HEALTH SYSTEMS AND SERVICES PROFILE
GRENADA, CARRIACOU & PETITE MARTINIQUE

(1st edition, October 2001) *

ORGANIZATION AND MANAGEMENT OF HEALTH SYSTEMS AND SERVICES PROGRAM

DIVISION OF HEALTH SYSTEMS AND SERVICES

PAN AMERICAN HEALTH ORGANIZATION

EXECUTIVE SUMMARY

Grenada lies at the southern end of the Windward Islands and is a tri-island state encompassing the islands of Grenada, Carriacou and Petit Martinique. Grenada is situated about 100 miles north of Venezuela and 90 miles southwest of Barbados. Grenada's estimated population in mid-1999 was 100,703, of which 50.4% was female and 49.6% male. The State has a Westminster style of parliamentary democracy with a bi-cameral legislature, namely, the House of Representatives (elected members) and a Senate (appointed members). Executive powers are vested in a Prime Minister as Head of Government and a Cabinet. However, the Head of State is the Governor General, the representative of Her Majesty, Queen Elizabeth II.

The population growth rate is .06% annually. 31.2 percent of the population is poor. The annual poverty line is estimated at US$ 1231 per adult. The adult literacy rate was estimated at 88.6% in 2000. The 1998 labour force comprised 41,015 people who included 23,171 males and 17,844 females. The national rate of unemployment is 15.2%. Preliminary data from the Ministry of Economic Affairs suggests that economic activity in Grenada remained buoyant in 2000 with growth in real GDP expanding by 6.4 per cent, following growth rates averaging 5.5 per cent during the period 1996-1999. The continued expansion in economic activity in 2000 reflected strong performances in the construction, communication manufacturing and banking sectors making them the most buoyant sectors in that period growing by 9.16%, 13.50%, 13.4% (8.8% of GDP) and 10.12% respectively. There was modest growth in the tourism industry at 7.6%. Total public sector recurrent expenditure in 2000 was US$ 98.9 million, higher than the US$ 88.1 million spent in 1999, and slightly higher than the US$ 87.3 million spent in 1998. Health expenditures were US$ 11.9 million in 1998, US$ 10.6 million in 1999 and US$ 12.5 million in 2000. Data on expenditure for the year 2000 showed that health, education and housing, and social services consumed 11.0%, 17.3% and 7.0%, respectively, of the total recurrent budget. The main political and social problems that influence the health situation or the delivery of health services are the epidemiological transition from communicable to non-communicable diseases, the expectation of both consumers and providers for good health care and the fiscal deficit as a result of worsening economic situation globally.

Data indicated that respiratory infections were the main cause of morbidity for the past five years. Other significant causes were diabetes mellitus, hypertensive disease, other forms of heart disease, diseases of the urinary and digestive system, and conditions originating in the peri-natal period. The leading causes of mortality in 2000 were diseases of the circulatory sdystem, neoplasms, and diseases of the respiratory system. Ranking fifth in the top ten causes are injury, poisoning and certain other consequences of external causes.

The Ministry of Health is responsible for overall management of the health sector in Grenada. The political head of the Ministry of Health is the Minister of Health. The Permanent Secretary (PS) is the administrative head and

the Chief Medical Officer is the principal technical officer. The Ministry exercises its management responsibilities through a centralized administration at Head Office using the functions of policy making, planning, programming and regulation. Health services are provided mainly through public facilities but private health care facilities have been increasing in recent years.

During the past decade the predominant organisational model for the health services is based on the Primary Health Care approach as the main strategy for improving health status. The goals and targets established through the Caribbean Cooperation in Health initiative have been the emerging model for the provision of health care. The Ministry of Health relies on health promotion as one of its main approaches for improving the overall health status of the public. The hospital facilities in the public heath sector include a 240 bed General Hospital, and two rural hospitals, the Princess Alice in St. Andrews with 60 beds and the Princess Royal in Carriacou with 40 beds. There is also a 20-bed psychiatric unit at the General Hospital. Private health care facilities have been proliferating in recent years, mainly in the capital city. They include five acute hospitals, thirteen nursing homes, two maternity units and several offices owned by medical practitioners throughout the country for the provision of care to ambulatory clients. At times, the private physicians utilize the public sector services. Grenada procures most of its pharmaceuticals and medical supplies through the sub-regional program managed by the Eastern Caribbean Pharmaceutical Procurement Service.

The Ministry of Health has direct control of the public health system while the Ministry through legislation regulates the private system. The regulatory function is implemented in part through the Ministry's responsibilities for carrying-out existing legislation, as well as in the development of new legislation. The Ministry of Health has limited information on the levels of coverage and modalities of delivery of the various health insurance modalities. There are a number of private insurance companies operating. There is a National Insurance Scheme, which is a pension plan but has certain health benefits.

The current general organisation of the Health System results in delays in carrying out key decision or actions at the institutions and at the program level resulting in several problems for the health delivery system. As a consequence, a major policy objective of the Government is Health Sector Reform. Of all the identified reform initiatives, the establishment of an autonomous body to manage Solid Waste collection and disposal is the only initiative that is fully implemented. In 2000, government announced its intention to introduce an Executive Agency – a hybrid system embracing elements of the models of delegation and decentralization – as another initiative for achieving greater efficiency and improving the quality of care at the institutions after the unsuccessful attempt at implementing a Statutory Authority for the management of the acute care institutions. It is not clear what is the status of this initiative.

