GOJ in 1973 established a Nutrition Products Center and provided $390,000 for 1973-1974 to operate the center.[11] The center's primary function is to promote nutritious weaning foods for infants.

In 1973, the GOJ also provided $724,124 for 1973-1974 for a "School Feeding Programme".[12] Foreign assistance from the USAID has also been made available for this program (see Chapter 11.) This program seeks to improve the nutritional value of school meals. The total number of "school-meals" served throughout Jamaica in 1973 totalled about 75,000 per day. Efforts were also underway at clinics throughout the island to reduce malnutrition among pregnant and lactating women by distributing iron and vitamin tablets and milk to the most needy cases.

The Cornwall Project: Nutrition Component

Most population and development specialists have long since concluded that there is a distinct, positive correlation between good nutrition and successful family planning programs. Parents are far more likely to limit the number of children if they have some assurance that those children have an acceptable opportunity to survive. Hence, the combination of family planning and nutrition programs to establish the relationship between low infant and child mortality and low fertility represents logical and hopefully, sucessful programming. Maternal and child health care (Chapter 7), of course, is also a concomitant program.

It has also been well established that breast-feeding, quite apart from its positive effect on infant health, also has an important effect on postpartum infertility through lacation amenorrhea. Some population experts believe that lactation amenorrhea provides substantially more contraceptive protection than the artificial devises, including the pill, provided through the family planning programs.

The CHAs and to a lesser extent, the trained midwives, will carry the brunt of the nutrition education program to rural Jamaicans while simultaneously promoting family planning. If the pilot project in Cornwall County is successful this combined MCH/FP/Nutrition program will be introduced island wide and, in fact, plans for such a comprehensive program are now under review. The CHAs and midwives, under adequate supervision, will disseminate information on accepted nutritional practices to each of the rural communities to which they are assigned. They will be provided with sound technical support. And finally, there will be feasibility studies on local production and processing of supplementary foods.

The success of this integrated program depends on several factors, of course, including continued support of the government and the MOHEC and to foreign assistance. The ability to increase national agricultural production is also highly important. Basically, however, much of the success or failure of the nutritional aspects of this integrated program will depend on the verve of the CHAs and the local production of supplementary food.

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[11] Ibid., p. 208.

[12] Ibid, p. 208.

Table 18

IMPORTS OF SELECTED FOOD STUFF: 1969–1973*

('000 LB)

Commodity	1969	1970	1971	1972	1973
Cereals					
Rice	58,399	70,992	78,964	80,182	69,715
Cornmeal	8,598	9,249	8,384	8,027	4,533
Baking Flour	16,726	14,880	27,358	24,374	32,951
Counter Flour ..	100,666	114,969	111,550	100,618	117,810
Vegetables, etc.					
Beans, peas, etc.	8,159	6,401	1,062	4,095	5,530
Onions	10,421	10,174	11,061	10,662	7,533
Other vegetables (fresh and dry) ..	1,995	1,139	1,154	1,872	5,050
Potatoes (incl. seed potatoes) ..	11,160	11,357	7,002	6,342	6,382
Soups (vegetable)	751	730	279	329	338
Meat and Fish ..					
Beef and Veal (Fresh, Chilled or frozen)	5,793	9,042	7,170	8,355	9,336
Mutton and Lamb (Fresh, Chilled or frozen)	4,087	5,140	6,337	7,417	4,694
Pork (Fresh, Chilled or frozen)	413	1,014	1,919	1,837	832
Poultry meat (Fresh, Chilled or frozen)	8,410	13,812	16,653	13,739	17,695
Other Meat .. (Fresh, Chilled or frozen)	6,664	6,669	12,349	10,213	4,190
Beef and Veal (smoked, dry and salted)	1,715	3,470	2,233	3,056	2,120
Corned Beef	3,709	4,615	1,818	6,843	4,059
Salted Pork	2,635	2,156	2,968	2,904	2,771
Fish (fresh, chilled and frozen) ..	746	841	1,081	1,164	1,460
Codfish	21,514	12,575	12,462	16,208	9,473
Mackerel (salted)	8,006	3,687	5,261	6,635	6,714
Sardines (canned)	4,744	4,145	4,512	3,058	8,071
Herrings (canned)	4,521	7,670	5,375	5,917	2,001
Other Prepared Fish	..	..	..	..	10,423
Dairy Products					
Milk and Cream (dry)	16,575	21,715	20,377	28,813	14,235
Eggs in shell for eating ('000 doz.) ..	18	10	5	1	3
Butter (including butterfat) ..	9,305	10,859	12,486	8,544	9,589
Cheese and curd	5,344	6,092	8,015	5,487	4,475
Tonic Foods	84	378	97	295	1,329
Malt	11,326	15,735	15,980	17,930	21,670

*Source: Economic and Social Survey: Jamaica, op. cit., p. 149.

CHAPTER SEVEN

MATERNAL AND CHILD HEALTH

Some Data Illustrating Problems Associated with MCH Care

In the two foregoing chapters, the association among family planning activities, nutrition reform and maternal and child health care was delineated and a practical program for providing health services for two of these areas, family planning and nutrition, was examined in some detail within the context of the Cornwall Project. In this chapter, an effort has been made to review the most important aspects of the third area of this troika, maternal and child health care. The following data focus on the most important problems of maternal and child health care in Jamaica, problems which the GOJ/MOHEC are attemtping to solve through such pilot programs as the Cornwall Project.

Illustrative of some of the inadequacies in maternal health care, which have been prevalent in Jamaica for many years, are these data of 1968:

a. In 1968 an estimated 34.5% of the total live births in Jamaica were delivered by untrained personnel, principally local nanas (indigenous midwives), amounting to about 22,654 deliveries;

b. 30.5% of all births occurred in 22 public hospitals, approximately 19,948 deliveries;

c. 15.0% of all births were attended by 300 midwives, about 9,810 births; while,

d. 20.0% of all registered births occurred at the Victoria Jubilee Hospital, Kingston, which had 164 maternity beds, approximately 13,080 deliveries;

e. About 10.0% of all admissions to the Victoria Jubilee Hospital were due to abortion. In 1968 it was estimated that there were about 15,000 abortions in Jamaica;

f. Finally, it was estimated that 45% of pregnant and lactating women were anemic in 1968.

In the past several years, however, some improvement in maternal care can be noted from more recent data:

a. It was estimated that by 1974, only 25% of the deliveries were unattended by trained health personnel, down from 34.5% in 1968;

b. In 1974, the number of births taking place in Jamaican hospitals was about 50%, the same as in 1968;[1]

c. The remaining 25% of births were conducted at home by trained midwives, up from the 15.0% in 1968;

[1] D'Souza, op. cit., p. 1.

d. The number of maternal deaths per 10,000 live births in Jamaica in 1960 was 20.0 but had dropped to 13.6 by 1971;

e. Even prior to the initiation of the Cornwall Project (see below) there was increasing evidence that more Jamaican women of childbearing age were seeking to participate in postpartum programs. Six of the 23 hospitals providing maternity services also have postpartum programs and about 40% of women delivering in the Victoria Jubilee Hospital requested family planning services in 1974.

With respect to child health care, the following data illustrate the principal conditions existing since 1968 and the slight improvement in recent years.

a. In 1968, the number of deaths of children through 4 years of age from Avitaminosis and other nutritional deficiencies was 613. By 1972 this number had been reduced to 345. The death rate per 100,000 in 1968 for children 1-4 years was 203.7 and in 1972 it was 114.9.[2]

b. In 1972 the number of deaths among children through 4 years of age in Jamaica from Enteritis and other diarrheal diseases was 578. The death rate per 100,000 population was 192.5. By comparison, in the United States the death rate per 100,000 population was 21.7 for children 1 year and 1.1 for children 1 through 4 years of age;

c. The infant mortality rate in 1970 was 31.4 per 1,000 live births but had dropped to 25.3 per 1,000 per live births by 1974;

d. In 1970 an inter-American survey found 46% of Jamaican children under 5 years of age malnourished. By 1974 this figure had been reduced to about 40%. This compares favorably with Grenada at 54% and Barbados at 50%. In the United States and Canada it is believed about 16% of the children under 5 are malnourished.

Evolution of Jamaican MCH Care

At the end of the last decade PAHO, in collaboration with the MOHEC, prepared a study of maternal and child health conditions in Jamaica. The principal deficiencies revealed in this study have been recorded above. The study also proposed several recommendations which the MOHEC embraced and included in an interim program to improve MCH care in Jamaica. These interim measures involved:

1. Initiating a feasibility study in 1970 in the Parish of Portland in the eastern end of the island. The feasibility study was designed to integrate MCH and FP activities. As such, it served as a basis for the current Cornwall Project;

2. Recommended doubling the bed capacity of the Victoria Jubilee Hospital. This task was completed in 1975 with the bed capacity increased from 164 to 332 beds;

3. Constructing ten rural maternity centers the last of which was finally completed toward the end of 1974;

4. Increase the number of midwives by 25%; and

5. Decrease the unattended deliveries by half within 5 years, an objective which was not achieved.

[2] Health Conditions in the Americas, op. cit., pp. 31-32.

The Cornwall Project: MCH Component

The third component of the Cornwall Project, as recorded previously, is maternal and child health care. In reality, of course, as the Cornwall Project contemplates, MCH care is virtually inseparable from FP and nutrition, the latter two of which were dealt with in previous chapters. The MOHEC, nevertheless, has established a number of objectives for the MCH component some of which are redundant but which, for continuity purposes, bear recording. These include:[3]

a. Providing adequate antenatal care to 90% of pregnant women:

b. Reduce the percentage of deliveries unattended by trained health personnel to 0;

c. Provide adequate postnatal services to 70% of newly delivered women;

d. To recruit at least 33% of women of reproductive ages (15-44) as continuing users of Family Planning Services;

e. Provide adequate preventative health services to 90% of children under two years of age and up to 70% of children between 2-5 years of age;

f. Achieve adequate immunization coverage for 80% of children under 5 years of age;

g. Provide nutrition surveillance services to 90% of children under 2 years of age.

As suggested in the previous chapters, the brunt of the workload for the Cornwall Project will be borne by the CHAs and midwives. In the case of MCH care the latter will have the greatest responsibility.

Thus, the midwives will have responsibility for:

a. Providing prenatal and postnatal care during the course of home visits;

b. domicilary midwifery;

c. the supervision and training of nanas (indigenous midwives);

d. care of infants;

e. encouraging new mothers to continue breast feeding;

f. immunization programs for children against communicable diseases.

The district midwives, therefore, will be the principal primary health care workers for the MCH/FP component of the program. The MOHEC anticipates having one district midwife for every 4,000 population in Cornwall County by 1980.

[3] D'Souza, op. cit. p. 2.

Jamaican MCH Policies, Objectives and Goals Through 1980

Generally, it is the policy of the GOJ to improve Jamaican MCH care substantially so as to decrease morbidity and mortality associated with procreation. The GOJ anticipates utilizing the experience and data from the Cornwall Project to devise an island wide, specific program of MCH care which will fulfill this general policy.

The GOJ already has a number of specific objectives which it hopes to achieve by 1980 or soon thereafter. Some of the more important of these objectives include:

1. Reduction of maternal mortality to 7 per 10,000;

2. Reduction of maternal morbidity and complications associated with pregnancy by 50%;

3. Reduce to 25 percent of the current numbers, the number of abortions by providing better contraceptive devices and services;

4. Include in the nutrition program all women attending prenatal clinics, so as to prevent anemias and nutritional deficiencies during pregnancies and lactation;

5. Reduce infant mortality rate and morbidity due to low nutritional status; reduce incidence of malnutrition grades II and III by at least 60%;

6. Reduce fertility in females (15-44) from 180 to 150/1000 by 1980;

7. Reduce the birth rate to 25/1000;

8. Increase pre-school immunizations to 80 percent, the specific objectives being to vaccinate 100 percent of pregnant women attended by the MCH program and to increase other immunizations as follows:

   a. DPT to 50%
   b. Polio to 80%
   c. BCG to 100%
   d. Smallpox to 100%
   e. All during first year of life.

It is further planned to introduce a measure requiring full immunization as a prerequisite to school entrance;

9. Promote serological examination and treatment, if necessary of all pregnant women to substantially reduce venereal diseases in Jamaica, i.e., syphilis now infects 12.9% of women in the 15-44 age group; gonorrhea infects 1852.58/100,000 of total population;

10. Reduce neonatal death rate from 19 to 15/10,000 live births;

11. Reduce infant mortality from 25.3/1000 to 20/1000 live births;

12. Insure early detection and treatment of cervical and breast cancer by requiring e> nation of all women in MCH programs;

13. Continue the operation of the 161 Family Planning Clinics, providing more clinical sessions, the initial objective was 50% more sessions by 1973 but this goal was moved t 1980.

14. Increase the number of new acceptors to 40,000 annually and diminish the number of drop-outs by providing information of available methods of fertility regulations to tho attending hospitals and health centers. In 1970, for example, new acceptors varied greatly according to the clinic involved:

- 3 clinics had over 1000
- 4 clinics had between 600 and 800
- 16 clinics had between 300 and 400
- 50 clinics had less than 30.

15. Involve more trained personnel for Family Planning sessions by at least 50% by 198

16. Provide health education programs for all MCH participants on such subjects as Hea and Hygiene, Family Life, Responsibilities of Parenthood and Family Life Education and introduce these subjects to all primary and secondary schools by 1980;

17. Finally, involve the male population in the Family Planning Program.

CHAPTER EIGHT

MENTAL HEALTH INCLUDING DRUG CONTROL

Current Status of Mental Health Facilities

A substantial proportion of Jamaica's "psychiatric" hospital beds are located in the large mental hospital, the Bellevue Hospital, in Kingston. The Bellevue Hospital has 3,115 beds.[1] In addition, the University Hospital of the West Indies also has a psychiatric wing with a bed capacity of 40. Finally, the new County of Cornwall Regional Hospital has a psychiatric section which can accomodate 156 patients.

The MOHEC Mental Health Programs

The GOJ publication, Economic and Social Survey: Jamaica, 1973, noted that "mental health is one of the measurable indicators of the state of health in any society" and should be examined "in terms of the provisions for the mentally ill and in terms of the incidence of mental disorder in the population."[2] Thus, having reported the status of mental health facilities, it is appropriate to examine the availability of psychiatric staff and the evolution of the MOHEC programs to treat the mentally ill.

The Bellevue Mental Hospital, with its current 3,115 bed capacity, has been the center of MOHEC psychiatric care for several decades. As of 1964, two-thirds of the patients at Bellevue had been hospitalized for five years or longer.[3] The paucity of data on MOHEC mental health programs, however, suggests that the GOJ had neither the resources nor inclination to focus on this aspect of the health environment during the sixties or the prior decades.

The need for a re-socialization program was evident during the sixties but was thwarted by a rising admissions rate and lack of financial support and staff. During the sixties the admission rate increased by over 100% while, simultaneously, there was also a decline in the number of nurses available from one nurse to 4.5 patients in 1965 to one to 16 patients in 1970.[4]

By 1971 the bed occupancy rate at the Bellevue Hospital was 96% and for 1972 it was 95%. In 1971 a total of 4,113 admissions were made at Bellevue and in 1972, 4,956 admissions were made. In 1971, there were 4,067 patients discharged from Bellevue while 154 patients died. In 1972 the comparable number was 4,760 discharged while 147 died.

A recent GOJ publication provides a small insight into the modus operandi of the MOHEC program and the criteria which guide the functioning of the Bellevue facility.[5] "The Bellevue Hospital treats:

[1] See economic and Social Survey: Jamaica, op. cit., p. 209.

[2] Ibid, p. 209.

[3] See Quadrennial Projections, op. cit., pp. 164-165

[4] Ibid., p. 164.

[5] JIS Facts on Jamaica, op. cit., No. 311

persons of unsound mind found wandering and persons of unsound mind who are no receiving proper care. They are examined by two doctors and then sent to the hospital by an order signed by a Justice of the Peace;

private patients ordered admitted by a Resident Magistrate;

"voluntary patients who go on their own free will to the hospital for treatment. Such patients do not remain in the hospital longer than they wish to stay."

s noted above, a re-socialization program was not available for treatment of patients at Bellevue but was urgently needed. Since 1970 a Mental Health Act, which would provide additional government assistance to the mentally ill including a re-socialization program, had been under consideration by the GOJ. We are not aware as to whether or not this act has been adopted by the Jamaican legislature.

Nevertheless, although the Minister of Health complained in 1971 that Jamaica was "extremely short of psychiatrists, psychiatric paramedical workers and funds with which to undertake a greater effort,"[6] by 1973 the situation had improved somewhat. For example, the number of professional and technical officers on the staff of the Bellevue Hospital increased by 17.7% from 811 in 1972 to 954 in 1973. In 1971 there were only 776 professional and technical officers at Bellevue.[7]

Then too, other facilities helped lighten the patient load at Bellevue during 1972-73. Between August 1972 and July 1973, 241 in-house patients were treated at the psychiatric ward of the University Hospital of the West Indies. The total number who received treatment at this psychiatric ward during that period was 3,577.

The GOJ has observed that "this increase may be an indication that a greater proportion of the mentally disturbed population sought and received help in 1972 than in the previous year, and/or that for a greater number of persons the stress and strain of life and society is increasing, or both."[8] In any event, the GOJ/MOHEC have been making a serious effort to improve their mental health programs and continue to seek help in this endeavor from such sources as the PAHO Technical Assistance Funds of the UNDP as well as from the increase of domestic resources.

The Private Sector

The MOHEC has indicated that its data on private practitioners in the mental health field are inadequate. In 1972, nevertheless, the MOHEC confirms that the services of at least seven psychiatrists and three psychologists were available to Jamaicans. In 1973 these services were strengthened by the addition of three more psychiatrists and one more psychologist to the private sector.

[6]Statement by the Minister of Health, op. cit., p. 7.

[7]Economic and Social Survey, op. cit., p. 209, this corps of mental health workers apparently also served throughout Jamaica in addition to their tasks at Bellevue.

[8]Ibid, p. 209.

The Use of "Ganja" in Jamaica

"Ganja" is a potent variety of Cannabis Sativa which is grown in various parts of Jamaica and has been smoked by Jamaicans for many decades.[9] It is alleged that smoking "Ganja" is more harmful than smoking regular marihuana since it evokes in users a retardation of intellectual maturity, increases suseptibility to persuasion, distorts perceptions of reality and causes mental confusion and disorientation. It is also alleged to cause the "coolie" syndrome which includes a chronic cough, chronic bronchitis and eventually secondary emphysema. It has also been claimed that recently there has been a sharp increase in the production of "Ganja" for shipment abroad, especially to the U.S. Although the GOJ is quite aware of its widespread use, to date its efforts to curtail the growth and use of "Ganja" have been largely unsuccessful.

[9] See JAMA, Vol. 229, No. 11, 9 September 1974, p. 1521.

CHAPTER NINE

DENTAL HEALTH

Dental Manpower and Facilities

At the close of 1972, there were 105 Registered Dentists actively practicing in Jamaica.[1] This figure also included those dentists engaged in teaching and administration. These 105 dentists served a population of 1,953,472 at the close of 1972 or a ratio of dentists to population of 1:18,600. This represents an almost imperceptible improvement over 1971 at which time there were only 100 Registered Dentists which provided one dentist for every 18,700 of population.[2]

With respect to specialization, among the 105 dentists at the end of 1972, five dentists had a specialty in Orthodontics, five were oral surgeons and two were in Dental Public Health. Sixty-eight percent of these dentists practiced in the so-called "Corporate Area." Some of these dentists also served the adjoining parishes, however.

