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HEALTH SECTOR ANALYSIS

GUYANA

(Unedited Draft Version)



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LIST OF ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ARI	Acute Respiratory Infections
BERMINE	Berbice Mining Enterprise
BMI	Body Mass Index
CARICOM	Caribbean Community
CESAM	Amazonia Cooperation Treaty
CFNI	Caribbean Food and Nutrition Institute
DOTS	Direct Observed Treatment Short-course
DPT	Diphtheria, Pertussis, Tetanus
ERP	Economic Recovery Programme
GDP	Gross Domestic Product
GMS	Guyana Medical Council
GSLC	Guyana Survey of Living Conditions
GUYSUCO	Guyana Sugar Corporation
HAZ	Height for Age-Z scores
HIPC	Highly Indebted Poor Country
HIV	Human Immunodeficiency Virus
HSR	Health Sector Reform
HSRP	Health Sector Reform Programme
IDB	Inter American Development Bank
LINMINE	Linden Mining Enterprise
MCH	Maternal and Child Health
MERCOSUR	Southern Common Market
MOFCL	Ministry of Fisheries, Crops and Livestock
MOH	Ministry of Health
MMR	Measles, Mumps and Rubella
NCHS	National Centre for Health Statistics
NDS	National Development Strategy
NGO	Non-governmental Organization

NIS	National Insurance Scheme
OPV	Oral Polio Vaccine
PAHO	Pan American Health Organization
PRSP	Poverty Reduction Strategy Paper
PNC	Peoples National Congress
PPP/C	Peoples Progressive Party/Civic
RDC	Regional Democratic Council
RHA	Regional Health Authority
STI	Sexually Transmitted Infection
UG	University of Guyana
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
WHO	World Health Organization
WHZ	Weight for Height- Z scores

PREFACE

A Health Sector Analysis is a collective and participatory process conducive to knowledge production which seeks to strengthen the capacity of the technical and political levels within the country to steer and conduct the health sector.

The Health Sector Analysis document helps understand the country health situation and its determinants as well as the performance of the health system. It also orients the identification and selection of priority interventions for the formulation of health policies and the development of health care systems. The results of the health sector analysis process includes the identification of policies and/or plans, programs, projects/and or interventions oriented to maximize the impact of the sector in obtaining national health objectives and/or priorities.

Since the 1970s, undertaking *Health Sector Analysis* has been promoted in the Region of the Americas. However, during that period the proposals to study the health sector focused on health situation diagnosis and on institutional diagnosis. In the early 1990s the need for this type of analysis arose triggered by the health sector reform processes in which many countries of the Region were engaged in or were considering.

Health Sector Analysis provides a manageable supply of relevant and up-to-date information on the sector, and a summary of the problems, strategies, and actions necessary for a reform process. The sector analysis can lay the foundation for government health plans, service management plans, and master plans of investment.

Undertaking a sectoral analysis is not a simple question of following standard operating procedures. Depending on the goals of the agency in question, the focus may be general; that is, may be performed at the systems or macro level. The analysis may be limited to a given subsector, to a particular aspect of the public or private health sectors, or to any of their corresponding institutions. Then again, the analysis may be thematic, focusing on financing and expenditure, regulation, or service delivery; or it may focus on the different levels of patient care.

Therefore, a Health Sector analysis is nothing more than the study of the situation of production, distribution, or health services in a given country. It addresses the components of the health sector and their interrelationships, while taking into consideration the historical, political, economic, and cultural contexts that may come into play.

The governing bodies of the Pan American Health Organization have stressed the need for Member Countries to strengthen the analytical capacities of their respective health sectors, their resources, and their operational capabilities in light of health sector reform. The Health Sector Analysis provides the opportunity to foster national capabilities through inter-sectoral approaches to human resources development, strengthening the steering role of the Ministry of Health, etc.

The Health Sector Analysis in Guyana was formally requested by the Ministry of Health of Guyana in 2002. The objective was to provide input into the elaboration of the National Health Plan in consonance with other initiatives such as the *Essential Public Health Functions* and *Health in the Americas*. Since the Health Sector Analysis was completed the National Health Plan 2003-2007 was finalized and approved by the Government of Guyana Cabinet. In addition, the donor community in Guyana makes use of the Health Sector Analysis on a continuing basis.

The first Health Sector Analysis workshop was attended by 28 high and mid level technicians of the Guyanese health sector as well as by representatives of the donor community. The second workshop was completed in coordination with the Inter-American Development Bank and was attended by 15 participants. The general objectives of the Health Sector Analysis as defined by the participants included:

- Describe the existing situation and assess policies.
- Identify problems and diagnose their causes.
- Suggest specific studies for in-depth analysis.
- Suggest future scenarios.
- Propose solutions or strategies to achieve the goals.
- Suggest specific means of implementation.

The specific goals included:

- Guidance for decision-making e.g. launching and directing reforms
- Setting or justifying priorities for investment and other activities
- Comparison of situations among different population within a single country as well as among countries and regions

The participants in the Health Sector Analysis defined the following areas to be included in the Guyana Health Sector Analysis:

1. Political, Economic, Social Context;
2. Demographic/Epidemiological Analysis;
3. Health Promotion, Disease Prevention and Regulation
4. Political, Institutional and Organizational Analysis
5. Human and Technological Resources

6. Health Financing and Spending
7. Analysis of Service Delivery: Supply and Demand for Services
8. International Cooperation in Health
9. Essential Public Health Functions
10. Policy Options and Recommendations

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CHAPTER 1

POLITICAL, ECONOMIC AND SOCIAL CONTEXT

1. POLITICAL CONTEXT

Guyana is located on the northeastern shoulder of South America. It is bordered by Venezuela in the west and northwest, by the Amazon Basin of Brazil to the south and southwest, by Suriname on the east and by the Atlantic Ocean in the North.

The country covers an area of approximately 215,000 sq. km (83,000 sq miles). It is the only English speaking country in South America.

Governance

A former British territory, Guyana gained independence on 26th May 1966 and became a Republic in February 1970. Guyana is a democratic country functioning under a Westminster type arrangement. There is a unicameral National Assembly which comprises 12 non-elected members and 53 members elected under a system of proportional representation. An Executive President is both the Head of State and Government. The Ministerial system operates and the principle of collective responsibility prevails. Elections are constitutionally held every five years. The last general elections took place in March 2001.

The 1980 Constitution identified five levels of government:

- The Supreme Congress of the People
- Parliament
- National Congress of Local Democratic Organs
- Neighbourhood Democratic Councils
- People's Cooperative Units

The Local Democratic Organs Act of 1980 divided the country into 10 administrative regions. Regions 1, 7, 8, and 9 are classified as the interior regions - rural and remote, with small populations. Regions 2,3,4,5, and 6 are the coastal regions, Region 4 includes Georgetown, the capital, and represents the largest concentration of population. Region 10 has one moderate sized town and a large rural area. Each region is administered by a Regional Democratic Council.

There have been changes over time in the structure of government. Constitutional reform in 2000 created provisions for the abolition of two levels of local government- the Supreme Congress of the People and the National Congress of Local Democratic Organs.”¹ At present the local government structure comprises 10 Regional Democratic Councils, 65 Neighbourhood Democratic Councils, 6 municipalities and 76 Amerindian Village Councils.

Regional and local governments play an important role in the provision of public services in Guyana. The Regional Democratic Councils (RDCs) are administratively responsible for delivery of services including health and education to their catchment populations. Their primary duties are inter alia “ to ensure efficient management and development in their areas; to provide leadership by example; to organise popular cooperation in respect of political, economic, cultural and social development; to cooperate with the social organisation of the working people and to maintain and protect public property.”²

International links

Guyana because of its historic and cultural development has been linked to the English speaking Caribbean. Because of these linkages, Guyana’s traditional diplomatic thrust has always been towards the Caribbean. Its approach has been two-pronged, that is, developing bilateral relations with other States, and promoting Regional integration. The second approach is embodied in Guyana’s commitment to the Caribbean Community (CARICOM) of which it is a founding member.

Guyana has also maintained ties with its formal colonial ruler, and still forms part of the British Commonwealth. However Guyana has made some important constitutional changes. Among them were the declaration of Republic status; the promulgation of the 1980 Constitution which changed the parliamentary system of Government from strictly Westminster to a mixture of Westminster and a presidential form of government; the introduction of the Executive President; and the abolishment of the Privy Council as the Court of Appeal.

¹ Guyana Poverty Reduction Strategy Paper, 2001

² Local Democratic Organs Act, 1980

In addition, Guyana developed ties with all the major Western powers, and in the early 70's also started cultivating relationships with socialist countries. Guyana played a major role in the Non Aligned Movement, and was a vocal advocate against apartheid in South Africa.

At the continental level, while Guyana maintains bilateral relationships with its neighbours, there are still unresolved disputes between Guyana and Venezuela, and amid Guyana and Suriname. Despite these challenges, Guyana has been pursuing integration into the continent and sees itself as a gateway to South America. It currently has ferry linkages with Suriname and a road link with Brazil. Guyana has also signed several important treaties in keeping with its Continental thrust. These include Southern Cone Common Market (MERCOSUR) and the Amazonian Cooperation Treaty (CESAM). Guyana is also a member of the Organization of American States (OAS).

Politics

The National Development Strategy states that “the major obstacle to Guyana’s development is to be found in the divisive nature of its politics.”³ The report cites fierce racial political rivalries and a lack of inclusivity in governance as some of the main characteristics of the political scene. The political instability has had a negative impact on the health sector as it is one of the contributory factors to external migration of skilled health workers.

Reform of the State

Since 1992, there has been an active program to modernize the state. Among the strategic measures being undertaken are separation of powers of the executive, the legislature and the judiciary.

The thrusts of the judicial reforms are aimed at strengthening the independence of the Judiciary. Several reforms were implemented including the establishment of the Judicial Service Commission. The aforementioned Commission is responsible for the appointment and promotion of judges and magistrates. The age of retirement has been established and appropriate compensation for services been determined. Thus the legal infrastructure has been improved with repairs completed at most of the courts. Another important area which is being addressed is the replenishment of law libraries.

³ the National Development Strategy

Public sector reform is at present underway.. The reform focuses on institutional building and streamlining of the public sector. The Government has privatized some of the State-owned companies. Progress with public sector modernization and civil service reform has been slower.

The National Development Strategy refers to low morale in public service because of still unrewarding salaries, a perception of political interference by employers and a dearth of incentives. There are no merit rewards. Public Servants operate in systems which not only lack transparency and accountability but in which mechanisms for asserting authority have broken down.

Among other issues identified is the over-centralization of decision making. Most of the key public services are centred in the capital, Georgetown, and individuals from other areas who require these services must often travel long distances. As part of the public sector reform, there is a move to decentralize these services so that they will become more accessible.

The human resource function has been described as fragmented. “Power to make appointments and promotions and to discipline officers and terminate services is vested in the Public Service Commission. but the other areas of personnel management such as fixing staff levels, classification of employees, pay and conditions of employment, training etc are vested in the Public Service Management Department with its own administrative head within the Office of the President. Certain key public service appointments are deemed constitutional offices and are appointed by the President after due consultation as prescribed in the Constitution.”⁴

Collective bargaining is centralized and is carried out between Government and the Public Service Union which is the recognized unit /bargaining agent for the public service employees.

There has been support from the donor community for modernization of the State. Some of the agencies involved are the World Bank, the Inter-American Development Bank and the Canadian International Development Agency.

Sustainable Development

Guyana has endorsed a policy of environmentally sustainable human development. The Government’s principal environmental policy objectives are to “ (i) enhance the quality of life without degrading or contaminating the environment; (ii) ensure the sustainable uses of natural resources for economic growth; and

(iii) protect and conserve unique habitats, natural treasures and bio-diversity.”⁵ The Environmental Protection Agency (EPA) was established in 1996 and is responsible for the enforcement of the Environment Protection Act which provides for the management, conservation, protection and improvement of the environment. The EPA also regulates the sustainable use of natural resources.

Guyana is involved in a unique project related to sustainable development. In 1989, the Government of Guyana dedicated one million acres of pristine rainforest as a protected area. The mission of Iwokrama, as the protected area is called, is to promote the conservation and the sustainable and equitable use of the tropical rain forests in a manner that will lead to lasting ecological, economic and social benefits to the people of Guyana and the world in general, by undertaking research, training and the development and dissemination of technologies.

2. ECONOMIC CONTEXT

Through the 1980s, Guyana experienced severe economic decline and consequential worsening social conditions. “In 1989, the then government, through the introduction of an Economic Recovery Programme, embarked on a far-reaching structural adjustment programme which liberalized the economy, and returned it to a path of growth. So much so, that between 1991 and 1999, Guyana experienced positive rates of growth of GDP each year except for 1998 when growth was negative.”⁶ In 2000, there was negative growth of -0.8%.

During the last five years Guyana has experienced a number of external and internal shocks that significantly weakened the economy. These shocks included the El Niño drought, civil unrest, La Niña flooding, continued deterioration of export prices for bauxite, gold, timber and rice, Euro depreciation that reduced the value of preferential sugar exports, a public service strike, and rising oil prices. The inflation rate which was 100% in 1990, decreased to 4.2% in 1997 and increased to 5.8% in 2000.

⁴ Human Development Report, Guyana 1996

⁵ Poverty Reduction Strategy Paper

⁶ National Development Strategy, Government of Guyana 2000

Table 1.1 Selected Economic Indicators 1996-2000

Indicators	1996	1997	1998	1999	2000
GDP (current US\$)	590.1	626.5	601.3	593.6	596.9
Growth Rate of Real GDP	7.1	6.2	-1.8	3.0	-0.8
Per capita GDP in constant US\$ prices	766	808.3	777.5	770.3	773
Total public spending as % of GDP (Consumption +Investment)+	40.5	45.5	43.9	45.2	51.3
Total public social spending as % of GDP	8.4	8.2	9.0 est	10.0 est	10.9 est
Consumer price end of period (Percentage change)	ND	4.2	4.7	8.7	6.5*
Interest rates (Prime lending commercial banks)	17.21	16.93	16.64	ND	17.32
Annual Rate of Inflation (percentage)	4.5	4.1	4.8	7.4	5.8

Sources: Bureau of Statistics; National Development Strategy, Ministry of Health; Guyana Human Development Report 1996, Budget Speeches. *August 2000.

Debt Burden

The country has a high debt burden- both external and domestic. In 2001, debt stood at G\$ 32 billion or 23.4% of GDP. In 2002-2005 the debt will be reduced by G\$ 12 billion. In 1997 the IMF and World Bank approved Guyana's eligibility for debt relief under the Highly Indebted Poor Country (HIPC) Initiative. The money from debt relief is allocated to the social sectors (health and education) and to poverty alleviation programmes. In the health component, priority has been given to budgetary allocations for primary health care programmes. Expenditures on drugs and maintenance have increased. In the Enhanced HIPC Initiative, funds will also be used for water and sanitation and low income housing.

The HIPC Initiative is expected to release much needed budgetary resources to promote economic and social progress. The debt relief starting at about 4% of GDP in 1999 is expected to decline in importance over time as GDP expands.

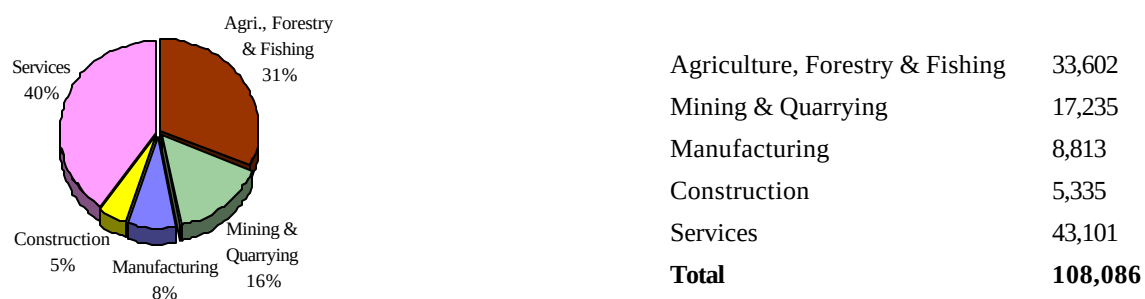
A review of the social expenditure conducted by the World Bank showed that the HIPC targets were exceeded in 1998 and 1999. However the wage component of social spending increased substantially while capital spending was less than expected.

The public sector deficit increased to 4.8% due to the second installment of the Arbitration Tribunal salary award for public workers of 66% over the period 1999-2000, which helped close the private-public sector compensation gap, but diverted debt relief earmarked for poverty reduction initiatives under the Original Heavily Indebted Poor Countries (O-HIPC) Initiative.

The Economy

The Economy is based on natural resources. Agriculture, forestry and fishing accounted for 34.6% of GDP in 1998 and 35.1% in 1999, with sugar being by far the main contributor

Figure 4; Gross Domestic Product at Current Factor Cost (G\$M) 2000 Revised



Source: Bureau of Statistics

In 1999, the mining sector accounted for 16.0% of GDP while services, manufacturing and construction accounted for 36.4%, 10.1% and 13.6% respectively. (See Figure 4) Guyana's economy is not sufficiently diversified and the country depends on the production and export of raw materials. There is very little value added to the raw materials.

According to the National Development Strategy total social sector spending as a proportion of current expenditure declined from 8.5% in 1992 and then increased at an annual average rate of 20% for the period 1993-1999.

The Government remains committed to its privatization program aimed at improving the efficiency of enterprises, eliminating the financial and administrative burden on Government, promoting modernization through efficient management, new investments and technology; and redeploying scarce public resources.

The present economic framework seeks to restore confidence in the domestic economy, generating sustained growth, creating employment and protecting the environment. Its main forecasts⁷ are:

- Average real GDP growth rate is projected at about 4 percent a year in 2002-2006 and about 6.1 percent a year thereafter.
- Expansion in construction activity will be the key catalyst over this period as large investment projects are implemented.
- The wage bill will be limited to the expected rate of inflation and productivity increased
- Inflation is projected to average about 5.5 percent per year during 2002-2006. Thereafter inflation is projected to grow at 5 percent on average over 2006-2010.

3. SOCIAL CONTEXT

Guyana has an established education sector ranging from nursery schools to university. Education is compulsory for children from 5 years and nine months to fourteen years. There is a high level of enrollment at the nursery and primary school levels but less so at the secondary level. See Table 2.

The net enrollment rate for males at the secondary level for the school year 1998/1999 was 68.9%. For females the rate was 70%. This shows a decline from the levels at the primary level which were 97.4% and 95.8% for males and females respectively.

⁷ Poverty Reduction Strategy Paper, Government of Guyana, 2001

Table 1.2: Enrollment in schools 1997/1998 and 1998/1999

Description	1997-1998	1998/1999
NURSERY		
Gross Nursery School Enrolment-Total	103.9	117.8
-Male	105.8	118.2
- Female	102.1	117.3
Net Nursery School Enrolment-Total	86.7	97.1
Male	88.5	97.9
Female	84.9	96.3
% Trained teachers in Nursery School	37.0	36.6
PRIMARY		
Gross Primary School Enrolment- Total	103.0	107.3
Male	106.1	110.6
Female	99.9	104.2
Net Primary School Enrolment -Total	94.7	96.6
Male	97.4	*97.4
Female	92.0	95.8
% Trained teachers in Primary School	50.0	51.3
SECONDARY		
Gross Secondary Enrollment –Total	79.9	81.9
- Male	78.6	81.2
- Female	81.2	82.7
Net Secondary School Enrollment -Total	68.1	69.5
-Male	67.2	68.9
- Female	68.9	70.0
% Trained teachers in Secondary School	50.0	56.8

Source: Ministry of Education and Bureau of Statistics.

Data from the World Bank show that in 2000, adult illiteracy was 1.4%. This is a slight increase from the 1996 level of 1.3%. The rate for females was 1.9% and 1.1% for males. The rate for females declined from 2.6% in 1996 and 2.1% in 1999.

Employment

In 1999, unemployment stood at 9.1%. The unemployment rates for young people who are seeking work for the first time are extremely high. In addition, it is important to note the levels of underemployment. “Much underemployment is also to be found in Guyana. This is of two kinds. The first is visible underemployment in which people are not employed for an established minimum number of hours per week.

The second in invisible underemployment, in which people are employed in jobs that require a skill-level that is below their qualifications.”⁸

The economically inactive population is given as 7% in 1999. According to the 1999 Guyana Survey of Living Conditions,⁹ “.... although the rate of unemployment for those who indicate that those who are actively seeking jobs had decreased in 1999 to 9 percent, almost 50 percent of the country’s workforce was not gainfully employed.” The labour force participation (labour force over population over 15) is 57%, down from 60% in 1992/93. In 1999, the population outside the labour force increased by 5% when compared with 1992/1993.

Poverty

The poverty gap which measures the depth of poverty declined from 16.2% to 12.4% between the periods 1992/1993 to 1999 indicating reduction in the level and depth of poverty. The report of the GSLC indicates that 36.3% of the population lives in absolute poverty (US\$ 510 per year or US\$1.40 per day) and 19.1% in critical poverty (US\$ 364 per year or US\$1 per day). This is a reduction in the levels found in the Living Standard Measurement Survey (LSMS) carried out in 1992/1993 when the figures for absolute and critical poverty were 43.2% and 27.7% respectively. Of those, 78.4% of the rural interior population was living in absolute poverty and 39.8% of the rural coastal population. While there was minimal improvement for the Rural Interior, the figures show a reduction in the levels of absolute poverty in Urban Georgetown and other urban areas. Critical poverty was predominant in the rural interior (70.8%) and to a lesser extent in the rural coastal areas (18.1%). The levels of critical poverty also show a reduction in the urban areas.

Some of the at-risk groups that were affected by poverty are Amerindians and women. The former recorded the highest level of poverty. The incidence of poverty is higher amongst women than men. “In particular, women are paid lower wages and salaries, face major difficulties in accessing credit, suffer more severe health problems than men do and have higher rates of illiteracy.”¹⁰

The lowest quintile accounted for 9.2% of total consumption in comparison with the richest quintile 39.2%. There has been some improvement since the Living Standards Measurement survey carried out in

⁸ National Development Strategy, Government of Guyana, 2000

⁹ Guyana Survey of Living Conditions, UNDP, Government of Guyana & Department for International Development, 1999

¹⁰ Ibid

1992/1993 when the poorest quintile was responsible for only 4.0% and the richest 55.1% of total consumption.