1. CONTEXT

1.1 Political Context. Grenada lies at the southern end of the Windward Islands and is a tri-island state encompassing the islands of Grenada, Carriacou and Petit Martinique. Grenada is situated between 12° North and 60° West and is about 100 miles north of Venezuela and 90 miles southwest of Barbados. The country's total land area extends 133 mi^2 and is divided into six (6) parishes. The State has a Westminster style of parliamentary democracy with a bicameral legislature, namely, the House of Representatives (elected members) and a Senate (appointed members). Executive powers are vested in a Prime Minister as Head of Government and a Cabinet. However, the Head of State is the Governor General, the representative of Her Majesty, Queen Elizabeth II. There are over five political parties. The New National Party is presently in government.

At present, there are no formal local government institutions; nonetheless, there are regular national consultations on important national issues such as the annual budget. Additionally, since 1996, there has been the Multi-partite Consultation Committee, a grouping of government, non-government (development NGOs), trade union and the private sector representatives that engages in regular meetings to review and debate issues of national significance.

The Planning and Development Division of the Ministry of Finance coordinate the national development effort.[1] This effort is informed, principally, by a three-year Medium Term Economic Strategy Paper (MTESP). Although, the MTESP is dominated by economic considerations, it does contain sections on social development such as health care and gender equity. The Planning and Development Division among other things prepares in collaboration with the various line ministries including Health, the rolling three year Public Sector Investment Programme (PSIP). The PSIP is a database of national development projects by sector, for example, social infrastructure of which Health is a sub-sector. The institutional framework for supporting the PSIP includes an Operations Committee consisting of planning officers, finance officers and project analysts from government ministries and parastatals that meet on a quarterly basis to report on progress of projects and project expenditure flows for the upcoming quarters. The Ministry of Finance has initiated dialogue with a wide range of stakeholders to establish a Social Development Management Information System (SDMIS). This System will provide for the more effective monitoring of social development and progress in Grenada. In this regard, Grenada recently participated in an OECS meeting on social development indicators organized by the OECS Secretariat. At the national level, the indicators for the SDMIS will focus on the six social development priority areas. These are Human Resource Development, Quality Health Care, Poverty Reduction and Elimination, Rural development, Sustainable Use of the Physical Environment, and Gender Equity.

The political head of the Ministry of Health is the Minister of Health. he Permanent Secretary (PS) is the administrative head and the Chief Medical Officer is the principal technical Officer and has responsibility for advising on technical matters. Through this arrangement health policy is incorporated into national government programs. The main political and social problems that influence the health situation or the delivery of health services are the epidemiological transition from communicable to non-communicable disease which are mainly

lifestyle related, the propensity for the best health care by both consumers and providers as a result of their exposure to modern technology, the international media and the fiscal deficit as a result of worsening economic situation globally.

1.2 Economic Context

Selected Economic Indicators

INDICATOR	YEAR						
	1993	1994	1995	1996	1997	1998	1999
Per capita GDP in constant EC$ prices, local currency	5096	5540	5346	5477	5673	5966	NA
Economically active population, in thousands	NA	NA	NA	NA	NA	NA	NA
Total public spending as a percentage of GDP	NA	NA	45.92	46.61	49.40	53.00	ND
Public spending on social programs as a percentage of GDP	NA	NA	NA	NA	NA	NA	NA
Annual rate of inflation[2]	NA	NA	NA	3.6	1.9	1.2	1.9

Source: Statistical and Planning Division, Ministry of Finance, 2001.

Economic activity in Grenada remained buoyant in 2000 with growth in real GDP expanding by 6.4 per cent, following growth rates averaging 5.5 per cent during the period 1996-1999. The gross domestic product (GDP) at factor cost in constant 1990 prices was US$ 332.97 million in 2000, about US$ 1,216.09 per capita, which represents a 7.76% increase from the 1999 figure, when it was US$ 1,128.49 per capita. Annual inflation between 1998 and 2000 averaged 1.7%. However, the rate of inflation as measured by the change in consumer price index was 2.5 percent in 2000 compared to 1.0 percent in 1999. Total public sector recurrent expenditure in 2000 was US$ 98.9 million, higher than the US$ 88.1 million spent in 1999, and slightly higher than the US$ 87.3 million spent in 1998. Data on expenditure for the year 2000 showed that health, education and housing, and social services consumed 11.0%, 17.3% and 7.0%, respectively, of the total recurrent budget. For the year 2001, the allocation for health and education has increased to 16.2% and 12.3% respectively of the total recurrent expenditure.[3]

The 1998 labour force comprised 41,015 people who included 23,171 males and 17,844 females. When this is compared to the employed labour force there is an unemployment rate of 10.5 % for men and 21.2 % for women. The national rate of unemployment is 15.2 %, however, this is considerably higher among women, youths and rural citizens.[4]

The continued expansion in economic activity in 2000 reflected strong performances in the construction, communication manufacturing and banking sectors making them the most buoyant sectors in that period growing by 9.16%, 13.50%, 13.4%(8.8% of GDP) and 10.12% respectively. There was modest growth in the tourism industry at 7.6%.[5] In the services sector, real growth was recorded in the telecommunications, banking, insurance and wholesale and retail sale sectors. Central government current operations resulted in a surplus of $67.8m higher than the one achieved in 1999. The deficit on the visible trade balance widened in spite of an improvement in export earnings. Domestic prices rose sharply in 2000, and the level of unemployment was estimated to have fallen. The Tourism sector accounted for 8.2% (US$ 15.98 million) of GDP in 1995 and