Many of these dentists also practiced part-time for the GOJ. At the close of 1972, for example, the GOJ employed on a part-time basis, a Senior Dental Surgeon, two Dental Surgeon Specialists, one Director of the Dental Auxiliary School and 56 Dental Surgeons. In addition, the GOJ employed four Senior Sister Tutors, two Dental Prosthetists, two Assistant Prosthetists, 20 Dental Nurses, 60 Dental Assistants and other supporting staff.[3]

The GOJ through the MOHEC operates a two year course at the Dental Auxiliary School to train dental nurses. Regular dental services are provided by the MOHEC in all its hospitals and health centers and in the Jamaican schools.

In 1973 a new preventive program to provide regular dental services for children up to 15 years of age was introduced by the MOHEC.[4] This program began in six schools and is being adopted in others as financial and manpower resources become available. Under this program clinics are operated by the School Dental Nurse under the supervision of a Dental Surgeon. Each Dental Nurse is assigned a group of 300 to 600 children for whom the Dental Nurse is responsible. Every child may participate if his school has this program by placing his name on the school dental register.

[1] See Economics and Social Survey, op. cit., p. 210; See also George M. Gillespie, D.D.S., A Review of Dental Health Programs in the Commonwealth Caribbean. PAHO, 1973, Tables II-XVII, pp. 32-48.

[2] Ibid., Table V, p. 36.

[3] Economic and Social Survey, op. cit., p. 210.

[4] JIS Facts on Jamaica, op. cit., No. 31F

General Status of Dental Health: Epidemiology

The dental status of the Jamaicans is something less than satisfactory but certainly not as deficient as might be anticipated given their general health status.[5] In a study involving 9,825 Jamaican children, 7 to 10 years, in the Kingston area it was found that 11.9% of these children were free of caries while 40.0% had caries free permanent teeth only. It was further revealed that 57.5% had lost one or more deciduous teeth while 19.9% had a similar loss of permanent teeth. Only 9.0% per 1,000 had at least one filling in their permanent teeth and only four children per thousand had fillings in their deciduous teeth.

Other studies between 1968 and 1972 revealed that the majority of Jamaican children exercised poor oral hygiene. Ninety percent of the children with gingivitis had poor oral hygiene while 68.9% of the uninfected children in the primary schools of Jamaica also had poor oral hygiene. It was also observed that 48.2% of 3,899 children, 7-11 years, suffered from malocclusion. Thus, it has been estimated that about 400,000 Jamaican school children of all ages require dental care, some on an urgent basis.

Jamaican Dental Policy

In 1972, the GOJ sponsored a Dental Act which subsequently passed the legislature. The act provided for training, enrollment, control and utilization of dental auxiliaries. It also established a Dental Council and a Dental Auxiliary Advisory Committee to implement the 1972 act especially as regards dental auxiliaries. Thus, the GOJ appears to be pursuing a policy of improved dental care, at least for its children, by training manpower, especially dental auxiliaries, and conducting surveys to determine more accurately the dental condition of its people.

Dental administrators believe, however, that the GOJ/MOHEC still have much to accomplish to bring to dental care the emphasis placed on other aspects of the health environment. Included are a greater proportion of the health budget devoted to dental care, more studies to determine the dental condition of the Jamaican population, fluoridation treatment where possible, increased training of dental auxiliaries and finally, significant reduction of the ratio of dentists to population from the 1972 level of 1 to 18,600 to 1 to 1,700, which may entail establishing a dental school for the Caribbean at the UWI.

[5] See Gillispie, op. cit., pp. 2-4; information on dental epidemiology derived primarily from this report and is at least four years old.

CHAPTER TEN

ENVIRONMENTAL INADEQUACIES AND PROBLEMS

Jamaica, as recorded in the review of its diseases and health risks in Chapter 2, does not have an especially hostile natural environment to healthy habitation. Indeed, despite health risks common to all developing nations in or near the tropics, including the Aedes aegypti mosquito, vector for hemorrhagic, dengue and yellow fever, nature and climate are hospitable and encouraging for somnolent living. Jamaica, in fact, has been described as the original island in the sun.

Pollution of the environment, however, has followed upon the ever increasing populati growth, especially in the urban areas, and upon the growing industrialization. In particu like most developing countries, Jamaica suffers a depressing housing problem, a completely insufficient potable water supply, and equally inadequate waste disposal facilities.[1] To however, air and water pollution resulting from automobiles and other machinery and chemic appear not to be causing major problems.

Housing

The GOJ has observed that "housing remains one of Jamaica's most pressing social problems."[2] The GOJ estimated, for example, that during the decade of the sixties, 60,000 new households were formed but only about 32,000 new housing units were added to existing housing. Thus, not only were there almost twice as many new households formed as houses constructed but there was no construction to replace the obsolete houses which became uninhabitable during that decade. The U.N. estimates that about one percent of existing houses annually become obsolete.

The most apparent result of this drastic housing shortage is the proliferation of shanty towns in the major urban areas such as Kingston,[3] St. Andrew and Montego Bay. The acceleration of the migration to urban centers only exacerbates this condition, of course. Illustrative of the deleterious effect this situation has upon social conditions in Jamaica are data provided by researchers into family planning activities in Jamaica. These researchers reported that of the total number of women interviewed (80) for this particular study only 50.7% lived in conventional housing, detached house or apartment.[4] The remainder rented rooms in a tenement but more likely, resided in a "yard" or shanty.

A more recent survey indicated that one third of the population of Kingston and St. Andrew (about 42,470 households) occupied substandard housing, probably as squatters.[5] In the Montego Bay area, four sub-divisions, Rose Mount, North Gully and Canterbury, Flankers and Railway Lane, also contained substantial substandard housing. It has also been estimated that about 48,000 farms as of 1973 contained substandard housing..

[1]Economic and Social Survey Jamaica, op. cit., pp. 212-215.

[2]Ibid., p. 212.

[3]Ibid., p. 212.

[4]See E. R. Brody, F. Ottey and J. La Granade, "Couple Communication in the Contraceptive Decision Making of Jamaican Women," The Journal of Nervous and Mental Disease, Vol. 159, No. 6, p. 409.

[5]Economic and Social Survey: Jamaica, op. cit., p. 212; there was also much over-crowding in the Kingston area with a population density of 94,000 per square mile.

Water Supply

Another basic indicator of a nation's environmental status is the nature of the water supply available to its inhabitants. Again, Jamaica fares badly in this category. According to the 1970 census, out of 420,159 dwellings recorded in the census, only 69,827 or 16.6 percent had a public water supply piped into the dwelling. Moreover, 63,289 of the dwellings enjoying piped water, or 90.6 percent were in urban areas of Jamaica. Even so, it was also revealed that 60 percent of the households in the Kingston area either depended upon a public standpipe or had no access to piped water.[6]

Waste Disposal

Still another indicator of environmental status is waste disposal and, in Jamaica, the conditions for human waste disposal are very inadequate. Of the total number of dwellings recorded in the 1970 census, 273,995 or 65.2 percent had only pit latrines (see table). The majority of rural dwellings use pit latrines which the GOJ finds "not . . . unhygienic."[7] The GOJ concedes however, that the 67,773 dwellings in urban areas or 35.9 percent that also employ pit latrines are inadequate due to the density of population. It might also be noted that 13,791 of the Jamaican dwellings both in urban and rural areas have no toilet facility at all.

We do not have data available on waste disposal facilities for Jamaican industry. We do not perceive this to be a major problem as yet, but could become so as the bauxite industry and light manufacturing progresses in accordance with the GOJ industrialization programs (see Appendix III).

GOJ Housing Programs

Housing in 1973

The GOJ has projected that there is need for an annual increment of 11,000 units (excluding replacement) to keep up with the formation of new households. This does not take into account any allocation for shortages that exist.

Housing the community has traditionally been carried out both by the Public Sector and by the Private Sector. The two catered to different income groups and in effect their paths did not converge. The Public Sector in the past concentrated its activities on the lower income groups where the need is greatest and left the higher income groups to the Private Sector. Recently, however, the Ministry of Housing through its Agencies has been going into middle income housing. This will be discussed further on. Most of its programs still concentrate on people with annual incomes of under $2,500, nevertheless.

Public Sector Housing

During 1973, there was an increase in activity in Public Sector Housing and in fact, by the end of the year there were 2,843 completed units as against 1,585 in 1972. This was an increase of 79.4 percent over the previous year.

The GOJ housing program completed 1,027 units in 1973 in addition to other programs. These other programs included slum clearance and refurbishing existing houses in projects in Trench Town and Tavares Gardens. The GOJ also promoted farm and indigent housing programs with the latter up about 106.5 percent over 1972.

[6] Ibid., pp. 212-21

[7] Ibid., p. 213.

Private Sector Housing

Although data are scarce on private sector housing, it is known that the private developers cater to the higher income groups. The exact number of private housing completions cannot be ascertained, however. Five private developers in Jamaica, nevertheless, have informed the GOJ that between 1967 and 1973, 4,227 units were constructed by these five companies, of whi 616 were built in 1973. From observations, the trend in the urban areas continues to be in the direction of town houses and apartment buildings. Until the system of data collection i updated, however, no definite statements can be made.

Table 19

NO. OF HOUSING UNITS AND POPULATION BY URBAN/RURAL DISTRIBUTION*

Area	Housing Units	Population
Urban	188,671	750,951
Rural	231,488	1,062,643
Total	420,159	1,813,594

*Economic and Social Survey: Jamaica, op. cit., p. 212.

Table 20

DWELLINGS CLASSIFIED BY THE TYPE OF WATER SUPPLY BY URBAN/RURAL DISTRIBUTION*

Area	Total Dwellings	Type of Water Supply							
		Public Supply		Private Supply		Public Stand Pipe	Public Tank	Other	St
		Piped into dwelling	Piped into yard	Piped into dwelling	Catchment not piped				
Urban ..	188,671	63,289	81,774	12,618	2,610	21,767	1,025	3,986	
Rural ..	231,488	6,538	20,733	8,275	17,413	92,565	21,455	54,037	
Total ..	420,159	69,827	102,507	20,893	20,023	114,332	22,480	58,023	

*Economic and Social Survey: Jamaica, op. cit., p. 213.

Table 21

DWELLINGS CLASSIFIED BY TYPE OF TOIL URBAN/RURAL DISTRIBUTION

Area	Total Dwellings	Type of Facility			
		Pit	Water Closet	Other	None
Urban	188,671	67,763	118,906	489	1,513
Rural	231,488	206,192	12,622	396	12,278
Total	420,159	273,995	131,528	885	13,791

Economic and Social Survey: Jamaica, op. cit., p. 213.

Table 22

GOVERNMENT HOUSING UNITS COMPLETE 1970–1973; AND THOSE UNDER CONSTRUC AT THE 31ST DECEMBER, 1973*

Scheme	No. of Units Completed			Unde Constru at 31.1
	1971	1972	1973	
Government Housing Scheme	453	422	1,027	524
Slum Clearance and Rehousing ..	63	22	534	634
Owner/Occupier	380	253	196	33
Farm Housing	91	514	355	45
Indigent Housing	187	354	731	13
Assistance to Co-operatives	29	20	..	..
Total	1,382	1,585	2,843	1,249

*Economic and Social Survey: Jamaica, op. cit., p. 214.

CHAPTER ELEVEN

FINANCING THE JAMAICAN HEALTH SYSTEM

Health Priorities and Increased GOJ Expenditure for Health Services

In the previous chapters we have tried to suggest that the GOJ, especially since 1973, has attempted to affect significant improvement in Jamaican health services. This effort has resulted in plans for a modest reorganization of the MOHEC, a decentralization of contr of Jamaica's general hospitals, substantially increased health manpower training and the beginning of the integration of MCH/FP/Nutrition programs for Jamaica as evidenced in the C wall Project. New health insurance schemes are also under consideration to encourage private physician participation in improved health services.

This new emphasis by the GOJ on improved health services designed to advance the personal health status of individual Jamaicans has resulted in substantially increased GOJ expenditures on health services since 1974/75, although the proportion of gross expenditures devoted to health services has remained approximately the same. There follows a brief table illustrating recent GOJ expenditures for health services since 1968/69.[1]

YEAR	AMOUNT (amount of Jamaican $) (millions)	Percentage of GOJ Gross Annual Expenditures
1968/69	16.5	12.6%
1969/70	17.8	12.3%
1970/71	20.8	11.1%
1971/72	28.9	12.8%
1972/73	34.7	12.4%
1973/74	36.9	10.8%
1974/75	61.7	12.4%
1975/76	62.5*	10.6%

There are elements of health and social services, and therefore, funding in other agencies of the GOJ. In addition to MOHEC, services which might be considered within the purview of health care and social services are to be found in MOPS (Ministry of Public Services), MYCD (Ministry of Youth and Community Development), MOE (Ministry of Education) and MOA (Ministry of Agriculture). Data are not available to delineate the funding in these agencies which might go either to broad health care or social services.

[1]See Table 23 on Central Government Expenditures derived from data provided by the GOJ Ministry of Finance. The figures for 1974/75 and 1975/76 are subject to revision.

*The USAID/Kingston have informed us that the 1975/76 MOHEC budget may reach $70.2 million, a figure slightly in excess of that recorded above in J$.

Table 2.

CENTRAL GOVERNMENT EXPENDITURES: Current Expenditures
(J$ millions)

	1970/71	1971/72	1972/73	1973/74	REVISED ESTIMATE 1974/75	BUDGET 1975/76
GENERAL SERVICES	66.9	78.0	76.9	113.1	141.6	185.8
Interest Payments	15.8	18.1	21.7	31.0	47.4	59.5
Other General Adm	31.5	37.5	28.7	46.1	43.1	69.4
Security Services	19.6	22.4	26.5	36.0	51.1	56.9
SOCIAL AND COMMUNITY SERVICES	66.1	87.4	103.5	132.4	199.4	241.4
Education	35.5	45.3	54.3	80.3	109.3	139.5
Health	20.8	28.9	34.7	36.9	61.7	62.5
Social Security and General Welfare	2.9	5.3	6.4	7.2	9.2	12.2
Housing	3.2	2.6	2.8	2.8	4.1	4.6
Water Supplie:	0.9	0.3	1.4	2.4	4.9	6.2
Other Social and Community Services	2.8	2.0	3.9	2.8	10.2	16.4
ECONOMIC SERVICES	36.0	41.2	57.8	58.9	90.3	84.6
Agriculture	10.7	9.8	15.0	15.2	10.0	18.7
Industry and Commerce	2.7	2.6	3.2	5.0	10.8	10.6
Transport and Communication	8.9	11.2	11.6	13.4	18.0	17.8
Roads	2.3	5.9	13.8	9.5	13.9	10.7
Fuel and Power	-	-	0.6	1.3	6.3	1.5
Environment	0.8	0.9	1.0	3.0	5.3	6.4
Other Economic Services	10.6	10.8	12.6	11.6	17.0	18.9
MISCELLANEOUS SERVICES	18.8	21.5	41.2	36.9	66.2	76.8
Miscellaneous grants to Local Government	18.8	21.5	26.9	36.9	66.2	72.3
Other Unallocable Expenditure			14.3			
GROSS TOTAL	187.8	225.3	279.4	341.0	496.6	588.6
Less Appropriations-in-Aid	10.6	19.8	24.2	23.8	11.1	6.4
NET TOTAL	177.2	205.5	255.2	317.5	486.4	582.2

Source: Ministry of Finance

In reviewing Table 22, it is interesting to note that some of the highest GOJ expenditures since 1970/71 have been devoted to health services. Within the scope of the whole GOJ expenditures since 1970/71, only two services, "Education" and "General Administration" have expended more GOJ funds than Health Services. Health Services have consistently used between 10.6% and 12.8% of the GOJ expenditures since 1970/71.

Foreign Assistance to the Jamaican Health System

The GOJ has been able to call upon several sources of foreign assistance over the past decade. The most important of these sources include the USAID, the WHO, the IBRD, the IDB and lending agencies in Canada and the United Kingdom. Most of this funding from the latter sources has been for capital projects but the following is a delineation of external assistance for health or health related projects to the extent permitted by our available information.

USAID

The USAID has focussed its assistance strategy in health on two types of projects, family planning and primary health care, in cooperation with the GOJ health programs and complementary to the IBRD and WHO/PAHO health assistance. The USAID technical assistance project in Family Planning emphasizes: a) delivery of family planning services in rural areas; b) family life education programs; c) commercial distribution of contraceptives; and d) creation of a family planning information system. The assistance for primary health care focusses on: a) improvement of prenatal and postnatal services; b) assessment of the nutritional status of young children; c) training public health nurses and community health aides; and d) expanding integrated maternal and child health, nutrition and family planning services in cooperation with the Cornwall Project.

Thus, the USAID has provided grants in the amount of $3.0 million over the past several years for a family planning project focussing on the programs described above. This project was completed in FY1976 and will be replaced by a "Family Planning Service" project serving essentially the same objectives. It will begin in FY1977 and continue through FY1980 at a grant cost of about $2.4 million. The USAID is also funding a primary health care project to be completed in FY1977 at a grant cost of $375,000.

WHO

The following are the health or health related projects supported by the World Health Organization from 1974 through 1977 projected:

Table 24

O Proposed Program Budget, 1976-1977

JAMAICA 2	Project No.	Number of posts				Estimated obligations				Regular budget	C ac
		1974	1975	1976	1977	1974	1975	1976	1977		
	JAM					US$	US$	US$	US$		
STRENGTHENING OF HEALTH SERVICES											
Health services	SHS 001	1	1	1	1	67 808	69 450	72 440	95 310	RB	
		1	1	1	1	26 400	27 600	28 800	29 900		
Medical care and hospital administration	SHS 002					14 948	15 765	17 626	21 064	RB	
						5 250					
Rehabilitation	SHS 003	1	1	1		31 308	32 110	29 940	2 400	RB	
Management of health services	SHS 004					5 700	5 500			RB	
						4 760	5 026	5 278	5 558		
Nursing services	SHS 005					4 332	4 584	4 848	5 112		
Health planning	SHS 006					816	876	1 512	1 578	RB	
						4 032	4 200	4 368	4 524		
FAMILY HEALTH											
Maternal and child health											
Health and population dynamics	MCH 001					2 096	3 367	3 667	3 932	RB	
						10 832	11 127	12 239	13 463		
Nutrition											
Nutrition	NUT 001					2 401	3 592	3 786	3 962	RB	
HEALTH MANPOWER DEVELOPMENT											
Sanitary engineering education	HMD 001					3 000	4 500	5 000	5 500	RB	
Human resources development	HMD 003					13 940	1 180	1 280	1 400		
Nursing education	HMD 004					7 520	7 860	7 600	7 840		
COMMUNICABLE DISEASE PREVENTION AND CONTROL											
Epidemiological surveillance of communicable diseases											
Epidemiology	ESD 001					3 [illegible]61	4 226	4 536	4 770	RB	

(Cont.)

Table 24 (cont.)

Malaria and other parasitic diseases										
Malaria eradication	MPD 001				1 880					
Veterinary public health										
Veterinary public health	VPH 001				10 077	5 866	10 259	14 610	RB	DP
Animal health programme	VPH 002	2	2		67 000	24 000				
Vector biology and control										
Aedes aegypti eradication	VBC 001				4 664	4 978	5 378	5 778	RB	
					2 704	2 864	3 008	3 160		PR
NONCOMMUNICABLE DISEASE PREVENTION AND CONTROL										
Mental health										
Mental health	MNH 001	1	1	1	1	26 866	28 260	30 660	32 770	RB
		1	1	1	1	25 100	26 900	32 600	33 700	PR
PROMOTION OF ENVIRONMENTAL HEALTH										
Provision of basic sanitary measures										
Water supplies and environmental sanitation	BSM 001	1	1	1	1	44 550	54 072	62 144	63 994	PR
Establishment and strengthening of environmental health services and institutions										
Water and sewer administration	SES 001					3 000	7 000	7 800	7 800	RB
Food standards programme										
Caribbean Regional Drug Testing Laboratory	FSP 001					18 500	26 600	23 200	12 000	PR
HEALTH STATISTICS										
Development of health statistical services										
Biostatistics education	DHS 001		1	1	1	14 000	23 300	23 300	24 400	PR
Health statistics	DHS 002					9 108	8 620	8 082	8 406	PR
Total: JAMAICA		8	9	7	6	436 556	414 423	409 351	412 931	
ch: Regular budget		3	3	3	2	176 648	186 490	192 604	199 474	
Other sources		5	6	4	4	259 908	227 933	216 747	213 457	

See Proposed Programme Budget for the Financial Year, 1976 and 1977, No. 220. Geneva; WHO, 1974, pp. 497-499.