Poverty is perceived as a political problem and the fight against poverty is considered a government priority. Despite its abundant resources, Guyana is one of the poorest countries in the Western Hemisphere. In recognition of the need to address the issue of poverty, the Government has developed a Poverty Reduction Strategy Paper (PRSP) which identifies the policies and programmes that must be implemented to markedly reduce poverty.

The pillars of the PRSP are:

- Broad based, job-generating economic growth and environmental protection
- Stronger institutions and better governance
- Investment in human capital with emphasis on basic education and primary health
- Investment in physical capital with emphasis on better and broader provision of safe water and sanitation services, farm to market roads, draining, irrigation systems and housing
- Improved safety nets
- Special intervention programmes to address regional pockets of poverty.

The implementation of the poverty reduction programme will be financed both by domestic and foreign sources. Measures have been put in place for the monitoring of the programme. The President chairs the High Level Committee and Thematic Groups in several areas including health have been established.

The role of health in development has been widely acknowledged. In both the National Development Strategy and the Poverty Reduction Strategy Paper, health is seen as crucial to the development of Guyana.

Human Development

In 2000, Guyana ranked 96th on the Human Development Index. In 2002, the ranking was 103 out of 173 countries compared with Barbados 31st, Belize 58th and Jamaica 86th. See Table 3.

The Human Development Index was .708 in 2000 compared with .680 in 1990 and .679 in 1980. Guyana ranked 85th out of 146 countries on the Gender Development Index in 2002.

Table 1.3: Selected Indicators, Human Development Report 2002

	HDR	Life Expectancy at birth 2000	Adult Literacy rate 2000	GDP per capita (PPP US\$) 2000
Barbados	31	76.8	98.0	15,494
Belize	58	74.0	93.2	5,626
Brazil	73	67.7	85.2	7,625
Guyana	103	63.0	98.5	3,963
Haiti	146	52.6	49.8	1,467
Jamaica	86	75.3	86.9	3,639
Suriname	74	70.6	94.0	3,799
Trinidad & Tobago	50	74.3	93.8	8,964
Venezuela	69	72.9	92.6	5,794

Source: Human Development Report 2002.

Access to services

Overall, 98% of the population has access to sanitary excreta disposal (primarily pit latrines). There is some regional difference, with coastal regions having greater access (99%), compared to the interior regions (84%). In addition, 83% of the overall population has access to safe drinking water (including rainwater), with the same coastal to interior disparity seen- 83-89% on the coast; 44% in the interior.¹¹

There is increasing access to telephone service but many areas are underserved or not served at all. In 1990 there were 20 fixed lines and 0 mobile lines per 1000 person. In 2000, there were 79 fixed and 4.6 mobile lines per 1000 people. Internet hosts have increased from 0 per 10000 persons in 1990 to 0.1 in 2000. Internet users increased from 1000 in 1997 to 4000 in 2000. There were 25.6 personal computers for every 100 persons in 2000.

The network of roads is inadequate but improvements are being made. There is a road which links the coastal areas. The hinterland has very few permanent roads. There are more attempts to provide road links between the regions. Linkages exist between Georgetown and Lethem and from there access is possible to Brazil. A bridge is being built across the Takutu River which will improve transportation links with Brazil. However, region 7 remains inaccessible by road.

¹¹ Guyana Bureau of Statistics, UNICEF Report of the Multiple Indicator Cluster Survey (MICS), July 2001

The country is intersected by many rivers, creeks and other water ways and boat transportation is common. Air transport is also available for accessing some communities and is also used for emergency medical cases. The difficulties with communication and transportation make some communities difficult to access and affect negatively the delivery of health care.

Status of major international human rights instruments

The Government of Guyana is signatory to several international conventions. Guyana has ratified the Convention of the Rights of the Child. It is also a signatory to the International Convention on the Elimination of All Forms of Racial Discrimination and the Convention on the Elimination of All Forms of Discrimination against Women.

Conclusions

The CARICOM Heads of Government, cognizant of the critical role of health in the economic development of the Region, in the Nassau Declaration on Health 2001 attest that “the health of the Region is the wealth of the Region” and have taken steps at the Regional level to protect the health of the peoples of the Caribbean.

The issue of greatest concern is that of the relatively high levels of poverty which exist in Guyana. Poverty has been described by the World Health Organization as the world’s most ruthless killer and the greatest cause of suffering on earth.

Some of the groups most at risk have been described. One focus for action should be the Rural Interior which is the geographical area most affected. The cost of providing health services to the Rural Interior also results in inequities with respect to provision of health care. Fairness in the allocation of resources will ensure that resources are directed to those who are most in need. Poverty reduction strategies and the improvement in transportation and communication will play an important role in improving the health of this population. Interventions which will assist the poor would be improvements in the environment, water and sanitation and health education.

The role of the health sector must be to advocate for the resources that will allow for the reduction of inequities in health. The implementation of the Poverty Reduction Strategy Paper provides an opportunity for improving the health of the population.

¹³ PAHO, Health Systems and Services Profile of Guyana, September 2001

CHAPTER 2

DEMOGRAPHIC AND EPIDEMIOLOGICAL ANALYSIS

1. GEOGRAPHY

The geography of Guyana and the geographic distribution of its population represent important factors in its health status. As shown in Table 1, the population is predominantly situated in the coastal region. Thirty percent of the population lives in urban areas, all of which are located in the coastal region. Georgetown comprises 20.7% of the total population. Region 4 with a population of almost 300,000 has a density of 341.6. The interior is sparsely populated with limited health infrastructure available. Region 8 has a population of approximately 6,000 with a population density of 0.7. Region 7 has the same population density but with a population of 14,682. Increased urbanization is expected to result in 48% of the population residing in this setting by 2015.

Table 2.1: Population Distribution and Population Density, 1999

Region	Location	Population No.	%	Area km ²	Population Density
1	Interior	18,294	2.5	7,853	2.3
2	Coastal	43 139	6.0	2,392	18.0
3	Coastal	95,276	13.3	1,450	65.7
4	Coastal	294,493	41.0	852	341.6
5	Coastal	51,274	7.1	1610	31.8
6	Coastal	141,455	19.7	13998	10.1
7	Interior	14,682	8.0	18229	0.8
8	Interior	5,574	0.8	7742	0.7
9	Interior	14,947	2.1	22313	0.7
10	Mixed	39,271	5.5	6595	6.0

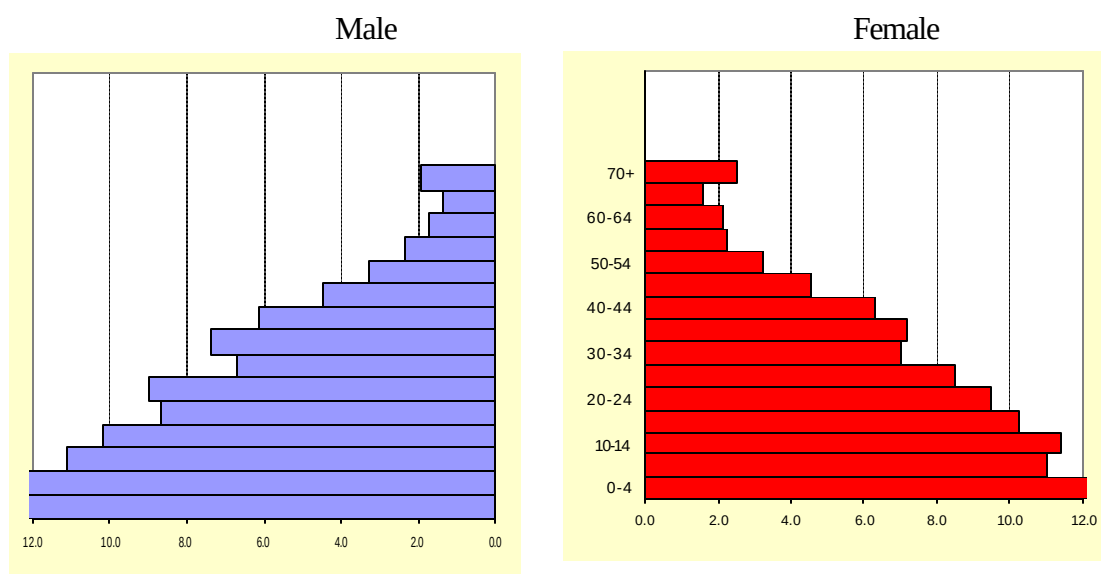
Source: Guyana Survey of Living Conditions and Poverty Reduction Strategy Paper

2. DEMOGRAPHICS

Population

The last population census for which results are available was held in 1991, at which time the population was 719,074. A census was initiated in 2002 and should be completed in early 2003. The results should be made available later in 2003. Thus in the analysis of the population, the figures used are those derived from the Guyana Survey of Living Conditions (GSLC). Population growth in past decades has shown a downward trend, from 2.3% (1960-70), to 0.8% ('70-'80), to -0.4 ('80-'90). UNDP has estimated that population growth will be -0.1% for the period 1995-2015.

Figure 3. Population Pyramid, 1999 – Percent population by age group and sex.



The Guyanese population is young, but shows signs of an advancing age distribution. In 1999, the age group 0-4 accounted for 12.5% of the population. This showed a slight decline from the figures for 1980 which were 12.9%. The percentage of the population under-15 is 35.9% and over-65 is 3.7%. Women of childbearing age (15-49) account for 27.1% of the total population.

The 2001 UNDP Human Development Report estimates that Guyana's <5 population will drop to 25% and the >65 population will increase to 6.4% of the total population by 2015. It also projects a

reduction in the dependency ratio from 54.1 in 1998 to 41.3 in 2015.¹³ About 49% of the population is male, and 51% female, a ratio that has remained fairly constant over the last decade.

Ethnic Groups

Guyana has a multi-racial population. The GSLC also indicates that in 1999 East Indians represented 48.2% of the population, the group classified as Negro/Black 27.7% and the Amerindian population 6.3%. The native Amerindian population declined by 5.8% between 1993 and 1999. There are considerable ethnic differences by region, with Regions 1, 8, and 9 being predominantly Amerindian; Regions 2, 3, 5, and 6 mostly Indian, Region 10 primarily Negro/Black, and Regions 4 and 7 is of mixed ethnic groups.¹⁴

Fertility

The Crude Birth Rate has shown a slow decline from 26.5 per 1000 population in 1989, to 23.2 in 1999. The Total Fertility Rate at present stands at 2.5, down from 3.1 in 1990. In 1999, 20.1% of births were to women under 20 years of age with 3% to girls <16.

The MICS showed that birth registration of the under 5 population is 96.5%. “The proportions of children registered show some variation by age of children and mother’s education....Children in the Interior of Guyana had lower proportions registered (86.0%) compared with the urban coast (99.0%) and rural coast (98.0%).”

Mortality

The Crude Death Rate has remained fairly constant at 6.6 in 1999 per 1000 population. In 1992 the rate was 7.0. Overall life expectancy at birth is given as 63.5 in 2000, being 58.9 for males, and 67.3 for females.¹⁵ The rates for overall life expectancy are significantly lower than the majority of countries in the Caribbean region. The figure for Suriname is 70.4; Trinidad and Tobago 74.1; Jamaica 75.1 and Barbados 76.6.¹⁶

The Infant Mortality Rate based on official statistics for 1997 was 25.5 per 1,000 live births. However, the figure obtained through vital registration is in sharp contrast to the estimate, 54 per 1000 live births, which was obtained in the Multiple Indicator Cluster Survey. “This underscores the perception that

¹⁴ IHSD, Health Needs Assessment: Major health needs for primary care in Guyana, 2002

¹⁵ PAHO, Guyana Health in the Americas 2002 Report

the reported level of infant mortality derived from civil registration data was too low because of the under-registration of infant deaths and inadequacies of the administrative and institutional arrangements of the current vital registration system.”¹⁷

Maternal mortality rates have decreased slightly, but remain significantly higher than those of other countries in the region. The rate for 2000 was 133 per 100,000 live births.

In 2000, there were 4812 registered deaths. Of these deaths that occurred in 1999, 2057 occurred among females and 2755 in males. Analysis of the deaths that occurred in 2000 shows that most of the deaths (818 or 17.0%) occurred in the 65-74 age group, followed by 684 (14.2%) in the 55-64 age group, 607 (12.6%) in the 75-79 and 604 (12.6%) in the 45-54 age groups. Three hundred and ninety two (8.1%) deaths occurred in the under-5 age group, with 303 (6.3%) of these in children under one year old. Of the total deaths in 2000, 4739 (98.5%) were from defined causes.

¹⁶ United Nations Development Programme, Human Development Report 2001

¹⁷ Bureau of Statistics Guyana, UNICEF Multiple Indicator Cluster Survey, 2001

Table 2.2: Ten Leading Causes of Death 2000, 1990

Cause of Death	Rank 2000	Cause of Death	Rank 1990
Ischemic Heart Disease	1	Cerebrovascular Disease	1
HIV/AIDS	2	Ischemic Heart Disease	2
Cerebrovascular Disease	3	Diseases of pulmonary Circulation	3
Diabetes Mellitus	4	Diseases of other parts of the digestive system	4
Remainder of external causes	5	Endocrine and metabolic disease, immunity disorders	5
Diseases of other parts of the digestive system	6	Other diseases of the respiratory system	5
Hypertension	7	Hypertensive disease	7
Remainder of Neoplasms	8	Certain conditions originating in the perinatal period	8
Acute Respiratory Infections	9	Intestinal infection disease	9
Intentional Self harm (Suicide)	10	Undetermined Injury	10

Source: Health Conditions in the Americas 1990; Health Conditions in the Americas 1994; Health in the Americas 2000.

Over the last decade, the most significant change in mortality has been the emergence of HIV/AIDS as a leading cause of death. In 2000, HIV/AIDS ranked second. Other leading causes of mortality were the chronic non-communicable diseases with ischaemic heart disease as the leading cause. Acute respiratory infections were the only communicable diseases in the ten leading causes.

Table 2.3: Leading Causes of Death for selected populations, 2000

Rank	Age Group Under-1	Age group Under-5	Maternal
1	Respiratory Diseases specific to the Perinatal period	Respiratory disorders specific to the Perinatal period	Hemorrhage of Pregnancy and Childbirth
2	Intestinal infectious diseases	Intestinal Infectious diseases	Pregnancy with Abortive Outcome
3	Congenital malformations, deformations and chromosomal abnormalities	Acute Respiratory Infections	Complications of the Puerperium
4	Bacterial sepsis of the newborn	Congenital Malformations, Deformations and Chromosomal abnormalities	Toxemia of Pregnancy
5	Acute Respiratory Infections	Bacterial Sepsis of Newborn	Other complications of Labour and Delivery, Not elsewhere classified

Source: Ministry of Health Statistics, 2000.

AIDS has led in the number of potential years of life lost, exceeding the value for the next three causes together Acute respiratory infections, perinatal respiratory diseases, and diarrhoeal diseases are, respectively, the second, third, and fourth causes of potential years of life lost.

TABLE 2.4: Ten Leading Causes of Death by YPLL

CAUSES OF DEATH	2000	
	RANK	YPLL
HIV disease (AIDS)	1	14153.5
Acute Respiratory Infections	2	4370
Respiratory Disorders specific to the Perinatal Period	3	4321.5
Intestinal Infectious Diseases	4	4157.5
Intentional Self-Harm (Suicide)	5	3896.5
Land Transport Accidents	6	3632
Event of Undetermined Intent	7	3459.5
Congenital malformations, deformations and chromosomal abnormalities	8	3284
Ischemic Heart Diseases	9	3120.5
Diabetes Mellitus	10	2758
Cerebrovascular Diseases	11	2656

Source: Ministry of Health Annual Report 2000.

Emigration

The decrease in the total population of Guyana reflects the continuing impact of emigration. The Bureau of Statistics indicates that in 1996, there were 12, 598 emigrants; 16,316 in 1997; 15,292 in 1998 and 12,164 in 1999, amounting to over 56,000 persons for the four-year period. It is to be noted however, that data on emigration remains hard to measure accurately, due in large part to violations of visa conditions, and undocumented travel across Guyana's overland borders. As such, the actual emigration rates are generally believed to be higher than officially reported. Emigration of trained health care workers such as nurses, doctors, and other public health professionals remains a significant human resource constraint for the sector. Emigration will undoubtedly have some long term effects on the population structure.

General Morbidity

The chief causes of morbidity in outpatient settings are acute respiratory infections, injuries and accidents, acute diarrhoeal disease, and malaria. All age groups are affected by malaria and injuries and accidents.

Acute respiratory infection is the most common cause of outpatient (hospital and health center) attendance, especially for children <15, as well as for people >44. Cases of ARIs reported in under-5 population were 8598 in 2000. Children <5 are also most affected by skin conditions, worm infection, accidents, and nutritional deficiencies.

Adults 45- >65 are mostly affected by chronic diseases such as diabetes, hypertension, and arthritis, as well as respiratory infections.

Information on discharge diagnoses of patients admitted to hospitals is not routinely collected, and represents a gap in important epidemiologic information for the country.

3. MATERNAL AND CHILD HEALTH

Services to women and children are a national priority and MCH activities account for the majority of primary health care services in Guyana.

Contraceptive Use

Family planning services are offered at health facilities, but contraceptive prevalence among women aged 15-49 who are married or in long-term, single-partner relationships remains low at 37.5%.¹⁸ Abortion was reported as a frequent cause of admission to the Georgetown Public Hospital¹⁹ as well as a leading cause of maternal mortality.²⁰

According to the MICS, almost 81% of pregnant women received antenatal care, while the level in the Interior was 49%. Approximately 86% of all deliveries were conducted or attended by trained personnel. Again there was significant regional disparity, with only 43% of all births in the interior being attended by a trained professional.²¹ By age 6 months, 89% of births had been registered, suggesting the extent of under-reporting for birth statistics.

Results of the 1998 Adolescent Health Survey show that 50% of children have had sexual intercourse by age 13, and 90% by age 15. In addition, multiple partners were common, with almost half of females (45%) and three-quarters (75%) of males surveyed having more than one partner at that time. While the condom was

¹⁸ Guyana Bureau of Statistics, UNICEF Report of the Multiple Indicator Cluster Survey (MICS), July 2001

¹⁹ RMC Assessment of Current Health Needs and Resources, Jan 2000

²⁰ Maternal and Child Health Profile 2000

the most common form of contraception, overall contraceptive use was low with 50% of adolescents under age 15 and 33% of those 16-18 who having never used any contraception.²²

Nutrition

Protein-energy malnutrition, iron-deficiency anemia, and obesity are the main nutrition-related health issues in the Guyanese population. There is significant undernutrition, low birth weight, and anemia in women and children nationwide.

Available data reveal that while breastfeeding initiation rates were high, breastfeeding practices were far from optimal. The 2000 MICS found exclusive breastfeeding rates of only 15% among children <4 months, while 41% of children 6-9 months were breastfed and received timely complementary feeding. The prevalence of continued breastfeeding at 12-15 months, and 20-23 months was 50% and 31%, respectively.

While severe/moderate malnutrition in children attending public health clinics has dropped in recent years, from 20% in 1996 among MCH clinic attendees to 13.5% in 2000. Guyana's malnutrition rates remain significantly higher than the average rates recorded for other Caribbean countries. ²³ Overnutrition in Clinic attendees has remained fairly constant with levels of 4.3 in 2000 compared with 4.5% in 1996.

The Multiple Indicator Cluster Survey conducted in 2000 showed that 11% of children had a low birth weight, 14% of <5s had low weight-for-age (underweight), 11% low weight-for-height (wasted), and 11% low height-for-age (stunted).²⁴ Place of residence and maternal educational level impacted children's nutritional status, with children from the rural coast being more likely to be underweight and wasted compared to children from the urban coast and interior, and children whose mothers had no formal education being more likely to be malnourished.²⁵ Chronic malnutrition (low height for age) is predominant in the interior where Amerindian communities are concentrated.

The 1997 micronutrient survey revealed considerable levels of iron-deficiency anemia nationwide, with anaemia (Hb<11 for children, <12 for others) found in over 40% of all participants, and in 52% of pregnant

²¹ Guyana Bureau of Statistics, Report of the Multiple Indicator Cluster Survey (MICS), July 2001

²² Adolescent Health Survey

²³ Food Policy Unit, Ministry of Health Annex, Nutrition Surveillance Bulletin: Childhood Malnutrition, Number 16, June 2001

²⁴ Guyana Bureau of Statistics, Report of the Multiple Indicator Cluster Survey (MICS), July 2001

²⁵ Guyana Bureau of Statistics, Report of the Multiple Indicator Cluster Survey (MICS), July 2001

women sampled. Comparison with 1970 survey data found that childhood anemia had increased, and that there had been no reduction in anemia during pregnancy. ²⁶

4. INFECTIOUS DISEASES

Vaccine Preventable Diseases

The immunization program in Guyana - which includes BCG, DPT, OPV and MMR- has been very successful, with over 80% of children receiving all the recommended vaccinations (excluding MMR) during the first 12 months of life. MMR is given between 12-23 months, and 92% of all children received it before age 23 months.³¹ However, there is regional variation in coverage. In 2000, coverage in Region 1 was only 44% for DPT and 47% for OPV. Maternal educational level affected children's rate of vaccination, with completion of second and third doses of vaccination being higher among children whose mothers were more educated.³² There have been no cases of measles since 1991. Poliomyelitis has been eliminated.

Tuberculosis

The incidence of TB has doubled since 1990, reflecting the concomitant increase in HIV/AIDS in the population. In 1999, there were 407 reported cases/100,000 population, with an incidence rate of 52.58.³³ Case fatality rates are high (18%), and there are also high rates of non-compliance and low rates of completion of treatment. Originally, almost a third of all cases were found in the Amerindian population. However, there has been a shift to the general coastal population, primarily young males (peak incidence is in males aged 25-34)³⁴, mirroring the HIV/AIDS epidemic. ³⁵

²⁶ PAHO, Guyana Health in the Americas 2002 Report

³¹ Guyana Bureau of Statistics, UNICEF Report of the Multiple Indicator Cluster Survey (MICS), July 2001

³² Guyana Bureau of Statistics, UNICEF Report of the Multiple Indicator Cluster Survey (MICS), July 2001

³³ PAHO, Guyana Health in the Americas 2002 Report

³⁴ PAHO, Guyana Health in the Americas 2002 Report

³⁵ IHSD, Health Needs Assessment: Major health needs for primary care in Guyana, 2002.