7.53% (US$19.32 million) in 2000, representing an increase of 20.9% in 2000 over 1995. Output in the agricultural sector fell by 2.3 per cent in 2000 following growth of 6.3 per cent in 1998 and 11.0 per cent in 1999. [6]

The Ministry of Health and the Environment continues to receive significant technical and financial assistance from PAHO/WHO, UNICEF, CDB (BNTF) programs and friendly countries such as the Republic of Taiwan, France and the Government of Cuba. Significant financial assistance has been received by the Caribbean Development Bank through the Basic Need Trust Fund for the refurbishment, rebuilding and maintenance of Community Health facilities.[7] PAHO provides technical and financial assistance in the following areas; Health Sector Reform, Environmental Health and Health Promotion and Disease Prevention. The Ministry is particularly grateful for the number of fellowships (short and long) provided yearly. Through UNICEF the work on the Breast-Feeding program was intensified and pilot projects were implemented in anemia and School Health. The Republic of China and Taiwan has provided grants for the last three years, which has been used to purchase medical equipment for the Hospitals and Community Health Services. The Cuban Government has provided technical assistance by providing nurses, physicians and other health professionals.They are also managing all technical areas for the new hospital project and will provide the medical equipment for the hospital. Through the French Government, eight nurses have been trained in Intensive Care Nursing and Bio-Medical Technicians. They have also provided the equipment for two-bed intensive care unit and physiotherapy equipment. An agreement has also being worked out for the transfer of patients for treatment in the French Departments of Martinique and Guadeloupe. The Ministry of Health receives medical assistance through CHORES in the form of equipment and consultant clinics in different areas twice annually and the Health Foundation provided services to persons requiring medical attention. The Ministry also receives donations from Grenadian organizations abroad. The St. George's University School of Medicine also provides financing for the purchase of medical equipment as well as five medical scholarships for students annually.

1.3 Demographic and Epidemiological Context[8]

The population growth rate is .06% annually. The 1991 census indicates that the parishes with the largest population were St. George's and St. Andrew's with 31,994 and 22425 persons, respectively. The pace of development in the southern part of St. George's, in particular within the tourism and manufacturing sector, has resulted in an increase in the number of persons migrating to these areas from other parts of the country to seek employment.

	YEAR						
	1993	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
Crude birth rate	NA	23.1	23.3	20.6	20.1	18.0	17.5
Total fertility rate	NA	103.6	101.0	91.0	86.5	75.2	72.1
Crude death rate	NA	8.0	8.2	8.0	6.3	8.0	7.6
Maternal mortality rate	NA	0.0	0.0	0.0	0.0	1.1	0.0
Infant mortality rate	NA	14.6	12.7	14.7	14.0	19.5	12.5

Source: Grenada Economic and Social Review 2000.

In 1999, 46.9% of the total population was below the age of 20 years. Life expectancy is currently estimated at 68 years for men and 73 years for women, the population group aged 60 years old and older is expected to increase over the next decade. Total live births have declined over the last decade, dropping from 2,096 in 1996 to 1,791 in 1999. The crude birth rate decreased by 14.1%, declining from 21.3 per 1,000 persons in 1996, to 18.3 per 1,000 persons in 1999. The crude death rate has decreased from 8.2 per 1,000 persons in 1998 to 7.9 per 1,000 in 1999. The rate of natural- increase fell from 13.4% per thousand persons in 1996 to 10.4 per thousand in 2000. The total fertility rate over the period 1996 to 2000 averaged 2.8 children per woman of childbearing age, down from 3.2 children during the period 1992 to 1995.[9]

Respiratory infections were the main cause of morbidity for the past five- (5) years. Other significant causes were diabetes mellitus, hypertensive disease, other forms of heart disease, diseases of the urinary system, other parts of the digestive system, and conditions originating in the peri-natal period. Diabetes, hypertension, and coronary or cardiovascular diseases and their complications primarily affect the older population. For persons screened in the district health services between 1996 - 2000 approximately 10% were diagnosed with diabetes mellitus and 11% with hypertension. Data from the Community Services (notifiable Diseases) reflects that the main causes of infant morbidity continue to be respiratory tract infections, gastroenteritis and diarrhoea. Data for 1996 show that the main causes of morbidity in (0-4) years old are also respiratory tract infections, gastroenteritis and diarrhoea. During 1997-2000 the main causes of morbidity reported in (0-4) years showed a continuous prevalence of acute respiratory infections, gastroenteritis, and diarrhoea. A more rigid system of monitoring has brought about an increase in reported cases with the existence of a Surveillance Nurse and the commitment of the private practitioners.

Diseases of the circulatory system continued to be the principal causes of mortality with pulmonary circulation and other forms of heart disease, cerebrovascular disease and ischaemic heart disease being the main contributors. During 1992-1996 malignant neoplasm also accounted for a significant proportion of mortality and is assuming growing importance. From 1996 to 1998 the most important cause of death from defined causes was due to malignant neoplasm with 124.4, 101.5 and 148 per 100,000 population, respectively. In 1999 the leading cause of death was diseases of pulmonary circulation, and other forms of heart disease (130.1 per 100,000).[10]

The leading causes of mortality in 2000 were diseases of circulatory system, neoplasms, followed by diseases of the respiratory system. Also of concern and ranking fifth in the top ten causes are injury, poisoning and external causes. Among the neoplasms, malignant neoplasm of the digestive organs, ranked number followed by malignant neoplasm of prostate and malignant neoplasm of Lymphoid, haematopoietic tissue.[11]

1.4 Social Context

Grenada's estimated population in mid-1999 was 100,703, 50.4% female and 49.6% male. The ethnic composition of the population is Black (90%), East Indian (3%) White (1%) and other (6%). The 1991 Census

showed 33.5% (urban population) of the population resided in the capital St. George's compared with 33% in 1981. GDP per capita has risen steadily from US$2,350 in 1990 to reach US$3,600 in 1999.