Other Sources of Assistance

In addition to the assistance rendered by the WHO, a number of projects have been funded by PAHO over the past ten years. Among these PAHO funded projects are: veterinary public health; water resources survey; air pollution; health services; mental health and medical care and hospital administration. Funding for these projects usually involved providing teaching or consulting services. UNICEF was also involved in dental education projects in which equipment was provided by UNICEF.

Apart from the international agencies, Jamaica has also received significant development assistance from the IBRD and IDB both of which have contributed to the Jamaican health sector especially in connection with the construction of health facilities.

In June 1970 the World Bank provided the GOJ with a loan of $2.0 million to promote a population project in Jamaica. This population project had two principal elements: 1) construction of a new wing on the Victoria Jubilee Hospital in Kingston plus other renovations and 2) construction of ten rural maternity centers. As reviewed in Chapters 5-7, in 1976 the World Bank also entered into a second population project providing the GOJ with a $6.3 million loan with which to promote an integrated MCH/FP/Nutrition program in Cornwall County. The details of this program have been set forth in the above chapters. Both Canada and the United Kingdom also continue to make bilateral contributions to Jamaican development.

Assistance Prospects

We are not aware at the time of this writing of new proposals for assistance tendered by the GOJ other than those AID projects continuing into 1977 and 1980. Tentative GOJ budgetary estimates, however, indicate that external borrowing between 1976/77 and 1980/81 may amount to J$456.0 million , some of which will be used for health programs. Programs in the health field of highest priority to the GOJ appear to be: 1) constructing new health facilities (health centers and dispensaries); 2) constructing new training facilities for nurses and midwives; 3) equipping an Institute of Applied Health Sciences; 4) a community health scheme; 5) repairing and revitalizing older health centers and dispensaries that had fallen into disuse; and 6) increasing facilities, equipment and health manpower for rural health delivery services which would embrace family planning, nutrition and maternal and child health care (MCH/FP/Nutrition).

CHAPTER TWELV

CONCLUSIONS: THE JAMAICAN HEALTH ENVIORNMENT, PROBLEMS AND PROSPECTS

Current Status: Aspects of a "Satisfactory" Health Environment

e aspects, the Jamaican health environment resembles more nearly that of a developed, industrial state rather than an LDC. This condition appears to be especially cogent when comparing the principal causes of mortality in Jamaica and the United States. Such a comparison reveals a striking similarity between the principal diseases leading to mortality in each country. There is even some correlation in the percentage of mortality attributable to the principal killer diseases.

Jamaica only arrived at this improved stage in its health environment, however, after an arduous journey following World War II. The statistical data alone reveal this progress. In 1950 the crude death rate was 11.8 per 1,000. In 1960 it had declined to 8.9 per 1,000 and in 1974 it had been reduced to 7.1 per 1,000. Similarly, the infant mortality rate was 78.3 per 1,000 in 1950, 33.4 in 1969 and 25.3 per 1,000 by 1974. In the early seventies 61% of all deaths in Jamaica occurred after the age of 50 while by 1973 life expectancy at birth had reached 69.0 years. These data suggest that, despite myriad socioeconomic and continuing health problems, Jamaica now enjoys a general level of health which can be considered "satisfactory" by WHO/PAHO standards.

Thus, the GOJ Ministry of Health and Environmental Control appears to be immersed in a health enviornment many of the conditions of which are not unlike those occurring in North America and Western Europe. This seems especially true of such diseases as those associated with the cardiovascular and cerebrovascular systems as well as malignant neoplasms and pulmonary infections. Undoubtedly, as in North America and Western Europe these diseases eliminate several thousand useful and productive citizens each year and to that extent weakens the socioeconomic development. None of these diseases constitute insuperable deterrents to Jamaican development such as schistosomiasis, malaria, yellow fever or dengue threaten to become to other LDCs. On the other hand, as suggested above, Jamaicans, especially children under 5 years of age, continue to be threatened by and infected with typhoid, tuberculosis, diphtheria, whooping cough, tetanus and malnutrition as well as other diseases which we shall reference again later.

The data on the number and condition of Jamaican health facilities do not permit an exact accounting although the several reports do provide a reasonably accurate estimate of available facilities. In 1968, for example, a MOHEC report listed 33 hospitals with 7,247 beds with the MOHEC operating 27 of these hospitals. We suspect that many of the very small private hospitals were not listed at that time. In 1968, 22 hospitals were listed with outpatient facilities along with 1 polyclinic, 91 health centers, 59 dispensaries and 1 mobile health unit. There were also at that time 75 dental clinics and 1 rehabilitation center.

The latest accounting in the early seventies revealed 67 hospitals, inlcuding the very small private hospitals, with 7,585 beds and a total of 154 health facilities consisting of 91 health centers and 63 dispensaries. There are also a number of maternity centers, including 10 rural maternity centers constructed with funds from an IBRD 1970 loan. In any event, our infromation confirms that there are not enough facilities in the rural areas, that some of those that are available are not utilized fully, that others are in disrepair while still others are not adequately staffed. The GOJ is fully alive to most of these shortcomings and, as evidenced by the Cornwall County Project, is taking steps to correct these inadequacies.

The Jamaican health environment, therefore, is an anomaly, not disimilar to the various levels of economic and social development of the nation itself. Thus, while Jamaica exhibits some of the characteristics of an industrial society it is, nevertheless, a developing nation which is reflected most poignantly in the difficulties of its agrarian society and the urban poor. Similarly, the health environment, while showing the heaviest mortality from industrial, degenerative diseases such as those associated with the cardiovascular, cerbrovascular and pulmonary systems and maligancies, is, nevertheless, vitally affected by other factors no longer common to western, industrialized states. These factors are long-term and derive from socio-logical-cultural-economic aspects of the Jamaican society rather than from degenerative or communicable diseases, although the latter are enhanced thereby.

These factors may be summarized as follows:

1. Health services provided by the MOHEC, which, although superior in some of the urban areas to those of other LDC's, still require upgrading and expansion, especially in the rural areas of Jamaica;

2. If the health services proferred the Jamaican people are inadequate, especially in the rural areas due to insufficient, and inefficient use of, facilities, the MOHEC also has not demonstrated the capacity to cope with these flaws in its health services. Nor has the MOHEC thus far been able to affect the long-term reforms which are set forth below as its official objectives. Indeed, in the early seventies foreign observers noted that the MOHEC did not have an adequate planning section, that it was equipped to deal with problems of the forties rather than the seventies. Under the impetus of the World Bank and the USAID and the enlightenment of Jamaican political leadership, however, an intent to reorganize the MOHEC to provide for a new planning section, better administration and technical personnel and better statistical data, has become evident since 1974. The most obvious fruit of this new approach is the Cornwall County project with its emphasis on MCH/FP/Nutrition programming and its intent to construct new health facilities;

   One of the most promising aspects of the Cornwall project is the considerable impetus being given to the expansion of Jamaican health manpower, especially the CHAs (Community Health Aids) and midwives. The GOJ now plans to train about 3,000 CHAs upon whom it will rely to bring primary health care to rural Jamaica and, along with the midwives, to promote the MCH/FP/Nutrition program. As to other categories of health manpower, Jamaica appeared to have a better ratio of physicians and nurses to population than any other LDCs. Nevertheless, there still appear to be serious shortages. As to physicians, for example, in 1971 there were reported to be 752 but in the following year this was downgraded to 490. There are also reports of the GOJ utilizing some Cuban physicians to ease the physician shortage. There are also shortages in nurses, pharmacists, midwives and technicians, many of whom have emigrated leaving gaps in medical manpower and confirming reports of rural health centers sometimes abandoned or operating only infrequently. Clearly, more accurate data on medical manpower is required followed by expanded physician-nurse-technician training together with a policy of discouraging health manpower emigration;

4. Jamaica suffers from an excessive population growth rate which, although kept to about 1.6% annually during the previous decade by high levels of emigration, nevertheless, has been fluctuating at a higher rate since 1970 and constitutes one of the most pressing deterrents to future Jamaican growth. The population growth rate for 1972 was about 2.2%, 1.9% for 1973 and 1.7% for 1974. All of this contributes to a demoralizing unemployment rate of 21% plus, which also appears to be escalating. The GOJ/MOHEC are very conscious of these circumstances. Following the creation of a National Family Planning Board and the launching of a substantial family planning program with foreign assistance, the GOJ/MOHEC now hope to achieve greater progress through programs such as the Cornwall Project using CHAs and midwives liberally to enlighten Jamaican couples in general and Jamaican women in particular;

   It is too soon, of course, to determine the success or failure of this latest innovation. One suspects, however, that before notable achievement is recorded, steps must be taken to alter the sociological-cultural patterns of Jamaican cohabitational life (see Appendix II). The very widespread practices of commonlaw and visiting relationships are highly conducive to the recent past illegitimacy rate of about 72% but not very helpful for planned or responsible parenthood;

5. Although Jamaica experienced an infant mortality rate of 25.3/1000 in 1974, a respectable rate among other LDCs, nutritional deficiencies and avitaminosis are widespread in Jamaica, especially among children in rural pockets of poverty which abound except in the eastern part of the island. Indeed, it is now estimated that malnutrition contributes directly or indirectly to 60-85% of deaths among children between six months and two years of age. Malnutrition is also a primary or secondary diagnosis for about 50% of hospital admissions of children under two years of age. The MOHEC again is relying heavily on the experiences gained in the Cornwall Project to alter traditional cultural patterns and, along with increased agricultural production and an improved economy, to reverse the malnutrition which continues to deprive many Jamaican children of an opportunity for a healthy life;

6. As the evidence recorded above relating to disease, population and nutrition indicated, there are widespread deficiencies in maternal and child health care in Jamaica. In 1974, about 25% of deliveries were unattended while maternal deaths per 10,000 live births in 1971 were 13.6. In 1972, the death rate among children through 4 years of age per 100,000 population was 192.5 while in the U.S. it was 21.7 for children under 1 year and 1.1 for children through 4 years of age. Jamaican children continue to suffer from a wide variety of diseases including chicken pox, diphtheria, dysentery, influenza, measles, mumps, pneumonia, tetanus, tuberculosis, typhoid and whooping cough. In 1968 it was estimated that 45% of all pregnant and lactating women were anemic.

   There are several factors which have caused poor MCH care in the past. The lack of MCH centers, shortage of health manpower and lack of medicines have loomed large as culprits. Again, however, more fundamental causes lie in the sociological-cultural patterns of the Jamaican way of life. The lack of firm and lasting marital ties among a large segment of the population, at least well over half of the population, creates a matriarchal family life. Many times the mother must work to support children who are left in the care of relatives who are unable or unwilling to provide adequate care;

7. Although the GOJ/MOHEC have been severely pressed to provide the health services required to cope with aforementioned communicable and degenerative diseases, funding, facilities and manpower also have been acquired to promote both mental and dental health in Jamaica. Out of nearly 7,600 hospital beds available in the early seventies, about 3,300 were programmed for psychiatric patients. In addition, although a severe shortage of psychiatrists, psychiatric paramedical workers and technicians exists, the MOHEC has been able to provide one nurse for every 16 psychiatric patients. The MOHEC also has several rehabilitation programs as well as a "re-socialization" program to prepare the patient for reentry into society;

   At the close of 1972 there were only 105 registered dentists in Jamaica giving a ratio of about 1 dentist to 18,600 people. Despite this unsatisfactory ratio, the MOHEC has introduced dental programs in an effort to care for Jamaican children albeit without adequate funding. These programs include dental services for school children up to 15 years and MOHEC dental clinics. Still, the children's dental health is hardly satisfactory with only 40% having caries free permanent teeth;

8. In addition to the shortage of medical and paramedical personnel, of facilities and the paucity of funds, one of the principal harbingers of disease in Jamaica is the generally poor habitational and sanitation conditions. These substandard conditions apply to housing, water and waste disposal. During the sixties, for example, Jamaicans constructed only about half of the 60,000 new housing units required to house the newly forming households. There was no construction to replace obsolete houses which amount annually to about 1% of all existing housing. The result is a proliferation of shanty towns in the urban areas with equally dismal housing in the rural areas. Clean water is even less available with only about 17% of the existing housing having public water piped into the dwelling. Similarly, in the 1970 census about 65% of the dwellings had only pit latrines while about 31% had water closets and the remaining 4% had no facility for waste disposal;

9. Finally, the present Jamaican health care system looks almost exclusively to the GOJ for health care and services with public financing of these services. This system not only discourages private health care and private health insurance but also provides scarce incentive to foster biomedical research or to retain Jamaican biomedical science students at home.

Current Objectives of the MOHEC

From the documents and other material used in the preparation of this study, we have been able to delineate a number of immediate and long-term objectives which the GOJ/MOHEC hope to achieve in the upward mobility of the general Jamaican health environment.[1] Most of these specific objectives, it will be noted, are concerned with MCH/FP/Nutrition and are programmed to

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[1] The Ministry of Health in a recent report to PAHO and the WHO identified the following areas as priorities in providing future health services to the Jamaican people:

1. "Further development and expansion of our Maternal and Child Welfare Programme into which Family Planning must be closely integrated.
2. The achievement of greater coverage of the population in immunization.
3. The provision of better nutrition especially for the group under five years.
4. Better mental health care in the community as against in-hospital care of the mentally ill.
5. Mass health screening to guide national health planning.....

be achieved in the vicinity of 1980-81. These objectives include:

1. Reduction of maternal mortality to 7 per 10,000;
2. Lessen maternal morbidity and complications associated with pregnancy by 50%;
3. Through better contraceptive services, reduce by 25% the number of abortions;
4. Include all women attending pre-natal clinics in nutrition programs;
5. Reduce the incidence of malnutrition by at least 60%;
6. Reduce female fertility (15-44) from 180 to 150/1000 and reduce the crude birth rate (1974) from 30.4 to 25.0 per 1000 by 1980-81;
7. Increase pre-school immunizations to 80% and attempt to vaccinate all pregnant women;
8. Insure the serological examination and treatment if required of all pregnant women;
9. Reduce the neonatal death rate from the current 19 to 15/10,000 live births;
10. Examine, and treat if necessary, all women in the MCH program for cervical and breast cancer;
11. Increase the clinical sessions at Family Planning Clinics by 50% by 1980 in an effort increase substantially new acceptors;
12. Complete the training of the CHAs and midwives currently planned so as to promote the MCH/FP/Nutrition program on an island wide basis;
13. Provide a health education program for all MCH participants as well as introducing a health education program into primary and secondary schools by 1980; and,
14. Involve the male population in the family planning programs.

6. We would wish to be more involved on the Human Resources Development Programme in the Caribbean for the training of personnel in all health areas. We welcome the new healt planning course which is to be conducted in Jamaica between September and December.
7. We are seeking to develop more comprehensive communications with regard to vehicles an radio telephone communication where the ordinary telephone does not exist, especially in rural areas. We feel that this is an area for strengthening in order to make the facilities for health care more easily, readily and quickly available to the people especially in the rural areas, and with particular reference to the mothers and childr and their use of our network of Health Centres, Clinics and Hospitals."

Some Comments on Assistance Strategy

Initially, it should be recorded that we consider these areas currently selected by assistance agencies to be of high priority such as those represented in the Cornwall Project: integrated health services including health coverage and delivery, manpower training, nutrition and family planning services. We believe, however, that there are additional projects which should be examined carefully for possible assistance and, perhaps more importantly, the magnitude of the socioeconomic problems peculiar to Jamaica should be reappraised so as to be more wary of unrealistic expectations.

As to additional projects which might capitalize the investments in the health sector of the assisting agencies if properly stimulated, the following seem especially apropos. These are:

1. The reorganization of the Ministry of Health and Environmental Control envisaged in connection with the Cornwall Project, which would greatly facilitate MOHEC planning and statistical capabilities, should be implemented as rapidly as possible;
2. A substantially expanded effort in environmental sanitation and hygiene should be promoted so as to bring environmental sanitation services to the remaining substantial numbers of rural and urban Jamaicans who do not now enjoy these services: potable water and suitable sewage disposal;
3. A significantly expanded and substantively upgraded health education curriculum, including family planning information, should be promoted in the primary and secondary level of the public education system;
4. The possibility of establishing GOJ sponsored day care centers should be thoroughly explored; such centers, established where feasible in the urban centers and certain rural areas, would enable female heads of households to be employed and so support their families while, simultaneously, providing adequate nutrition, educational and health care for the thousands of Jamaica's "fatherless" children; and
5. Finally, it would appear that Jamaica is ready for a full health sector analysis undertaken by a suitable team of experts; initially, such an analysis might be limited to the Kingston Corporate Area where the census tract type survey might more easily be accomplished. Thereafter, it might embrace Cornwall and the other counties, leaving the most difficult as the last step in the analysis.

Finally, we believe it should be reiterated that something more than financial and materiel assistance is required if the three most urgent projects enjoying international agency support are to be successful. We believe that despite substantial foreign and domestic assistance, these projects, family planning, nutrition, and maternal and child health care, are in danger of faltering due to sociological-cultural patterns of the Jamaican people.

A case in point is the family planning program. Despite the highly optimistic GOJ reports of 149,000 family planning clients (1973), the USAID estimated in 1974 that indeed, "140,000 acceptors have passed through the national system, however, because of a high dropout rate the number of active clients is only 40,000." This more realistic accounting forced the GOJ/MOHEC to establish new targets. An objective of 90,000 active clients was now ordained, a number which was to be attained in 1977. If this number of clients could be enrolled, the MOHEC hoped to achieve a birth rate of 25 per 1,000 in 1978. To illustrate the slippage involved in this project, it should be recalled that the 90,000 client target was initially set for 1975 with the 25 per 1,000 birth rate to be reached in 1976. The latest accounting revealed a crude birth rate of 30.4 per 1,000 in 1974.

Moreover, in the previous decade about 72 percent of Jamaican births were "illegitimate" and, as we have shown, this pattern of irresponsibility follows these infants through very early childhood where they may succumb to malnutrition, gastro-intestinal diseases or pneumonia from maternal neglect. If they survive, many will become part of that large mass of drop-outs from the public school system and, as functional illiterates, join the growing number of unemployed (21% plus currently).

We are not trying to suggest that the GOJ is unaware of this combination of human foibles or that it has sought to conceal this unfortunate situation. Indeed, the reorganization plans for the MOHEC and its sponsorship of the Cornwall Project underscores this concern. But experience has shown that unless Draconian measures are applied, it requires many years, perhaps a generation or longer, to alter appreciably mores and folkways as hardened by economic distress and as rooted in history as are these life patterns of the Jamaicans. It is true, of course, that the recent growth of industry and urban life should tend to undermine these age old patterns but the hard evidence does not reveal these sought-after dramatic changes. It would seem, therefore, that the GOJ must rouse itself to forging new and viable life patterns both for Jamaica's urban and rural poor if the GOJ development objectives are to be achieved. It hardly appears feasible, within the context of these development objectives, to await the verdict of another generation.