Table 2.5 : Number of Tuberculosis cases 1990 and 1997-2000

Year	Number of cases	Rate/100,000 population
1990	169	21.39
1997	381	48.23
1998	318	41.80
1999	407	52.58
2000	420	ND

Source: Ministry of Health reports.

Hansen's Disease

The prevalence rate for Hansen's disease increased from 0.3% per 10,000 population in 1997 to 0.6 in 2000. The incidence rate showed a similar increase from 0.4% in 1997 to 0.9% in 2000. The increase is attributed to improved surveillance and case detection.

HIV/AIDS

The first case of HIV/AIDS was observed in Guyana in 1987. At the end of 2001, there were 2173 known AIDS cases in Guyana. However, the true extent of HIV/AIDS in Guyana is unknown, with up to a 60% estimated rate of underreporting. According to available data, 65% of all cases occur in the 20-44 age group, with the largest number in the 30-39 age group. The majority of all cases (83.7%) are concentrated in Region 4, which includes the capital Georgetown. The second highest prevalence is in Region 6, with 5.2% of all cases, followed by 4.3% in Region 10, and 4.2% in Region 3. Each of the other regions had 1% or fewer of all the AIDS cases recorded.

In 2000, the majority of reported cases (96.5%) were due to unprotected heterosexual sex. At the start of the epidemic, men were more affected than women. However, more women, particularly young women, are now being affected. New cases are increasing among young women at a faster rate than among young men, and there are more affected women in the 15-24 age group than men. In 1997 the male-female ratio was 1.7:1; this has dropped to 1.2:1 in 2000.

According to the Human Development Report 2001, 3.1% of 15-49 year olds in Guyana were living with HIV/AIDS. Prevalence among youth 15-24 is estimated to be among the highest in the Caribbean, with only Haiti and the Bahamas having higher rates.

Table 2.6: HIV Prevalence in Guyana among Selected Populations

Population	Year	Prevalence (%)
Sex Workers	1987	0
	1992	25
	1997	42
Blood bank data	2000	1.0
STD Patients		
-- Males	1992	13.2
-- Females	1993	6.5
TB Patients	2000/2001	30-41
Antenatal Women	1997	4.5
-- Antenatal women aged 20-24	1997	8.1
Gold Miners	1998	6

Source: National HIV/AIDS Programme.

The MICS Survey found that only 24% of the population studied had sufficient knowledge of HIV/AIDS transmission, based on the ability to state 3 ways to prevent HIV transmission and to identify misconceptions about HIV transmission. While 69% of women of reproductive age know of a place where they could be tested for HIV, only 16% had actually been tested. In the Interior, these rates fell to 40% and 8% respectively.

Other Sexually Transmitted Infections

The levels of other sexually transmitted infections are under-reported as statistics exist only for people attending the Genito-Urinary Medicine Clinic at the Georgetown Public Hospital. Antenatal surveillance found 2.3% of tested women positive for syphilis, while blood bank testing found the same rate of positivity in the donor population.

Table 2.7: Reported cases of Selected Sexually Transmitted Infections 1998 and 2000

Disease /Syndrome	1998	2000
Genital ulcer syndrome	270	200
Syphilis	410	534
Genital discharge syndrome	762	899

Malaria

Malaria is a major health problem in Guyana, and is endemic in the interior regions 1, 7, 8, 9 and 10. Sixty percent of all cases are found among the Amerindian population.³⁶ According to the Malaria Plan developed by the Ministry of Health, *Plasmodium falciparum*, which causes severe morbidity and mortality, continues to be the dominant species.

There was a decrease in the incidence of new cases from 43,609 in 1997 to 27,283 in 1999. In 2000, there were 28,267 new cases. It is estimated that 136,415 workdays were lost in 1999 because of malaria.³⁷ Malaria often goes untreated, especially in children, and many people have multiple episodes per year.³⁸ Bed nets are used by 61% of children under 5, but only 11% are treated with insecticide. Malaria is also thought to be a significant contributory factor to anemia in women and children.

Filariasis

Rapid mapping was conducted in the 10 Regions. Of 2325 persons tested, 9.04% were positive. The presence of filarial transmission was established in Regions 3,4,5,6 and 10. The population most affected was the age-group 5-15 years where the positivity rate was 12.32. In the age group 16-40 the rate was 5.49%. The ratio of males to females was 45:55.

Other Vector-borne Diseases

Dengue has not been a public health problem to date, with only 25 cases reported in 2000. There are no reported cases of leishmaniasis, schistosomiasis or Chagas disease.

5. CHRONIC DISEASES AND ASSOCIATED RISK FACTORS

Chronic diseases are major causes of morbidity and mortality. In 2000, hypertension and diabetes were among the 5 main discharge diagnoses from the Georgetown Public Hospital.

³⁶ Ministry of Health, Draft Malaria Control Plan 2001-2005, September 2000

³⁷ PAHO, Guyana Health in the Americas 2002 Report

³⁸ Guyana Bureau of Statistics, Report of the Multiple Indicator Cluster Survey (MICS), 2001

Age	Males	Females	BMI 25-29		BMI 30+	
	(N)	(N)	Males (%)	Females (%)	Males (%)	Females (%)
20-29	141	281	19.1	22.1	2.8	13.5
30-39	124	220	27.4	35.5	16.1	25.9
40-49	85	149	31.8	34.2	22.4	37.6
50-59	59	109	30.5	32.1	16.9	46.7
60+	61	86	26.2	38.4	11.5	29.0

Table 2.8: Overweight/Obesity in Adults in Guyana, 1999

Obesity

Obesity was shown to be a major problem in adulthood in both the 1997 micronutrient survey and the 1999 Physical Activity Survey. The physical activity survey showed that overweight and obesity were increasing in the population, with 51% of adults over age 20 having a BMI of 25 and higher, and 22.4% of them being classified as obese (BMI >30). Significantly more women than men were obese (20% vs. 6%). The prevalence of obesity increased with age, with persons 50-64 years old having three times higher levels of obesity than those aged 20-30 (33% vs. 11%).³⁹ Because obesity is a strong risk factor for chronic diseases, it is crucial that a coordinated prevention strategy be immediately implemented in order to reduce its impact.

Smoking

Fifteen percent of the overall population are smokers, with significantly more men smoking than women (35% vs. 4%).⁴⁰ Data from the 2000 Global Youth Tobacco survey found that 17% of students were current users of tobacco products, with 29.5% of them having ever tried smoking.⁴¹ Smoking is a significant risk factor contributing to hypertension and diabetes, leading causes of death in Guyana, and prevention efforts directed toward youth are crucial in order to halt the progression of these diseases.

Drug and Alcohol Use

Data from the physical activity survey reported that 43.6% of the overall population consumed alcohol, with significantly more male drinkers than female (73% vs. 28%). Among adolescents, 2% regularly and 7% occasionally used marijuana or inhalants, while 2.1% regularly and 32% occasionally drank alcohol.

³⁹ PAHO, Guyana Health in the Americas 2002 Report

⁴⁰ PAHO, Guyana Health in the Americas 2002 Report

⁴¹ PAHO, Guyana Health in the Americas 2002 Report

Physical Activity

Data from the physical activity survey showed that only 18.9% of adults surveyed had done any planned exercise in the week prior to the study. 22% of adolescents surveyed were not physically active.

Oral/Dental Health

There are no recent data on the incidence of dental caries in Guyana. Dental caries are listed in some Regions among the ten most prevalent diseases. The latest dental health survey was carried out in 1995.⁴² The results of the survey revealed that the mean for decayed, missing and filled teeth (DMF-T) was 2.97. The main contributor to the DMF index was the decay component. At least 64% of children had one decayed permanent or primary tooth. Although the mean DMFT are below the WHO's goals for the year 2000 the proportion of children with caries and missing teeth still show a sizable prevalence of caries experience and untreated decay in both dentitions. There are therefore important oral health problems that require urgent attention.

The aggregate nature of the DMF index does not reflect the high levels of untreated decay and missing teeth, paralleled by the low levels of restored teeth. This pattern is common in communities where the need for restorations is unmatched by appropriate care services and, decayed teeth are left untreated up to the point where the only alternative is tooth extraction. Because urbanization is frequently associated with increase in caries prevalence, as more Guyanese in rural areas become urbanized, it is expected that the prevalence of sugar consumption and other carcinogenic behaviors will increase with direct consequence on the prevalence of dental caries. The lack of sealants and fillings in this large survey is an indicator of the absence of a preventive and restorative component in the services provided by both the public and private sectors. Finally, the differences between regions observed in the survey could be explained by access to dental care; misdistribution of dental care providers, and type of dental treatment offered. Urgent attention is therefore needed to change the oral health profile and to reorient treatment away from extraction only and towards more beneficial interventions.

Injuries

⁴² Bera and Beltran, ADA/HVO/DO, Pan American Health Organization, 1996.

Injuries are an important cause of death for all ages, with males being more affected than females. Data on whether these injuries are intentional or unintentional is not regularly collected, so the impact of factors such as violence is not clear. Motor vehicle injuries accounted for 9.7% of all accidental deaths in 1999.

Mental Health

Suicide has been increasing, climbing to the eighth leading cause of death in 2000. In 1999, it was the leading cause of death among women aged 15-19, and the 2nd leading cause of death among males in that age group.

6. ENVIRONMENTAL HEALTH

The MICS Survey found that 83% of the population studied had an “improved drinking water source”, while falling to 44% for that of the Interior. In regard to sanitation, 98% of the population studied had an adequate means of excreta disposal.

No cases of cholera have been recorded since the 1992/1993 outbreak. Acute diarrhoeal diseases are still major causes of morbidity. In the under-5 population, reported cases increased from 5215 in (??) to 8098 in 2000.

7. OCCUPATIONAL HEALTH

Non-fatal accidents have shown a steady decline. In 1999, the total number of reported accidents was 2,385, down from 2880 in 1998. The number of fatal accidents ranged from 9 in 1997 to 15 in 1999. The vast number of non-fatal accidents continues to occur in the agriculture sector.

8. SPECIAL POPULATIONS

Amerindians

Amerindians, who are the majority in most of the interior regions, are also the poorest group in the country, with 88% of Amerindian-headed households being below the poverty line.⁴³ As health and poverty are inextricably linked, the Amerindians also have some of the lowest health indicators in Guyana. They are

severely affected by malaria (60% of all cases⁴⁴), as well as by tuberculosis, diarrhoeal disease, and respiratory infections.⁴⁵ Amerindians are also significantly affected by dental caries, snake bites, scabies, worm infestation, substance abuse, and HIV/AIDS.⁴⁶ Amerindian women are also at higher risk of poor maternal health as fewer births in the interior are attended by trained health care workers.⁴⁷ Community Health Workers are often the only health care providers in the interior serving this population, with transportation difficulties, lack of refrigeration, and staff shortage contributing to their poor health conditions.

9. CONCLUSIONS

Preparation of this analysis has shown that a limited amount of epidemiologic information is available, becoming a major constraint in effective health planning. A significant proportion of the data used here was obtained from one-time surveys carried out with external funding. The MOH needs to generate key epidemiologic data on a regular basis and establish an institutional culture which depends on reliable data to guide its decision-making.

Available epidemiologic data lead to the following conclusions regarding priority health issues for Guyana:

- Infant mortality and maternal mortality rates show a downward trend, but remain among the highest in the region.
- While control is advancing in the control of selected infectious diseases, the HIV/AIDS epidemic is at an advanced stage, with associated increases in TB rates.
- Obesity, hypertension and diabetes are highly prevalent, leading to high rates of cerebrovascular and cardiovascular disease in adults.
- Injuries are a major source of morbidity and mortality, including high rates of suicide among youth, which require appropriate public health interventions.
- The Amerindian population presents the worst health status, due to their poverty, vulnerability, and limited access to health resources.

10. RECOMMENDATIONS

1. The MOH needs to establish models for its key information systems, detailing the mechanisms for

⁴³ National Commission on Women, Issue Paper: Indigenous Women, November 1997

⁴⁴ Ministry of Health, Draft Malaria Control Plan 2001-2005, September 2000

⁴⁵ Palacio, Joseph, Health Conditions of Aboriginal Peoples in Belize, Guyana, and Suriname, PAHO, Washington, DC, December 1994.

⁴⁶ Ibid.

⁴⁷ Guyana Bureau of Statistics, Report of the Multiple Indicator Cluster Survey (MICS), 2001

data collection, reporting, analysis, dissemination, and application to decision-making.

2. The MOH needs to establish a trained unit within each region having responsibility for overseeing epidemiologic data collection and initial analysis, and assuring appropriate responses when needed.
3. The epidemiologic capacity within the ministry needs to be strengthened, with the training of staff in field epidemiology and improvements in infrastructure supporting surveillance needs (computer hardware, access to communication, etc.).
4. The MOH needs to establish a public health laboratory capacity which can provide diagnostic support to generate needed epidemiologic data for different diseases of public health significance such as dengue and tuberculosis.
5. Information systems based on discharge diagnoses from inpatient facilities (public and private) are needed to provide a profile of serious morbidity. Other linkages need to be established with health facilities of the private sector to capture epidemiologic information of public health interest.
6. Maternal-child health
 - Despite legislation for the medical termination of pregnancy, complications of abortion continue. Family planning services need to be improved to prevent the demand for abortions.
 - High rates of maternal mortality require preventive strategies based on an analysis of the specific causes of death.
 - Continued rates of protein-calorie malnutrition suggest that growth monitoring activities directed toward risk populations need to be strengthened as part of a prevention and early diagnosis strategy. In addition, current activities need to be strengthened for improving micronutrient status (eg. iron, fluoride).
 - IMCI activities need to be reinforced and expanded to more regions, with specific adaptations for implementation by CHWs.
7. Nutrition
 - While national development initiatives, which address such central issues as poverty and inequity, will positively impact health and nutrition, specific programmatic interventions will be needed to improve nutritional status, particularly in vulnerable groups.
 - There is urgent need, however, to strengthen capacity within and outside the health system for planning and conducting effective nutrition education intervention on a sustainable basis.
 - Emphasis must also be placed on developing or strengthening systems to better identify and monitor the nutritionally vulnerable and evaluate impact of education and other interventions.
8. Adolescent Health
 - In light of the early introduction of sexual activity, the elevated HIV/AIDS rates, rising suicide rates and high prevalence of smoking among adolescents, a national adolescent health program is needed with prevention-based interventions implemented in school settings, as well as preparing clinical providers to better assist this population.

9. HIV/AIDS

- Data available indicate that Guyana is in an advanced stage of the HIV epidemic, with high rates in groups without traditional risk factors (eg. women in antenatal care). The new strategic plan for HIV/AIDS needs to be vigorously implemented. The epidemiology of the disease in Guyana needs to be clearly defined, with regular surveillance of at-risk populations and behavioral studies to better understand risks and modes of transmission. Voluntary counseling and testing has been adopted by few in the population and needs strong promotion.

10. Tuberculosis

- Rising rates of TB, paralleling the HIV epidemic, are aggravated by poor treatment compliance rates, resulting in elevated case fatality rates. DOTS needs to be effectively implemented, and lab testing instituted for the detection of MDR-TB.

11. Malaria

- To overcome existing institutional obstacles of the malaria program which severely limit its effectiveness, the program needs to be incorporated into the communicable disease program of the MOH.

12. Dengue

- The conditions for an epidemic of dengue fever, similar to those which have occurred in other settings of Latin America and the Caribbean, are present in Guyana. Active lab-based surveillance is needed for early detection and characterization of dengue virus in Guyana.

13. Filariasis

- A global WHO-led initiative is underway to eliminate lymphatic filariasis, based on well defined strategies. Epidemiologic evidence has shown Guyana to be an important reservoir of disease in Latin America. Continued support for the elimination of filariasis in Guyana is needed.

14. Non-communicable diseases

- Ischemic heart disease, cerebrovascular disease diabetes and hypertension account for nearly one third of all deaths. Over 25% of all females 30 years or older are obese (BMI>30), while 35% of men are smokers. The MOH needs to establish an NCD Program, including implementation of community-based interventions, in addition to addressing clinical care in health facilities. Behavioral risk factor surveillance needs to be established, to monitor those behaviors contributing to these conditions, and to evaluate the impact of NCD interventions.
- A mental health strategy needs to be formulated, including the provision of community-based services.

15. Injuries

- Injuries have been identified as a major source of morbidity and mortality for all age groups. Injury surveillance systems providing information on cases presenting to Emergency facilities can be used to develop specific intervention strategies.

16. Environmental Health

- Clearer definition of the roles of the MOH, EPA, and municipal governments is needed to address problems of environmental health, and improved coordination of services between them.

17. Amerindian Population

- As the population group with least access to health care services, and with worse health indicators than other ethnic groups in numerous areas, special attention is needed for the Amerindian population. Better coordination of activities is needed between MOH and the Ministry of Amerindian Affairs, NGOs active with this population and local government. Special technologies are needed for better capturing surveillance and other epidemiologic data from them. Health education strategies are needed which are adapted to this culture.

CHAPTER 3

HEALTH PROMOTION, DISEASE PREVENTION, AND REGULATION

Disease prevention depends on the identification of the factors which lead to a disease condition and the activities which are directed at eliminating or at least reducing the factors through early detection, public education and effective action. Several successful public measures such as immunization and improved water and environmental sanitation have resulted in a reduction of the disease burden. Decline in some of the infectious diseases was also due to general improvements in the living conditions.

The demographic and epidemiologic profiles as described in Chapter 2 have shown that there has been significant progress in the health status of the population. Improvements in water and sanitation have led to a reduction in morbidity and mortality due to diarrhoeal diseases. High levels of immunization coverage have seen a drastic reduction in the incidence of diseases preventable by immunization. However, there is an unfinished agenda with respect to the communicable diseases. Acute respiratory infections continue to be a leading cause of morbidity and mortality. Malaria accounts for loss of productivity. There is also the problem of new and re-emerging infections such as HIV and tuberculosis.

In addition, Guyana is experiencing health problems which are related to life styles and behaviour. The major causes of mortality are the chronic diseases such as cerebrovascular disease, injury and AIDS. Among school age children and adolescents, deaths from motor vehicle accidents, homicides and undetermined injuries have increased. There is an increasing incidence of substance abuse and addiction.

1. DETERMINANTS OF HEALTH

Many factors are related to health. Some of the major influences on health are: the physical environment, genetics, lifestyles, gender, education, income and social status and the health services. Efforts at improving health must be directed at these determinants.

The Ministry of Health has as its vision: “It is the aim of the Government that Guyanese citizens be among the healthiest in South America and the Caribbean.” To achieve this vision, strategies will have to be put in place to reduce the factors which have a negative effect on health and to increase those which positively affect health.

There is need to address poor living conditions associated with great inequities in income and wealth distribution; reduce maternal mortality; improve basic sanitation systems; manage new and emerging diseases and deal with the increased incidence of non-communicable diseases associated with unhealthy lifestyles.

Organization of the provision of health care

To carry out its mission of improving the spiritual, physical and mental health status of Guyanese, the Ministry of Health is organized into the following 7 programmes:

- Administration
- Disease Control
- Primary Health Care
- Regional Health Services
- Health Sciences Education
- Standards and Technical Services
- Rehabilitation Services

The Ministry carries out its mandate to protect the public health through the delivery of all modalities of care- health promotion, disease prevention, care and rehabilitation. Many health programmes contain all these elements. Sometimes it is difficult to determine the weight of each modality of care. Usually, to be effective there needs to be the separate. For example, reduction in the incidence of malaria requires the application of preventive strategies and education of the population as well as the provision of care to reduce the pool of infected persons.

Three of these strategies are discussed in this chapter viz health promotion, disease prevention and regulation.

Health Promotion

In 1993, the Caribbean Charter of Health Promotion was developed. The Charter states that health promotion is the process of strengthening the capacity of individuals and communities to improve and maintain their physical, mental, social, and spiritual well being. Health promotion focuses not just on disease prevention, but also on health and wellness. It recognizes that social, economic, and behavioural factors are significant

contributory factors to health and wellbeing. Health promotion requires close collaboration among health and other sectors since the determinants of health are varied and diverse.

The Charter defines six key health promotion strategies:

- Formulating healthy public policy.
- Reorienting health services.
- Empowering communities to achieve well being.
- Creating supportive environments.
- Developing and increasing personal health skills.
- Building alliances with special emphasis on the media

Guyana has endorsed the principles and strategies contained in the Caribbean Charter on Health Promotion. Political will exists to ensure the implementation of the Charter and its strategies. This is evidenced by the fact that health promotion is considered to be the foundation of the draft health plan 2002-2006 and is to be incorporated in all health programmes.

The Division of Health Sciences Education

The Division of Health Sciences Education is the agency which at present is responsible for health promotion. The Division consists of 3 Sub-Programmes :

Health Education and Promotion

In addition to the conduct of health education and promotion activities, the Division is also responsible for the training of programme managers to ensure that all the determinants of health are considered in addressing health issues. Health promotion is included in the curriculum of training programmes for health workers. In service training in health promotion is also provided.

Training

The Division of Health Sciences Education has the mandate for ensuring that there are health workers adequate in quantity and quality to provide health services. One priority is the development of cadres of workers who work in the community and have roles in community education and participation in health. These include community health workers, community dental therapists, environmental health assistants, medex, rehabilitation assistants and public health nurses. Health promotion is a component in all training programmes.

Health Learning Materials Unit

The Health Learning Materials Unit was established to provide economical production of health materials and to support activities and interventions with audio-visual equipment. One example is assistance with the production of the documentary Safe Motherhood.

The Division has sought to achieve greater community participation and intersectoral collaboration. The development and implementation of several community-based projects seek to empower individuals and communities to be active participants in their own health. Recently, in collaboration with the Pan American Health Organization and other agencies, it has developed two project proposals dealing with Healthy Municipalities and Health Promoting Schools. The Division has also carried out social mobilization activities to support programmes such as the Expanded Programme on Immunization, Filariasis elimination and vector control.

Adolescents- a special group

Adolescents have been identified as one of the target groups for health promotion activities. The Maternal and Child Health Division participated in a pilot project on Adolescent Sexual and Reproductive Health funded by the United Nations Fund for Population Activities. This project operated in four pilot sites and was aimed at adolescents aged 10-24 years. Activities included counseling, nutrition education and the provision of contraceptive services.