The adult literacy rate was estimated at 88.6% in 2000. However, over sixty-four percent (64%) of the poor have no educational certificate. A Poverty Assessment Survey conducted in Grenada in 1998 revealed that 31.2 percent of the population is poor.[12] The poverty line is estimated at US$ 1231 per adult. This translates into a daily rate of US$ 3.37 per adult. 12.9% of all individuals in the country are indigent. 51% of individuals living below the poverty line are under the age of twenty, out of these 40% are in the early childhood and 38% are school age children. According to the 1998 UNDP Human Development Index, Grenada is ranked 51st. This high ranking reflects the significant gains in social development indicators such as infant mortality and adult literacy.

2. THE HEALTH SERVICES DELIVERY SYSTEM

2.1 General Organization

Public Institutions. The Ministry of Health is responsible for overall management of the health sector. The Ministry exercises its management responsibilities through a centralized administration at Head Office using the functions of policy making, planning, programming and regulation. Health services are provided mainly through public facilities, but private health care facilities have been increasing in recent years. The Ministry carries out its duties through the following key functional areas: Administration; Acute care (Hospitals); Mental Health; Community Services; and Environmental Health. Each functional area is divided into divisions, units or departments who develop programs and sub-programmes to carry out their operational plans.

During the past decade the predominant organizational model for the health services is based on the Primary Health Care approach as the main strategy for improving the populations' health status. The "Health for All by the Year 2000", concept was believed to be achievable using this strategy. The goals and targets established through the "Caribbean Cooperation in Health" initiative has been the emerging model providing focus to the provision of health care. The Ministry of Health relies on health promotion as one of its main approaches for improving the overall health status of the public.

Grenada is divided into seven health districts. Six of the districts each have a health centre, which is the major primary care facility and an additional 30 medical stations distributed throughout the country are usually the first point of contact within the health system. All facilities are within easy access to the entire population and most are in satisfactory physical condition. The community health services function as the Ministry's front line for health service delivery. Each health district is assigned a District Medical Officer, several categories of nurses, including family nurse practitioners, public health nurses, district nurses, and community health aides, dentists and dental auxiliaries, pharmacists, environmental health officers and mental health workers. Some specialist services such as pediatrics, Ear, Nose and Throat (ENT) and psychiatry are provided at some of the Health Centers. The Health Education Unit collaborates with other departments in the Ministry of Health, other

Ministries including Education and the Government Information Service (GIS), non-governmental organizations and other groups. This enables the department to effectively plan, implement and evaluate health education/promotion activities in order to achieve its goal.

Because of concern regarding the capacity of the current system to fully satisfy the needs of its users, the Ministry proposes to re-organise the system after a comprehensive review. Areas of focus for the review includes the following: services offered, quality of services, physical facilities, service demand, hours of services, professionalism of providers, effectiveness, co-ordination and management of the services, community participation, linkages with secondary care facilities, the use of appropriate technologies, inter-sectoral collaboration (NGO also), costing of services, rationalization of medical stations. As part of an effort to introduce a national health insurance program, the financing of the health services also is being reviewed. The insurance program would create an equitable way of injecting new resources into the health sector, contribute to improve the quality of care and help to reduce the dependence on the central government. A health sector insurance program is being reviewed to ensure that it responds to Grenada's needs and that both health care providers and the public understand it fully. The country is undergoing an epidemiological transition that has moved chronic diseases ahead of communicable diseases as causes of morbidity and mortality. This change is placing greater demand on the health sectors limited resources.

Recently an advisory committee was appointed. It is the Governments intention to introduce an Executive Agency - a hybrid system embracing elements of the models of Delegation and Decentralization - as another initiative for achieving greater efficiency and improving the quality of care in the institutions after the unsuccessful attempt at implementing a Statutory Authority for the management of the acute care institutions. It is also Governments' intention to introduce polyclinics offering extended hours and a greater variety of services to the public with active community participation in the management of the services.

In conjunction with the Ministry of Finance Central Statistical Office, the Ministry of Health undertook a community health needs assessment in 1997. While the Ministry awaits the result of the assessment, the Planning Unit of the Ministry has presented a draft outline of a five-year strategic national health plan which was done through an inter-sectoral approach involving broad consultation among professional organizations, non-governmental organisations and service groups. Projects designed to strengthen health programs and ensure the orderly development of the health sector were identified. The plan provides for better information gathering on the population of each health district. Indigents who cannot pay for health services were identified, and special provisions were put in place so that they, too, have access to health care. Because every health worker is considered to be a health educator, further staff training is planned, as is the organization of activities to reach the community effectively. The school health program was particularly emphasized, because it is one of the best ways to effectively reach the country's youth to help improve their lifestyles.