APPENDICES

APPENDIX I

JAMAICA: GEOGRAPHIC, HISTORIC AND POLITICAL ASPECTS

Physical and Cultural Features

Geography

The island of Jamaica is located in the Caribbean Sea in the chain of islands called the Greater Antilles of which it is the third largest. Specifically, Jamaica is situated approximately 90 miles south of Cuba and 100 miles west of Haiti. It extends 146 miles at its maximum length (east to west) and its width is 52 miles (north to south) giving it an area of approximately 4,400 square miles. The smaller islands of Moran and Pedro Cays which lie to the south also belong to Jamaica but are uninhabited. Jamaica is a link in the relief system extending from the Yucatan Peninsula through the Antilles to South America.[1]

Jamaica is divided into northern and southern coastal areas by a mountain ridge rising to over 7,000 feet at its highest point. Almost half of Jamaica's land area is over 1,000 feet above sea level and about 40 square miles are 5,000 feet or more above sea level. Thus, this east-west interior chain of rugged mountains forms a backbone for the island from which valleys emanate and which creates a ring of coastal plains at approximately sea level. The northwestern part of the island is known as the "Cockpit Country" in which there are inumerable, steepsided sinks which are deep circular hollows and which make the intervening land take the form of conical-shaped hillocks. This area is extremely hard to traverse and is practically uninhabited. With this highly mountainous topography only about 20 percent of Jamaica is arable.

There are, nevertheless, several large basins in the heavily dissected plateau of the central and western areas of the island which contain some of its most productive agric land. These basins, such as the Rio Minho Valley, Lluidos Vale and St. Thomas in the Vale densely settled. A layering of bauxite covers most of the western two-thirds of the island Other productive agricultural zones include the Queen of Spain Valley near Montego Bay, the Liquanea Plain around Kingston and the Black River Valley. More than a hundred rivers and streams, most of them unnavigable, traverse the island while 16 harbors provide Jamaica wit ample shipping berths for seaborne traffic.

The island's vegetation is mostly tropical, with mangroves lining the sheltered coasts and herbaceous swamps and marsh forests covering some of the low-lying land. Evergreen deciduous forests characterize the central and western highlands while a reforestation program is underway in the northeast to restore the original rain forests.

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[1] See Wendell Bell, Jamaican Leaders: Political Attitudes in a New Nation. California Press, 1964, p. 1.

Climate

Jamaica enjoys a tropical climate, as suggested previously, which is probably one of the island's greatest assets since it provides excellent conditions both for tourism and agriculture. Variations both in temperature and rainfall are governed by altitude. At Kingston, which is near sea level, the temperature in January ranges from a mean minimum of 20.2°C to a mean maximum of 31°C and in July from 23°C to 33°C, while at Cinchona in the Blue Mountains, which has an elevation of 1,632 meters, the January range is from 12°C to 20°C and the July variation from 16°C to 23.9°C.[2] Rainfall is often irregular but frequently relatively heavy with an annual average of 77.1 inches and up to 200 inches annually in the Blue Mountains located in the eastern part of the island. The main rains occur from September to November and lesser rains fall in May and June. This tropical, maritime climate encourages the growing of such crops as sugar cane, bananas, cocoa, coffee, spices and citrus fruits.

Language and Literacy

English is the official and commercial language. A dialect of English is widely spoken, however. Chinese and Hindi are also spoken in the Chinese and East Indian communities. It is estimated by the GOJ that between 40 and 50 percent of the population of Jamaica is functionally illiterate. In 1973 the GOJ introduced a "National Literacy Programme" which is making slow but steady progress toward eradicating illiteracy.

Religion

The majority of the Jamaican population belong to Christian churches of various denominations. The churches with the most numerous communicants are alleged to be the Church of England and the Baptist Church. There are also small Jewish congregations and Hindu groups. There are also several "folk" religions with numerous adherants especially in the rural areas.

Xaymaca: Land of Wood and Water

"Xaymaca"

Anthropologists believe that the aborigines of Jamaica, the Tainos, a branch of the Arawak Indians, arrived on the island about 1000, A.D.[4] The Tainos were a gentle, submissive people not far removed in their way of life from the late Neanderthal man. They called their island, Xaymaca, "the land of wood and water."[5]

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[2] Much of this geographic data is also derived from J.M. May and D.L. McLillan, The Ecology of Malnutrition in the Caribbean, N.Y.: Hafner Press, 1973, pp. 87-89.

[3] See The Economic and Social Survey: Jamaica, 1973. Kingston: GOJ/National Planning Agency, 1974, p. 220.

[4] Jamaica: The Making of a Nation. London: Central Office of Information, 1962, p. 3 (hereinafter referred to as Jamaica, op. cit. p.).

[5] See Five Year Independence Plan, 1963-1968. Kingston, Government of Jamaica(GOJ), 1963, p. 1. (hereinafter referred to as the Independence Plan. op. cit.. p.).

Discovery and Spanish Colonization

Jamaica, or "Xaymaca", was discovered by Columbus in 1494.[6] He christened it Sant Jago. The Spanish established their first settlement on Jamaica at Seville on the north coast in 1509. From there a few cattle ranches were developed and Jamaica became a supply base in the Spanish scheme to send expeditions to the American mainland. Contrary to other regions of Central and South America, the Tainos Indians did not resist the Spanish conquerors but submitted meekly to the role of slaves into which the Spaniards cast them. Scarcely more than a few decades after the Spanish arrival the Tainos Indians had been annihilated, victims of hard labor and disease.

As the Tainos rapidly disappeared, the Spanish began importing Negro slaves to work the cattle ranches and agricultural plantations. The first of the Negro slaves arrived in Jamaica in 1517. The Spanish took little interest in Jamaica, however, since it provided little gold or silver mining. Rather, they utilized it as a base for conquering the mainland. Nevertheless, Jamaica served this Spanish objective well, providing beef and vegetables for the Spanish expeditions and a haven for Spanish fleets bound to and from the New World.

During the remainder of the 16th and into the 17th Centuries, the Spanish Government continued to utilize Jamaica as a way-station to their other colonies. Little effort was exerted to develop the island's considerable agricultural potential, such as sugar production which expanded only modestly. A new capital was constructed in 1534 at St. Jago de la Vega on the southern plains where Spanish Town is now located but the population failed to increase significantly. In 1611, for example, the total population was only 1,510 of which 558 were Negro slaves.[7]

Cromwell Conquers Jamaica

At the apex of his power in England during the 1650's Cromwell assented to a modest British imperial policy which included subjugating Ireland, defeating the Dutch and digesting bits and pieces of the Spanish Empire. Thus, in 1655 the Lord Protector dispatched a fleet and small army to subjugate Hispaniola. Alas for Cromwell's imperial ambitions, the agressors were defeated and retreated westward to land at Passage Fort near modern Kingston on May 10, 1655.[8] Here the British found a successful expression for their agressive designs. The Spanish freed their slaves and evacuated their women and children to Cuba. The Spaniards then waged a guerilla war against the English until 1658 when the former were decisively defeated.

By freeing their African slaves the Spanish colonists performed an act which was to have special political and sociological significance for the future of Jamaica. The freed slaves retreated into the hinterland and became known as "Maroons." For nearly a century thereafter these "Maroons" lived in freedom from British control and waged guerrilla warfare against the British colonial administration. The "Maroons" gained recruits from the increasing number of runaway slaves, established and maintained a sense of moral independence which found expression in the 20th Century in ultimate political independenc-

[6] See May and McLellan, op. cit., pp. 91-92.

[7] See Bell, op. cit. p. 4.

[8] Jamaica, op. cit. p. 2.

For the next twelve years after the defeat of the Spanish guerillas, British control of the lowlands was tenuous, the island served as a haven for buccaneers and the marauding "Maroons."[9] Finally, in 1670 by the Treaty of Madrid, Spain formally ceded Jamaica to England.

British Jamaica: Slavery and the Sugar Economy

By the time the Treaty of Madrid was concluded, the European demand for sugar had already begun to escalate. Each year thereafter this demand increased and the English colonists, who now came in larger numbers than the prior Spanish, responded in kind.[10] Huge new sugar plantations were opened and the search for manpower to operate them and the smaller coffee plantations began.[11] The search, of course, led immediately to the West Coast of Africa where Negro slaves by the thousands were captured and sent to Jamaica to work the new sugar economy. Between 1655 and 1808 it is estimated that between 736,000 and 759,000 slaves from Africa were imported into Jamaica in excess of those who departed.[12]

The period between 1670 and 1800, the age of slavery, was highly important to the political and sociological future of Jamaica for during this period the foundations of Jamaican society were introduced and solidified. While for much of this period the Jamaican "Maroons" were waging guerilla warfare against the British, more importantly, the nature of Jamaican society was emerging while still in bondage.

The British plantation owners pursued a policy of separating slaves from the same tribe so as to reduce conspiracy, escape and revolt. It was a period of intense oppression and fear as families were broken up in pursuit of this separatist policy. But several significant developments emerged nevertheless. First, with the father either temporarily or more often permanently separated from the family, the mother emerged as the stable element in family life. The society of slaves became matriarchal, a condition that substantially influenced Jamaican society up to and including the present time.[13] This period also witnessed, quite naturally, the fleeting liasons and the appearance of what the Anglo-Saxon society would term illegitimate children, a pattern that continued over the scores of years until it became virtually institutionalized.

Other aspects of Jamaican society also emerged during this trying period. The English plantation owners permitted their slaves to maintain small land holdings in the foothills above the sugar plantations. This experience established the tradition of small, Jamaican farms and gave to the slaves who worked these farms a sense of independence and self-reliance. Finally there began to emerge during this period a very small Mulatto class among the Negro slaves which, one day, would provide Jamaica with political leadership. These Mulattoes, due to their association with the planter class, were often free and sometimes property owners.

[9] See May and McLellan, op. cit., p. 92.

[10] Bell, op. cit., p. 6.

[11] See Fernando Henriques, Family and Colour in Jamaica. London: Macgibbon & Kee, 1968, pp. 27; by 1673, for example, the white population of Jamaica was 7,700 while the Black, slave population was about 10,000.

[12] Bell, op. cit., p. 6.

[13] See E. Clark, H. Foot and M.G. Smith, My Mother Who Fathered Me. London: George Allen & Unwin Ltd., 1966, pp. 17-31.

Finally, the rudiments of government in Jamaica, which have also survived, were established during the 17th Century. A council was created, not unlike the House of Lords, to advise the Royal Governor. At the same time, a representative assembly based on the House of Commons was also created.[14] The Assembly was empowered to "make constant and ordain laws."[15]

Emancipation, Revolt and Crown Colony

In 1807, the movement against slavery, which had been gaining momentum in England for a generation, culminated in the abolition of the slave trade in Jamaica and other parts of the British Empire.[16] By 1838 slavery itself was abolished in the West Indies which, as one might have expected, led to economic and even political revolution.

Upon emancipation there was a mass exodus by the former slaves from the plantations to the small farms already established on the periphery of the plantations or to establish new farms. These former slaves became the new free peasantry of Jamaica.[17] Unfortunately the sociological practices of fragmented family life and the matriarchal society survived the new freedom.

Nevertheless, the emancipation of 250,000 slaves struck a severe blow at the planters. Although the Crown paid about £6 million to the former slave owners, most of this returned to British creditors. Then, in 1846 tariff protection afforded to colonial produce entering the British market was removed and the price of sugar fell. In order to compete with other sugar producing areas of the Caribbean, the Jamaican planters resorted to indentured servitude and Indian immigrants entered Jamaica to work the plantations. A few years later Chinese immigrants also arrived in Jamaica to work the plantations.[18]

The emancipation of the former slaves, their economic difficulties in introducing new crops such as bananas, coffee, ginger, tobacco and cotton, the general depression due to the fall in the price of sugar and the social friction among Negroes and the newly arrived Indians and Chinese soon brought about political-social revolt. In October 1865, a peasants revolt flared at Morant Bay against the white planters and their indentured servants. A number of the white militia and Negro peasants were killed, some of the peasant farms were destroyed and Negro and Mulatto leaders were hanged.[19]

As a result of this revolt, which was suppressed with ruthless force, the representative government in Jamaica, which as noted above consisted of an appointed Council and an elec House of Assembly in existence since 1664, was abolished. The privileges of the House of Assembly were surrendered to the British Crown. Jamaica became a Crown Colony.[20]

[14] See Hurwitz & Hurwitz, op. cit. pp. 16-29.

[15] Ibid., p. 17.

[16] Jamaica, op. cit. p. 3.

[17] See Bell, op. cit., p. 9; of interest is the fact that between 1838 and 1867 it is believed that 10,000 free Africans immigrated to Jamaica.

[18] Ibid., p. 11; about 1,400 indentured Chinese laborers came to Jamaica between 1853-1864 who, however, by the 1940's owned a large part of the grocery business in Jamaica.

[19] Hurwitz & Hurwitz, op. cit., pp. 147-149; this revolt was led by one Paul Bogce, a small farme who was executed by the English Navy.

[20] Ibid., pp. 150-151.

Under the system of Crown Colony Government the Governor was advised by a Privy Council and a Legislative Council. Elected representation was finally introduced in 1884 and extend 1895 with a representative from each of the parishes, the administrative unit of local gover ment into which Jamaica had been divided in the latter 17th Century. Gradually the franchis was restored and extended but stiff property qualifications were continued.[21]

Under the Crown Colony Government, the several English governors brought peace and a ne measure of prosperity to Jamaica. In terms of government service, a constabulary was create and both medical and educational services were modernized. As for the island's economy, the government promoted the introduction of bananas as a cash crop to take up the slack of the faltering sugar economy.[22]

The political life of Jamaica proceeded without further serious incidents, therefore, through the remainder of the 19th and into the 20th Century. The sugar-banana-coffee econom continued to expand slowly, along with the population, which began to show a more rapid incr foreshadowing economic difficulties. Nevertheless, the system established in 1865, with the appointed governor exercising both executive and legislative power, appeared to be adequate the "Victorian and the guilded age".

Independence and Contemporary Jamaica

But underneath the apparent placidity both economic and political forces, long dormant, were gathering momentum. A new national consciousness began to take shape, especially after World War I, and the Jamaicans increasingly resented British domination. This new nationali coincided with the rapid increase in population after the turn of the century which, in turn, produced new social and economic stresses.[23] Political activism and labor unrest, especially in the latter thirties, again reflected the growing discontent.

The world wide depression of the thirties caused severe economic dislocations in Jamaica a elsewhere and brought this discontent to fruition. Specifically, during the thirties, world prices for sugar declined substantially and disease hit the Jamaican banana crops. Unemploymen rose rapidly and the social climate became very strained. By 1938 the situation had become ver tense. Then, in May 1938 rioting erupted in Kingston among dock workers and spread throughout the city. Soon work stoppages and other disorders swept the island. This was the first civil disorder that occurred since the peasant's revolts of 1865.[24]

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[21] See Bell, op. cit., pp. 15-16.

[22] See Hurwitz & Hurwitz, op. cit., pp. 152-174; it was during this period that the total number of landholdings of 5 acres or less increased dramatically. They went from 36,756 in 1880 to 108,943 in 1902. By 1930, 153,406 acres or 82% of all land settlements were ½ to 5 acres in size.

[23] See Dr. G.E. Ebanks, Country Profiles: Jamaica. New York: The Population Councial, 1971, p. 2; in 1844 at the first census Jamaica had 377,400. This increase to 831,400 by 1911 and to 1,246,200 by 1943, an increase of over 300 percent in 100 years.

[24] See Independence Plan, op. cit., p. 4; Jamaica, op. cit, p.14; and Bell, op. cit. p. 16; the widespread civil disorders resulted in 8 killed, 171 wounded and 745 persons arrested.

The disorders of 1938 appear to have served as a catalyst for the fulfillment of Jamaican political and economic nationalism. New labor unions and political parties were created and soon gained substantial membership. Moreover, two new outstanding Jamaican political leaders emerged from this domestic upheavel, Alexander Bustamante and Norman Washington Manley.[25] Among their aspirations was freedom from Britain. Similarly, the whole constitutional issue was revived in connection with the question of independence from Britain after being dormant for a generation.

As a result of this strife, capable Jamaican political leadership, and new demands by the Jamaicans, a West India Royal Commission was empowered in 1938 to investigate social and economic conditions in the West Indies. The Commission's report dealt principally with the economic and social problems of the area but it also recommended constitutional reforms which would have provided for greater citizen participation in the government and a wider franchise. The Jamaican Legislative Council appointed a committee to study constitutional reform. The reports of the Royal Commission and the Legislative Council Committee then formed the basis for drafting an entirely new constitution for Jamaica.

This new constitution was proclaimed on November 20, 1944.[26] It provided for limited self-government in that a bicameral legislature was created with an elected House of Representatives and a Legislative Council of nominated members. The Governor's Privy Council was retained but a new Executive Council with popular representation was set up to make policy. Thereafter, new elections were held on the basis of universal adult sufferage for the first time in Jamaican history.

The next step on the road to independence, but eventually an abortive one, occurred in 1958 when Jamaica joined the West Indies Federation. The Federation was composed of Barbados, Jamaica, the Leeward and Windward Islands, Trinidad and Tobago. This Federation had been developing since 1947. In a series of conferences held between 1947 and 1956 a federal constitu tion was adopted not entirely dissimilar to the American Articles of Confederation. But by 1958 when the Federation became a reality opposition had developed in Jamaica. In 1961 a referendum was held in Jamaica at which time the Jamaicans voted to withdraw from the Federation.[27]

In the interim in 1959, the final step in internal self-government was taken by granting Jamaica a new constitution. The new constitution provided for a Privy Council, a Cabinet, and an enlarged Legislative Council (upper house) to complement the enlarged House of Representives. Finally, in 1962 successful negotiations were concluded between British and Jamaican representatives which led that year to complete independence for Jamaica.[28]

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[25] Ibid. pp. 17-18; Bustamante appeared to derive his political strength in 1938 from the unemployed and underprivileged in Jamaican society while Manley, a highly successful attorney, at first appealed to the small Jamaican middle class but gradually also gained strong support from the lower classes. Manley helped establish the PNP (People's National Party) as a socialist party affiliated with the British Labour Party.

[26] Hurwitz & Hurwitz, op cit. pp. 200-204.

[27] Bell, op. cit. pp. 19.

[28] Ibid., pp. 20-21.

The date for Jamaican independence was set for August 6, 1962. On that day Jamaica attained full independence as a member of the British Commonwealth of Nations.

Some further modification in the Jamaican constitution and government were agreed upo during these final negotiations. These revisions provided that the Queen would appoint a Governor-General, a Privy Council, and a Cabinet presided over by the Prime Minister while the bicameral legislature would consist of an upper house, the Senate, formerly the Legislative Council, and a lower house, the House of Representatives from whose members the Cabinet was selected. The model for this new government had always been the British parliamenary structure.

Unlike the independence movement in many colonial areas, that of Jamaica was both moderate and generally orderly in its progress toward fulfillment. This was due to several factors including the modest level of political activism by the Jamaican people, the moderate approach by Jamaican leaders like Mr. Norman Manley and Sir Alexander Bustamante and British politicians such as Ian Macleod and Reginald Maulding, economic dependence upon British capital and finally, the long British tradition of working toward the independence of former colonies. Jamaica's long history, however, complicated by its background of slavery, left a number of political, social and economic problems, including a tepid health environment. In the following sections an effort is made to record and analyze these problems in terms of Jamaica's future development.

Elements of Jamaican Political Life

Structure and Functioning of the Jamaican Government

In the previous section concerning the evolution of Jamaica from colony to commonwealth status, the various stages of governmental development were delineated. Thus, from Crown Colony in 1866 with a royal governor, Privy and Legislative Councils, Jamaica moved to its constitution of 1944 with its revision in 1953 and 1957 and thence to the new constitution of 1959 granting full internal self government and finally to the full independence constitution of 1962. It is the structure and functioning of the Jamaican government under this latter constitution with which we are concerned here.