Another adolescent health project, which focused on substance abuse prevention and adoption of healthy lifestyles, was conducted among youth groups in 5 regions. In addition, steps were taken to establish an Adolescent Wellness Centre in Region 6. Volunteers were trained to conduct Life Skills education and other programmes, as well as to plan for and manage the Centre

Youth groups have been established at Pouderoyen, Supply, Tiger Bay, Riverstown, Aurora, and Belladrum. Exchange visits are made between groups, enabling the young people to establish links and share experiences

Healthy Communities

Six communities in 5 Regions were identified as the nucleus of the “healthy communities” network. The areas selected were:

- Region 1 - Matthews Ridge
- Region 2 - Riverstown/Supenaam
- Region 8 - Mahdia
- Region 9 - Annai
- Region 10 Coomacka, Rockstone

A series of activities have been conducted geared at familiarizing health staff and communities with the concept of health promotion and the part they can play in the health of their communities. The process to institutionalize Health Promotion began with a workshop attended by representatives from the pilot communities and health workers. Community profiles have been developed for the pilot communities including information on health knowledge and practices in an attempt to link health knowledge with behaviour.

Research

One activity which has strengthened the health promotion strategy is the conduct of research in social and behavioural issues. The results of these research activities have to some extent influenced the implementation of the relevant programmes. Some examples of these surveys are:

- The Global Youth Tobacco Survey conducted in Guyana in 2000 showed that 29.5% of the 11-15 year old students had ever smoked and that 14% of the never smokers were likely to initiate smoking in the following year.
- The Adolescent Health Survey was conducted among young persons attending school and provided information on their relationship within the family, their risk behaviours and their protective factors.
- The Physical Activity Survey was conducted among different population groups and addressed issues such as exercise habits and use of alcohol and tobacco.

The results of these studies are being used to plan relevant health interventions.

Disease Prevention

Disease prevention depends on the determination of the factors which lead to a health condition and then reducing or eradicating these factors. Several successful public health measures have led to reduction in disease burden e.g. improvements in water and sanitation and the provision of immunization services. The prevention and control of the chronic non-communicable diseases as they involve several inter-related factors including lifestyles and are far more complex to address.

In the Ministry of Health, there is a tradition of public health programmes run on a vertical basis and which are centrally administered. These vertical programmes include Maternal and Child Health/Expanded Programme on Immunization, Dental Health, Food Policy, Environmental Health, Tuberculosis and Filariasis, Sexually Transmitted Infections including HIV/AIDS, Hansen's diseases, Veterinary Public Health, Chronic Non-communicable diseases, and Vector Control.

While public health programmes are developed for the general population, some are targeted to "at-risk" groups such as pregnant women, infants and children, adolescents, and Amerindian communities. Amerindian and interior communities are targeted specifically for malaria control and prevention. The Maternal and Child Health programme targets pregnant women and children.

These programmes have several components in common.

Public education

Each of the vertical programs within the health sector has a health education/promotion component. It is up to each program manager to develop this component however there is no monitoring to ensure that this happens on a regular basis or that the programmes are effective. The Health Sciences Education Unit provides support to these programmes when necessary. Health education materials, which provide information on different diseases, signs and symptoms as well as how to prevent and control them, are developed and disseminated. The mass media are also important tools in information dissemination.

Training of health workers

Each programme has a training programme to expand the diagnostic and treatment skills of the health workers. Other skills are imparted which will improve interaction with the community.

Increasing community involvement

There is a growing realization that individuals and community must participate actively in their own health. Health workers are becoming more involved in empowering persons to deal with health issues. Education, sensitization and skills-building workshops are held for community members.

Surveillance

Surveillance is strongly linked to prevention and control activities. It can provide information on the health situation and determine the need for intervention. At its present stage of development, the surveillance system in Guyana is more capable of monitoring the communicable diseases. The surveillance system for the Expanded Programme on Immunization is probably the most effective in the country. The surveillance system for HIV/STIs/ AIDS has been reviewed and modified. In 2000, the infectious bacterial surveillance system (IBIS) was introduced at the Georgetown Hospital. This system highlights the role of the laboratory in surveillance and will improve diagnosis and surveillance of pathogens that cause meningitis and pneumonia. A Drug abuse surveillance system is being established. A strong surveillance system was necessary for detecting any possible cases of Foot and Mouth disease and was crucial for the attainment of the goal of the country being declared Foot and Mouth Disease free. Nutrition surveillance includes the monitoring of market prices for compilation of nutrient cost data.

The surveillance system extends to what is happening in neighbouring countries and to monitor border health. Support for strengthening the surveillance system is provided through agencies such as the Caribbean Epidemiology Centre and the Centers for Disease Control in the USA.

Screening

Screening for various disease conditions increases the ability to better target health interventions. One example is the Prevention of Mother to Child Transmission of HIV programme which requires pregnant women to be screened for HIV. Another is the screening for cervical cancer through the use of Papanicolaou smears. An identified need is for the screening programmes to be accessible to the entire target population.

Prevention and Control Strategies

Several strategies have been employed in the disease prevention and control programmes. Some of the priority diseases will be highlighted to provide an overview of the scope and variety of strategies being employed in the disease prevention and control programmes.

Guyana is involved in two major global initiatives- the Elimination of Filariasis and Roll Back Malaria. The Government of Guyana has adopted the recommendation of the WHO Global Strategy for Malaria Control and Initiative of Roll Back Malaria. While this is a national programme, the focus is on the interior locations where the most cases occur. Another focus is prevention of the reinfestation of the coastal areas. Strategies involve strengthening the management of the programme, community involvement, training of health

and community workers, public education, inter-sectoral collaboration, involvement of the mining community and inter-country cooperation.

The Ministry of Health is collaborating with donor agencies and PAHO/WHO to implement the plan to eliminate filariasis. In keeping with the WHO initiative to eliminate lymphatic filariasis as a public health problem, a national plan has been developed. The main strategies are public education, mass application of albendazole, distribution of chloroquinised salt and collaborating with salt manufacturers to make the treated salt available, community mapping and use of a more rapid diagnostic procedure for surveillance.

To combat the nutritional problems in the population, the Nutrition programme has focused on the following main components: nutrition surveillance, education, anaemia control and prevention and breastfeeding. The promotion of the Baby friendly Hospital Initiative should lead to increased levels of breastfeeding. Other important strategies are the promotion of the use of local foods to make nutritious meals and periodic assessments of the nutrition status of specific populations.

It is in the areas of HIV/AIDS that the most innovative strategies are most employed. The crisis of HIV/AIDS has created the need for new ways to reach the population to address this health problem. Greater attention is paid to the policy-making and planning. A National Policy on HIV/AIDS has been formulated. An implementation plan has been developed based on the strategic plan for the control and prevention of STI's/HIV/AIDS as well as national guidelines for the clinical management of STI's/HIV/AIDS.

A national policy for the prevention of mother to child transmission of HIV has been developed. This involves testing of the pregnant woman and giving her and her baby antiretrovirals if she is tested positive. The Voluntary Counseling and Testing Initiative is being implemented. Intensive work is also being done through the Commercial Sex Workers Project. Commercial Sex Workers have been trained and are functioning as peer educators. The epidemic has seen an increase in the number of non-governmental organizations operating in this area and the National AIDS Programme Secretariat has an important role in coordinating the response to HIV/AIDS.

The oral health programme has forged strong links with the private sector and has established school-based clinics to expand coverage. The Environmental Health programme has signed a Memorandum of Understanding with the Environmental Protection Agency to clarify roles and responsibilities and to avoid duplication.

The chronic diseases are also considered priorities in the disease prevention and control programmes. A national protocol for the management of diabetes and a nutrition plan of action have been developed. Research such as the Physical Activity Survey has been conducted to support these programmes. A cancer registry has been established which will provide information on the incidence and types of cancer affecting the Guyanese population and support the implementation of the cancer prevention and control programme.

Regulation

Regulation of the sector is accomplished mainly through the establishment of policies, the enforcement of standards and the use of health legislation, the most forceful option. Much of the health legislation is old and outdated.

The Public Health Act was enacted in 1953. This Act was passed to deal inter alia with the control and treatment of discrete diseases, the registration and licensing of health professionals, provision of sanitation services, the prevention of nuisances and vector control. The function of the Central Board of Health is to promote good public health practices under the Public Health Act. The duties of the Board are provided for under the legislation and its functions are mandatory. Public health related matters are monitored by public health officers (Environmental Health Officers) in the districts.

The Food and Drugs Act became law in 1971 and its supporting Regulations in 1977. This Act seeks to safeguard the health and wellbeing of consumers with respect to food, drugs, cosmetics and medical devices.

With the advent of the Health Sector Reform Programme, there has been a new impetus to having relevant legislation passed to support the reforms. The Georgetown Public Hospital Order Act was passed under the Public Corporations Act 1988. A policy paper for the establishment of Regional Health Authorities (RHA) was completed along with draft legislation. Draft legislation for the Allied Health Practitioners Act and Health Facilities Accreditation Act has been prepared. Amendments have been made to the Registration of Nursing Profession Act to increase the specialist categories. Legislation to amend the Medical Practitioner Act was approved by the Parliament in 2000. The amendments dealt with the membership of the Medical Council.

Guyana has passed legislation on Occupational Health and Safety. The legislation is arguably the most progressive in the Caribbean. The Act requires inter alia the establishment of Health and Safety committees in the workplace.

The impact of legislation and regulation over the years has been most obvious in the considerable extent to which infectious diseases have been brought under control, in raised nutritional standards, in safer working conditions and in broader pollution control. Much remain to be done however, since problem continue to be identified in relation to wastewater disposal, solid waste disposal and port sanitation.

There are policies in place to discourage unhealthy behaviours and promote healthy lifestyles. There is a ban on sale of cigarettes and alcohol to minors. Seat belt legislation has been passed to reduce the morbidity, disability and mortality due to motor vehicle accidents. Smoking is not allowed in all health institutions.

A number of agencies are involved in regulatory activities concerning food and there are overlapping areas of authority. The Government Analyst/Food and Drug Department of the Ministry of Health and Labour has responsibility to administer and enforce the Food and Drugs Act and supporting regulations. Activities include licensing and inspection of premises where food products are manufactured and/or sold; examination of labels and packaging, analytical examination of food to ensure adherence to safety and quality requirements. The Veterinary Public Health Department, Ministry of Health is responsible for the inspection and monitoring of premises where fresh and frozen red meat, poultry and seafood are processed or sold. The Guyana National Bureau of Standards, Ministry of Trade has responsibility for the development and promulgation of standards. The Ministry of Fisheries, Crops and Livestock provides regulatory oversight for animal and plant health issues including pests and disease control, use of agricultural chemicals and veterinary drugs. In addition, the six municipalities have various by-laws to monitor food processing and food service sectors in their respective areas.

Regulation also requires that standards are developed. The Division of Standards and Technical Services was added to the Ministry of Health in 1991. However, the Unit has never had the resources it requires to operate effectively and consequently only a few standards have been established to date. The lack of resources makes it difficult to monitor and enforce the current standards.”

The private hospitals are monitored through the Private Hospitals Act which provides for the establishment of inspection teams to monitor the private hospitals. Recently mechanisms have been instituted for the monitoring of the public hospitals. The Ministry also carries out its roles in supervision, monitoring and control through training of staff in both public and private sectors and through the development of guidelines and protocols. The various professional Councils have roles to play in monitoring the functioning of health professionals.

Successes

There have been successes in health promotion, disease prevention and regulation. The health promotion component of programmes is being strengthened. Training of staff and community members is taking place. Other areas are:

- Systematic evaluation of programmes such as the EPI
- Improvement in the distribution systems
- More research (including ethnographic research) to support activities
- Development and implementation of plans for the various priority disease prevention and control programmes
- Use of innovative strategies such as peer education, links with private sector, networking
- Development of protocols of care e.g. diabetes, Maternal and Child Health
- Expansion of services
- Mobilization of donor funds

Constraints

There are several constraints which affect the implementation of public health programmes. These are technological, organizational and institutional. Many of the existing public health programs suffer from a persistent shortage of skilled staff. Chronic staff shortages result in overworking of existing staff, and a focus on immediate, short-term projects. As a result, long-term monitoring and evaluation of program objectives, needs, and initiatives is often ignored. Because evaluation of programs is inconsistent, there is little information about the effectiveness of particular strategies/programs in reducing overall mortality and morbidity in the population.

Programmes are affected by inadequate provision of materials and supplies. Not all programmes maintain links with the private sector to ensure complementarity. Other constraints identified in the Annual Report of the Ministry of Health 2000 are:

- Outdated legislation
- No systematic coordination, monitoring, or evaluation of the activities being conducted by public or private agencies.
- Physical infrastructure often needs upgrading
- Procurement, inadequate laboratory supplies, lack of critical equipment
- Problems with logistics, transportation and communication
- Inadequate funds, late releases

- Inadequate supervision
- Inadequate surveillance
- Overlapping authority (especially in the area of food regulation.)

Recommendations

- Establish correct weighting between different elements of health care- prevention, promotion, care and rehabilitation. If health promotion is the stated priority, the resources to make it a reality must be allocated.
- Greater attention must be paid to prevention and control of the non-communicable diseases without ignoring the communicable diseases.
- Conduct research e.g. cost-benefit studies, that will allow for application of interventions that are evidence-based.
- Strengthen the regulatory framework including staffing the Directorate of Technical Standards and Services and ensure that there are enough resources for a more comprehensive approach to the development and enforcement of standards.
- Improve inter-agency coordination and cooperation.
- Liaise more closely with NGOs and the private sector to ensure complementarity.
- Improve skills for the management of the vertical programmes including strengthening managerial skills of policy makers and skills for implementation for staff at regional and local levels.
- Further incorporate health promotion strategies into health programmes.
- Access skills in the behavioural sciences to address societal and lifestyle issues which impact on health.
- Strengthen the surveillance systems to include that of the chronic non-communicable diseases and their risk factors.

CHAPTER 4

POLITICAL, INSTITUTIONAL AND ORGANIZATIONAL ANALYSIS

The right to health is guaranteed in the Constitution of Guyana which states that “Every citizen has the right to free medical attention and also to social care in case of old age and disability.”⁴⁸ The definition of health used is consistent with that of the World Health Organization- a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.

The importance of health to development is recognized and this is evidenced by actions for improving health being included in the country’s development plans. Both the National Development Strategy and the Poverty Reduction Strategy, two recent policy documents, have highlighted the contribution that health can make to poverty reduction and national development.

Major Actors in Health

The law does not define the health sector but it is generally considered as those agencies and groups whose primary intent is to maintain or improve health. The major players can be found in the private and public sector and in non-governmental organizations. Please see Table 4.1.

The Ministry of Health

The Ministry of Health is the leading agency in the health sector. It is headed by a Minister of Health who has overall responsibility for sectoral management and regulation. The Minister is assisted by a Permanent Secretary who has responsibility for management, administration and policy analysis and a Chief Medical Officer who oversees all technical functions pertaining to the health sector.

The Ministry of Health is responsible for:

- supervision, evaluation and control of health services delivery by the various public and private subsectors.
- formulating health policy and legislation
- establishing and enforcement of standards
- accreditation of all facilities

⁴⁸ Constitution of Guyana

- identification of the human resource needs of the sector.
- training, development and placement of health manpower except for the GPHC
- procurement and distribution of pharmaceuticals and medical supplies in all regions.
- funding and managing the vertical health programmes
- monitoring and evaluation of the sector and its various activities/programmes
- promotion of healthy lifestyles

Other governmental agencies

In 1986, the responsibility for the delivery of health services was devolved from the Ministry of Health to the Regional Democratic Councils who receive funding through the Ministry of Local Government. The Ministry of Health retained responsibility for the vertical health programmes in the entire country.

The human and technological resources of the health departments of the Regional Democratic Councils are for the most part provided by the Ministry of Health. “Each region is provided with funds for its capital works and recurrent expenditure from public revenues. Regional Administrators are accountable to the Ministry of Finance for the use of those funds.....Administratively, regional organs report to the Ministry of Regional Development.”⁴⁹

The technical head of the services at regional level is the Regional Health Officer whose role is to ensure the linkages among the various levels. The RHO reports to the Director, Regional Health Services on all technical and professional issues pertaining to health.

Health care is provided by some parastatal organizations. The main company is GUYSUCO which maintains clinics and diagnostic services for its staff and their dependents. A focus is also placed on Primary Health Care including health education.

The Private and NGO Sectors

The private sector and private companies own 10 hospitals as well as diagnostic facilities, clinics and dispensaries. The private health services have been expanding rapidly and provide about half of all curative services. Most of these services are provided in the capital city and other urban centres. The principal sources of financing in the private sector are through fees from individual patients.

⁴⁹ Report on Health Sector Reform Initiatives in Guyana, Ministry of Health Georgetown Guyana, September 1995

Several non-governmental organizations including religious organizations provide services on a not for profit basis.

Table 4.1 Institutions and Their Role in Regulation, Financing and Service Delivery

Functions/Institutions	Regulation	Financing	Health insurance	Service Delivery	Assessment
Central Government:					
1. Health Ministry	There are several Health legislation	Gov., Small Revenue, and Donors	(NIS) - Social Security Scheme Health benefits	NBTS, Public Health, Pharmaceutical	Quarterly Review to MoF & RHO half-yearly meetings
2. GPHC	Several Health legislation	Gov., & Small Revenue	Same	Poly-Clinic, inpatient/outpatient	Quarterly Review to MoF
3. Finance Ministry		Poverty Alleviation Programme & BNTF	Same		Quarterly Review to MoF
4. Education Ministry	Now including health & family life in its school's curriculum	Gov. & donors	Same	School's curriculum (teacher)	Quarterly Review to MoF
5. Human Services & Social Security		SIMAP	Same	distribution of food vouchers and a small portion of medical care is done (there are more of a social aspect)	Quarterly Review to MoF
6. Regional Democratic Council	Several pieces of Health legislation	Gov. & Donors	Same	Hospitals, health centres and outpost	Quarterly Review to MoF
Parastatal:					
Guysuco	Falls under the Corporation's Act	Gov. and Sale of produce/goods (profit)	Employers & employees contributions to corporate medical schemes	dispensaries services for workers and family	
Guyana Stores Ltd.	same as above	Gov. and Sale of produce/goods (profit)	Employers & employees contributions to corporate medical schemes		
National Insurance Scheme	Limited regulation and gov. supervision	Employers & Employees contributions (18% of the population active contributors)	Reimburses beneficiaries for personal health cost incurred, (health care benefits).	old age pension, sickness, maternity and medical care sickness and injury	limited capacity of verifying compliance (employers and private individuals)
Mayor & Councilors of the City	limited supervision	Taxation			
Private Insurers					
1. For-profit		Collection of individual & group premiums	medical care benefits	credit facilities	
2. Non-profit					

The regulatory bodies for professionals in the public and private systems include the Guyana Nursing Council, the Guyana Medical Council, the Guyana Dental Council and the Pharmacy and Poisons Board. They address issues of registration and licensing of health professionals.

The role of the trade unions in health is to secure favourable terms and conditions of service for their members through the collective bargaining process. Citizens groups and interest groups function as advocates for quality of care and for the introduction or improvement of services. The University of Guyana is involved in the training at the tertiary level of various cadres of health professionals.

The Ministry of Finance releases funds to the sector based on an approved annual budget exercise. That Ministry has control over the public financing of the sector. The Permanent Secretary in the Ministry of Health is the Accounting Officer. He has responsibility for the use of the funds in his Ministry.

There is no National Council for Health. A Cabinet Subcommittee reviews developments in the health sector. More recently, as part of the implementation of the Poverty Reduction Strategy Paper (PRSP), a Theme Group on Health has been established and its membership includes representatives from the diplomatic corps.

There is no formal relationship among the various actors in the private sector, nor between the public and private sectors. However, intersectoral activities and programmes are promoted. The private and public institutions that deliver health services are often part of the planning and implementation of the inter-sectoral programmes and activities.

International Organizations

The donor and technical cooperation agencies are also important actors in health. They are involved in several projects. For example, the Inter-American Development Bank has financed the project “Health Sector Policy and Institutional Development” and is also finalizing a Nutrition project. Several agencies are involved in HIV/AIDS projects. Technical Cooperation agencies involved in the health sector include the Pan American Health Organization, the United Nations Children’s Fund and United Nations Fund for Population Activities.

Insurance

There is no comprehensive social security system in Guyana. The National Insurance Scheme (NIS) operates a social insurance programme for employees of the public and private sectors. Participation in the Scheme is mandatory for employed person between the age of 16 and 60, including the self-employed. The Scheme does not cover dependants neither persons outside the formal sector. There is no known provision for the uninsured populace.

The Scheme provides benefits for sickness (not employment related), maternity, medical care and job-related injury. The long-term benefits include funeral, survivor, old age pensions and permanent disability (70% of all benefits). Industrial benefits cover injury, disablement and death (4% of all benefits). Medical coverage is provided for consultations, hospitalization, overseas treatment, spectacles, dental care, surgery and the purchase of drugs. The coverage given by NIS is low. In 1998 there were 139,785 active contributors (approximately 18% of the population) while in 1997 there were 136,773. Here the assumption has been made using a labour force participation of 49.1% (only 37% of the participatory work force is insured under NIS).⁵⁰ In 2000, "Employed Persons registered totalled 550,922. The number of Active Registrants was approximately 121,423."⁵¹ The NIS operates through other care providers. Persons pay for their medical care and are reimbursed upon presentation of their claim.

In the private sector, the health insurance provided is minimal and there are basically three types: commercial health insurance, firms that directly hire medical care providers and/or construct medical facilities to provide health care services to their workers and firms that pay for health care services provided by private sector providers to their workforce. Reimbursements are provided based on claims from the insured person. The health authorities do not have reliable and timely information on the levels of coverage and modalities of the various health insurance schemes. No data are available neither on the percentage of the population covered by the different insurance models nor on coverage by age and sex.⁵²

There is no proper regulatory mechanism in existence for private insurance companies. There is an Insurance Association of Guyana which is a self-regulatory body and not a statutory body. It operates with limited powers, more so on the basis of a "gentleman's agreement."⁵³ There are no public mechanisms to regulate the different modalities of private health insurance.