Private Actors[13] : Private health care facilities have been proliferating in recent years and at times, the private physicians utilize the public sector services. There are several private facilities, which are located mainly in the

capital city. They are all financed by their owners and provide service for those who can pay out of pocket or through private insurance companies. Private facilities include five acute hospitals, thirteen nursing homes, two maternity units and several offices owned by medical practitioners throughout the country for the provision of care to ambulatory clients. Health care services are available on the three island states.

Ultrasonagraphy, Electrocardiogram and Mammography are available in both the public and private sector. Limited Laboratory investigations and X-Ray services are provided by the private sector.

2.2 System Resources

Human Resources. In 1998, there were 59 medical practitioners employed in the public health sector, most of whom are in private practice. Ten are District Medical Officers (DMOs) and 38 work primarily in the hospital setting. About 21 doctors work exclusively in the private sector as individual or group practice. In addition, a number of doctors are affiliated exclusively to the St. George's University School of Medicine. There are 8 physicians per 10,000 population. There are several categories of nurses working in the health system. The total number of registered nurses is 242, a ratio of 1 per 413 population. Fifty-four (54) are attached to the community services and 188 work at the three hospitals. In addition there are 40 Community Health Aides and 84 Nursing Assistants.

The public sector employs 22 Pharmacists, based in the community, the Procurement Division and at the hospitals. Forty-seven (47) pharmacists are employed in the private sector, making a total of 69 pharmacists. There are 6.9 pharmacists per 10, 000 population. Pharmacists are trained in a three-year programme at the T.A. Marryshow Community College for both the public and private sector.

HUMAN RESOURCES IN THE HEALTH SECTOR

TYPE OF RESOURCE	YEAR							
	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**
Ratio of physicians to 10,000 pop.	.0049	.0047	.0058	.0064	.0067	.0078	.0080	.0087
Ratio of professional nurses to 10,000 pop.	0.024	0.024	.0125	.0153	.0160	.0143	.0143	.0173
Ratio of dentists per 10,000 pop	NA	NA	NA	NA	NA	NA	NA	NA
Total no. of medical laboratory technicians	15	15	13	12	12	12	12	15
Ratio of pharmacists per 10,000 pop	NA	NA	NA	NA	NA	NA	NA	NA
Ratio of radiologists per 10,000 pop	NA	NA	NA	NA	NA	NA	NA	NA
No. of holders of graduate degrees in public health	0	0	1	2	3	3	3	4

Source: Estimate of revenue and expenditure 1997.

In 1998 there were 15 dentists in Grenada. Seven dentists are employed in the public sector, they all have private practice. Another 8 are exclusively in the private sector. There is 1.5 per 10, 000 population. There are

5 dental auxiliaries who work along with the dentists in the public sector, focusing primarily on the school population.

HUMAN RESOURCES IN PUBLIC INSTITUTIONS, YEAR: 1998

	Type of Resource					
Institution	**Physicians**	**Nurses**	**Nursing Auxiliaries**	**Other workers**	**Administrative personnel**	**General service**
General Hospital	30	144	84	146	47	ND
Princess Alice Hospital	2	15	14	17	16	ND
Princess Royal Hospital	1	12	13	7	12	ND
Mt. Gay Hospital	1	9	40	49	3	ND
Carlton House	0	2	8	5	3	ND
Richmond Home	0	4	21	20	3	ND
Rathdune	0	4	8	8	3	ND
Community Clinics	12	53	45	69	3	ND
Total	**46**	**243**	**233**	**321**	**90**	ND

Source: Estimate of revenue and expenditure 1997.

Drugs and Other Health Products[14]

Grenada procures most of its pharmaceuticals and medical supplies through the sub-regional program managed by the Eastern Caribbean Drug Service which has been recently renamed The Eastern Caribbean Pharmaceutical Procurement Service. It is a pool procurement initiative, which provides members with lower prices for medication. The procurement cycle ensures regional standards to be reviewed annually, revised periodically. In this manner, essential drugs become available on a timely basis. There is a national drug list with 273 drugs, the list is revised every year. One hundred percent of the population has access to those drugs on the list. The public pays a basic $2 EC dollars for prescriptions valued less than $2 EC dollars. They would pay the ECDS

INDICATOR*	1991	1992	1993	1994	1995	1996	1997
Total number of pharmaceutical products marketed	248	246	252	256	256	256	258
No. of brand name drugs	6	10	8	7	8	10	11
No. of generic drugs	242	236	244	249	248	246	247
Total spending on drugs (wholesale price)	1,678,905	1,546,429	1,251,827	1,307,426	1,459,883	2,093,627	1,530,470
Total spending on drugs (retail price)	ND	ND	ND	ND	ND	ND	ND
Per capita spending on drugs (wholesale price)	16.79	15.46	12.52	13.07	14.60	20.94	15.30
Per capita spending on drugs (retail price)	ND	ND	ND	ND	ND	ND	ND

Source: Central procurement department MOH. *The information is for the public sector only.

the cost of the drugs plus 50% for prescriptions from private practitioners. Persons between the ages of sixteen and sixty would pay the ECDS cost of the drugs. This arrangement still enables persons under a doctor's care to obtain medication at a much lower cost than the private pharmacy. Patients who are unable to pay can be exempted from the fee at the doctor's request. Pharmacists dispense medication at pharmacies located at visiting stations and health centres, but referrals to the main pharmacy in the capital or to the private sector are sometimes necessary. The aforementioned information is for the public sector only. The five largest-selling products on the national market (unit price in E.C dollars) include Insulin isophane $14.59; Methyldopa 500mg tabs $0.20; Lisinopril 5mg tabs $0.40; Amoxicillin 250mg tabs $0.08; Ibuprofen 400mg tabs $0.04. Standard treatment protocol does not exist for the prevalent pathologies in public health care facilities. The presence of a registered pharmacist is mandatory he/she is the only individual who can dispense prescription drugs. The total number of blood donations annually is 150.