The Jamaican Constitution of 1962, in keeping with the previous evolution, created a parliamentary system of government based upon the British system.[29] As Chief of State, Queen Elizabeth II appoints the Governor General on the advice of the Jamaican Prime Minister. The role of the Governor General is largely ceremonial, however, since power is vested in the Cabinet led by the Prime Minister.

The Jamaican parliament continued its bicameral form deriving from the 1944 constitution.[30] The Senate (the upper house) consists of 21 senators appointed by the Governor-General, 13 on the advice of the Prime Minister and 8 on the advice of the Leader of the Opposition. The House of Representatives has 53 members elected to a term not to exceed 5 years. The appointed Senators have a similar term. The Senate may submit bills. It is also a reviewing body for legislation submitted to it by the House of Representatives. The Senate, however, ca delay money bills for more than 1 month nor other bills for more than 7 months.

29 See Background Notes: Jamaica. Washington, D.C., Department of State. 1974, p.

30 See Jamaica, op. cit., p. 5.

e Cabinet consists of the Prime Minister, who normally presides at its meetings, and not less than 11 other Ministers appointed by the Governor-General on the advice of the Pri Minister. Not less than two nor more than three of the Ministers who are Ministers without portfolio will be members of the Senate. Portfolios are assigned to Ministers by the Gover General on the advice of the Prime Minister.

The Jamaican judiciary has developed from and is patterned after the British system. seven-member Court of Appeal is appointed by the Governor-General on the advice of the Prim Minister in consultation with the Leader of the Opposition.

Jamaica is divided into three counties and 13 parishes for purposes of provincial/local government administration. These parishes are: St. Andrew, St. Thomas, Portland, St. Mary, St. Ann, Trelawny, Westmoreland, St. James, Hanover, St. Elizabeth, Manchester, Clarendon, a St. Catherine. Each parish has an elected Parish Council which exercises limited local government responsibilities.

Foreign Relations

In 1962, upon independence, Jamaica assumed all treaty obligations and rights entered i on her behalf by Britain with the Government of the Federation of the West Indies. Internal opposition within Jamaica, however, as we saw forced the island nation to withdraw from the Federation in 1961. Nevertheless, Jamaica continued to participate in the "Common Services" arranged among Jamaica and the other British Caribbean islands. These "Common Services" included support of the University of the West Indies, common police functions, a West Indie Shipping Corporation, West Indies Meteorological Service and development loan programs.

Jamaica's association with the British Commonwealth remain relatively strong but is exp to gradually grow more tenuous as its trade and financial relations with Canada and the Unit States expand. As a member of the nonaligned group of nations, Jamaica has played an active role in the support of primary-products countries, especially in their efforts to obtain higher prices for their exports in relation to the prices of manufactured goods.

Jamaica is also a member of a number of international organizations, including the U.N. OAS, IBRD, IDB, CDB (Caribbean Development Bank), CARICOM (Caribbean Common Market), the GAT and IBA (International Bauxite Association).

Recently, Jamaica established diplomatic relations with Cuba and the People's Republic China. It is assumed Jamaica hopes to expand its trade with both countries (for guidance on U.S. relations with and policy toward Jamaica, see Department of State, Background Notes cited elsewhere).

Politics and Political Parties

Jamaican political activism and formal political parties are only of recent vintage. Political parties in Jamaica emerged in 1938 in the wake of the unrest and rioting of that ye Moreover, the strongest of these parties developed not from direct political motivation but a a result of the increased power of the largest Jamaica labor union which sought a political a

In the late 1930's, Alexander Bustamante (now Sir Alexander) organized the first Jamaican labor union, called the Bustamante Industrial Trade Union (BITU).[31] As a result of the interna difficulties in 1938, Bustamante organized the Jamaica Labour Party (JLP) as the political Arm of the BITU. Shortly thereafter, Norman Manley, who had been an active leader in the protests of 1938, also launched a political party termed the People's National Party (PNP). Almost simultaneously he helped organize the second labor union in Jamaica, the National Workers Union (NWU).[32] Finally, in 1961 a Millard Johnson, a barrister, formed still another political party termed the People's Political Party (PPP).

Over the years since the original constitution of 1944, these parties have participated responsibly[33] in the several Jamaican elections. Until 1955, the Jamaica Labour Party (JLP) secured a majority in the House of Representatives. From 1955 until 1962 the majority went to the PNP and then was reversed again for the next ten years with the JLP enjoying a majority of seats in the House of Representatives. In the general elections of 1972 the PNP won 37 seat and the JLP, 16 seats. The toll of seats for the parties now stands at 36 for the PNP, 15 for the JLP and 2 independents. The PNP also controls 11 of the 13 parishes.

As to politeral doctrine, the JLP is a centrist party and is loosely organized at present. Its support derives largely from the 100,000 man BITU. It has nationalist tendencies and in th past has promoted foreign investment and a rapidly expanding economy. It has also promoted the polity of "Jamaicanization" (majority Jamaican ownership of financial institutions). Over the years the JLP has also attracted the support of the business community and some agricultural interests as well as the BITU.

The PNP is to the left of the JLP and believes that an activist governmental role in the national economy, including equity and management participation, is desirable. The party believes in social justice and has tried to promote educational conditions in Jamaica.

The People's Political Party (PPP), of course, is to the left of both the PNP and the JLP. It claims to derive support from the Negro movement founded in 1929. It espouses social, cultural and economic ties with Africa.

The significance of the events recorded above, of course, are the political, social and economic ramifications of a strong trade union movement since 1938. The rise of the labor move ment, and its concomitant political power, has been a dramatic development in Jamaican history. The leaders of this labor movement, working through their political arm, the JLP, have not confined labor's objectives to demands for increased wages and improved working conditions. More importantly, they have demanded political and social reform. And despite the JLP's sharing the majority role with the PNP in the House of Representatives since 1955, social and political reform and economic progress have been achieved. Evidence of this achievement are further delineated in the subsequent appendices.

31 Independence Plan, op. cit., p. 5.

32 See Bell, op. cit., pp. 18-20.

33 See Background Notes, op. cit., p. 3 a

The present Government of Jamaica is led by Prime Minister Michael Manley. The PNP has appeared to be both pragmatic and responsible. In domestic affairs Manley and the PNP recognize the need to attract foreign investment and to promote tourism. Manley is anti-Communist, despite the GOJ recognition of Cuba, and in foreign affairs, appears to value Jamaica's ties both with the United States and Britain and can be counted upon to support the general stability of the Caribbean area.

Nevertheless, Manley and the current GOJ face increasingly severe economic and political, social and cultural problems. Most of these have been recorded above and others will be delineated in subsequent appendices. Generally, however, they encompass: 1) nationalistic and radical trends within the PNP to move Jamaica away from the West and closer to the Third World; 2) demands by nationalists for more control over "capitalism" in Jamaica and the provision of more social services; 3) a stagnating economy under increasing pressure of overpopulation and more unemployment; and 4) demands by nationalists to exploit the foreign companies in Jamaica to extract more favorable tax concessions.

APPENDIX II

STRUCTURE OF JAMAICAN SOCIETY

lation: Racial/Ethnic Backgrou..

The 1970 Census classified the Jamaican population as 77 percent African; 17 percent Afro European (Mulattoes); 2 percent East Indian; 1 percent European and 3 percent Chinese, Afro-Chinese and Lebanese.[1] It has also been alleged that over the past few decades the proportion of Africans has remained stable while the proportion of Afro-Europeans has steadily decreased.

Yet, the 1960 Census revealed that the Afro-European proportion of the Jamaican populatic was 15 percent while ten years later it has risen to 17 percent. Data from the 1960 Census al suggested that due to inbreeding among the races, the Afro-Chinese and Afro-East Indians were increasing.[3]

The Context of Overopulation

The 1970 Census of Population published by the Government of Jamaica placed the Jamaican population at 1,891,000.[4]. This represented an increase of about 15.6 percent over the population reported in the 1960 Census for a modest growth rate of approximately 1.6 percent.

By 1974 the Jamaican population had further increased tc 2,025,000.[5] In 1973 the GOJ reported Jamaica's population as 1,960,000. Using this figure the GOJ calculated that Jamaica had a population of approximately 462 persons per square mile, a very high population density[6] and an increase of about 87 persons per square mile since 1960.

Thus, like most developing countries, Jamaica has a serious population problem. It has a relatively high fertility; low mortality and a high but unstable emigration rate to the United States, Canada and the United Kingdom. As recorded in Chapter 5 the GOJ/MOHEC have undertaken a very dedicated long-term family planning policy but the current birth rate has hardly relieved the pressure on the existing health, education and housing facilities. The exigencies of the Jamaican population pressure relative to the economic and political development of the island nation have been explored in detail in previous chapters of the attached paper. These general population data have been reviewed here to reaffirm the context of overpopulation within which the Jamaican cultural-sociological determinants must be considered.

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[1] May and McLellan, op..cit., p. 90; see also Ebanks, op. cit., p. 2.

[2] See Ibid., p. 2.

[3] Ibid., p. 2.

[4] See Chapter V.

[5] See Demographic Statistics, op. cit. See Chapter V for further data.

[6] Ebank, op. cit., p. 1. See also Background Notes, op. cit., p. 1.

Cultural-Sociological Determinants

The people of African or mixed heritage, descendants of Jamaica's sinister and extended period of slavery, now constitute the backbone of the Jamaican rural peasantry and, of course, the large majority of the Jamaican population. Not only is Jamaica predominantly rural (about 65 percent) but there are only 5 urban centers of over 10,000 population (one of these is the Kingston - St. Andrews urban area where about 25-28 percent, approximately 600,000, of the nation's population lives -- Montego Bay has 42,800 and Spanish Town has another 41,600).[7]

The other principal groups within the Jamaican population, the East Indian and Afro-East Indians derived from indentured laborers whom, as we have seen, emigrated to Jamaica during the 19 Century to replace the loss of slave labor in Jamaica. The Jamaicans of Chinese and Lebanese ancestory also arrived in the 19th Centruy to pursue their interests in the commercial sector.[8]

As one Jamaican Government publication has suggested, two principal cultural systems have evolved in Jamaica which are closely related to the island's social stratification.[9] One cultural system, and by far the most important in terms of cultural-sociological determinants, has evolved from the African heritage of the majority of Jamaicans. It arises from the folk beliefs, behavior patterns and values of Africa. The other cultural system is Western European in origin.

Those Jamaicans of nearly total African heritage, therefore, constitute not only the agricultural working class but the gorwing commercial and industrial proletariat .[10] Unlike the agricultural workers of many other developing nations the Jamaican farmers are not landless for the most part but rather, have small plots from 1 to 6 acres which they frequently work in addition to other part-time jobs.[11] As we shall observe in Appendix III, nevertheless, these farms, by and large, are too small to produce optimally or hardly at a subsistance level.

Other Jamaican classes include a small but growing middle class of merchants, professional men and corporation employees. Included in this expanding middle class are Jamaicans of Chinese, Lebanese, Syrian and East Indian ethnic as well as some Black and an increasing number of so-called colored (mixed European and Negro heritage).[12] It should be noted that, heretofore, whereas this relatively small middle class comprised several ethnic groups and especially Jamaican Mulattoes, there appeared to be no barriers to Black Jamaicans entering this class due to color. Merit and financial success appeared to be the principal criteria.

[7] See Situation Report: Jamaica. London: International Planned Parenthood Federation, May, 1974.

[8] See May and McLellan, op. cit., p. 90-91.

[9] Independence Plan, op. cit., p. 41.

[10] See Henriques, op. cit., p. 50. Henriques observes that the Black Jamaicans, as opposed to Colored, White or Asian, constitute 78.1 percent of the total population and can be classified as the labor-peasant group which he further characterizes as the lower class.

[11] Ibid., p. 192; Table 8; 84.9% of all farms of 1 to 2 acres are owned by Black farmers.

[12] Ibid., p. 48-53, 147-152; see the author's description of the Jamaican middle class fami monogamous, Christian, father oriented.

There remains also a very small residue of wealthy landowners and planters who still constitute the backbone of the Jamaican upper class. High government officials, a few wealthy idustrialists, and professional men, lawyers and physicians, complete the composition of this very limited class. Up until the present time, at least, it would appear that color, i.e., being Black, constituted an important barrier to entering this class as well as economic status.[13] As a social class, it is still influenced by European custom and tradition.

Finally, there is a growing urban proletariat which is probably only on a slightly higher economic level than the rural farmers. This urban proletariat is also essentially Black and would fall into the lower class as suggested previously.[14] It should be noted, however, that due to economic progress during the past two decades, there has been and continues to be an upward mobility in the Jamaican society, especially as more rural Jamaicans abandon their tiny farms and migrate to the Jamaican cities.[15]

It is the preponderant agricultural workers class with its strong attachment to its African heritage which provides the most patent cultural determination in Jamaican society. It is this class which presents the most formidable biomedical problems and the substantial danger of population explosion in Jamaica. Thus, while the Jamaican farmer enjoys the democratic heritage of Britian, the English language or a dialect thereof and some of the technical improvements of modern Europe and North America, culturally, the rural Jamaican remains much more under the influence of his African origins. This results in some aberrational but highly significant cultural determinants practiced by the Black agrarian class.

By far the most important of these, as suggested in the historical section above, is the marital instability of the Jamaican lower class inured by polygamous mores. One of the most important results of this marital instability, of course, is the wide-spread illegitimacy, a term used by the GOJ in its various census to denote children born out of legal marriage.[16] The GOJ has carefully recorded the rate of Jamaican illegitimacy since 1918. In 1918, for example, the percentage of illegitimate births was 68.5%. In 1932 it was 71.71% and in 1960 it was 72.4%.[17]

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[13] Ibid., p. 154-160.

[14] See Roberts, op. cit., p. 134.

[15] See Hurwitz and Hurwitz, op. cit., pp. 230-259.

[16] See Henriques, op. cit., p. 90; see also Robert C. Rosen, Law and Population in Jamaica. Medford, Mass.: The Fletcher School of Law and Diplomacy, 1973, p. 4. It should be noted that in 1976 the GOJ passed a law which, in effect, legitimatizes children of non-marital cohabital relationships who formerly were considered illegitimate by the GOJ. This new law will undoubtedly have far reaching effects upon the social structure of Jamaica but it is still far too early to assess these effects.

[17] See Henriques, op. cit., p. 90, Table 3.

A number of historical, economic and sociological studies over the past two decades have analyzed and delineated the origins, nature and sociological implications of the Jamaican cohabitational patterns.[18] Briefly, these studies confirm the wide practice and acceptance of several cohabitational patterns among Jamaica's predominate lower class, approximately 85% of Jamaica's population. Thus, within this class, common-in-law cohabitation and visiting unions appear to predominate to a far greater extent than legal marriage. For example, in a survey apparently conducted in connection with the 1943 census, and comprising at least three parishes it was noted that 35.6% of the mothers with an average number of 2.7 children were single, 33.1% with an average of 4.7 children were legally married and 29.2% with an average of 3.6 children were common-in-law cohabitants.[19] The remainder were widowed or divorced, i.e., 2.1%.

There are several reasons for the pursuit of these various cohabitational patterns which will be examined below. For the purposes of this study in attempting to associate the effect of this kind of sociology upon effective family planning, it might be well to note in passing the kinds of family groups these cohabitational patterns produce in the Jamaican lower class. These are: a) Christian family; b) faithful concubinage; c) grandmother family; and, d) keeper family.[20]

The Christian family is regarded by sociologists as essentially a monogomous union as is the ustom in most of the West. The faithful concubinage is similar to the Christian family in the functions of the husband and wife except that there are no legal ties thereby freeing the female from this kind of an arrangement. In the maternal family, a female relative, mother or oldest sister, assumes the normal role and functions of the absent male. Finally, in the keeper family the male and female simply live together in a temporary union of convenience.

Although some of the data describing these cohabital arrangements derive from information gathered two or three decades ago, contemporary data suggest that these cohabital arrangements are in fact more or less institutional. In a study conducted during the early seventies, the patterns described above were again confirmed.[21] This study involved the women clients of the Family Planning Association, women who were already motivated toward the use of contraceptives in family planning.

In the course of this study it was ascertained, not unexpectedly, that the three types of union from which virtually all of the Jamaican children were conceived were: legal marriage, common law and visiting.[22] These several unions functioned essentially as described in the previous studies cited above.

[18] See Judith Blake, Family Structure in Jamaica. New York: 1961: J.M. Stycos and K.W. Back, Control of Human Fertility in Jamaica. Ithaca, N.Y.: Cornell U. Press. 1964; and M.G. Smith, et. al., op. cit., to cite only a few of these sources. See the bibliography for more titles.

[19] See Henriques, op. cit., p. 91, Table 4.

[20] Ibid., pp. 108-117.

[21] See E.R. Brody, F. Ottey and J. La Grande, "Couple Communication in the Contraceptive Decision Making of Jamaican Women", The Journal of Nervous and Mental Disease, Vol. 159, No. 6, pp. 407 412.

[22] See Rosen, op. cit., p. 4.

The Brody et. al. study interviewed 80 women in all, clients of the JFPA. All lived in an urban environment, most had only primary education and almost half were employed in manual occupations. Only 20 of these women were legally married, the remainder living as common-in-law wives or in visiting relationships. About 52.0% of these women shared residences with their mates. The mean number of pregnancies for these women was 4 plus and the mean number of fathers for the children of these women was 2 plus.[23]

The explanations for Jamaica's current cohabitational pattern and the resulting family groupings lie, of course, both in Jamaica's colonial and slave-holding history and in the curren attitudes of Jamaican men and women toward each other and toward family life in general. Withou belaboring the slave origins of the Jamaican Balcks and Mulattoes, it was in this heinous institution that polygamy and heterogeneous sexual relationships took root and matured.

It is true that polygamy was already practiced by some of the African Blacks, such as the Akan people, but it was slavery that destroyed most monogomous relationships among the newly arrived Africans.[24] The newly arrived slaves were sold in various parts of the island without regard to family relationships. Polygamy and heterogeneous sexual relationships were encouraged by the planters to enlarge the number of increasingly expensive slaves, especially after the slave trade was abolished. The few Christian ministers, similarly, were discouraged from interfering in the planter's control of the island life. The planter also freely engaged in the practice of concubinage.[25] Within a few generations the black slaves and the white planter class were unable, or in many cases, unwilling to break these cultural patterns.

It is the current attitudes of the Jamaican lower class, especially the Black women, steming from the historical perspective recorded above, which, we believe, are so significant in Jamaica's current sociology and which are so important to the prospects for successful family planning programs. Thus, the prevaling attitudes of Jamaican lower class women toward men and family life were starkly revealed most recently in the interviews of JFPA clients.[26] These women, more enlightened than most of their class, regarded Jamaican men as irresponsible and sexually promiscuous. They believed a woman's primary responsibility was to her mother rather than to her mate. Most of these women were reared in families with a women head of household. These women appeared to have few inhibitions toward changing mates nor in having several fathers for their several children.[27]

[23] Ibid., p. 410;

[24] Henriques, op. cit., pp. 32-35, in addition to the Akans of West Africa there were also slaves from the Papaw, Nago, Moco and Ibo tribes. Ashanti and Fanti Negroes were also prominent in Jamaica.

[25] Ibid., pp. 90-106.

[26] Brody et. al., op. cit., p. 407; these women were from the Jamaican lower class which represents about 85% of Jamaican society.

[27] Heuriques, op. cit., pp. 91-96; Jamaican men reportedly shun the responsibilities of marriage but as often believe they cannot afford the cost of marriage and family.