⁵⁰ *Health Financing in Guyana*, Colombo

⁵¹ National Insurance Scheme, Annual Report 1999

⁵² Health Systems Profile, Guyana Sept 2001

⁵³ Private Health Insurance in Guyana, Holman, 2001

There is interlocking coverage. Persons who have private insurance may also be covered by the NIS. The public and private institutions provide both health and medical benefits. For the public institutions benefits are for only the employed person. The private institutions have coverage for individuals and their families and group. There is no direct form of public financing of private health insurance. There is indirect subsidization when persons who are privately insured make use of public facilities and the private insurers are not billed. No tax breaks are given to individuals when they purchase health insurance policies.

The health authorities have, on a limited basis, systems that provide reliable or timely information on the status of health, financing, insurance and delivery of services. The available data are used for decision-making. For example they are used in human resource allocation and training.

Institutional Analysis

Legislation

The Ministry of Health has been engaged in a number of studies in relation to the identification of the need for legislation and the subsequent drafting and passage of health-related laws. Coming out from the IDB/GOG Health Sector Policy and Institutional Development Project is a Report on the Legal Framework for Health Sector Reform. The basic objective involved a review of the existing and proposed legislation and the development of a legislative strategy to enable the Ministry of Health to assume its prescribed roles such as policy making, regulation, advocacy etc in the health sector.

The process when drafting health-related laws is that there is a period of consultation and discussions involving the various stakeholders. Thereafter, the policy document/draft is sent to the Attorney General's Chambers for legal drafting. In the final passage of legal documents, the Minister of Health present the legislation to Cabinet for approval and then to the Parliament for passage into law. Usually the regulations and rules are prepared after the legislation is passed. However, at times the legislation, the regulations and rules are enacted into law simultaneously.

Financing

There are up-to-date studies on financing of the sector. The latest studies have been conducted by Health Economists attached to the Ministry of Health assisted by the staff of the Health Planning Unit.

"Health Financing in Guyana- Issues and Policies" describes the sources and uses of funds. Other studies are "Calculating Expenditure by Level of Care in the Guyanese Health Sector" which is an estimate of spending on primary, secondary and tertiary health care and "The Private Health Insurance Industry in Guyana." Also at present work is being done within the Planning Unit of the Ministry of Health on the National Health Accounts. These accounts focus on HIV/AIDS/STIs, Malaria and Maternal and Child Health.

The information gathered in these reports is quite accurate. They have not been formally published but have been used in the decision making process within the Ministry of Health and the wider sector.

Health care costs and financing have been a major concern of the government as it embarks on the Health Sector Reform programme. Guyana has been included in the HIPC Initiative. One of the major concerns is the funding for the various levels of care. The focus of the HIPC initiative is on primary health care. The agreement states that the national budgetary allocation for health must increase to 4.5% of GDP by 2002 and that 80% of the increase in funds must be spent on primary health care. It also stipulates the percentage of the funds that should be spent in specific areas such as drugs and maintenance.

In Guyana, the main source of health sector financing is Government taxation. Funds are directed to the health sector through the Ministry of Health, Regions, other Ministries and agencies. The public health sector generates only insignificant revenues. Revenue generation from user fees and sale of services for 1999 was budgeted at only 0.16% of the government health budget. Reliable information is not available on the distribution of private health expenditure. Secondary sources of this type of information are not readily available.

The country receives significant technical cooperation for the health sector. In 1999, donors accounted for 5.22% of government health spending compared with 12.60% in 1997 and 7.34 in 1999.¹ All the funds are from grants. The principal sources of external financing in 1999 and 2000 were other UN agencies, Inter American Development Bank, United Nations Development Programme, USAID, EU, CIDA and Basic Needs Trust Fund (BNTF) and German Technical Cooperation. Other sources of funds are the technical cooperation agencies such as PAHO/WHO and UNICEF.

The aggregate data on health expenditure are available and reliable. Disaggregated data for health services are not so readily available. One facet of the Public Sector Reform has been the move from line item

budgeting to programme budgeting in the Ministry of Health as a pilot ministry from the fiscal years 1997/1998. This has facilitated the costing of health programmes and has given managers more control over the resources for their programmes.

Organizational Analysis

The Ministry of Health is part of the traditional public service and is therefore guided by the laws, rules and regulations which govern the entire public service. Other agencies/bodies which are enshrined in the Constitution have responsibility for some aspects of the Ministry's functioning

Current Organizational Model

The organization chart of the present Ministry is seen in Appendix III. The structure of the Ministry is hierarchical. The Ministry of Health carries out service delivery functions as well as policy formulation, standard setting, monitoring and evaluation.

At the regional level, the technical head of the services at regional level is the Regional Health Officer (RHO). The RHO reports to the Director, Regional Health Services on all technical and professional issues pertaining to health. The RHO also reports to the Regional Executive Officer, the chief administrative officer of the Regional Democratic Council. "However the RHO has no real administrative control over regional health resources. This control rests with the RDC through the Regional Executive Officer. Therefore the possibility exists that budgetary resources for health may be diverted to alternative regional priorities."⁵⁶

The system has been fraught with difficulties. Some of the deficiencies have been outlined in the draft Ministry of Health Plan 1995-2000.

- The Ministry of Health has no authority to implement policies or to set the budgets of the regional administrations
- Regionalization has been incomplete, and as a result, the division of functions between the MOH and the regional administration does not create a coherent decentralized system.
- The geographical and population size of the regions varies tremendously.
- The same agencies are both providers and purchasers of health care services.
- Planning is the responsibility of the regional officers who have only limited expertise in the health sector generally and in planning specifically
- Lines of authority and responsibility are not clearly defined and do not extend systematically from the central MOH to the field.
- Vertical programmes, while operating in the regions, are accountable to the central MOH and not the regional administration. Thus, the responsibility for primary health care programmes is split between groups.
- Attitudes to work and motivations are weak. Decision makers at various levels are not given autonomy and responsibility over management.

The report of RMC Consultants who were involved in the IDB project adds:

- Managerial strength is limited
- Functional areas operate as independent entities.
- Sharing and distribution of management and policy information up, down and laterally within the MOH does not occur.
- There is limited capability to provide policy/directional leadership.
- The corporate culture does not motivate the workforce or encourage contribution.

Planning

Health Plans have been formulated to address health priorities. The Plan for the period 1995-2000 was drafted following consultations in the Regions and with other relevant groups. This plan was never finalized. The Plan for the period 2002-2006 is being drafted. The overall goals are: ensure that increasingly Guyanese enjoy a better quality of life and minimize the incidence of illnesses and disabilities

Health Sector Reform

In September 1998, the Cabinet of the Government of Guyana approved a submission by the Minister of Health for the reform of the health sector. The goal of the reform is to improve the health and quality of life of all citizens of Guyana.

Objectives of the Reform

- To parallel the reform programme of the civil service in which the health sector currently functions and so enable a smooth transition of legal/administrative authority and minimize relocation/procedural constraints.
- To re-structure and re-organize the Ministry of Health (Central Office) from having responsibility of service delivery functions to a sectoral steering/leadership role with responsibility for policy, planning, legislative/regulatory functions, coordination, budgeting, research, monitoring and evaluation.
- To further decentralize the health services through the establishment of legal boards referred to as Regional Health Authorities/Councils.
- To establish legal/autonomous boards to manage the Georgetown Hospital, other major regional hospitals and certain departmental units such as the Procurement Unit.
- To broaden health financing/cost sharing options through the introduction of selective user fee charges in health facilities and revise current fees/charges to economic/cost recover levels.
- To establish collaborative mechanisms/links with the private sector and the non-governmental organization so as to ensure a complementary role for the private and non-governmental health care providers.
- To establish evaluative mechanisms/measures at the inception of the health sector reform programme

so as to enable the Ministry/Government to determine the effects/impacts of new policies with a view to making policy and strategy adjustments during the implementation phase.

The emerging model is that of decentralization to semi-autonomous bodies, with the Ministry of Health relinquishing its role in service delivery.

Guiding principles of reform

- Equity
- Effectiveness and quality
- Efficiency
- Sustainable financing
- Inter-sector collaboration and community participation

A summary of components of the Health Sector Reform is provided in Table 1.

Summary of the Health Sector Reform Components

Component	Comments
Ministry of Health Restructuring (includes formulation of regulations, quality and standards).	Ministry to be transformed to reflect its focus on policy creation, monitoring, evaluation and regulation. The functions of direct provision of health care are devolved to decentralized bodies
Autonomous Hospital Boards	The operational responsibility for managing the Georgetown Public Hospital will be devolved from the Ministry of Health to a statutory board. GPH will function as an autonomous public institution. Other hospitals will also be considered for devolution to boards or management committees
Regional Health Authorities	The delivery of primary and secondary health care that is now the responsibility of the ten RDCs will be restructured into four regional health authorities
Materials Management Agency	Originally conceived as a procurement agency, the Government's intention is to centralize procurement, distribution, warehousing etc in order to maintain accountability and to benefit from volume purchasing
Sustainable Financing (alternative financing)	Resources are finite. Sustainable financing for the health sector relies on the development of financing and resource allocation mechanisms adequate to meet the health needs the government chooses to satisfy. New financing modalities will be explored to increase revenue generation and efficiency while improving (or at least not reducing) equity
Legislative Reform	The health sector now functions in a new environment. The modernization of the state cannot proceed efficiently without addressing the legal framework within which the changes will occur.
Development of Basic Health Package for the Public Sector	The public needs and demand for health care are constantly increasing and continue to exceed Government's capacity to meet them. Even in countries where governments are able to provide good health care services, the question of sustaining the services is relevant. This has caused many governments to begin discussion about a guaranteed portfolio of health services to people to be financed through public sources.

Component	Comments
Quality Assurance and Quality Control Programme- adopting CQI and TQM	Services provided must be of adequate quality. Good quality services also lower the cost of services in the long term.
Specific Health Care Programmes e.g. National Cancer Care, HIV/AIDS/Mental Health etc	While the Ministry of Health must seek to coordinate and integrate the health services, government feels that certain programmes can be operated efficiently if placed under a semi-autonomous administration reporting to the Ministry of health. In this sense, the MOH will examine the possibility of delegating functions for certain programmes such as STIs/HIV/AIDS and Cancer to statutory agencies
Primary Health Care- including Community Health Care	The most effective long-term investment in health has proven to be in primary health care. Government intends to increase the proportion of the health budget spent on primary and preventive services
Capacity Building- Human Resources and Institutional	The ambitious health programme proposed by the Guyana Government is not possible unless there is a concerted effort to build the capacity within the health sector. Capacity building within the human resources and institutional development is a prerogative.
Health Information Systems	Guyana lacks an adequate HIS. A modern Health Information and Management System is required to develop rational health policies in a decentralized health sector.
Referral System	The referral system designed for the public health sector is not functioning properly. Adequate systems and incentives to ensure that the referral system is effective need to be developed.
Communication/ Consultation Programme	The Ministry of Health considers participation through consultation, involvement of all key stakeholders and communication a central component to the success of any reform effort, aimed at building partnership and consensus around the HSR programme

Source: Health Sector Reform for Guyana, 1999-2004, Ministry of Health

Health Sector Reform Process

Since 1998, implementation of the HSRP has been taking place. The Georgetown Public Hospital Corporation has been established as a legal entity. The Hospital is now under the management of its own Board. The legislative agenda is being implemented. The Regional Health Authorities are being introduced on a phased basis.

Present Status of Health Sector Reform Activities

1. The Georgetown Public Hospital Corporation has been instituted.
2. Suddie, New Amsterdam and the Linden Hospital are now under management committees.
3. The transition of the Ministry of Health from its present centralized management role has begun.
4. Procurement, a centralized function of the Ministry of Health, is being transferred to a procurement agency. A Board has been established
5. Programme budgeting has replace the previous line budgeting system
6. An IDB Technical Cooperation project on Health Sector Policy and Institutional Development is being carried out.
7. Introduction of user fees has been initiated at the Georgetown Public Hospital. Cost recovery mechanisms have also been selectively implemented for well-defined public health services.
8. Region 6 Interim Health Management Committee has been established.
9. The Cancer Board has been established.
10. A polyclinic has been constructed in Enmore.
11. A Draft Services Agreement has been formulated between the Ministry of Health and the Georgetown Public Hospital Corporation

Legal Framework

The Georgetown Hospital was made a semi-autonomous agency by means of the existing Public Corporations Act. The policy paper for the establishment of Regional Health Authorities has been completed as well as draft legislation. Consultation for possible revision or implementation is in progress. Draft legislation has also been completed for the establishment of the materials management Agency, the Health Facilities Accreditation Act and the Allied Health Practitioner Act. Legislation to amend the Medical Practitioners Act has been approved by Parliament. One of the measures is to include lay persons on the Board of the Medical Council. It is also proposed to revise and up-date the existing public health legislation and regulations, which are outdated. No constitutional amendments are needed at this time for the implementation of the reforms. Equity has not been defined in the legal norms governing health. The legal changes will not specifically favour an intersectoral approach.

A guaranteed plan or basic package of benefits has not been introduced but the reform proposals supports the development of a basic health care package.

Steering Role and the Separation of Functions:

Steps are being taken to enable the Ministry of Health to carry out its steering role in the health sector. Proposals have been made for a change in the organizational structure of the Ministry. To date an assessment

of the staffing required has been conducted and preliminary studies to determine how the present staff can be utilised in the proposed new structure have been done. No new public institutions have been created to be responsible for financing or insurance. A policy committee has been established to advise on policy issues. Work has begun on the development of information systems that will guide the establishment of priorities and support the decision-making and resource allocation processes. The United Nations Development Programme has provided assistance in this area. The IDB consultancy will also support the strengthening of the information system.

Social participation is an objective of the proposed sectoral reform. Very few mechanisms have been developed as yet to facilitate social participation. The proposed changes to the professional councils will result in public participation at the level of the Boards.

Financing and Expenditure

Some preparatory work has been carried out on the information systems on financing and expenditure. Programme budgeting, which focuses on the expenditure side, has been introduced into the sector. The IDB project will also support this aspect of the reform. Some of the financing reform objectives are: (1) financial sustainability for the public health system through the development of adequate financing mechanisms; (2) established social assessment systems for exemptions, and or subsidizing the medically indigent; and (3) increased emphasis of resource allocation on primary health care, health promotion and illness prevention. There are proposals to modify the composition of the financial regulations and financing. More funds will be injected into the sector through the HIPC Initiative. More money will be allocated to personnel costs to upgrade the salaries of workers in the public sector so that they can approach the salary levels in the private sector. Through the Poverty Reduction Strategy,² programmes and actions have been developed to identify and target vulnerable groups.

Management Model

Changes are being introduced in the management model for public health facilities. The proposals are to have the Regional Health Authorities be responsible for service delivery. There is the intent to work closely with the private sector in the provision of health care. It is envisaged that the State may need to procure some services from the private sector and vice versa. No management contracts have been introduced between the different levels of the public health care system. It is proposed that the Ministry of Health will enter into Health Services Agreements with the Regional Health Administrations for the supply of services. These

Agreements will also contain specific targets for improvements in the health status of the catchment population of the Region. There is no stated intention to hand over public health facilities to private management.

The Ministry of Health has led the design of the reform. Different groups such as the trade unions, the regional authorities and the professional associations have participated in the consultation process. They participated soon after the proposed changes were enunciated. A preliminary plan of action was developed. The Inter American Development Bank, through the project “Health Sector Policy and Institutional Development Programme” is funding the studies, field-testing and implementation of the sectoral reform activities. The reform is underway but the process has been slower than anticipated. A review of the staffing of the Ministry of Health was completed and recommendations made that would allow the Ministry to carry out its steering role. The main public institution, the Georgetown Public Hospital is now a semi-autonomous agency. With the assistance of PAHO, a communication plan was developed. Some public information activities have been carried out, especially in the regions where it is expected that the pilot implementation will be done. Steps have also been taken to inform and involve the health professionals. No evaluation has been done of the development and/or impact of the reform process.

Issues

Some of the issues the Health Sector Reform must address are:

1. Whether the reform programme has adequately addressed the public health aspect- the essential public health functions?
2. Are the mechanisms in place for providing direction to the semi-autonomous bodies and for monitoring and evaluating the performance of the Ministry of Health and the decentralized agencies?
3. Are systems in place for monitoring and evaluation of the entire Health Sector Reform process?
4. Are there adequate human resources with the right skills to implement the reform programme at the central and decentralized levels?
5. Are there adequate resources for implementation and enforcement of the legislative agenda?
6. Have there been any linkages with the other partners in the sector to ensure complementarity and prevent duplication?
7. Has there been training of staff to enable them to function in a reformed health sector?
8. Have the roles and responsibilities of the Ministry of Health and the decentralized agencies been clarified?

CHAPTER 5

HUMAN RESOURCES

“Human resources are the critical factor in the health sector for at least three reasons: first and foremost, because the work of the sector is done for people by people; second, because of their high level of training; and third, because they account for more than 50% of all health spending and comprise between 3% and 8% of the economically active population.”⁵⁷ Yet, in many countries, human resource issues have been largely ignored in the health reform agenda. In Guyana, there is a multiplicity of human resource issues that need to be addressed to bring about improvement in health.

The National Development Strategy indicates that “ the personnel in the system include 336 doctors (190 within the public sector, 1597 registered nurses, 127 Medex officers, 133 community health workers, 80 pharmacists, 24 environmental health officers and 27 dentists.”⁵⁸

Over the years, there have been shortages of many categories of staff which is more acute in remote areas. The lack of an adequately designed reward system for health care workers serving the interior mostly account for the inability to attract personnel to these areas. Hinterland conditions are poor, infrastructure; educational facilities for families are inadequate, and the cost of living is generally higher than in Georgetown;

The shortage of physicians is not necessarily a shortage in numbers. Rather, the problem is one of poor distribution since most physicians prefer to practice in the capital and surrounding areas. Almost 70% of the doctors are located in Georgetown, where one quarter of the population lives. However, there is a definite shortage of specialist physicians. Nursing shortages include both a dearth in absolute numbers and a lack of specialists such as anaesthetic, psychiatric, and paediatric nurses. Shortages in health-related fields such as medical technologists, pharmacists, and radiographers are most critical.

In addition to insufficient health care professionals, there is also a lack of qualified and experience professional in health care accounting and financial management and other areas which are becoming increasingly important for the efficient management of the health services.

⁵⁷ Methodological Guidelines for Conducting a Sector Analysis in Health, PAHO/WHO 1997

⁵⁸ National Development Strategy, Government of Guyana, 1999

The unavailability of qualified personnel is one of the major weaknesses of the public health system. There is heavy reliance on overseas personnel in some disciplines. For example, more than 90% of the specialist medical staff in the public sector are expatriates. In the public health sector, staff vacancy rates are in the range of 25-50% in most categories. In rural areas and in some specialisations such as pharmacy, laboratory technology, radiography and environmental health, the vacancy rates are at higher levels.⁵⁹

There is no functioning database in place at the centre Ministry or at the regional levels to effectively capture the attrition rate of health staff due to emigration or whatever reasons. Such data are not routinely compiled and hence are not available in reports for planning and decision making purposes in human resources management matters. However there is no doubt that the high level of migration from Guyana is having a negative impact on the quantity and quality of staff available in the health sector. Factors which contribute to out-migration are the lack of attractive remuneration and working conditions. CARICOM free movement of skilled professionals may result in even more migration.

The major factors contributing to the health sector's inability to attract, recruit and retain staff within the public health system are as follows: low incentives (salaries and employment benefits), unappealing working conditions, the lack of career development systems; limited opportunities of in-service training, a general shortage of adequately trained teaching staff and teaching-related materials and the absence of a comprehensive human resources development and management plan.

Several strategies have been implemented to address the shortages of health personnel. New cadres of health workers have been introduced into the system including the dentex, rural midwives, rehabilitation assistants, community dental therapists and environmental health assistants. However there is a high attrition rate as salaries in the public health sector are low.

In addition, there is support from the NGO sector – both local and foreign- who provide skilled professionals to assist. Other countries also have arrangements with the Government of Guyana to provide health professionals.

The ratio of physicians to population has shown some improvement in the years 1993-1996, but has fluctuated for the period 1997-1999. The ratio in the more remote Regions is low. The ratio of dentists has

⁵⁹ National Development Strategy, Government of Guyana, 2000

remained constant. The ratio of pharmacists per 10,000 population has shown a decline in the period 1998-1999. In the immediate future, it is expected that the ratios will show very little improvement.

Hiring and Compensation

Most workers in the public health sector are salaried. “Salaries in the public health care sector are still well below those that are offered in the private sector. Moreover, perhaps as a result, absenteeism of medical personnel is a major concern.”⁶⁰ In private sector, based on fees from patients or reimbursement from health insurance.

The human resources policies and procedures, inclusive of the recruitment and compensation modalities, discipline and industrial relations practices occur within the context and prescribed parameters and guidelines of the existing Public Service Regulations and rules as revised from time to time via circulars.

A public service wide job evaluation methodology is utilised to determine the salary gradation positions/offices, the salary scales and the rate of pay. All health personnel employed in the public sector are paid personnel emoluments from the public treasury. Promotion is based on seniority rather than merit.

Economic incentives for health personnel in the public sector are absent. Poor remuneration/compensation and poor working conditions, which contributes to poor staff retention. Through the HIPC Initiative, more money has been allocated to personnel costs to upgrade the salaries of workers in the public sector so that they can approach the salary levels in the private sector. Data is not available on the volume of resources that have been consumed in the past years in each major public health service facility for training health workers. With HSR, Boards able to determine, within certain limits, terms and conditions of service

The ratio of specialists to general practitioners at the national referral hospital is 2.1:1. During the period 1994 to 1999, general practitioners received higher salaries than the medical specialists in the public health sector. Since the Georgetown Public Hospital became a corporation, there has been a reversal of that trend. Since 2000, specialists have been receiving higher salaries than the general medical practitioners. Remuneration of general practitioners vs. that of specialists and compared with other professionals. There is no periodic measurement of the productivity of health personnel in the main public institutions.

⁶⁰ National Development Strategy, Government of Guyana, 1999

Training

There is no specific entity in the Ministry of Health that has overall responsibility for human resource planning and development. At present both the Planning Division and the Health Sciences Education Division share this role. The approach is uncoordinated and decisions about training are sometimes made in an ad-hoc manner, primarily due to the absence of a human resources development plan.

The shortage of personnel in certain positions could be addressed through training. However the shortage also extends to the trainers and suitably trained, competent educators and trainers are in short supply. This is in part due to low compensation.