Equipment and Technology

AVAILABILITY OF EQUIPMENT IN THE HEALTH SECTOR, 1999

SUB-SECTOR	TYPE OF RESOURCE			
	Countable beds*	**Clinical Laboratories****	**Blood Banks****	**Radio-diagnostic Equipment***
Public Institutions	0.55	0.001	0.001	0.002
Private (for profit and non-profit)	0.036	0.002	ND	0.004
Nursing Homes	0.289	ND	ND	ND
TOTAL	**0.875**	**0.003**	**0.001**	**0.006**

Source: Directly from the Institutions, 2001. * Per thousand inhabitants. ** Per ten thousand inhabitants

AVAILABILITY OF EQUIPMENT IN THE HEALTH SECTOR BY LEVEL OF CARE[1] YEAR 1999

SUB-SECTOR	TYPE OF RESOURCE					
	Delivery Rooms		**Clinical laboratories**		**Radio-diagnostic equipment**	
	1st Level	**2nd Level**	**1st level**	**2nd level**	**1st level**	**2nd Level**
Public Institutions	ND	7	ND	1	ND	1
Private (for profit and non-profit)	ND	3	ND	2	ND	2
TOTAL	ND	10	ND	3	ND	3

Source: Directly from the Institutions, 2001.

The high technology equipment that is available in the public health sector is all located at the General Hospital in the capital. The other two subsidiary hospitals provide general nursing care and have a maternity unit and a casualty department. There is a maintenance unit at all three hospitals for preventive maintenance, repairs of plant and replacement of equipment. The General Hospital also has a biomedical technology maintenance unit, which is supported from time to time by external agencies through training of personnel so that the department can keep up with changing technologies. The maintenance unit at the General Hospital also does preventive maintenance at the community/district health facilities. The Ministry of Works, which handles large preventive maintenance activities, supports these maintenance units. Historically the maintenance of biomedical technology, in addition to plant and equipment, has been deficient. Under funding of the maintenance program

is a long- standing problem for the Ministry of Health. Although funding agencies assist with refurbishment of health facilities the pace at which assistance comes is not adequate to sustain the preventive maintenance program. The percentage of equipment that is defective or out of service is unknown because an inventory has not been taken. There is no fixed budgetary allocation for preservation and maintenance of equipment. There are only two bio-medically trained personnel, the others have only empirical training. The status of plant and equipment in the private sector has not been ascertained.

2.3 Functions of the Health System

Steering Role. The Ministry of Health has direct control of the public health system while the Ministry through legislation regulates the private system. The regulatory function is implemented in part through the Ministry's responsibilities for carrying-out existing legislation, as well as in the development of new legislation. The Ministry operates under the following key legislation which regulates health care providers in both the public and private sector: Hospital Act 1953, Medical Officers Act 1903, Medical Practitioners, Dentists and Veterinary Surgeons Registration Act 1982, Midwives Act 1954, Mosquito Destruction Act 1952, Nurses Registration Act 1980, Pharmacy Act 1988, Public Health Act 1925, Public Health (School Children Immunization) Act 1980, General Hospital (Fee Rules) 1988, Medical Products Act, and Hospital Authority Act.

A Medical Board chaired by the Chief Medical Officer is responsible for granting medical licenses to practice medicine in Grenada. Nurses must register with the Nursing Council. Once granted, medical licenses need not be renewed annually, and the doctor need not pursue continued education or prove to be physically fit to practice. A pharmacy council monitors the importation and distribution of pharmaceuticals to the public and private sectors and registers pharmacists and pharmacies on an annual basis.

The Health Information System, which provides public health information, has been strengthened between 1995 and 2000, with the merging of the Epidemiology and the Health Information Units. The head of the unit is an Epidemiologist. A surveillance nurse has been given the responsibility for collecting completed data on a weekly basis from health facilities in the community and the laboratory. This enhances the timeliness, accuracy and quality of the data. Data is also collected from the private practitioners and private hospitals. The laboratory data is accessed on a weekly basis. Recently, the laboratory staff was trained in laboratory information system and was privileged to have five (5) computers donated by the Walter Reid Army. Selected data from the laboratory is now electronically transmitted on a weekly basis to CAREC via the Epidemiology Unit. In addition to the weekly communicable disease reports, a quarterly bulletin and a yearly report on public health information is generated for decision-making and planning of the health services programmes.

Financing and Expenditure[15 16]. Financing of health expenditure is confined to the public sector. The Ministry of Health receives its funding from general taxation through the Ministry of Finance consolidated fund. International funding agencies also assist in funding some health projects and programs. Supervision and control over public financing of health are the responsibility of the Ministry of Finance and the Ministry of Health under the direction of Parliament/Cabinet.