This poloygamous relationship has led to various cultural determinants which pose pressing problems relative to the economic, sociological and political development of Jamaica. These may be summarized briefly below:

1. The most obvious aspects of these unorthodox cohabital arrangements, of course, are illegitimacy and an ill-controlled birth rate resulting in a very high population density on the island, high unemployment and a host of other socioeconomic problems;

2. Jamaican family life is characterized by obvious widespread instability and fragmentation;

3. Jamaican families stemming both from common-in-law and visiting relationships a largely matriarchal;

4. This fragmented, matriarchal family life, where the father is absent or where his authority is compromised and the mother must work to support the children, leads directly to inadequate child care, malnutrition, excessive childhood diseases and abnormally high child mortality;

5. The fragementation of family life, with matriarchal direction but devoid of paternal leadership and responsibility, results in weak, ineffective socio-economic-political relationships in the rural areas and must render rural leadership in the long-term less than effective;

6. The instability of family life is further exacerbated by the uneconomical size of the farms which, in turn, results from the Jamaican custom of parcelling out land to all the children rather than following the laws of primogeniture. This situation requires men and women to supplement their meager income from the undersized farms by seeking wage work as migrant workers on the large plantations. Thus, the male-female relationship established on a seasonal basis is short-lived, terminating with the seasonal work;[28] and,

7. Finally, still another result of this national promiscutiy has been to create a significant minority of Mulattoes who, on a short-term basis, have been favored and have provided intellectual and political leadership for Jamaica. In this process, however, they have also become an elite group to the possible detriment of long-term Jamaican democracy.

Thus, the British democratic traditions, which have led to a constitutional regime, a parliamentary system, a hitherto stable two-party system, some local self government and the protection of labor unions, rest on an unstable, fragmented family life. This unorthodox family life has and continues to create several potentially explosive problems including a high population density, migratory work patterns, unemployment, both rural and urban poverty and unstable social relationships. Heretofore, British guidance, a relatively prosperous economy and a responsible native leadership have maintained Jamaican progress. But there are strong undercurrents of instability in Jamaica, the more important aspects of which have been previously examined.

28 May and McLellan, op. cit., p. 91.

APPENDIX III

JAMAICAN ECONOMY

Economic Progress from the End of Slavery Until World War I

In 1833 the British Government, due to the energetic efforts of English humanitarians, abolished slavery in the British Empire.[1] The abolition of slavery and the emergence of the free Jamaican farmer after a brief transition period, proved to be a considerable boom to Jamaican economic development. It also proved to be the harbinger of a substantial increase in Jamaica's population. In that long period the crude birth rate approximated 37 per 1000, representing a high fertility rate.[2]

As a result of the abolitionist decision of the British Parliament, many of the newly freed men abandoned the old sugar plantations and established small free-holdings of their own, largely on unclaimed land. Thus, within a few years of emancipation, a new class of free farmers began to develop in Jamaica. Although the freedman held only a few acres of land, nevertheless, he became a successful truck gardner since until the latter part of the 19th Century food remained in short supply in Jamaica.[3] Those who remained on the plantations were now paid a wage from which many also purchased plots of land. In 1880 there were 36,756 individual holdings of less than 5 acres and by 1902 this had increased to 108,943 holdings.[4]

The small, free farmers prospered, and after mid-century, actually began to export small amounts of pimento, ginger, arrowroot, coconuts and honey. Unfortunately, after mid-century the sugar industry in Jamaica, the island's cash crop, began a steady decline due to competition from other nations in the Caribbean and elsewhere. This decline in the sugar economy occurred during the same decades that Jamaica was experiencing its first population boom. During the 19th Centruy's latter decades, therefore, Jamaica entered upon its most preponderant problems, overpopulation and the concomitant unemployment, problems which have been exacerbated in the 20th Century.

With the decline of the sugar industry fewer and fewer laborers were required to work the plantations. Similarly, fewer jobs were available in a very slowly developing economy and the unemployed had no funds with which to purchase a few acres. Fortunately, an escape from the increasing unemployment soon appeared in the form of emigration. After 1850 Jamaicans departed in increasing numbers for Haiti, Colombia, British Guiana, British Honduras and the United States. The Isthmus of Panama offered a special lure to Jamaicans as both France and the United States sought to construct the Panama Canal. In 1880, 54,000 Jamaicans departed for Panama and although most drifted back to Jamaica another 100,000 left for Panama and elsewhere in 1905. This emigration provided a highly important saftey valve to increasingly difficult conditions in Jamaica.

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[1] See Hurwitz and Hurwitz, op. cit., pp. 152-174 for a succinct but fact-filled account of Jamaican economic development in the 19th and 20th Centuries.

[2] See Walsh, op. cit., p. 13.

[3] Hurwitz and Hurwitz, op. cit., p. 157; the average farm in Jamaica before 1865 was about 2and3/4 acres.

[4] Ibid., pp. 157-158.

Indeed, between 1865, a year of considerable social unrest, and World War I, the Jamaican economy offered an interesting paradox. The industrious small farmers continued to prosper and export. Agricultural diversification was introduced with both the former sugar estates and small farmers switching to bananas, cocoa, rum, spices, citrus fruits and tobacco.[5] On the other hand, lacking the employment of the former sugar estates and other labor intensive industries, the unemployment conditions in Jamaica became increasingly more depressing.[6] Unemployment exacerbated the social problems as more unemployed rural Jamaicans migrated to the cities to become drifters and contribute to the breakdown of family life which continued, nevertheless, on the small farms.

World War I proved to be a stimulant to the Jamaican economy as it did to the economies of most of the nations of the western hemisphere. For the first time in about a century sugar prices increased. Foreign investors, who were already on hand in Jamaica, purchased and amalgamated sugar estates. New machinery and techniques were introduced. By the end of the war the size of the average sugar estate was about 368 acres.[7]

After World War I, both tourism and light industry were introduced in varying degrees into Jamaica. Agriculture remained the country's principal industry, however. Sugar continued to prosper while the citrus industry, bananas, coffee and tobacco received new impetus both from small farmers and large estates. Trade increased significantly with Canada and the United States as well as with Britain. Between 1925 and 1930, for example, agricultural products accounted for over 90 percent of the value of Jamaican exports, with bananas and sugar representing 50 and 25 percent respectively.[8] Tourism also continued to expand during the twenties and up to the thirties but only very slowly.

The Jamaican economy, however, did not escape the ravages of the world depression and tourism as well as Jamaican agriculture suffered severely during the decade of the thirties. The depression exacerbated already existing poverty conditions in Jamaica at a time when overpopulation was increasing at a rapid rate due to the success of preventive medicine in reducing the death rate.[9] In addition, many Jamaicans who had gone to Central America returned and since there was no new land available to absorb them, they added to the growing numbers of unemployed.[10] All of these conditions led to strikes, rioting and intense economic and social unrest in 1938 and helped initiate political, constitutional and economic reforms.[11] Jamaica labor organized and began to assert itself politically in the JLP.

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[5] See Ransford W. Plamer, The Jamaican Economy. New York: Frederick A. Praeger, 1968, pp. 1-4.

[6] See Hurwitz and Hurwitz, op. cit., pp. 160-161; English investigators about 1880 claimed that laborers jobs existed on the sugar estates but many Jamaicans would no longer work at them. Hence, East Indian immigrants soon appeared to work these plantations.

[7] Ibid., p. 167.

[8] Palmer, op. cit., p. 2.

[9] Walsh, op. cit., p. 13; The average crude death rate fell from 23/1000 before 1921 to 18/1000 between 1921 and 1943.

[10] Palmer, op. cit., p. 2.

[11] See Hurwitz and Hurwitz, op. cit., pp. 194-197.

The unrest of 1938 prompted the British Government to investigate and the resulting report of the ten-man Royal Commission concluded that Jamaica and the West Indies required assistance to provide desperately needed social services. As a result, the British Government passed the Colonial Development and Welfare Acts in 1940 under which substantial funds were provided Jamaica to alleviate worker poverty.

World War II caused Jamaican exports to suffer by wartime restrictions while the banana crop was severely damaged by disease. Nevertheless, on the whole World War II helped Jamaica economically by providing jobs at U.S. bases while thousands emigrated to Canada and the United States. But the end of the war brought severe economic problems to Jamaica as bases were closed and emigrants returned. The unemployment rate, intensified by an ever increasing population, reached more than 30 percent in 1945-1946.[12]

Britain again responded to Jamaican economic difficulties by creating a Development and Welfare Organization as a result of the Colonial Development and Welfare Act of 1945. The D & W Organization channeled £6.5 million into Jamaica principally to promote a "comprehensive approach to agricultural reform." Little emphasis was given to industrialization at that time since the British believed economic progress should be constructed on Jamaican agriculture. Some funding did find its way into public health, water supplies, roads, education, housing and communications. The D & W Organization was dissolved in 1958 when the Federation of the West Indies was formed but CD & W funds continued to flow into Jamaica until 1962 when Jamaica had received a total of £9 million since 1945.

The British Parliament also passed the Overseas Resources Development Act of 1948 which set up the Colonial Development Corporation to invest funds in commercial projects in individual colonies. All of these measures had little impact on the Jamaican economy until after 1950, however. Until well into that decade Jamaica could not provide for its mass of unemployed. Between 1943 and 1950, for example, the labor force increased at an average annual rate of about 4 percent, whereas GDP increased at a rate of 2.5 percent. The rate of growth in agriculture was even slower than that of the GDP which aggravated poverty conditions already existing and contributed substantially to the large scale migration of Jamaican workers that began about 1950 and continued into the decade of the sixties.[13]

The Era of Jamaican Economic Development - 1950-1970

Jamaica's record of economic growth over the past two decades has been very impressive. When the first Ten Year Plan was completed in 1956 another was drafted and launched in 1957. This plan stressed agricultural development, also reflecting British orientation. When Jamaica achieved independence in 1962, the second Ten Year Plan was dropped, however, in favor of a new Five Year Plan. This plan stressed heavy foreign borrowing to raise the Jamaican standard of living and to promote industrial and commercial development.

[2] Palmer, op. cit., p. 3; in 1945-46, the British Government also introduced a Ten Year Socio economic plan to raise social services and promote economic development.

[3] Ibid., p. 5; Between 1953 and 1962, net emigration to the UK was 162,000, a sharp contrast t the net emigration of 2,300 between 1939 and 1950.

As a result of these plan[illegible] foreign loans real output rose in the sixties at an average rate of over 6.0 percent while investment was at least 18 percent of GDP and in some years about 30 percent. The domestic savings rate had averaged about 20 percent during the decade of the sixties. Moreover, by 1960 Jamaican industry contributed about as much to the GNP as did agriculture.[14]

By comparison, in 1950 Jamaica was still predominantly an agricultural economy, with a large subsistence sector and exports based primarily on commercial production of sugar and bananas. In 1950 Jamaican per capita GNP was about $310 at 1970 prices which was somewhat below that of other large Caribbean countries but above that of most of Latin America. Then, during the decade of the fifties, per capita GNP grew by an average of 5 percent annually and reached $490 by 1960.[15] During the next 5 years, the growth of output slowed substantially and real income growth dropped because of a deterioration in the terms of trade. In the second half of the sixties, however, there was an acceleration in the Jamaican economy so that the annual growth rate of per capita income rose to 3.7 percent or more as prices of Jamaica's major exports recovered. During this period heavy investments were made in mining (bauxite), tourism alumina manufacturing and light manufacturing.[16]

Recent Performance of the Jamaican Economy

The course of the Jamaican economy since 1970 has been vicissitudinous at best. In 1971 the acceleration in the Jamaican economy that had been underway since 1965 lost much of its impetus principally due, it would seem, to cyclical economic forces. This slowdown was reversed in 1972 as the Jamaican economy again demonstrated stamina and growth capability. This expansion of the Jamaican economy continued through 1973 and 1974. Due to the international recession in the West in 1975, the Jamaican economy slowed appreciably and showed several negative indicators. Economists were also concerned that 1976 would reflect an even sharper decline in Jamaica's economy. The following data illustrate the nature of the Jamaican economy over the past several years.

At current prices the GNP in Jamaica in 1972 was J$ 1,356,900,000, in 1973 it reached J$ 1,580,100,000 and in 1974 the preliminary estimate was J$ 2,075,900,000.[17] These data represented an increase of 16.4% in the 1973 GNP over 1972 and an increase of 31.4% in the 1974 GNP over 1973. Preliminary estimates by the GOJ showed both a GNP and GDP increase in 1975 of about 18.0% over 1974.[18] Private economists are somewhat skeptical of this claim, however, and now estimate that real GDP might decline as much as 5.0% in 1976 due to several factors discussed below. In any event, it has been reliably estimated that the Jamaican GDP grew at about 3.5%

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[14] Hurwitz and Hurwitz, op. cit., p. 172.

[15] See Bell, op. cit., pp. 24-27 who claims GNP increases ranged turn 3.7% in 1958 to 19.7% in 1957 during the period 1953-1961.

[16] Hurwitz, op. cit., p. 173; In 1953 Jamaica produced 8.5% of the world output of bauxite while by 1960 Jamaican production accounted for 21.2%.

[17] Data for this section was derived from The Economic and Social Survey: Jamaica, op. cit, 1973 and GOJ Economic Summary Statement 1975; Background Notes: Jamaica, Wash. D.C.: Department of State, 1974 and 1975; Unpublished USAID statistical data and unpublished information from the USAID Mission in Kingston.

[18] Economic and Social Survey: Jamaica. op. cit., p. i.

during 1973-74 but dropped to 1.0% in 1975 and might decline by 5.0% in 1976 as noted above.[19]

Economists believe that the decline in the Jamaican economy over the past two years derives from a combination of external and domestic factors which have created difficult short-term problems for the GOJ. Some of these are cyclical in nature such as the decline in foreign capital investment due to completion of bauxite-alumina projects and the severe drop in tourism, perhaps as much as 65-75% due to recession in Canada and the U.S. Thus, at the time when Jamaica's ability to pay for imports was diminishing, the price of these imports, especially oil and foodstuffs, was increasing rapidly. This situation helped reduce the amount of foreign exchange for investments.

The short-term economic situation has also been further compounded by inflationary forces, unemployment and more consumer imports. The Jamaican inflation was due in part to general economic conditions in the West but also to the increased wage demands of Jamaican workers which were largely met. Inflation, of course, complemented Jamaica's foreign exchange dilemma to the further detriment of the Jamaican economy. Higher wages encouraged consumer imports in the face of a decline in exports and foreign exchange earnings. Unfortunately, the GOJ further strained economic viability by introducing new public works to help the unemployment difficulities which, in turn, absorbed public savings and further stimulated consumption and imports. Not only has there followed a decline in investment capital and domestic private production but the GOJ has had to engage in heavy external short-term borrowing.

It is not surprising, then, that economists are predicting a decline of about 5.0% in 1976 in the Jamaican GDP. For the short-term the GOJ has been advised to reduce sharply consumer imports and to apply forcefully the wage guidelines recently announced. This, it is hoped, will restore integrity to Jamaica's balance of payment dilemma and set the stage for a return to a more balanced and consistent GNP/GDP growth pattern. Nevertheless, Jamaica faces severe long-term economic problems the paladins of which are poor agricultural production, increasing unemployment and underemployment, lack of investment capital, brain drain and overpopulation set against a background of serious sociological imbalances among its black majority. These long-term problems are reviewed below after looking briefly at the basic elements of Jamaica's economy.

Pertinent Economic Elements Relevant to Two Decades of Jamaican Development

Several elements were responsible for the dramatic growth of the Jamaican economy during the past two decades. The most important of these were bauxite, alumina and tourism although there were others. The following is a brief summary of the pertinent data relative to these sources of Jamaican economic development.

1. Bauxite: Bauxite deposits were first developed in 1952 (see below). By 1957 Jamaica had become the largest producer in the world. The great impact of this industry on the island's economy in the 1950's has been compared to that of railroad building in the middle of the 19th Century to the American economy.[20] Bauxite production continued to increase throughout the sixties. By 1973 it had grown to 13.4 million tons of which 7.3 million tons were exported and 6.1 million tons were processed in Jamaica.[21] The value of bauxite production increased by $11.1 million to $79.5 million in 1973. Some economists believe that the demand for bauxite, which dropped in 1975, will continue to decline in 1976 but will pick up again in 1978-1980.

[19] Unpublished USAID Data.

[20] See Plamer, op. cit., p.

[21] See Economic and Social survey: Jamaica, op. cit., p. iv.

2. Aulmina processing. Closely associated with the mining of bauxite deposits, of course, was the introduction of alumina processing plants in the 1950's. In the 1960's there was a major expansion of this processing capacity. By 1972 this sector accounted for 13 percent of the Jamaican GDP. In 1973 alumina production increased by 22% to 2.5 million tons of which 2.4 million tons were exported for $147.8 million. Demand for alumina should also increase by 1978.

3. Tourism. Tourism grew at an average rate of over 10 percent during most of these two decades. The total number of visitors rose from 75,000 in 1950 to 493,000 in 1970. The first half of the decade of the seventies proved disappointing for Jamaican tourism, however. While this industry engaged in heavy construction in the early seventies, tourists including stopovers began to decline so that Jamaica soon had an overcapacity in hotels. Contribution to Jamaican foreign exchange increased only from J$ 70.0 million in 1972 to J$78.8 million or 3.6% of GNP in 1974.

4. Light Industry. Stimulated by a variety of incentives, manufacturing (light industry) expanded rapidly during both decades. Output was primarily for the domestic market but after 1959, there was a significant expansion of export sales. These were principally garments for the U.S. market and a variety of light manufactures for the CARIFTA market. Jamaica now has a good light industry capacity which produces a wide variety of manufactured goods. Exports of Jamaican goods increased from 13% of total exports in 1970 to 15% in 1974.

5. Construction. The substantial expansion of investment during the 1950's led to a rapid growth of construction activity in that decade. Since 1960, this sector has grown more slowly with the exception of the 1965-1970 period when major investments were undertaken to expand alumina capacity. Since 1972, when a good rate of growth in construction was achieved, the Jamaican construction industry has been depressed. As early as 1973 the industry began to suffer from a shortage of cement and steel. These shortages have been exacerbated by the GOJ austerity program limiting imported materials. Strikes have also curtailed growth.

6. Investment and Savings. One of the outstanding features of the Jamaican economic expansion since 1950 has been the rates of investment. These rates have fluctuated widely and have ranged from 18 to 30 percent of GDP. Due largely to bauxite and alumina, total investment averaged 27 percent of GDP during 1954-58 and 29 percent during 1968-1969. Between 1970 and 1974 the gross investment as a percentage of GDP ranged from 24.6% in 1970 to 19.2% in 1972.

Personal consumption also dropped steadily from about 80 percent of GDP in 1953 to 64 percent by 1970. Similarly, Jamaica maintained relatively high rates of savings throughout the decade of the sixties. The ratio of domestic savings to GDP rose from about 13 percent in the early fifties to an average of about 22 percent by the second half of the sixties. Recently, gross domestic savings have ranged from 18.8% of GDP in 1970 to 19.0% in 1974.

Major Components of the Jamaican Economy

Having reviewed the development and progress of the Jamaican economy up to the present, it would seem appropriate to present a very brief sector analysis before examining the current problems and prospective performance of that island's economy.

Agriculture

Although the relative contribution of Jamaica's agricultural sector to its GDP has declined since 1950, agriculture remains the country's largest employer. The basic feature of Jamaica's agricultural sector is the dichotomy between plantation agriculture for export and peasant agriculture producing largely for domestic consumption.[22]

Thus, currently, forty-three percent of the one million acres suitable for cultivation or pasture is held by about 300 units of over 500 acres each, while the remaining acreage is divided among 180,000 farms, 150,000 of which are less than five acres. Moreover, these small farms are usually found on hilly and less fertile lands, and such units are generally too small to generate satisfactory levels of income. Thus, owners of many of these smaller units find their principal employment outside agriculture. In addition, 140,000 acres in small units are currently not cultivated at all.