In order to determine the role of the public and private sectors in the training of health personnel, it is important to know who delivers health and health related training, types of training programmes, financing and duration of the programmes of study and the means and procedures for the training of health specialists. The Ministry of Health Liliendaal Annexe and the University of Guyana undertake almost all health-related training. Some training programmes are conducted by the private sector. No accreditation procedures are mandated for the institutions that train health professionals.

The training programmes are financed by the Ministry of Health and trainees enter into a contractual agreement to serve the government for periods ranging from three to five years upon successful completion of the training. A subsidised cost sharing arrangement is in place for the payment of tuition fees by students to the University.

The Ministry of Health determines within a policy and health needs context, the need for the establishment of new training programmes for the training institutions under its aegis. With respect to the University of Guyana, there is a degree of autonomy with respect to the establishment of new training programmes. However, with respect to the establishment of new health training programmes, there is collaboration and agreement between the University and the Ministry.

All curricula (new or revised) for the Ministry's training programmes are approved by the Ministry before the programme is commenced. In the instance of the nursing and allied nurse training programme, the curricula are approved by the General Nursing Council, a statutory body.

One innovative approach to the delivery of health care from the training perspective is the training of other para-medical categories to fill a service need in the wake of critical shortages of the other conventional categories of health personnel such as Environmental Health Officer, Radiographer, and Pharmacist.

One issue which has implications for training is the length of time that it takes for some persons to achieve their goals. Some persons move from one cadre to another and so on. For example, a community health worker may seek training as a Nursing assistant and then as a nurse.

Box Health Training Institutions and Programmes

Georgetown School of Nursing.

- Professional Nurse Training Programme ---- 36 months, full time.
- Nursing Assistant Programme ----- 24 months, full time.
- Single trained Midwifery Programme ----- 18 months, full time.
- Nurse Aides training programme --- 12 months.
- Post basic Midwifery Programme -- 12 months, full time.

New Amsterdam School of Nursing.

- Professional Nurse training --- 36 months.
- Nursing Assistant programme -- 24 months, full time..
- Post basic Midwifery programme –12 months, full time.

Charles Roza School of Nursing.

- Professional Nurse Training Programme – 36 months, full time.
- Nursing Assistant Training Programme – 24 months, full time.
- Post basic Midwifery Programme – 12 months, full time.

Private Sector Nurse Training School. – St. Joseph’s Mercy Hospital.

- Professional Nurse Training Programme – 36 months, full time.

Other Clinical Training Programmes financed by the Ministry of Health.

- Community Health Worker --- 4 months, residential.
- Multi – purpose Technician -- 18 months, full time
- Pharmacy Assistant – 9 months.
- Environmental Health Assistant – 12 months.
- Dentex --- 24 months.
- Community Dental Therapist – 12 months.
- Rehabilitation Assistant – 18 months.
- Laboratory Assistant – 9 months.
- Medex --- 18 months full time. Accredited by the University of Guyana.
- X – Ray Technician – 12 months, full time.
- Public Health Nurse / Health Visitor --- 12 months. Accredited by the University of Guyana.
- Nurse Anaesthetist – 24 months, full time.

University of Guyana

- Medicine- MBBS Degree- 5 years
- Pharmacy- Associate in Science degree- 3 years
- Medical Technology - Associate in Science Degree- 3 years
- Radiography- associate in Science Degree- 3 years
- Health Services Managers (certificate)- 1 year
- Health Sciences Tutors (Certificate) 1 year
- Nursing/Public Health- Bachelor of science Degree- 2 years

University of Guyana --- Faculty of Health Sciences Training Programmes.

- Medicine – MBBS Degree --- 5 years.
- Pharmacy – Associate in Science Degree – 3 years.
- Medical Technology – Associate in Science Degree – 3 years.
- Radiography – Associate in Science Degree – 3 years.

Medical Doctors

There are just over 300 doctors practicing in Guyana. The major problems appear to be: the low numbers of Guyanese doctors with specialist training in the public sector, difficulties in recruitment to appropriate postings and retention within those posts in the country. In addition to the migration factor, another contributing factor is that there is no organized structure for post-qualification or post-registration training and therefore no capacity for the development of relevant higher specialties within country. The achievement of the primary medical degree plus experience as an intern is the end of structured programmes of learning for doctors in Guyana. As such, eligible persons for advanced training apply through the Ministry of Health to the Public Service Ministry for Government of Guyana training awards funded through bilateral arrangements with other countries and donor/technical assistance agencies.

The Guyana Medical Council (GMC) permits inclusion on the Register, without prejudice, of recognized specialist qualifications, e.g. those from Caricom countries, US and Canadian Board Certification, Royal College memberships from UK, higher qualifications from India and level 1 and above specialist qualifications from Cuba.

The Medical Council recognizes 29 specialists practicing in Guyana. This does not include those institutionally registered (from Cuba, China and India) of whom a high proportion is specialist qualified, which may bring the total number of credentialed specialists to about 60.

GMC has instituted a continuing medical education (CME) system as a pre-requisite for annual registration but has suffered problems of ensuring compliance because of administrative difficulties. Attendance at the CME sessions is more problematic for doctors working in rural regions. Plans for the strengthening of the GMC are being implemented which includes the establishment of the Council as a more autonomous organisation from the MoH, and includes the relocation to premises outside the central Ministry and strengthening of the secretariat capacity.

There is no formal postgraduate programme for specialist training based in Guyana. In practice, an “apprenticeship” programme has been in place at the GPH for general medical officers as they undertake their post-registration practice in the hospital, however there is no formal accreditation or recognition of this by the Medical Council.

Nurses

There are approximately 1600 nurses in the public health system. Training is conducted at three public health institutions and one private hospital. There has been a steady decline in applicants to nurse training across basic and post-basic courses.

Recent amendments were made to the laws to allow for training of additional specialist nurses such as the Mental Health nurses.

Increasing numbers of nurses are leaving the profession. Once trained, many use nursing as a stepping stone to other more attractive areas of work in Guyana. Many others (particularly the more experienced nurses) are leaving the country in response to aggressive recruitment drives from countries such as the United States of America, the United Kingdom, Botswana and others. This has resulted in a skill mix that is weighted heavily to less skilled workers such as nursing assistants and nurse aides “replacing” senior staff.

Many nurses are very unwilling to move away from well-resourced Regions of the country to work in more remote, understaffed regions. They often face hard choices that might entail breaking up family life. The result however is that regions that are less attractive to nurses are seriously understaffed. It is unlikely this problem will be resolved until the issue of incentives is addressed seriously.

Monitoring of professional and ethical conduct

Monitoring of professional conduct is monitored by the professional Councils. This tends to be reactive, responding to complaints from the public and other professionals. Mechanisms are being formulated for the certification of health workers mainly through initiatives at the Caribbean sub-Regional level.

Human Resource Education Needs

The priority training needs for the community health services have been identified as follows:

- Physical assessment and management of health priorities including appropriate handling of common emergencies
- Counselling skills and Educational strategies
- Collection and utilization of data for problem solving/programme planning
- Improving access to up to date information on health priorities
- Management of the referral process – clinical and managerial skills

- Assessment of mother throughout ante-natal period and post natal period and including early identification of risk factors
- Team Work – individual and leadership skills

Although suggestions have been made that a way to resolve some of these HR issues may be the creation of a new cadre of worker - essentially the ‘merger’ of the two senior cadres (Medex and Health Visitor) into a new categorization with an improved skill set - a nurse practitioner. Although, the development of a nurse practitioner cadre cannot be ruled out as a longer term strategy, it must be noted that the history of the development of the Medex cadre does have important lessons for this initiative. This should be considered in further detail in the overall elaboration of a health workforce strategy and development plan.

Staffing by health facility

The theoretical norms being used to staff the primary health care facilities are as follows:

Health Centre	1 Health Visitor 1 Midwife 1 Nursing Assistant 1 Medex 1 Clinic Attendant
Hinterland Health Centre	1 Medex 1 Community Health Worker
Health Post	1 Community Health Worker

The comparison of the current staff and the requirements based on the above facility norm is illustrated in Table 5.1.

Table 5.1 Estimated current staffing compared to staffing based on facility norms

	CHW's	NA's	MW's	Medex	HV's
Norm	166	122	112	120	112
Existing	217	117	89	64	29

Source: IHSD, Health Sector Policy, Institutional Development Programme, Health Sector Model

While these norms have never been achieved, they are still used to estimate the staff needs for primary care. Further, these facility based norms result in a greater distortion of estimated need because of

the underlying assumption that facility distribution is based on population which in fact is no longer a valid assumption in many regions. In practice, however, the critical shortages in medex and health visitors have resulted in staff being allocated on a population basis (the larger populations taking priority) rather than a facility basis.

Although there are training manuals which clearly outline job role and function, in practice the chronic staffing shortages, particularly of higher cadres of staff and/or experienced workers, has resulted in little adherence to the formal job descriptions as outlined. This in turn results in little job differentiation as envisioned for the health team in the Procedures Manual, with available staff not only being shared across facilities but also doing 'a bit of everything'. While this built in 'fluidity' among staff can be desirable in mature systems, there are implications for managing the quality of primary care as well as the effects on the referral system and training programmes.

Some of the present features of the Primary Health Care system as it relates to human resources are:

- Medex and health visitors cover several sites sometimes on a weekly but also on a less frequent schedule of once or twice monthly
- It is rare to find a facility where there is both a health visitor and a medex
- The supervisory role of medex and public health role of health visitors are diminishing as they are asked to cover many communities
- Most facilities are being staffed on a permanent basis by lower cadres of workers, that is, either a midwife, nursing assistant or a CHW
- Community health workers (CHWs) have become the sole care provider at health posts and in the interior and rural coastal regions (77% of all CHWs are in regions 1,2,7,8,9 compared to only 2% of all HVs and 36% of all Medex, including those in central programmes and administrative roles) and are expected to provide a full range of preventive and curative services
- CHWs are now substituting for higher cadres of workers and are found throughout the system at health centres and in District Hospitals
- The lack of administrative and ancillary staff at primary care level results in a relatively substantial proportion of time required for administrative functions

Health manpower/human resource planning at present is a responsibility of the Government Public Service area and therefore is not under the control of the health sector. Very little control of it exists at the Regional level where the effect is felt most and where the need originates.

Within the health sector there is limited manpower planning capacity. Equally there is a poor and outdated Human Resource development policy;

Recommendations

- Human resources for health must firmly be put on the health sector reform agenda through the development of a Human Resource Development strategy.
- Strategies to reduce the push factor and favour retention such as the provision of adequate salaries and improvements in working conditions.
- A Health Workforce Strategy and Development Plan looking at all staff cadres in the sector, covering both public and private subsector requirements, should be completed as a priority in order to inform the primary care development plan in the longer term.
- A hospital services strategy, covering the Georgetown Public Hospital and the private sector, is required in order to quantify the need for specialists in Guyana and staff requirements for health and training institutions in the public and private sectors.
- Better incentives should be granted to those who are assigned to hinterland communities and facilities.
- Better use must be made of distance learning which can improve the coverage of training programmes and assist with upgrading skills.
- There is a specific need for performance measurement indicators and the establishment of career advancement mechanisms in all disciplines.
- Opportunities for further training and personal advancement need to be expanded. This training should be done in the context of a health workforce plan or training plan. Such a plan would include a strategy to meet the identified training needs of both basic and post basic education at the central, regional and local levels.
- The need for additional auxiliary training should be reviewed and an assessment of how present auxiliaries are functioning should be conducted.
- Continuing education should be firmly incorporated in licensing of health professionals.
- There is need to develop a timely human resources information system that will provide information on staff attrition, training needs, staffing etc so that informed and meaningful decisions could be made about the human resource status and requirements.
- There is need to expand skills in the health sector to include areas such as advocacy, behaviour modification etc.
- Training facilities and infrastructure should be rationalized.

CHAPTER 6

HEALTH FINANCING AND SPENDING

This chapter analyzes health sector financing strategies in Guyana, focusing on:

- primary sources of financing and trends in health care financing,
- trends in spending for health by major sectors,
- public spending by function and the appropriateness of this spending, and
- financial sustainability of the health sector as it is currently organised.

The analysis of health financing sources and spending is severely limited by the lack of up-to-date information. Several of the reports are dated, and others used single-year estimates of disparate years; making assumptions about consistency across years or trends is then required, but the assumptions are not necessarily accurate. In addition, because there is no systematic means for collecting information on a regular basis and little information exists on household expenditures and health insurance, much of the analysis relies on single point estimates rather than trends.

1. FINANCING

In recent years, the share of Guyana's national budget allocated to health has been increasing, although it has fluctuated due to the development and termination of external loans or grants. See table 6.1. Domestic tax funding of the health sector has also increased steadily, reflecting three main factors: (1) sustained economic growth, which has enhanced the fiscal capacity of the country since the 1990s; (2) the priority placed on the health sector for budgetary allocations as part of efforts to reduce poverty levels; (3) the increase in government domestic revenues as a result of debt relief policies negotiated between international financial institutions and the Guyanese government.

Table 6.1 – Trends in Government Spending, 1993 - 1999

	1993	1994	1995	1996	1997	1998	1999
Per capita expenditure on health in US\$	29.1	34	39	43.4	45.4	45.4	ND
Public expenditure on health, % of national budget	6.9	6.7	8.8	6.0	7.3	5.9	6.7
Public expenditures on health, % of	4.3	4.3	4.3	4.3	4.3	4.3	4.5

GDP							
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Source: World Bank, Ministry of Health, Bureau of Statistics.

The public sector is financed from the Consolidated Fund of government, with services provided by salaried public servants. The private sector is financed through an array of sources, including direct charges and insurance payments, and services are provided by self-employed care providers and private facilities reimbursed on a fee-for-service basis. The fragmented financing structure is partially the result of historical developments. During the 1980s, the Guyanese economy slowed, leading to deteriorating public health facilities and a growing gap between the supply and demand for health services. Private sources of financing and private provision of health services developed because of the government's inability to meet all the health needs of the country.

Table 6.2 provides a summary of the primary sources of funds for the health sector.

Table 6.2 – Health Financing, Guyana, 1997 (G\$ '000)

	Financing Source					
	Central & local govt. taxation	Donors	Employers	Households	Total	Percentage
Ministry of Finance	9,900	29,389			39,289	Govt: 65.25%
Ministry of Human Services and Social Security		125,045			125,045	
Ministry of Health	1,731,059	226,613		5,469	1,963,141	
Regions	897,399				897,399	
Georgetown City Council	60,000				60,000	
Donors		132,245			132,245	Donors: 2.8%
National Insurance Scheme (contributions short-term branch)			140,254	93,503	233,757	NIS: 4.94%
Companies			217,122	8,857	225,979	Companies: 4.78%
Household out-of-pocket				1,029,649	1,029,649	Households: 21.78%
Other private insurance companies			13,675	7,728	21,403	Insurers: 0.45%
TOTAL	2,698,358	513,292	371,052	1,145,206	4,727,907	
FINANCING MECHANISM	Taxation 57.07%	Donors 10.86%	Social Insurance (health) 4.94%	Direct Fees and other out-of-pocket 21.89%	Private Insurance 0.45%	Corporate Medical Schemes 4.78%

In general, resources collected through taxation finance the provision of health services only within the public health sector, with only a small fraction of the national health budget spent on contributions to local organizations including non-governmental organizations, which operate on a not-for-profit basis. Private health services have been expanding rapidly and provide about half of all curative services. The principal source of funding in the private sector is fees from individual patients. The only exception to the public-financing, public-provision pattern are health payments by the NIS which consist of reimbursements to patients for health expenditures incurred in private facilities. Table 6.3 shows the public and private mix of financing and provision in Guyana, 1997.

Table 6.3 – Public and Private Financing and Provision, 1997

		Provision	
		Public	Private
Financing	Public	▪ Taxation: 54.2% ▪ Donors: 10.8% -- Ministry of Health & Regional Services, contribution to local public organizations; other donor-funded projects.	▪ Social Insurance (NIS): 4.9% -- Reimbursement of fees for private services - Taxation: 2.9% -- NGOs and other local organisations
	Private	▪ Cost recovery in public sector: 0.1% -- private beds in public hospitals, dental fees	▪ Out of pocket: 21.9% ▪ Companies: 4.8% ▪ Insurance: 0.4% -- Private physicians/hospitals

Source: MOF (1997), Estimates of the Public Sector 1997, Bureau of Statistics (1993)

1.1 Financing Sources

Tax revenues collected through general taxes and social insurance contributions constitute the majority of health financing, approximately 62% in 1999. Out-of-pocket expenditures by individuals at the point of utilization constitute the second largest source of financing for the health sector in Guyana, accounting for 21% of total funding to the sector in 1997.

Some employers arrange medical coverage for their employees through direct provision of health services or through non-contributory medical schemes. Data on corporate health expenditures are incomplete, but for 1997 they were estimated at about 4.8% of overall health financing. Private individual and group health insurance represented less than 1% of health resources in 1997 and will likely remain a minor source of financing due to the general scarcity of disposable income.

1.2 Public Sector Financing

Considering just the public sector (table 6.4), health has been financed almost exclusively through taxation in recent years: 97% of government health spending in 1999 was financed by taxes. The country also receives significant donations for the health sector from international groups. In 1999, donors accounted for 5.22% of government health spending compared with 12.60% in 1997 and 7.34 in 1998. Donor funds are an important source of financing especially for the rehabilitation of infrastructure and the development of institutional capacity within the sector.

The public health sector generates insignificant revenues, and these dropped significantly in real terms in recent years. Revenue generation from user fees and sale of services for 1999 was budgeted at only 0.16% of the government health budget. Monies allocated from the National Insurance Scheme (NIS) represent only 4% of overall health resources, with the vast majority of NIS contributions accounted for by pension spending.

Table 6.4 -- Government Health Spending: domestic and external funding 1993-2000

G\$ '000/Year	1993	1994	1995	1996	1997	1998	1999	2000
Health Budget	2,081,188	2,688,601	3,513,246	2,709,120	2,860,540	2,980,673	4,092,822	
From taxation	1,307,683	1,855,659	1,926,830	2,166,919	2,628,458	2,776,208	3,974,826	
From fees	664	846	6,377	7,607	5,469	7,931	6,996	
From donors	772,841	832,096	1,580,039	534,549	226,613	196,534	111,000	
Other Ministries								
Poverty alleviation	0	0	0	15,000	9,900	0	20,000	
BNTF	0	51,502	0	78,862	29,389	18,671	5,727	
SIMAP	111,131	111,131	111,131	143,190	125,045	5,532	104,300	
From taxation	0	0	0	15,000	9,900	0	20,000	
From donors	111,131	111,131	111,131	143,190	125,045	5,532	104,300	
Total taxation	1,307,683 (59.65%)	1,855,659 (65.08%)	2,337,030 (57.92%)	2,235,146 (74.52%)	2,638,358 (87.22%)	2,776,208 (92.39%)	3,994,829 (94.62%)	
Total user fees	664 (0.03%)	846 (0.03%)	6,377 (0.16%)	7,607 (0.25%)	5,469 (0.18%)	7,931 (0.26%)	6,996 (0.16%)	
Total donors	883,972 (40.32%)	994,729 (34.89%)	1,691,170 (41.92%)	756,601 (25.23%)	381,047 (12.60%)	220,737 (7.34%)	221,027 (5.22%)	
Total domestic funding	59.68%	65.11%	58.08%	74.67%	87.40%	92.66%	94.78%	
Total external funding	40.32%	34.89%	41.92%	25.23%	12.60%	7.34%	5.22%	
Grand Total (G\$)	2,192,319	2,851,234	4,034,577	2,999,354	3,024,874	3,004,876	4,222,849	

Source: Ministry of Finance, Estimates of the Public Sector (various years), donors

Although the government's financing of the health sector increased by 93% from 1993 to 1999, the economic capacity of the public health sector remains insufficient to adequately fund all basic health needs. In addition, the stated policy goals of equity, efficiency and revenue generation are not maximised under the current financing arrangements; hence the existing financing mechanisms need to be strengthened or new ones developed.

Despite interest in alternative financing options for the health sector, Guyana is severely constrained by its economy. As a result, the largest share of funding will likely continue to be taxation. Other potential sources cannot become significant financing options, specifically:

- Cost recovery in the form of user fees cannot provide significant funding to the sector. In no country have revenues from user fees accounted for more than a small fraction of overall funding, and attempts to generate revenue from user fees poses significant equity concerns.
- Funding from private insurance will likely remain very small in dollar amount and percentage of the total. Disposable income is scarce, creating a barrier to the expansion of coverage and therefore of the industry itself. Most private insurance is provided by employers for their employees and dependents. Groups not included, such as the unemployed or informal sector workers simply cannot afford to purchase health insurance.
- The NIS provides low funding to the health sector. In the short term, health funding cannot be increased without putting the pension fund in actuarial jeopardy.
- The government increasingly relies on 'debt for health' mechanisms under the HIPC (Highly Indebted Poor Countries) Initiative for funding the health sector. Over the long term, Guyana cannot rely on the continuation of such programmes to boost revenues in the health sector.

It is important that financing issues not be viewed in isolation from resource allocation and service provision arrangements. As was evident in table 6.2, the provision of services is virtually exclusively in the public or private domain. Although this is more a resource allocation than a financing issue, it merits a quick mention here. Expanding financing sources may have little effect if efficiency issues on the spending side are ignored. Opportunities for private-public partnership could be explored to improve the efficiency of spending; for example the use of private facilities may entail a more efficient use of resources, and the sale of public services to the private sector may improve revenue generation in the public sector.

1.3 Equity Considerations

From an equity perspective, health costs should be shared according to the ability to pay. The Guyanese health sector promotes such burden sharing through tax based funding. However, tax evasion, elusion and inefficient tax collection are epidemic, constraining the overall fiscal capacity of the public sector and reducing the progressive nature of this financing mechanism.

There is no National Policy for cost recovery through user fees at present. The Ministry of Health implements some user charges on an ad hoc basis, charging user fees selectively at three hospitals including the Public Hospital Georgetown. Although equity is not significantly endangered because few user fees of

small amounts are charged, a system of social assessment of the medically indigent needs to be established if cost recovery is developed beyond present levels. Any more extensive cost-sharing at the point of utilization is unworkable given the extent of poverty in Guyana. The impact of user fees is virtually always regressive, presenting substantial equity concerns.