Ministry of Health Expenditure by Function, 1990-1997 (in millions US$)

	1990	1991	1992	1993	1994	1995	1996	1997
Administration	1.8	1.7	1.5	1.6	1.3	1.6	1.7	1.6
Acute Care (Public Hospitals)	3.5	3.4	3.3	3.6	3.7	3.9	4.5	4.6
Mental Health	.96	.92	.96	.92	.88	.96	1.1	1.1
Community Services	1.1	1.2	1.1	1.1	1.1	1.2	1.2	1.3
Environmental Health	1.3	1.2	.9	.7	.7	.6	1.0	.3
TOTAL	**8.8**	**8.6**	**7.8**	**8.0**	**7.7**	**8.3**	**9.5**	**9.1**

	1993	1994	1995	1996	1997	1998	1999
Per capita public expenditure on health (in US$)	NA	NA	NA	NA	NA	NA	NA
Public expenditure on health /total public expenditure	NA	NA	NA	NA	NA	NA	2.9
Total per capita health expenditure (in US$)	143.3	147.2	156.4	183.2	200.1	192.5	192.5
Total expenditure on health as a % of GDP	5.4	5.3	5.3	5.9	6.1	5.4	5.4
External health debt /Total external debt	NA	NA	NA	NA	NA	NA	NA

Source: World Bank, Development Data, 2001 . http://devdata.worldbank.org

This is carried out through the annual budgeting process. There is no system of public health insurance. Except for a minimal user fee charge at the General Hospital and the community services, health care services are generally provided at no cost to the public.[17] Health expenditures were US$ 11.9 million in 1998, US$ 10.6 million in 1999 and US$ 12.5 million in 2000. In 1998, per capita health expenditure was US$ 118.27.

The Ministry of Health information system on the status of health financing and service delivery is fairly reliable but not as timely as the system should be. All the required information from the community service gets to the information unit, but information from the institutions (acute care) is not timely and therefore limits the usefulness of the information if and when it is completed. There is no known procedure for accrediting institutions and health facilities. There is no public or private agencies devoted to health technology assessment. This is the responsibility of institution and health facility managers

Health Insurance. The Ministry of Health has limited information on the levels of coverage and modalities of delivery of the various health insurance modalities. There are a number of private insurance companies operating. The insurance companies are all registered and they are mainly located in the capital. Main financing is from their clientele. Some offer group insurance plans. The insurance companies do not possess resources for delivering health care but instead they purchase health care for their clients. There is a National Insurance Scheme that is a pension plan, but has certain health benefits.[18] There are several private companies that provide

health services benefits offering individual and group health insurance plans. A basic package of health benefits to which all citizens are entitled does not exist.

2.4 Health System Delivery of Services

Population-Based Health Services. The Ministry of Health is in charge of delivering population-based health services through established functional areas: Acute Care services, Mental Care services, Environmental Health services, and Community Health services. All the functional areas have programs that are aimed at addressing health issues and problems that face the population. These functional areas target specific vulnerable groups and carry out health promotion and prevention activities.

The Health Education department, which falls under Community Health services, has the responsibility for promotion, protection and prevention through educational programs for the entire population.[19] Specific prevention programs, which have been implemented, are the Expanded Programme of Immunisation that has a 99% coverage of the target population,[20] a School Health program for early detection at school age, a national HIV/AIDS prevention[21] and control program, cancer screening programs for men and women. Activities, which serve to increase awareness of outbreaks, such as dengue fever etc., are undertaken. The Ministry of Health has also undertaken programs for the early detection of pathology (hypertension, diabetes, cervical, breast and prostate cancers). The coverage of prenatal care is 98 % and coverage of deliveries by trained personnel is 99.95 % for the year 1999.

Individual Health Care Services.

Data collection from various levels of the service is underway, but the degree of utilization in administrative decision-making process is unclear. A Management Information System for the Ministry of Health is not yet off the ground. The ability of users to choose among various providers of a single type of service is dependent on the demand for the service and their ability to pay. These services are accessed both locally and regionally. Locally there is no difference between urban and rural access of services. Consultants conduct specialist clinics in paediatrics; ears, nose, and throat; and mental health at the district level. The District Medical Officer refers persons seeking care in other specialties to the General Hospital, but there are long delays before receiving services. Referrals for admission to the General Hospital also are made through the Accident and Emergency Department. No established follow-up system is in place to inform the district medical team when a discharged patient returns to the community, this is an area that also will be given high priority in the health plan

Primary Care Level. Primary care services are provided mainly at the community or health district level. There are six (6) districts each with a health center and several medical stations. Staffing of the primary care facilities include District Medical Officers (DMO), Community Health Nurses (CHN), Family Nurse Practitioners (FNP), District Nurses and Community Health Aides. Pharmacists, Dentists, Environmental Health Officers, Mental Health Workers and Dental Auxiliaries also provide services at the primary care level. Some specialist services such as pediatrics, gynecology, Ear, Nose and Throat (ENT) and psychiatry are provided at Health Centers. The Ministry attempts to provide total coverage, but limited human resources and supplies in general limit effective

coverage, as well as the range of services provided. At the primary level the system of information is still manually operated for both administrative and personnel management.

PRODUCTION OF SERVICES, 1998

	Number	Rate per 1,000 population
Consultations and controls performed by medical professionals	52805	52.805
Consultations and controls performed by non-physicians (nurses)	34739	34.739
Consultations and controls performed by dentists	65358	65.358
Emergency consultations	12	0.012
Laboratory examinations	7350	7.35
X-rays	NA	NA

Source: Health Information Division Ministry of Health of Grenada.

The five most frequent reasons for consultations are: non-communicable disease, communicable disease, URTI - (asthma, pneumonia, influenza); injuries; skin conditions (physical examination and tests - blood, urine, pap smear). All health nurses and physicians provide home visits as part of their day to day duty.