During the decade of the sixties agricultural output lagged behind the remainder of the economy, growing at an annual average of about half the rate of the GDP. Within the agriculture sector, livestock and crop production for domestic consumption expanded the most rapidly, while export agriculture remained virtually stagnant as the result of a decline in the production of sugar, the most important export crop. Inadequate growth of agriculture over the period gave rise to rapid expansion of imports of agricultural products and declining agricultural self-sufficiency.

The performance of agriculture during the decade of the sixties, therefore, was a major disappointment in Jamaica's economic performance. The growth of the sector fell from an annual average of about 2.9 percent during the 1950's to 1.3 percent in the 1960's. This widened the discrepancy between rural and urban income and contributed heavily to the high level of both urban and rural unemployment. This decline in agricultural production and income was especially important since the agricultural sector continued to be the most important employer of Jamaican labor, absorbing during the decade one-third of the total labor force (see below).

The trends in Jamaican agriculture evident in the sixties appeared to be continuing into seventies. Although Jamaican agriculture provided over 200,000 jobs or about 30% of total Jamaican employment, the agricultural exports generated about 13.0% of the total export earnings from goods and nonfactor services. In 1975, however, sugar production for the first half of the year was 11.5 thousand tons down 3.0% from 1974 while banana production was 49.3 thousand tons also down from 55,000 tons through the same period of 1974. Moreover, imports of agricultural products exceed agricultural exports.

In any event, economists agree that the Jamaican agricultural sector's efficiency could be significantly improved. Several factors have been cited for this inefficiency. These include outdated price and marketing policies, poor rural infrastructure, inequitable land tenure patterns, and poor labor-management relations.[23]

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[22] See Palmer, op. cit., pp. 41-42.

[23] Derived from unpublished USAID and other data.

Mining

The mining sector includes bauxite and gypsum mining operations but the share of the latter in the value of the sector's total output is very small. Jamaica, in fact, is the world's largest producer of bauxite. As recorded above, the economic impact of this industry on the Jamaican economy has been considerable. The foreign capital came largely from three North American aluminum firms that established mining operations in Jamaica.[24]

Bauxite deposits were discovered in 1942 and mining operations began in 1952. The bauxite lies in pockets averaging 10 to 30 feet deep in Karstifield limestone, flanking the central portion of the main mountain range. By 1967 about $100 million had been invested in this operation and about 7,000 people were employed.

But between 1967 and 1972 another $500 million was invested in bauxite. These investments brought bauxite production capacity up to 14 million tons compared to 12.3 million tons in 1967.[25]

Demand for bauxite and alumina production began to decline in 1973, however, and is expected to show a further decline in 1976. In 1973 Jamaica produced 13.4 million tons of bauxite, a very slight drop from 1972, of which 7.3 million tons were exported.[26] In 1975 bauxite production for the first 8 months was down 18.9% from 1974 while alumina production dropped 11.8%. This decline, perhaps at about the same rate, is expected to continue into 1976. Thereafter, however, in 1978-1980 it is anticipated that demand for this vital Jamaican product will increase again.

Manufacturing

Until 1950, manufacturing in Jamaica had been largely concentrated in the processing of locally produced agricutural products. The sector then became more diversified due in part to numerous industrial incentive measures, which offered tax and other concessions to foreign and local entrepreneurs, and in part to the initiatives of private firms in the bauxite and later in the oil areas.

Between 1960 and 1970 manufacturing in Jamaica grew at a real rate of just below 6 percent on annual average. If sugar refining were excluded, growth has been about 7 percent. While there was rapid industrialization in the late fifties and early sixties, it slowed down significantly after 1966, however, when opportunities for easy import substitution became less abundant

Between 1967 and 1972, as is recorded above, as part of the $500 million investment in bauxite mining, alumina production capacity was increased from 2.3 to 3 million tons annually. Then, too, in 1964, a new oil refinery was completed and began production of gasoline, diesel and fuel oil. Stimultaneously, during the sixties, diversification continued along with the expansion of existing plants.

[24] See Palmer, op. cit., p. 15: these firms were Kaiser Bauxite, Reynolds Bauxite, Alcan Ltd. and in 1964 a fourth, Aluminum Co. of America.

[25] See Hurwitz and Hurwitz, op. cit., p. 253.

[26] See Economic and Social Survey: Jamaica, op. cit., p. 4

By the early seventies, therefore, through government investment and encouragement to private domestic and foreign investors, Jamaica had developed a widely based, industrial sector. Although this sector gained initial impetus from the agriculture and bauxite-alumina production, it expanded rapidly into other products. Jamaican industry now provides processed foods, tabacco, bauxite and alumina products, electrical and metal manufactures and clothing of various types. Between 1970 and 1974 this sector grew at an annual rate of about 13% and provided about 15% of total exports. In 1975 Jamaican industry provided 80,000 jobs and accounted for 13.0% of GDP in constant prices.

Despite the western recession, economists now believe that the next few years offer new opportunities for a further expansion of the Jamaican manufacturing sector. They believe this is true due to the skilled labor which will become available in Jamaica and, the competency of the Jamaican managerial class. Most important, the Caribbean, Central and South American markets are open to new Jamaican manufactured products. The traditional U.S., U.K. and Canadian markets will also continue and probably expand. This sector is perhaps the brightest in the Jamaican economy.

Tourism

Because of its scenic beauty, one of Jamaica's comparative advantages lies in tourism. The GOJ began to promote tourism in the forties and in 1954 established the Jamaica Tourist Board to promote the tourist industry.[27] Between 1960 and 1970 tourism became the Jamaican economy's most rapidly growing sector. Despite a temporary slowdown in the growth rate during the late sixties, the number of visitor-nights rose from 1.7 million in 1965 to 3.2 million in 1972. Tourist earnings in current prices grew by 13 percent.

Between 1968 and 1973, however, the expansion in the number of rooms proceeded faster than the number of visitors, about 14 percent annually. This resulted in a growing differential between the number of visitor-nights and the number of rooms or a reduction of occupancy ratios from 68 percent in 1966 to 49 percent in 1972. Since 65 percent is a breakeven point for the hotels, many of them are in financial trouble.

Since 1972 the tourist sector has been increasingly depressed. In 1973 the rate of stop-over visitors grew by only 2.6% and construction was severely curtailed. In 1974 and 1975 tourism continued to decline as Jamaica felt the full effect of the recession in the U.S. and Canada. In the first six months of 1975 tourist expenditures were down by 7.5% while stop over visitors declined 9.5%. Tourisms contribution to the GNP was 5.1% in 1972, 4.5% in 1973 and 3.6% in 1974. As a result of the above, several hotels closed but the industry still seems to have an over-capacity.

Other Components

Transportation

Since 1960 value added to the transport and communications sector has grown by over 7 percent annually in real terms. The vehicle fleet has risen by 9 percent; railway traffic has increased by 7 percent since 1966; and, airline passenger traffic has grown by 14 percent annually since 1965. It is anticipated total transport activity will need to expand at about 8 percent or more during the next eight years.

[27] Palmer, op. cit., p. 29.

Electric Power

Total installed electric capacity is currently about 485 MW. Of this, 315 MW is owned by the Jamaican Public Service Company (JPSC) which is responsible for all public electricity supply throughout the island. In addition, there are numerous private plants with a total capacity of approximately 170 MW supplying the needs of the super estates (40 MW) and bauxite alumina companies (130 MW). It is estimated that the demand from the public system will increase by about 12.5 percent per annum over the next five years. The JPSC, having just completed a J$63 million (for 1968-72) investment, is now planning another J$163 million for 1973-78. These investments should meet the 12.5 percent per annum increase, but would not provide for the power required if the alumina or petro-chemical industries expanded.

Water and Sewerage

Two water authorities are responsible for the water supply in Jamaica; in Kingston and St. Andrews the Water Commission is responsible while the National Water Authority is responsible for the rest of the island. As was noted in Chapter 10 (see Table 19) water service, even in the urban areas, is poor and is extremely limited in the rural areas. Thus, there is an urgent demand for better water and sewage services since both are now taxed to their limit and there is a pressing need for both services to most dwellings where it is non-existent. Sewage disposal is so limited in the Kingston area that sewage in some districts is overflowing onto the ground surface causing a health hazard.

Housing and Urban Development

Total investment in housing declined as a share of GDP from about 3.1 percent during 1964-66 to 2.3 percent during 1967-71. At 1970 prices the average annual outlays were estimated at J$20 million during 1969-70.

Household formations during the decade of the seventies is expected to increase substantially. The annual requirement for new housing units from this source was estimated in 1970 to be 20,000 annually by 1980, as compared to about 4,000 during the period 1965-1970. Clearly, from the data provided in Chapter 10 housing construction is hardly meeting such a schedule. In 1973, although the GOJ increased low-income public housing by 85.7% over 1972, this meant increasing low-cost construction only from 1,585 to 2,943 houses.

Aspects of Jamaica's Economic Problems

As the foregoing suggests, Jamaica is confronted both with long and near-term problems which have and are continuing to constrain Jamaican economic progress. The most important aspects of these problems may be summarized in the following brief paragraphs.

Jamaica's principal long-term economic problem is unemployment. For the past decade, reported unemployment ranged as high as 15 percent but increased to 22.8 percent in 1972 and 22.4 percent in 1973 and then declined to 21.1% in 1974.[28] Economists maintain that the unemployment

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[28] Although official GOJ data established the unemployment rate at the above levels, economists have noted that these figures include in the labor force all unemployed persons of working age who express a desire to work regardless of whether they are seeking jobs. By the standards used in the U.S. they judge the unemployment rate in 1974 to have been 11.0% or 80,000 unemployed.

problem is essentially a structural one, falling principally upon unskilled young adults and unskilled women seeking to support their children. Some of the aspects of the unemployment problem which compound and exacerbate it are due in part to a) emigration which also makes it difficult to train the unskilled; b) a dual wage structure that has developed, fostered by the unions and mitigating against agricultural workers; c) capital intensive investment that has been reducing the rate of increase in the number of jobs; and, d) emigration which dropped somewhat in the early seventies and which, together with the increasing birth rate, helped add to the total population of working age in the 14 to 29 age group. Attention should also be focused on the cultural-sociological difficulties arising from the unstable marital and family relationships in Jamaica, which encourages fatherless families, a high birth rate, and unsatisfactory and insufficient early training for the job market.

Other long-term economic problems, of course, are also present. The smaller size of the domestic market, with its heavy dependence upon imports, is one which discourages the rapid expansion of job opportunities. Another involves the functional illiteracy of much of the Jamaican population, which as a practical point, inhibits the training of Jamaicans for this technological age.

Economists have rendered some proposals which they believe would help alleviate unemployment and improve Jamaican economic progress during the current decade. Since the Jamaican domestic market is limited, economists believe it is imperative for Jamaica to accelerate the growth of labor-intensive export products and activities especially tourism, manufactured goods, and agricultural produce. They also believe that the GOJ may be required to provide export subsidies and entertain an effective incomes policy to keep wages from outstripping productivity. Finally, improved education and a reduced birthrate are also imperative to Jamaica's long-term economic development.

A brief glance at the Jamaican economic performance during the past few years illustrates the near-term problems afflicting the Jamaican economy.[29] In 1973 GNP increased by 19.7 percent compared to 10.9 percent in 1972 and per capita income increased by 18 percent. In terms of GNP, agriculture increased by 17.6 percent, while bauxite/alumina production increased by 22.0 percent. Tourism increased, with the number of stop-over tourists growing by 2.6 percent. The average annual increase in inflation in 1973, however, was 20 percent, compared to 7.5 percent between 1969 and 1972. The cost of living increase was due to an escalation in commodity prices, supply constraints, rise in fuel prices, and wage increases. Increasing oil prices and import prices caused foreign exchange reserves to fall, while the current account deficit rose. Exports increased slightly, but imports reached a new high and the trade deficit worsened. Thus, the balance of payments deficit in 1970 was $152.6 million and in 1972 it was $191.9 million.

According to the latest GOJ economic summary available, the Jamaican GNP/GDP grew by 31.0% in 1974 and by 18.0% in 1975.[30] Real output measured in GDP at constant prices (base 1974) increased by 1.3% in 1974 but declined by 2.3% in 1975. Net foreign exchange reserves fell by J$73.6 million from J$130.2 million to J$56.6 million in 1975. During 1974 foreign exchange reserves had increased by J$54.1 million. In 1974 the consumer price index increased by 20.7% while in 1975 it increased by 15.7%. In 1975 exports of bauxite fell by 31.0% and production by 25.0% below 1974 levels. Alumina exports decreased by 15.0% and production by 18.0% below 1974 levels. There was relative stagnation in the construction and installation sector in 1975.

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[29] See especially Economic and Social Survey: Jamaica, op. cit., pp. i-viii and 84-93; Background Notes: Jamaica, op. cit. pp. 3-4; and unpublished material recorded previously

[30] See Summary of Economic Activity, 1975. Kingston: GOJ, 1976. pp. i-iii.

Finally, unemployment increased by 5,850 in 1975, not a very significant amoun

Since the end of 1972, therefore, the Jamaican economy has suffered several reverses which reduced GDP growth rate to 3.5% in 1973-1974 and probably to 1.0% in 1975. At this writing some economists fear that real GDP might decline by 5.0% in 1976. These adverse economic developments derive from domestic expansion and international recession in the West with the concomitant inflation spurred by oil price increases and other factors. Western recession/ inflation in the industrial nations cut deeply into the Jamaican economy since exports and imports have come to average over 40.0% of the Jamaican GDP and the demand for Jamaican bauxite, alumina and tourist accomodations fell accordingly. Jamaican imports, on the other hand, did not experience a similiar decline thereby eroding Jamaica's foreign exchange reserves and contributing to a slowdown in the economic growth rate.

International economists have for a long time recognized the necessity of instituting both long-term and immediate socioeconomic reforms in order to foster upward mobility for the Jamaican people. Over the long-term, 1976-1981, these reforms include: a) encouraging export growth, b) making labor less expensive relative to capital, c) vastly expanding and improving training programs, d) providing better institutional support by the public sector, and e) most significantly, curbing the underlying upward demographic trends. In the short-term this progressive economic policy should include: a) reducing imports, b) better enforcement of voluntary incomes guidelines policy, c) curtailing current expenditures so as to encourage more capital formation, and d) encouraging effective import-substitution industries.

The GOJ recognizes the existence and nature of these economic problems both on a short and long-term basis as evidenced by the recent incomes guidelines and the overall development plan. Since 1972 the GOJ placed considerable emphasis on sectoral planning and have undertaken such planning in the agricultural, manufacturing-industrial and mining sectors. The GOJ has attempted to promote consistency within each sectoral plan as well as among various sectoral plans. But, as indicated, the recent international economic vicissitudes have seriously affected the implementation of GOJ macroeconomic planning.

The GOJ's most serious problem, as most observers admit, is its unemployment situation. Unemployment, hovering between 21 and 23% has become chronic over the past decade and is both sociological and economic, cultural and demographic in nature and a vital component of Jamaica's health environment. Many economists believe that the absorption of those Jamaicans who can work and those who desire to and are seeking work, both groups of which comprise the major part of the official 21% plus unemployment level, will require the creation of at least 160,000 jobs over the remainder of the decade of the seventies. It is believed that half of this number would cover existing unemployment while the remaining 80,000 jobs would be required to meet the projected growth of the labor force.[31] There is also a substantial number of Jamaicans, also counted in the official unemployment estimate, who are willing to work but are not seeking employment. This last group, which economists estimate to be at least 10% of the potential labor force but may in

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[31] See Walsh, op. cit., pp. 106-122; Although we do not necessarily concur in the conclusions derived by Walsh from his demographic-econometric model of Jamaica, nevertheless, they are of considerable interest to this study. Some of his more pertinent conclusions are as follows:

a. Population growth influences economic development in two wa

1) changes in the size of the labor force;
2) changes in age distribution;

b. The labor force in Jamaica has been increasing at the rate of 3.0% per year since 1970;

fact be more, constitutes both sociological and health problems which have been dealt with in detail elsewhere in the body and appendices of this study. In any event, heavy domestic and foreign investment in labor-intensive industry and agriculture and strong GOJ promotion of MCH/FP/Nutrition programs such as the Cornwall Project will be required to begin to solve Jamaica's increasingly serious unemployment problem.

c. Reduction in fertility will have little effect on the growth of the labor force until after the year 2,000;

d. Improvements in the mortality rate will also have little effect on the labor force in Jamaica since these will be slight in the foreseeable future;

e. Thus, there will be little decline in the size of the labor force until 2020 even under low fertility assumptions;

f. Hence, by 2020 the size of the labor force will have increased "sevenfold" under high fertility and "threefold" under low fertility. Using 1967=100 as a base, the labor force would be 737.9 in 2020 under "high" fertility and 337.3 under "very low" fertility;

g. Under "high" fertility the net population growth rates will move from 3.48% in 1970 to 3.89% in 2020. Under "very low" fertilities net population growth rates will decrease from 3.20% in 1970 to 0.07% in 2020 but with 2.41% as late as the 1980-1985 period.

h. Finally, in the short run, Walsh does not believe it is realistic to expect industrialization to take care of the major proportion of the increase in the labor force. He believes for the short run agriculture is the only sector which can utilize the increasing labor force. Agricultural production can be increased if more labor is used more efficiently. Eventually, however, a situation will be reached where no further labor can be absorbed by the agricultural sector or can only be absorbed in very small numbers.

i. Demographic projections run from 2.093 million in 1970 to 13.936 million in 2020 under "high" fertility and from 2.193 million in 1970 to 4.136 million in 2020 under "very low" fertility.

APPENDIX IV

EDUCATION IN JAMAICA

Background

The development of the educational system has been one of the primary objectives of the Jamaican Government's post-war development planning. As such, under the direction and supervision of the Ministry of Education, which is responsible for drafting educational policy, much funding has been expended on the several levels of the Jamaican educational system.

Prior to independence that system consisted of two parts: a sectarian primary and secondary school system; and along side it a public school system. Both of these systems were supported by the Crown Colony Government prior to 1962.[1]

Even prior to independence, however, the government in Jamaica began to upgrade the public school system. A school building program was launched in 1944 financed by British grants which totaled £ 1.7 million by the end of 1961. The many new schools built with these funds allowed more than a doubling of the primary school enrollment from 115,000 in 1945 to 263,000 in 1960.

In 1960, there were 718 primary schools catering to pupils between 7 and 15. The GOJ development plan sought to expand primary school places by over 110,000 by the end of the decade. In 1960 there were 41 secondary schools with 16,000 pupils. The GOJ hoped to expand the number of secondary places to over 26,000 by the end of the decade.[2] While elementary schools, which are divided into junior and senior departments, are free, secondary schools, until the sixties, charged tuitions. Since 1960, many more free places in the secondary schools have been opened.

In 1966 the Ministry of Education set forth additional education objectives through 1980. The GOJ called for the enrollment of all children in school by 1970 between the ages of 6 and 15. It hoped to make attendance at elementary and secondary school compulsory. It called for expansion of technical school education, reduction of class size and finally, 100% literacy for all children.[3]

As to attendance, 1973 data reveal that about 86 percent of the children in the 6-11 age group attend primary school (grades 1-6). Enrollment increased from 414,919 in 1972 to 434,551 in 1973.[4] Of the two cycles of secondary school (grades 7-9 and 10-13), enrollment in the second cycle is only about 9.3 percent. Still, in junior secondary school enrollment increased from 47,125 to 53,331 in 1973 and the number of schools increased from 56 to 60. Enrollment in senior secondary school increased from 28,000 to 30,309 in 1973.