2. SPENDING

This section identifies the principal spending agents and attempts to analyze the breakdown of spending by geographic areas, functions, and levels of care. Although the data presented enable the formation of general impressions about resource allocation and efficiency issues, the paucity of data greatly constrains the potential rigor of the analysis. In general, the data on health expenditure are not reliable or up to date. The Draft Health Plan 1995-2000 indicated that “the lack of annual reporting of health expenditures by all health care services to a centralised authority makes it impossible to accurately establish the level of health sector expenditure in Guyana.”

Table 6.5 shows health spending by sector for 1993 – 1999.

Table 6.5 – Health Sector Spending, 1993 - 1999

	1993	1994	1995	1996	1997	1998	1999
1. Public Subsector							
1.1 MOH & other public institutions at central, regional & local levels:							
1.11 Internal Financing: Treasury Funds	15,989,459 (4.10 %)	19,449,011 (4.26%)	24,758,138 (4.79%)	19,091,238 (3.24%)	19,244,873 (3.07%)	19,561,983 (3.18%)	19,954,911 (3.46%)
1.12 External Financing	0	0	0	0	0	0	0
1.2 Social Security: Member contributions, sales of goods & services, capital income	ND	ND	ND	ND	ND	ND	ND
2. Private Subsector							
2.1 Private Insurance	ND	ND	ND	ND	178,364 (0.03%)	192,415 (0.03%)	ND
2.2 Nonprofit NGOs	ND	ND	ND	ND	ND	ND	ND
2.3 Household spending for private services	ND	ND	ND	ND	7,702,872 (1.13%)	7,744,242 (1.29%)	ND

Source: Ministry of Health.

Overall, health spending is estimated at less than US\$ 50 per capita (US\$ 42 in 1997) well below health spending of developed and Caribbean countries with the exception of Haiti. GDP per capita is US\$ 800 and debt payments absorb as much as one third of government spending.

Per capita government allocations to health were US\$ 30 in 1999. (The World Bank estimates the cost of an essential public health clinical service package at US\$ 12 per capita for low-income countries and US\$ 21.5 for middle-income countries.) At this spending level, the basic health needs of significant portions of the population in Guyana are unmet. There is no detailed health services costing in Guyana, and it is difficult to itemise spending for various services, especially in the Regions. As a result, there is no systematic way of assessing whether resources are spent on the most cost-effective services, whether the way such services are designed and managed is the most efficient or whether spending is appropriate in light of the demographic and epidemiological profiles of different population groups.

2.1 Health Spending by Geography, Level of Care, and Programme

The preferred method of analysis would be to separately consider health spending by geography, level of care and stated public health programmes. In reality, however, longitudinal data is not available on health sector expenditures by subsectors and functions; therefore this section attempt to address all three issues with the data at hand.

There are five levels of care ranging from the health posts to health centres, district hospitals, regional hospitals and the national referral hospital. Within a region, at least four levels are found. Although the levels of care are well defined, in practice they do not function as intended for several reasons:

- 12 1/2% of Guyana's population does not have access to any health care, with access restrained by geographical as well as financial factors.
- Secondary level facilities are all in the urban areas, making access from rural areas problematic.
- In part due to quality of care concerns, patients often bypass the health centre and district hospital levels to attend the regional hospitals and the national referral hospital.

Data for 1999 indicates that 34% of recurrent resources were allocated to primary health care (PHC) and primary level facilities. Given an annual government health budget of US\$ 30 per capita, only US\$10.2 per capita are spent in primary health facilities. This is below the estimated 1998 cost of a basic health package (US\$ 14.6 per capita).

Although data is not available on spending for all levels of care, table 6.6 disaggregates the 1999 recurrent budget into primary and hospital expenditures; in addition it shows recurrent spending for specific stated public health programmes, which target those most at risk. These include programmes for AIDS, cancer, chronic non-communicable diseases and the Integrated Management of Childhood Illness. Emphasis is also placed on training of health workers who will function mainly in the rural areas of the country.

One significant limitation of this data is that it is a snapshot of 1999; information is not available that would enable the analysis of trends in these areas of spending.

Table 6.6 – Recurrent Primary and Hospital Expenditures, 1999

G\$ '000	Administrative Expenditures		PHC and Primary Facilities		Hospitals/Specialised Care	
	G\$	%	G\$	%	G\$	%
Ministry Administration	364,958					
<i>Disease control:</i>						
Administration	234,443					
Vector control		151,763				
TB		5,784				
Hansen's Disease		9,247				
STD/AIDS		61,583		40,000		
Epidemiology	10,127					
Veterinary health		3,000				
Chronic diseases		2,920				
Extra budgetary allocations		10,179				
Primary Health Care Programme (Maternal & Child Health, Nutrition, Environmental Health, Dental Care)	4,444		148,691			
Regional Services	187,322		173,803			
Health Education	27,628		101,774			
Standards & Technical Services	7,600				105,356	
Rehabilitation Services	28,800				14,222	
Public Hospital Georgetown	256,089				877,674	
Regions Spending (Regions 2, 3, 4, 5, 6, 7, 10)	26,073		391,096		451,933	
Regions Spending (Regions 1, 8, 9)	6,051		195,640		0	

Total	943,535	25.6%	1,255,480	34.0%	1,489,185	40.4%
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Source: Ministry of Health budget submission for 1999 and Estimates of the Public Sector, MOF.

Expenditures for institutional (hospital) care are prominent, although it is important to bear in mind that care in hospitals is often offered at a primary level. The largest item of expenditures within the public health sector is the Public Hospital Georgetown, absorbing over a third of total recurrent health expenditures for the MOH and the Regions. Without information on costs and specific programmes, it is impossible to determine if these monies are being spent in an effective way. Hospitals should have to justify and budget their expenditures and identify the resource implications of modifications to the scale, scope and quality of care. Both of these actions would motivate hospitals to keep their actual costs down below their prospective rates to avoid losses.

No data are available on the coverage of the various networks of public and private providers for secondary level care. Since the secondary level facilities are all in the urban areas, access from rural areas is severely

Regional facilities, where the bulk of expenditures for primary and secondary care occur, account for about 30% of the total recurrent health budget. Table 6.7 shows per capita spending allocations in the ten Regions of Guyana.

Table 6.7 – Per Capita Resource Allocation in the Ten Regions in Guyana, 1999*

	Per Capita Capital & Recurrent Budgetary Allocations	Per Capita Recurrent Budgetary Allocations
Region 1	3,078	3,394
Region 2	2,642	2,427
Region 3	1,825	1,640
Region 4**	159	145
Region 5	1,238	1,039
Region 6	2,345	2,143
Region 7	6,189	5,493
Region 8	9,164	7,152
Region 9	5,025	4,469
Region 10	2,517	2,174
TOTAL MOH & Regions	5,292	4,856

* Based on census 1991 population data and assuming that the population distribution did not vary since 1991

** Part of Region 4 expenditures are included in the MOH budget.

As is evident in the table, there are regional imbalances in the allocation of resources, but it is impossible to verify to what extent the variations reflect differences in the size of the populations or the complexity, range and costs of services provided in the different Regions. One funding scheme that could help ensure that regional funding differentials are appropriate and equitable is a population-based funding scheme that depends on the underlying structural characteristics of the regions based on population risk factors. This would ensure fiscal neutrality at the national level by maintaining the level of per capita funding by providing funding in proportion to regional needs.

2.2 Health Spending by Function

As with many of the items analysed in this chapter, data is only available for the public sector's spending by function. Figure 6.8 shows the public sector health expenditures by item from 1993 to 1999. Two significant trends evident from the data are the increase in maintenance and the large increase, then decrease in construction projects. These patterns are consistent with the decreased capital outlays and necessary increase in ongoing facilities care following the construction of the Public Hospital Georgetown, which was completed in 1997. Materials and supplies have also seen a substantial increase during the decade.

Table 6.8 -- Health Sector Expenditures by Item (Public Sector), 1993-1999 in US\$

	1993	1994	1995	1996	1997	1998	1999
Services to individuals	ND	ND	ND	ND	ND	ND	ND
Population -based services	ND	ND	ND	ND	ND	ND	ND
Medicines and pharmaceuticals	2,582,660	3,100,309	3,150,911	3,016,534	4,025,95	4,186,948	3,491,982
Materials and supplies	190,865	248,804	394,952	501,012	617,856	799,254	925,900
Medical and health equipment	ND	28,937	152,815	55,934	143,696	176,914	145,604
Other equipment and repairs	10,741	18,556	49,097	98,048	414,793	440,137	383,165
Construction projects	317,432	608,102	928,711	999,373	1,203,035	573,043	588,505
TOTAL	ND	ND	ND	ND	ND	ND	ND

Source: Estimates of the Public Sector: Current and Capital Revenue and Expenditure (various years).

For the items on which data is available, spending increased more than 78% from 1993 to 1999; in 1997 and 1998, public sector expenditures on the indicated items were 107% and 150% higher than in 1993,

respectively. The percentage of the national budget represented by health expenditures did not increase concomitantly, but rather ranged between 5.05% and 8.77% during the period. See table 6.9.

Table 6.9 -- Health Sector Expenditures (public sector) as percentage of GDP and the National Budget 1993-1999

	1993	1994	1995	1996	1997	1998	1999
MOH & Regions' health budget as % of GDP	3.52	3.57	3.98	2.74	2.68	2.70	3.49 (budget)
MOH & Regions' health budget as % of national budget	6.87	6.69	8.77	5.96	5.05	5.73	7.89

Source: Ministry of Finance (various years).

Percentage of the operating budget allocated to preservation and maintenance has grown from 2.8 in 1993 to a proposed 11% for the period 1999-2000. Expenditures on drugs have remained fairly stable - from 30.0% in 1993 to 30.5 in 1999.

An improvement in resource allocation mechanisms was made possible with the introduction of programme budgeting in the MOH in late 1997. The prior method of central control through line-item budgeting restricted flexibility and compromised the efficient allocation of resources. With the new budgeting process, allocation of resources can now be based on projected programme outputs and objections, which should improve resource allocation over time.

2.3 Health Spending of the National Insurance Scheme (NIS)

A payroll tax is collected on formal sector employees as contribution to the NIS. The health component of the NIS benefit package is minimal however, the largest part being accounted for by pension spending. In 1997, just 1.97% of total insured earnings (16.4% of all contributions) were allocated to short-term benefits, which includes the primary component of medical benefits. This means that the pool of resources available for health care expenditures is limited by accounting policy without any link to real needs.

Total health spending by NIS for both medical care and injury payments increased nearly 80% from 1993 to 1997. See table 6.10. In addition, there was a large increase (30%) in medical care payments from 1997 to 1998 based on unaudited figures for 1998. Despite the implied increase of 135% from 1993 to 1998, as mentioned previously, the total health payments of G\$ 305,000,000 represent less than 5% of total spending.

Table 6.10 – NIS Health Expenditures, 1993-1998

G\$ '000	1993	1994	1995	1996	1997	1998*
Total contribution (12% of insured earnings)	1,108,317	1,596,646	2,260,396	2,739,207	3,246,275	3,553,244
Sickness Payments	118,427	124,082	153,629	174,474	216,428	286,635
Injury Payments	11,616	7,265	8,003	14,102	17,329	18,852
Total Health Payments	130,043	131,447	161,632	188,577	233,757	305,487

Source: NIS Annual Reports *Unaudited figures

The capacity of the NIS to provide health insurance coverage is currently inadequate and an actuarial analysis would be needed to verify the long-term sustainability of the scheme for several reasons listed below.

- The percentage of insurable earnings allocated by policy to health benefits is small and is not linked to needs.
- Administrative expenses are too high by the standard of any other Latin American or Caribbean country.
- Since its establishment in 1989, the NIS has consistently expanded benefits paid, especially short-term benefits, without a concomitant rise in contribution levels. This has led to a growing actuarial deficit within the short-term benefits branch and a cross-subsidization of it by the pension branch.
- Increasing life expectancy poses a risk to the long-term actuarial capacity of the pension branch.
- The NIS is a defined benefit system within which benefits paid are pre-established and contribution rates can be adjusted to ensure actuarial equilibrium. Most countries adopting this system found it difficult to maintain equilibrium because the benefits paid do not depend on the contributions and income from investment collected.

Under present conditions it is not possible to expand short-term health payments without compromising the long-term liabilities of the NIS.

2.4 Health Spending of the Private Sector

Reliable information is not generally available on the distribution of private health expenditure. In fact, one of the key issues emanating from this analysis is the lack of systematic data on health spending, particularly in the private sector. Studies are carried out infrequently, and secondary sources of this type of information are not readily available.

According to the Household Income and Expenditures Survey in 1992, average per capita health expenditures were G\$ 465 per month. Spending ranged from G\$ 264 for the bottom-decile income group to

G\$ 1,252 for the top decile, and it varied considerably according to area of living as well: medical expenditures accounted for 2.047% of total household expenditures in rural and 2.343% in urban households. See table 6.11.

Out-of-pocket expenditures for medical and pharmaceutical products constituted about 57% of total household health expenditures with no relevant differences between urban and rural areas. Spending for hospitalization and related care were 9.9% of total household health expenditures, but spending was concentrated among families living in urban areas where private hospitals are located. Payments for health insurance premiums were a minimal component (0.37%) and appear to be primarily an urban option.

Although some of these differences in rural and urban spending behavior appear substantial, it is not clear if these are statistically significant differences. This is important if policy implications are to be drawn from these variations, which is likely given the large portion (21%) of health sector financing represented by household out-of-pocket spending.

Table 6.11 – Household Expenditures on Health, 1993

	Health spending as a percentage of total household expenditures			Allocation of household health expenditures to various items		
	Total	Urban	Rural	Total	Urban	Rural
Medical and pharmaceutical products	1.226	1.320	1.165	56.7%	56.4%	56.9%
Therapeutic appliances and equipment	0.094	0.132	0.069	4.3%	5.6%	3.4%
Medical, paramedical and dental services	0.621	0.552	0.665`	28.7%	23.6%	32.5%
Hospital and related care	0.214	0.324	0.143	9.9%	13.8%	7.0%
Health service contributions (insurance premiums)	0.008	0.014	0.005	0.37%	0.59%	0.24%
Total	2.163	2.342	2.047	100%	100%	100%

Source: Bureau of Statistics, 1993

The 1999 Guyana Survey of Living Conditions indicates that 2% of monthly household expenditure was spent on medical and health services, the same percentage as found in the Household Income and Expenditure Survey of 1992/1993.

Data on corporate health expenditures are incomplete, but for 1997 were estimated at about 4.8% of overall health spending. This includes both the direct provision of health services and the payment of employees' medical expenses for services rendered by certain providers.

Private insurance premiums were less than 1% of total health spending in 1997. The health authorities do not have reliable and timely information on the levels of coverage and modalities of the various health insurance schemes. No data are available on the percentage of the population covered by the different insurance models or on coverage by age and sex.

2.5 Equity, Quality and Efficiency Issues

Access to health care is a "right", established by the Guyanese Constitution. Although the health system in Guyana is underfunded, opportunities exist within the framework of a reformed health system to improve the efficient, effective and equitable deployment of existing resources. The current financing structure of the health sector has a high level of social acceptability although the poor quality of many services is not socially acceptable, and it is the most disadvantaged that are least able to opt out of the substandard care. Improved resource allocation mechanisms must accompany any modifications to the financing structure to ensure the distribution of resources on need-based and vulnerability-based criteria.

Potential inequities in the regional allocation of public health sector spending need to be addressed. Since access to health care varies dramatically across geographies and income groups, some sort of population-based funding scheme is desirable to drive the regional allocation of resources. To enhance regional equity, the Regions' most pressing health needs need to be identified on the basis of epidemiological and cost-effective criteria, and these priority health needs should be the prime target of public funding.

The referral routes from the lower levels of the health care provision system to higher levels are defined but do not generally function as intended. Patients have a tendency to bypass the community health workers in favour of doctors who work in hospitals. In doing so, they appear to demonstrate that they are prepared to travel the longer distances that are often required to access what they believe is higher quality care. This presents both efficiency and equity considerations. From an efficiency perspective, doctor-staffed clinic sessions at hospitals tend to be overcrowded, while community-based primary care facilities are under

utilized. The bypassing phenomenon appears to be greatest in the more densely populated urban areas where the additional cost of travel is relatively minimal. To the extent there are quality differences, the comparative lack of choice in the more rural areas raises questions of equity in access and quality of care.

Guyana has no social health insurance organization similar in size or structure to the social security institutions operating in other Latin American countries. The NIS operates a social insurance programme for employees, but as it is currently structured it is insufficient in terms of coverage and health expenditures on behalf of the insured. There were 139,785 active contributors in 1998, about 18% of the population. With a labor force participation rate of 49.1%, only 37% of the participating workforce are insured under the NIS. The coverage does not extend to dependants, nor are people outside the formal sector, the unemployed, and those not participating in the labor force included. Significant increases in health benefits and wider coverage would require expanded contributions, which could distort labour markets and generate non-compliance. However, improvement in the financial performance of the NIS and lower administrative costs could allow the moderate extension of benefits over time to specific sub-groups of the population.

The insufficiency of NIS benefits is one factor behind individuals' decisions to purchase private health insurance. Although the market for private health insurance is small, it serves an important function in decreasing pressures on the over-loaded public facilities, as middle and high-income individuals do not have to rely on the resource-scarce public system. That positive aspect in terms of efficiency is offset by two potentially negative factors: there is a risk that private health insurance can lead to the creation of a two-tier health system; and to the extent that private health insurance increases the fragmentation of financing sources, it reduces efficiency at the macro level because it makes cost containment more difficult.

Finally, the lack of data on health financing and spending makes rigorous programme analysis an impossible task. Data need to be systematically collected and their accuracy improved if evidence-based decision making processes are to be instituted. The allocation of scarce resources can be both efficient (maximizing the health effect of each dollar invested) and equitable (reflecting needs, particularly the basic needs of the most vulnerable sections of society). However, such an allocation requires the clear establishment of priorities based on epidemiological and cost-effectiveness criteria, programme-based planning and the rigorous collection and analysis of data to inform subsequent reallocations of resources.

3. FINANCIAL SUSTAINABILITY

Financial sustainability of a health system is a function of both the evolution of spending and the financial modalities chosen. In the long run, sustainability is related to the demand for care and to per capita health spending relative to income. In the near term, the division of public and private financing and the health of the economy and private enterprise are critical factors.

In the case of Guyana, specific data or analysis on sustainability are not available.

Since the early 1990s, the health budget has increased steadily. In 1999 it was 3.5% of GDP and the health budget is expected to reach 4.5% by year 2002 under the HIPC conditions for debt service relief. Despite these increases, the public health system is chronically underfunded in relation to the needs it intends to satisfy. Therefore, existing financing and resource allocation mechanisms need to be modified or alternative mechanisms developed. It is also necessary to redefine which health needs will be publicly financed.

Opportunities to expand financing of the health sector are not plentiful. The sources of funding with the highest revenue potential are taxation and social health insurance. However, the NIS provides low levels of funding, and government funding to the MOH and the Regions accounted for 8% of the national budget in 1999. The government increasingly relies on the debt-for-health mechanisms under the HIPC initiative for funding the health sector. Over time, alternate methods of increasing revenues must be sought, as Guyana cannot institutionalise long-term reliance on debt-for-health mechanisms to boost health funding. Generating increased tax revenues will require economic growth, as increasing the already high tax rates could have undesirable evasion and disincentive effects. In addition private sources are already large, and expanding them further may negatively affect the equity of financing.

The potential for financial sustainability of health financing in the short, medium and long terms will be enhanced if Guyana adopts a more focused approach to the public finance of health care, narrowing the range of services it finances. Considering the relatively limited economic capacity of the country and its population, a reasonable goal would be for public monies to fund all services addressing essential health needs such as primary and preventive care. Private sources and cost recovery should be additional and not substitutes for public funding; the ideal would be that they satisfy only non-priority health needs. Opportunities for public financing of private provision mechanisms could also be explored as a means of improving the cost-effectiveness and quality of services and improving sustainability of financing mechanisms over time.

In addition to looking for ways to expand sources of financing, it will be necessary to allocate resources more effectively. The inability to satisfy all health needs poses, in fact, even greater pressures to

use money effectively, equitably and efficiently. In recent years, the MOH has embarked on a larger health sector reform programme, which will result in the separation of the purchasing and provider functions. The financing and resource allocation mechanisms developed must be tailored to the structure of a reformed health care system. As this new framework is developed, financial sustainability must be one of the criteria by which alternatives are evaluated.

Recommendations

- There is need for a comprehensive financing strategy which identifies inter alia the current expenditure patterns within the sector, and the advantages and disadvantages of different methods of revenue generation.
- Public resources should be allocated for the provision and financing of a limited range of programmes based on epidemiology and cost-effectiveness as part of an essential health package.
- Financing must be linked to resource allocation- the rationalization of facilities, services and human resources must be matched to the availability of funds and based on determined priorities
- Technology assessment programmes must be developed. These should include the determination of financial implications of introducing new technologies.
- Current allocative and technical inefficiencies which could release funds to areas where needed must be addressed.
- The Ministry of Health should forge closer linkages with the National Insurance Scheme to achieve health sector goals e.g. to review reimbursement patterns, illnesses covered or extension of coverage
- National Health Accounts should be instituted to determine the flow of funds through the sector.

CHAPTER 7

THE GENERAL STRUCTURE OF SERVICE SUPPLY

Five basic categories are included in the analysis of the structure of the health service network in Guyana, namely ownership, financing, care level, mode of care, and the area of influence. The first two categories are a function of who provides the services, whereas categories three to five concern how and where the services are provided. The analysis on the ownership and financing is provided in Chapters 4 and 6. Human resource issues are addressed in Chapter 5. This chapter will therefore focus on the levels of care, mode of care and the area of influence.

Levels of Care, Mode of Care, and Area of Influence

The country is divided into (10) ten administrative regions. Region 1, 7, 8 and 9 are classified as the interior regions – rural and remote, with small populations. Regions 2, 3, 4, 5 and 6 are coastal regions, and region 10 has one moderate sized town and a large rural area. Region 4 includes Georgetown, the Capital, and represents the largest concentration of population.

The current public health system has five levels of care ranging from the Health Posts to Health Centres, District Hospitals, Regional Hospitals and the National Referral Hospital. However, within a Region, at least 4 levels are found.