For the Secondary Care Level. Secondary level of care is provided by both the public and private hospitals, though the majority of care is in the public hospitals. Secondary level public service is available to the entire population at a minimal cost compared to the secondary level private service. Like the primary level, shortage of human resources and supplies limit effective coverage. Information system and clinical management is still done anually.

SERVICE PRODUCTION, 1998

INDICATOR	
Total no. of discharges	7754
Occupancy rate	64.1%
Average days of stay	6.2

Source: Health Information Division Ministry of Health of Grenada.

The five most frequent reasons for hospital discharges for 1998 are diabetes mellitus (8.0%), disease of pulmonary circulation and other forms of heart disease (6.8%), malignant neoplasms (5.2%), bronchitis, chronic and unspecified emphysema and asthma (4.9%), and hypertensive diseases (4.7%).

Quality

There is talk of quality assurance among department managers, but a quality assurance programme is not yet launched. Practice is based on academics, basic norms and rules and regulations set out by associations/councils. There is an infection control nurse at the General Hospital who monitors quality based on laid down procedures. At this time it is not possible to elaborate on technical and perceived quality based on the laid down procedures.

3. MONITORING AND EVALUATION OF SECTORAL REFORM

3.1 Monitoring the process

Monitoring the dynamics. Health reform is part of a broader public sector reform program. The Government of Grenada has embarked on a major program to improve its public service with the aim of creating an effective, efficient, responsive civil service capable of self-renewal and consistent with sustainable development. The principal protagonists are in the public sector. The government is seeking to achieve this goal through its Public Sector Development Program (PSDP) in different phases. The first phase started in 1994.

The current general organisation of the Health System results in delays in carrying out key decision or actions at the institutions and at the program level resulting in several problems for the health delivery system. As a consequence, a major policy objective of the Government of Grenada is health sector reform. In keeping with the public sector reform program, Government announced its intention to reform the Health Sector in 1997 as part of the PSDP second phase. The purpose of the reform is to re-organise the Health Sector to provide a more efficient and effective service to the people of Grenada by paying closer attention to the epidemiological transition from communicable to non-communicable diseases, the expectation of both consumers and providers to obtain the best health care available as a result of their exposure to modern technology and the international media; the development of the Health Promotion strategy. The fiscal deficit as a result of the worsening economic situation globally was also considered.

The Government of Grenada visualizes this process as critical to its commitment to deliver quality health care to all Grenadians in an equitable way. This commitment means that those who are in need but are unable to pay should receive access to health care and those who can afford to pay should contribute to the maintenance of a quality health care service.

Some of the key areas identified in this reform process include managerial and structural reform initiatives as follows: (a) a national health insurance scheme, (b) the establishment of an autonomous body to manage hospital services, (c) the establishment of an autonomous body to manage Solid Waste collection and disposal; (d) re-organization of the community health care system; (e) health care financing; (f) development of institutional capacity; (g) modernization of the network of hospitals and the primary health care physical facilities, and (h) development of human resources.

The principles underlying the health reform initiatives are self reliance, equity, client-focus, access, quality, individual responsibility for their health status, financial sustainability, compensatory cost sharing, solidarity, inter-sectoral action and community involvement. Of the aforementioned reform initiatives, the establishment of an autonomous body to manage Solid Waste collection and disposal has been introduced. The 1996 Solid Waste Act, established The Grenada Solid Waste Management Authority. This statutory body is intended to accomplish a more efficient overall solid waste management system. The collection services of solid waste are now fully privatized. It is estimated that 98% of all households receive this service. The MOH will continue its regulatory role in its monitoring of solid waste management in the country.

The Government announced in 1996 the establishment of an autonomous body to manage hospital services. The Grenada Hospital Authority Act of 1998 was intended to put this body in motion. It was proposed that at a later

stage, the rest of the health care facilities will be managed by this same authority. This attempt failed when an impasse developed with the Public Workers Union (PWU) over the transfer of workers to the Hospital Authority. After this failed attempt at statutorization, the government decided to look at other models bearing in mind its overall objective of achieving greater efficiency and improving the quality of care provided in the institutions. In 2000 government announced its intention to introduce an Executive Agency – a hybrid system embracing elements of the models of delegation and decentralization – as another initiative for achieving greater efficiency and improving the quality of care in the institutions after the unsuccessful attempt at implementing a Statutory Authority for the management of the acute care institutions. It is not clear what is the status of the initiative of an Executive Agency to manage the acute care institutions. There are discussions locally and regionally on the feasibility of a national health insurance scheme.

The remaining initiatives are not seen as reforms, but rather as mechanisms for improvement of the services. A comprehensive study was done of the community health care system for possible re-organization. Recommendations were made and are presently under consideration.

***** The profile was prepared by a group of eight professionals and national policy decision makers from the Ministry of Health, Ministry of Finance and Economic Affairs, Ministry of Tourism, Ministry of Agriculture, Ministry of Education, Food and Nutrition Council, National Drug Avoidance Council and the PAHO/WHO Caribbean Program Coordination in Barbados. Technical coordination of the national group was the responsibility of the Planning Unit, Ministry of Health of Grenada and the PAHO/WHO Caribbean Program Coordination in Barbados. Final review, edition, and translation are the responsibility of the Program on Organization and Management of Health Systems and Services of the Division of Health Systems and Services Development of PAHO/WHO.

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