[1] See Hurwitz and Hurwitz, op. cit., pp. 230-231.

[2] See Jamaica, op. cit., pp. 26-28.

[3] Hurwitz and Hurwitz, op. cit., pp. 230-231; the plan also recognized the shortage of trained teachers and called for increased teacher training. In 1962 the island graduated 200-300 teachers per year but called for 1,000 per year by 1

[4] Economic and Social Survey: Jamaica, op. cit., p. 2

The GOJ early recognized the need for technical education and sought to make this education available. For many years the Kingston Technical High School was the only institution providing technical education at the secondary stage. Since 1958 five other technical high schools were opened as well as a College of Arts, Sciences and Technology, which appears to be a combination of a senior high school and a junior college. In 1961 there were over 400 students attending this "college." By 1973 total enrollment in Trade Vocational, Technical and Comprehensive Schools increased to 9,543 from 8,639 in 1972.

The GOJ has also attempted to satisfy the requirements for higher education and teacher training. Jamaica had five teacher training institutions in operation during the sixties, with the objective of giving at least two-thirds of all Jamaican teachers some professional training by the end of the decade. Enrollment in teacher training institutions increased from 2,104 in 1972 to 2,143 in 1973 with 1,014 graduates.

Higher education in Jamaica is the province of the University of the West Indes, which also serves all British Caribbean Territories. It has faculties of arts, social sciences, natural sciences, medicine and education, all located just outside Kingston. The faculties of agriculture and engineering are in Trinidad. In 1962, out of a total of 1,300 students at the university, 500 were from Jamaica. Jamaican graduates from the UWI increased from 447 in 1972 to 542 in 1973. Other Jamaicans attended colleges in the U.S., the U.K. and Canada.

Problems of the Jamaican Educational System

Despite this substantial effort by the British Government and the GOJ, to date the educational system in Jamaica has not been able to meet the demands placed upon it by an expanding economy for a literate, well-trained and skilled labor force. In the midst of high unemployment, there are acute shortages of skilled labor in almost every sector of the economy. Not only is unemployment especially high among unskilled adolescents and females, but there is a far more telling criticism of the Jamaican educational system. The GOJ estimate that between 400,000 and 500,000 Jamaicans or 40 to 50% of the population over 15 years of age are functionally illiterate.[5] Moreover, in 1973 out of a total of 11,965 Jamaican educational personnel, 4,697 were untrained teachers with only 4,780 reported as trained teachers, the remainder being administrative personnel.[6]

Educational Reforms Required

A very strong case can be made for a thorough overhaul and upgrading of the entire Jamaican educational system. Priorities in such a program should include:

1. School construction - modernizing obsolescent schools and building new ones, especially on the primary level;

2. Improving the quality of primary school teachers (almost 50 percent of the primary school teachers are now unqualified);

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[5] Ibid., p. 220.

[6] Ibid., p. 219.

3. Similarly, improving the quality of secondary school teachers where currently about 20 percent are unqualified;

4. To accomplish this upgrading, the institution of a large-scale in-service teacher training program is needed;

5. The curriculum, especially on the secondary level, requires modernizing - more practical subjects are needed to equip the student to fill jobs upon graduation; and,

6. There is an obvious requirement for increased facilities for vocational and pre-vocational education.

Reforms Undertaken by the GOJ

The GOJ has continued its program of educational reforms initiated in the forties albeit are not yet sufficient to meet the new technological requirements. Among the most recent of reforms are:

1. A new primary school-building program to accommodate 17,000 new students to cost $2.5 million;

2. A new "Curriculum Development Trust" program whereby the Ministry of Education has been charged with the responsibility for ongoing review and development of curricula to insure subjects appropriate to technological requirements;

3. A new basic skills training program related to a special employment-generating project has been created;

4. Each Ministry has been required to expand its own training facilities;

5. A Youth Development Agency, which was created some time ago and is currently operating five youth camps, plans to open 32 new youth community centers to provide pre-vocational and skilled training;

6. The GOJ has recently established a National Youth Service whereby youths graduating from secondary schools and colleges will be asked to give two years to community service in education, health services, or the civil service; and, finally

7. Expenditure on education by the GOJ's Ministry of Education increased from $53.9 million in 1972-73 to $73.1 million in 1973-74, an increase of 38.2%. Most of this increase was directed toward improving teacher's salaries, increasing enrollment of elementary students and promoting curriculum development plus some limited school construction.

APPENDIX V

JAMAICAN POPULATION DATA

Current Demographic Status

Ethnic Background

As recorded in Appendix II, about 77 percent of the Jamaican people are of unmixed African descent, while about 17 percent are mulattoes. About 2 percent are of East Indian extraction, 1 percent of European ancestry, and 3 percent of Chinese and Lebanese extraction.

Basic Demographic Statistics

The total Jamaican population at the end of 1973 was estimated to be about 1,982,700 which provided for a population density of about 462 per square mile, an increase of about 87 persons per square mile since 1960. By 1974 the Jamaican population had reached 2,025,000. In 1970 about 39 percent of the population lived in towns of 1,000 or more inhabitants, 35 percent in towns of 10,000 or more, 37 percent in capitals of parishes and 28 percent in the Kingston-St. Andrews metropolitan area.[1] Children under 15 years constitute about 46 percent of the population.

The population has been growing at a rate of about 1.6 percent per annum during the 1960's. Although this rate is relatively low compared to many developing countries, it contains some interesting components. The rate grew at very different quantities among various age groups. The following growth rates, for example, are illustrative: The growth rate for the 0-14 age group was 2.6 percent, while for the 15-29 age group it was only 0.5 percent. The growth rate for the 0-14 age group is more important than the average growth rate for the total population. Thus, the growth rate for dependents is high and that for the population in working ages is low. The dependency ratio increased from 834 per 1,000 population in working ages (15-64) to 1,065 or an increase of 28 percent during the decade of the sixties, a situation also exacerbated by high emigration.

In any event, births, deaths and migration are the three factors affecting the size of a nation's population. In 1974 the Jamaican crude birth rate fell to 30.4 per 1,000. The death rate declined slightly to 7.1 per 1,000 and the rate of natural increase of the population was 24.2 per 1,000 as against 27.0 per 1,000 in 1972. Infant mortality was 25.3 per 1,000.

Fertility Trends

The Jamaican fertility rate has never been extremely high and over the past 30-year period it has shown considerable fluctuation. The crude birth remained below 40 per 1,000 population during most of the years for which records of births are available and the Gross Reproduction Rate remained below 3.0.[2] The following Table illustrates the Jamaican crude birth rate in selected years.[3]

[1] Unpublished USAID data.

[2] Gross Reproduction Rate is the sum of age-specific birth rates of women 15-49 years restricted to female births only.

[3] See Economic and Social Survey: Jamaica, op. cit., p. 56.

Year	Birth Ra
1921-25	36.5
1936-40	32.1
1941-45	31.8
1956-60	40.1
1966-70	36.7
1970	34.4
1973	31.4
1974	30.4

Although the crude birth rate has shown significant decline in recent years since the country began an active program in family planning, the present rate is comparable to that period between 1936 and 1945 when there was no family planning program and the Jamaican bir rate remained at about 32.

pecific Fertility Rates in Jamaica, 1943, 1960, 1970

ge Group	1942-44	1959-61	1969-71
15-19	0.094	0.150	0.151
20-24	0.207	0.289	0.294
25-29	0.186	0.257	0.265
30-34	0.134	0.206	0.215
35-39	0.087	0.128	0.134
40-44	0.032	0.048	0.048

The decade of the sixties witnessed a decline in the birth rate in Jamaica from 40.1 in 1960 to 34.4 in 1970.[4] Some demographers do not believe this decline resulted from a substantial drop in fertility rates (which indeed were increasing as recorded above), but rather from past and current migration. They maintain that if migration had stopped completely after 1970 and if fertility rates remained constant, the birth rate would have increased to 38 in 1976 and 42 in 1980 (slightly higher than the level of 1960), and growth rate would increase to 3.0 percent in 1975 and 3.5 percent in 1980, a rate high enough to double the population in 20 years.[5] Fortunately for Jamaica, as is recorded below, emigration continued in the early seventies at a relatively high rate so that the rate of natural increase was 23.4/1,000 in 1974 and the annual rate of population growth was about or slightly less than 2.0 percent during the early seventies.

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[4]See IPPF, Situation Report. London: May, 1974, p. 1 that places the birth rate at 34.8 per 1,000 in 1971.

[5]See Ibid., p. 1 which recorded the birth rate at 34.8/1000 in 1971, the crude birth rate at 7.4/1,000 and the infant mortality rate at 26.4/1,0

Jamaican Migration

During most of the 20th century, external migration has been an important component of population growth in Jamaica. It was never large enough to induce a decline in population but did affect population growth and age-sex composition. The following table illustrates net Jamaican migration:

Date	Total Net Migration	Males	Females
1911-21	-77,100	-48,800	-28,300
1921-43	+25,800	+15,100	+10,700
1943-60	-178,000	-106,500	-71,500
1960-70	-288,000	-139,000	-149,000

Official sources indicate that the net emigration was 23,000 in 1970 and 31,000 in 1971. Since then, migration is reported to have slowed down slightly. In view of the new restrictions imposed on immigration to the U.S., U.K. and Canada in recent years, however, prospects for increased emigration in the remaining years of the seventies are not hopeful. Thus, it would be falacious to assume that Jamaican migration in the latter 70's will continue at the same level as in the 60's (see Table 3).[6] It would seem logical to expect an annual emigration of about 10,000 to 20,000 in these years.

Table 1: Demographic Statistics.

Year	Population at 31st December	Mean Population	Birth Rate (per 1,000)	Death Rate (per 1,000)	Rate Natural Increase (per 1,000)	Infant Mortality Rate (per 1,000 live Births)
1970	1,890,700	1,869,100	34.4	7.7	26.8	32.2
1971	1,911,400	1,901,100	34.9	7.4	27.5	27.1
1972	1,953,500	1,932,400	34.3	7.2	27.0	30.9
1973	1,982,700	1,968,400	31.4	7.2	24.2	26.2

Economic and Social Survey: Jamaica, op. cit., p. 56.

[6]See Economic and Social Survey: Jamaica, op. cit., pp. 56-

Table 2*: Vital Statistic

Year	Live Births	Deaths	Natural Increase	Net Migration	Net Increase	Infant Deaths	Still Birth
1970	64,375	14,352	50,023	-23,000	27,023	2,071	529
1971	66,277	14,078	52,199	-31,500	20,699	1,798	744
1972	66,219	13,970	52,249	10,197	42,052	2,048	675
1973	61,857	14,157	47,700	18,448	29,252	1,622	616

*Economic and Social Survey: Jamaica, op. cit., p. 57.

Table 3*: Main Streams of Jamaican Migration

Countries	1970	1971	1972	1973
United States	15,033	14,571	13,427	9,963
Canada	4,659	3,903	3,092	7,000
United Kingdom	2,372	1,759	1,620	1,485
Total	22,064	20,233	18,139	18,448

*Economic and Social Survey: Jamaica, op. cit., p. 57.

Table 4*: Age Distribution of Jamaica Migrants to U.S.

	1972				1973			
Age Group	Male	Female	Total	Per cent	Male	Female	Total	Per cent
0-4	265	261	526	3.4	189	219	408	4.0
5-9	848	913	1,761	13.0	708	657	1,365	14.0
10-19	2,007	2,174	4,181	31.0	1,616	1,750	3,363	33.5
20-29	1,250	1,307	2,557	19.0	995	991	1,986	20.0
30-39	1,026	986	2,008	15.0	756	541	1,297	13.0
40-49	568	635	1,203	9.0	412	364	776	8.0
50-59	305	465	770	6.0	207	282	489	5.0
60-69	105	237	342	3.0	74	138	212	2.0
70 and over	20	59	79	0.6	14	40	54	0.5
	6,394	7,033	13,427	100.00	4,971	4,992	9,963	100.00

*Economic and Social Survey: Jamaica, op. cit., p. 58.

Table 5*: Jamaican Migration to the United States by Occupation

	1971	1972	1973
Professional, technical and related workers	1,078	810	562
Farmers and Farm Managers	50	6	..
Managers, Officials and Proprietors	183	194	158
Clerical and kindred workers	783	797	595
Sales workers	121	105	82
Craftsmen, foremen and kindred workers	1,411	1.150	821
Operatives and kindred workers	1,007	967	674
Private household workers	1,839	1,617	761
Service workers except private household	501	436	355
Farm labourers and foremen	145	91	73
Labourers except farm and mine	136	138	124
Housewives, children, others with no occupation or occupation not reported	7,317	7,116	5,758
Total	14,571	13,427	9,963

*Economic and Social Survey: Jamaica, op. cit., p. 58.

Other Pertinent Data

The following are the latest unofficial estimates of pertinent population data. The crude birth rate was 30.4 per 1,000 in 1974, the crude death rate was 7.1 per 1,000 that year. The Infant Mortality Rate was 25.3 per 1,000 in 1974, compared to 78.3 per 1,000 in 1950. Women in the fertile age group (15-44) were estimated to be about 400,000 in 1974. Gross reproduction rate was 2.4 while the population growth rate was about 1.7 percent in 1974.

It was estimated in 1974 that 42 percent of the population was under 14. In 1971 the GNP per capita was estimated to be about $720, which increased to $798 in 1972 and $1,174 in 1974.[7] Population per physician was estimated at 2,817 in 1970 and 2,500 in 1971. Population per hospital bed was 261 in 1970 and 267 in 1974. Population per nurse was 900 in 1971 and 4,400 per midwife in 1971.

Human Resources

Jamaican Labor Data

The Jamaican Labor Force

The Jamaican labor force appears to fluctuate every few months. Of the estimated 1.95 million population in Jamaica in 1972, about 808,900 were classified as belonging to the labor force, giving a participation rate of about 41 percent. By October 1973 the labor force was estimated to be 801,200, but by mid-1974 it has increased again to 820,000. During the decade of the sixties the population in working ages increased by about 64,000 (979,000 in 1960 and 1,043,000 in 1970). The following tables illustrate the substance of the labor force:

[7] See Background Notes, op. cit., p. 1; also unpublished USAID and other unpublished data.

Table 6*: Main Labour Force Indicators: 1972-1973

	1972		1973	
	April	October	April	October
	Both Sexes		Both Sexes	
*Total Population	1,935,000	1,948,700	1,967,600	1,990,100
Population 14 years and over	1,094,600	1,120,700	1,131,900	1,146,600
Population 14 years and over as % of total	56.6	57.9	57.5	57.6
Labour Force	782,700	808,900	810,700	801,200
Labour Force as % of Total Population	40.4	41.5	41.2	40.3
Labour Force as % of Population 14 years and over	71.5	72.2	71.6	69.9
Employed Labour Force	598,200	624,400	637,500	621,600
Employment Rate	76.4	77.2	78.6	77.6
Unemployed Labour Force	184,500	184,500	173,200	179,600
Unemployment Rate	23.6	22.8	21.4	22.4

*Labour Force Survey estimate derived from Economic and Social Survey: Jamaica, op. cit., p. 223.

Composition of Jamaican Labor Force by Sex

Table 7*: Labour Force -, -

	April '72		October '72		April '73		October '73	
	No.	%	No.	%	No.	%	No.	%
Male	437,400	55.9	449,400	55.6	442,800	54.6	446,800	65.8
Female	345,300	44.1	359,500	44.4	367,900	45.4	354,400	44.2
Both Sexes	782,700	100.0	808,900	100.0	810,700	100.0	801,200	100.0

*Economic and Social Survey, op. cit., p. 227.

During 1973 the female labor force fell from 367,900 in April to 354,400 in October, a loss of 13,500 or 3.7%. The loss was mainly among women who at the time of the April survey had been actually in employment on their own or unpaid workers, probably in agriculture. Their occupational classification seems to have been in the self-employed and the unskilled categories. These women are unlikely to have left any actual vacancies to be filled by others and this explains why their going reduced employment without affecting unemployment.

The male labor force which had fallen from 449,400 in October, 1972 to 442,800 in April, 1973 then rose to 446,800 in October of that year, an increase of 4,000 or 0.9% in the latter six months. The change from October of one year to the next October was, however, a decrease of 2,600 or 0.6%.

Labor Force by Age Group

As in the 1972 surveys, the youngest of the 10-year age groups, 14-24 years, was the largest in the labor force in both of the 1973 surveys. This group numbered 222,100 or 27.4% in April and 226,500 or 28.3% in October, an increase of 4,400. Its growth over the same period in 1972 was 13,800.

Table 8*: Labour Force by Age Group: 1972-1973

Age Group (Both Sexes)	1972		1973	
	April	October	April	October
14-24	212,000	225,800	222,100	226,500
25-34	170,800	171,100	166,900	160,400
35-44	142,700	146,200	141,300	146,500
45-54	129,700	127,400	134,700	123,800
55-64	81,500	89,000	117,900	90,900
65 and over	46,000	49,400	53,800	53,100
Total	782,700	808,900	810,700	801,200

*Economic and Social Survey: Jamaica, op. cit., p. 225.

Factors Associated with Jamaican Employment[8]

A number of factors caused employment to grow in Jamaica at the rate it did during th decade. The following is a brief synopsis of some of these factors.

Demographic Factors

The overall growth rate during the decade of the 60's averaged 1.6 percent per year, the population in working ages grew at less than half that rate. Simultaneously, the birt remained high, and the dependency ratio increased by more than 25 percent. Migration caus the loss of 288,000 persons in the 60's, of which 86,000 were probably from the labor forc

[8]See Appendix III for additional anaylsis on labor problems in Jamaica

Another factor in limiting the growth rate of employment in the 60's was the large number of skilled Jamaicans that emigrated. Only 23 percent of the emigrants were unskilled. Thus, the outflow of a large number of skilled workers limited the growth of employment in Jamaica, since it reduced the number of managers and entrepreneurs necessary to start new businesses and train unskilled workers.

Economic Factors

Capital investment is regarded as a key factor in the growth of employment. In Jamaica, although investment was relatively high during the sixties, its impact on employment was not significant except in manufacturing and commerce. Fixed capital investment averaged about 21 percent of GNP during the sixties. Thus, the slow growth of employment in Jamaica during the 60's does not appear to have resulted from poor performance in capital investments. Instea the investments were made in the industrial sectors where a high capital intensive technology was necessary.

Since skilled labor in Jamaica is relatively expensive and scarce, employers limit the use of labor to an absolute minimum. This policy has been promoted by the Jamaican Government in the past by:

1. over-evaluating the Jamaican dollar which made it less expensive to import capital than to use local labor;

2. the Pioneer Industries Encouragement Act of 1949 provided for accelerated write-off of capital in new production;

3. the Industrial Incentive Act of 1956 offered tax holidays for an extended period.

These conditions encouraged the importation of productive capital. A shortage of skilled labor, relatively higher wates, and strong bargaining power of the trade unions, however, complemented these GOJ incentives and further encouraged employers to prefer a capital intensive technology at the cost of employment growth.

Table 9*: Employment and Unemployment by Sex: 1972-1973

		1972		1973	
		April	October	April	October
ployment	No.	598,200	624,400	637,500	621,600
	%	76.4	77.2	78.6	77.6
Male	No.	374,900	384,600	388,600	386,900
	%	85.7	85.6	87.8	86.6
Female	No.	223,300	239,800	248,900	234,700
	%	64.7	66.7	67.7	66.2
employment	No.	184,500	184,500	173,200	179,600
	%	23.6	22.8	21.4	22.4
Male	No.	62,500	64,800	54,200	59,900
	%	14.3	14.4	12.2	13.4
Female	No.	122,100	119,700	119,000	119,700
	%	35.3	33.3	32.3	33.8

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