Level I: Health Posts

166 in total, are located primarily in remote areas.⁶¹ They are generally staffed by Community Health Workers (CHW) whose initial responsibility was to deliver preventive and health promotion care, including antenatal care rather than curative treatment. However, in view of the inaccessibility of many health posts, together with shortages of staff, CHW do provide simple curative care for common diseases in some areas.⁶² Vaccination coverage has been very low in remote areas and substantial efforts are needed to maintain routine immunization schedules. Since 1995 there have been improvements due to the training of local CHWs to do vaccination and monitoring of local health conditions.

⁶¹ Government of Guyana, *National Development Strategy*, 2000

⁶² Ministry of Health of Guyana, National Health Plan 2002-2006: Furthering the Quest for Better Health 2002

Level II. Health Centres

A total of 109, are intended to provide a full range of primary care services including health promotion activities, preventive and rehabilitation care, in some instances. They are usually staffed by medical extension workers (MEDEX)/public health nurses, nursing assistants, dental nurses and midwives. Yet, most health centres have only two or three professional staff in total, sometimes shared with other centres or posts. Some have visiting doctors for one or two sessions per week. Health centre catchment populations range from a few hundred, in the more remote parts of the region, to around 15,000 in the more densely populated areas. Along the coast, which is fairly densely populated, there is a string of closely spaced facilities with comparatively small catchment populations.⁶³

Level III

There are a total of nineteen District Hospitals, which have a small number of inpatient beds (473 beds). They are designed to serve geographical areas with populations of 10,000 or more. There are approximately two or three District Hospitals per region and they provide basic outpatient care. A single general physician manages them. Limited diagnostic support, such as laboratory or X-ray facilities is available. Dental services should be included at all District Hospitals, but are only available at some. Because of these limitations, only simple cases can be treated at the District Hospital and anything more complex is referred to a regional or central hospital for specialist care.

Thus the Primary Health Care system in Guyana is defined as comprising the three lowest tiers of the health service, namely Health Posts, Health Centres, and District Hospitals. The core services at the community/PHC level are intended to include the following:

- Prevention services, such as immunization, prevention and basic dental services.
- Basic health examinations, such as screening/early detection of some possible health risks like hypertension.
- Health promotion (health education) geared to individuals, groups and families.
- Case management and community development including the mobilization of resources to address the health problems in the local population.
- Diagnosis and management of acute and chronic phases of common conditions,

⁶³ Institute for Health Sector Development, *Health Sector Policy and Institutional Development Program: Health Service Model, Modelling Services Development*, Draft 1, June 2002.

- A system for dealing with emergencies.

The leading causes of morbidity at the health centres and the five most frequent reasons for consultation are: acute respiratory infections, malaria, accidents and injuries, skin disorders and hypertension.⁶⁴

Level IV

Four **Regional Hospitals** (with 620 beds) provide emergency services, routine surgery, obstetric and gynaecological services, dental services, general medicine and paediatrics with clinical support in the areas of lab, x-ray, pharmacy and dietetics. These hospitals are located in Regions 2, 3, 6 and 10.

Level V

The one **National Referral Hospital** is Georgetown Public Hospital (GPH) with 937 beds. GPH offers a wider range of specialist and diagnostic services on both an in and outpatient basis.

Long-term psychiatric care is offered at the Psychiatric Hospital in Canje. Located in Georgetown is the only geriatric hospital and two rehabilitation facilities, one for cerebral palsy and one for children.

Non-MOH Hospital Care is generally available at the secondary level with some tertiary level services. Outside of the government funded facilities there are ten hospitals, which have a total of approximately 548 beds. Six of these hospitals are located in the city of Georgetown (there are also some municipal health centres, five in Georgetown). The non-MOH facilities also include religious denominational facilities and company facilities including a number of clinics, diagnostic facilities and dispensaries. The Guyana Sugar Corporation (GUYSUCO) provides private services for employees through 18 clinics and dispensaries. Moreover, the private sector has been growing and it is providing quality services so that it has become the first choice of many residents when seeking health care.⁶⁵

No data are available on the coverage of the various networks of public and private providers for secondary level care. The health sector is currently unable to offer certain sophisticated tertiary services and specialised medical services, the technology for which is unaffordable in Guyana, or for which the required medical specialists simply do not exist. The Ministry of Health provides financial assistance to patients

⁶⁴ PAHO/WHO Health Systems and Services Profile” Guyana, December 14, 2001 (second edition)

⁶⁵ GOG/IDB Health Sector Policy and Institutional Development Program, RMC Resources Management Consultants, Current Health Needs and Resources in Guyana, September 1999.

requiring overseas treatment. Priority is given to children whose condition can be rehabilitated with significant improvements to their quality of life.

Only the national referral hospital has a computerised information system that is used for administrative purposes, but not clinical management. The five most frequent reasons for hospital discharges at the Georgetown Hospital in 1999 were motor vehicle accidents, falls, assaults, hypertension and abortion.⁶⁶ In the year 2000 it included hypertension, unspecified incomplete abortion, diabetes, cerebral concussion, and unspecified abnormal products of conception.

The system is structured so that its proper functioning depends intimately on a process of referrals. Except for serious emergencies, patients are to be seen first at the lower levels, and those with problems that cannot be treated at those levels are referred to higher levels in the system. Thus in principle the referral system is well suited to Guyana because of the geographic barriers to communication and transport. However, technical inefficiencies and the failure to provide adequately trained medical staff, supplies and equipment at the lower level induce patients to bypass the system and seek care in the National Public Hospital, or in private hospitals concentrated in the Georgetown area thus causing the breakdown of the referral system⁶⁷

For example, the 1999 Survey of Living Conditions⁶⁸ showed that only 7 per cent of those who had an illness/injury sought medical attention. Of those who sought medical attention, however, 39% paid their first to a public hospital, and 16 % to a public health centre. This meant that the public health services together provided most of the treatment for first visits (55%). However, the use of the primary health care facilities of the public centres, was less than half that of the public hospitals. Of the total number of visits, 37 % were paid to private clinic/hospitals and doctors. Altogether, therefore, about 92% of those seeking treatment visited a formal facility. Of the remaining 8% who did not, 6% visited a pharmacist. Contrary to popular perception, non-traditional and “other” sources of treatment were rarely utilised (see Table 7.1).

⁶⁶ PAHO/WHO Health Systems & Services Profile, Guyana, Dec 14, 2001

⁶⁷ Ministry of Health Guyana, National Health Plan 2002-2006, Furthering the Quest for Better Health, 2002

⁶⁸ UNDP/Government of Guyana, DFID Guyana Report of the Survey of Living Conditions 1999

Table 7.1 Place of First Visit for Medical Attention, 1999 (%)

PLACE	% of Total
Public Hospital	39.34
Public Health Centre	16.04
Private Clinic/Hospital	18.42
Private Doctor's Office	18.02
Pharmacy	5.71
Herbalist/Traditional/Healer	.02
Other	2.42
TOTAL	100.0

Source: Bureau of Statistics, 1999, Guyana Survey of Living Conditions data.

Given the profile above, it is not surprising to find in Table 7.2 that 72% of those who sought medical attention saw a doctor with 16% seeing a nurse or health care worker.

Table 2. Medical Attention: Who Attended at First Visit, 1999 (%)

PERSONNEL	% of Total
Doctor	72
Nurse/Health Care Worker	16
Pharmacist	5
her	7
TOTAL	100.0

Source: Bureau of Statistics, 1999, Guyana Survey of Living Conditions data.

The principal administrative and managerial reasons why the referral system is not working as planned appear to be the following: the lack of sufficient administrative coordination between the MOH and the Regional authorities; shortages of funding; technical and allocative inefficiencies; the inability of the MOH to provide leadership for the regions; the lack of authority in the MOH to implement policies or to set the budgets

of the Regional Administrations; and the lack of training in public health or in administration of the Regional Health Offices.⁶⁹

Moreover, planning for health services is inadequate. In the Regions planning is often the responsibility of managers with no expertise in the health sector. Strategic plans for health services development are not produced regularly and the planning of outreach activities is minimal. Decision-making is rarely based on supporting evidence. On the contrary, decisions are often made as a crisis response rather than as a result of a rational planning process. There are no mechanisms through which data on the health status of the population and the incidence of particular diseases and syndromes can be channelled into the decision-making process.⁷⁰

The private sector comprises general practitioners and specialist services providing outpatient care, including diagnostic services, with inpatient and facilities located primarily in Georgetown (Region 4). There is no formal relationship with the private subsector..

Overall, both structural and process quality is poor. The health sector operates with staff vacancies in several key positions, and with malfunctioning and obsolescent equipment. Storage facilities for drugs are inadequate, as are quality control standards and implementation. Patients routinely purchase their own pharmaceuticals and medical supplies and are forced to spend excessively long time in repeated visits to medical facilities. Overtime the overall quality of operations continues to decline. In large part this is due to problems in the institutional structure of the sector, in its management practices, and in the unavailability of adequate financing. As a result both allocative and technical inefficiencies plague the sector, particularly the public health sector. Allocative inefficiencies derive from the fact that resources are not allocated to the services that are most cost-effective. Technical inefficiencies result from an inefficient utilisation of those areas in which facilities are adequate. Unit costs of facilities at all levels are high.⁷¹

Therefore, in terms of Technical Quality no establishments have a fully operational Quality programme. However, it is an area that is receiving attention and training programmes have been held to

⁶⁹ Government of Guyana, National Development Strategy, 1999

⁷⁰ Government of Guyana, National Development Strategy, 2000

⁷¹ Government of Guyana, National Development Strategy, 2000

sensitise health personnel on quality issues. A Quality network has been established to support the Quality Initiative. In the public facilities there are no functioning ethics and/or professional oversight committees.⁷²

On Perceived Quality there are no facilities, which have established a fully operational programme for improving user relations. None in the public sector has specific user orientation procedures. User satisfaction surveys are rarely conducted.⁷³ However, the 1999 Survey of Living Conditions indicated that the level of satisfaction of those who sought medical attention 88% reported being either “satisfied” or “very satisfied”. Those who responded being “very satisfied” represented more than one-third (37%) of the total. More than one-half (51%) was “satisfied”. The level of “strong dissatisfaction” was only 3%.⁷⁴

Table 7.3. Health Facilities in Guyana by Region, 1999

Facility	Región 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	Total
Health Posts	36	19	13	10	1	7	23	13	32	12	166
Health Centres	4	11	16	29*	16	17	2	4	5	8	112
Dist Hospital	3	1	3	0	2	3	2	1	2	2	20
Regional Hosp	0	1	1	0	0	1	0	0	0	1	4
Psych Hospital	0	0	0	0	0	1	0	0	0	0	1
Private Hospital	0	0	0	6	0	0	0	0	0	0	6
National Hosp	0	0	0	1	0	0	0	0	0	0	1
Company Hosp	1	0	0	1	0	0	0	0	0	0	2
Rehab Centre	0	0	0	2	0	0	0	0	0	0	2
Geriatric Hosp	0	0	0	1	0	0	0	0	0	0	1
Total # Facilities	44	32	34	50	19	29	27	18	39	23	315
Total # Beds	98	124	301	1458	53	869	58	17	110	194	3282

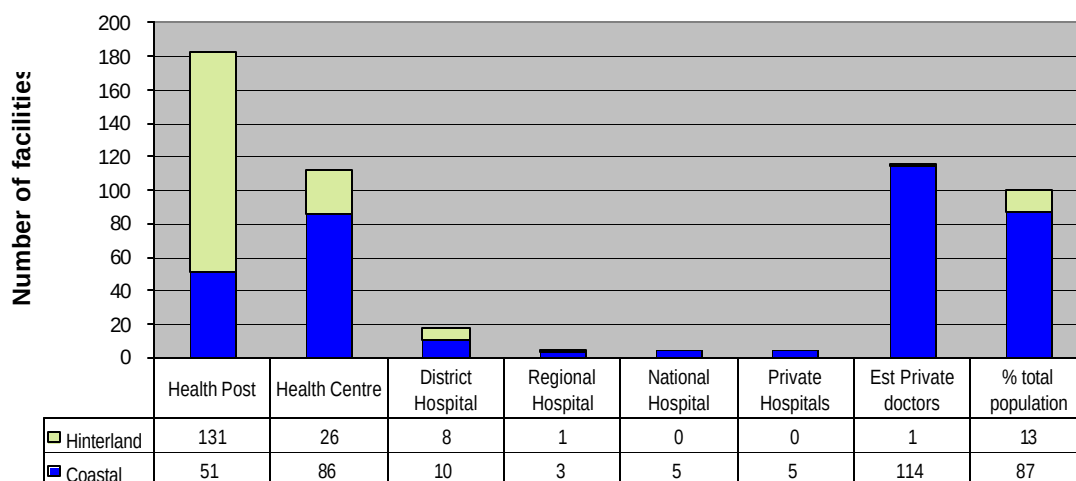
Source: MOH Statistical Unit. *There are in addition 5 Municipal Health Centres in Georgetown.

⁷² PAHO/WHO Health Systems & Services Profile, Guyana, December 2001

⁷³ IBID

⁷⁴ UNDP, Government of Guyana, DFID, Guyana, Report of the Survey of Living Conditions, 1999

Figure 5. Pattern of Distribution of Facilities by Coastal/Hinterland Regions



Source: Institute for Health Sector Development, Health Sector Policy and Institutional Development Program: Health Service Model, Modelling Services Development, Draft 1, June 2002. National Hospitals include rehabilitation and psychiatric units. Numbers of private doctors are estimates of exclusively private practitioners.

Finally, the point has been made that the current configuration and distribution of public sector facilities results from a range of factors that make it difficult to discern distinct patterns and standards. However, in Guyana two broad development patterns have emerged. The patterns include the Coastal Regions: 3,4,5,6, and 10 with 86.5% of the population, and the Hinterlands Regions: 1,7,8,9, and 2 with 13.5% of the population.⁷⁵ Figure 5 depicts the pattern of distribution of health facilities by Coastal/Hinterland regions. As expected, the lowest tier of the health system, namely the Health Posts are predominantly located in the Hinterland while the Health Centres and District Hospitals are more prevalent in the Coastal Region. The secondary and tertiary levels of care, that is, the Regional and National Hospitals as well as the private sector hospitals and private physicians are located primarily in the Coastal Region. Table 7.3 illustrates that the largest concentration of beds is found in the Coastal Region. However, when we look at the total number of facilities the largest concentration is found in Georgetown (Region 4/Coastal Region) followed by Regions 1 and 9 located in the Hinterland.

Rules and Regulations to License Health Establishments

Governments through their health ministries, or equivalent agencies at the sub national level, are often responsible for licensing the operations of health facilities. In some instances, there may be a directory or

listing of all health facilities. The rules and regulations for licensing a health establishment include an inventory list. This inventory is simply a statistical document that the health ministry or authority, the planning ministry, and government statistical agencies regularly update in order to assist government in its supervisory role. The inventory is rarely a public document; in a few instances the license will classify a centre on the basis of the complexity of the pathologies that it treats.

The information from the inventory may afford a first glance at the geographical distribution of the health facilities, and thus is relevant in terms of equity and accessibility to the health network. It may also be a requisite for establishing accreditation procedures and quality control. While licensing and classification by level of complexity is the purview of health authorities, accreditation is usually a voluntary process that establishments use to reinforce their efforts to improve quality.

In Guyana an official directory/inventory of public and private PHC facilities is not available although two attempts at compiling a directory by independent consultants are recorded in the literature.⁷⁶ Equally, licensing standards that must be met before a health facility can begin operations have not been established or an accreditation program with the intention of safeguarding minimum standards has not been developed.

Analysis of Supply According to Levels of Care

In this section an analysis of the size and quality of the supply of health services based on the scarce information available is presented.

Analysis of the Primary Health Care (PHC) Level

Guyana's primary care network was established pre Alma Ata with subsequent development moving it toward the strategy of achieving universal geographical access to primary care, using a formula based on catchment population, distance and or travel time from the facility. The latter two, distance and travel time, have weighed more in the Guyana context. However, many new facilities have been added to the original configuration. For example, increased advocacy and awareness of the health needs of the Amerindian population in the interior regions have resulted in a pattern of many facilities serving many small isolated communities. Also, acquisition of private sector facilities as industries downsized their operations e.g., bauxite, sugar, timber, decreased the effective facility catchment population size. Moreover, the increasing scope and

⁷⁵ PAHO/WHO Health Systems & Services Profile, Guyana, December 14, 2001

⁷⁶ RMC Resources Management Consultants, Current Health Needs and Resources in Guyana, September 1999

number of private facilities and practitioners decreased the effective facility catchment population size of public facilities and increased the number of providers in urban areas.⁷⁷

The spatial distribution of health centres is critical, for they provide a wide range of preventive services and some curative care. However, those in Region 3, 4 and 6 cater to at least twice as many people as in other regions. Inefficiencies in the spatial distribution of health centres are somehow inevitable given the geographical features of the Guyanese territory and the travel difficulties. A trade-off between equity and efficiency seems therefore to exist in that what is an equitable spatial distribution of health centres does not necessarily constitute the most efficient solution.⁷⁸

Maternal and child health (MCH) activities account for most of the PHC services offered in Guyana. The MCH data collection methodology initiated in 1995 and the program manual introduced in 1996 are strategies, which among others have been successful in making this program area fairly consistent across all regions. The increasing strength of the program has no doubt been responsible for the gains made in decreasing the maternal and infant mortality, which is still among the highest in the Caribbean. Family planning also is offered consistently at health centres in all regions. The supply of contraceptives through external donors is a problem that needs to be corrected by internal financing to make it more reliable.⁷⁹ However, data on the percentage of the population who has regular access to mother and child primary care by region is not readily available.

PHC facilities often combine activities planned and coordinated at the national level with those that respond to local efforts. One useful approach to develop and implement procedures and performance indicators to gauge quality, costs and efficiency at the PHC level is to first elaborate a list or portfolio of services provided by each health facility. Sometimes efforts are made to develop such a list as a tool to help coordinate the supply of services. As a result, data can be collected and processed with relative ease.

Resources Allocation to PHC

Clinical/Diagnostic Support and Technology

The basic diagnostic/clinical support services are lacking or limited at the District Hospitals and there is very little support for such functions at the Health Posts and Health Centres. Laboratories are often poorly

⁷⁷ Institute for Health Sector Development, Service Model, Modelling Services Development, June 2002

⁷⁸ Government of Guyana, National Development Strategy, 2000

⁷⁹ RMC Resources Management Consultants, Current Health Needs and Resources in Guyana, September 1999

staffed, lack reagents, lack equipment or power to operate the equipment, cannot or are not equipped to do key tests. Referrals of common conditions are made to higher levels than necessary facilities because the necessary clinical/diagnostic support is not available at the corresponding level.

Materials Management

A frequent problem hampering the delivery of PHC is the lack of proper supplies distribution, such as pharmacy and small equipment. Drugs are often in short supply. Refrigeration for vaccine storage is limited. Small equipment such as speculums and glucose meters are not available in some areas. At the regional level it is felt that local control of distribution would be superior to the existent system.

Data Collection and Information Flow for Planning

All PHC facilities have time-consuming data reporting responsibilities. The data formats and requirements are varied and involve tally sheets, weekly reports, monthly reports and other data forms. Data is collected manually and sent to the Maternal and Child Health Unit as well as the Vital Statistics Unit of the MOH. Discrepancies between the various offices of the MOH and Vital Statistics often go unresolved and it is difficult to obtain reliable figures. The PHC units complain that they report the data but there is no return of information to help them plan which leads to scepticism concerning the data collection exercise.

Information Gaps for the Assessment of the Supply of PHC Services

In order to assess equity an estimate of the percentage of the population that lacks regular access to primary care services in Guyana must be undertaken. Presently, data on the percentage of the population who has regular access to mother and child primary care by region is not readily available. In addition, we do not have information on the percentage of the population that has regular access to each of the major types of primary care services.

Analysis of technical quality depends on the standards for proper practice and care that are observed and reviewed. Some technical quality standards are relatively simple to formulate and gauge; for example, the minimum advisable time for the first consultation and maintenance of a single patient record. Others require protocols developed by professional groups; such as the rational use of drugs, screening and early diagnosis of cervical cancer, outpatient treatment for hypertension. To analyse the technical quality of PHC services in Guyana, there is a need to determine the following: (i) the percentage of patients who have a standardized

chart or clinical history; (ii) the average time for a patient's first visit; (iii) the total number of visits, the number per professional, and the ratio between first visits and subsequent ones; (iv) the percentage of patients who underwent treatment protocols; (v) the percentage of time devoted to activities, such as health promotion, education, and disease prevention; and (vi) the percentage of the primary care facilities that fail to meet the minimum operating standards.

Analysis of perceived quality refers to user satisfaction, which may be determined by factors such as the ability to make an appointment by telephone, house calls, courteous treatment, the availability of appropriate examination rooms that ensure privacy and hospital appointments arranged from the primary facility. To learn about user satisfaction, surveys are often used and records kept of suggestions and complaints. To analyse the perceived quality of PHC services in Guyana, there is a need to determine the following: (i) Procedures to learn public and users' opinions; (ii) Whether there are programs to improve perceived quality and what they include; and (iii) If health facilities have determined objectives for quality.

It has been documented that the poor quality of care offered at the lower levels encourage many patients to by-pass the referral system and seek care directly at the higher levels causing the breakdown of the referral system. Therefore, it is critical to analyze how well the mechanisms for patient referral and counterreferral function both within and between different care levels. For example, within primary care facilities a patient may be referred from a small rural infirmary to a treatment and diagnosis centre, and between primary care and a referral hospital. The critical factors in rural settings are communications and transportation. In urban and suburban areas it is essential to ensure communications between the physician or health care provider at the first level and the hospital. Thus in the Guyanese setting it is important to determine the procedures for patient referral and counter referral and how do they work.

Finally it is important to determine whether changes are anticipated in the supply of health services. If changes are anticipated then where the changes will take place, at what level, and under which financing systems must be determined.

Analysis of Hospitals

Most of the existent methodologies to analyze hospital activities follow a simple, logical format that is based on three categories: the structure, the processes, and the results.⁸⁰ The analysis of the structure is

⁸⁰ Paganini JM, Novaes HDM, Desarrollo y Fortalecimiento de los Servicios Locales de Salud. El Hospital Publico: Tendencias y Perspectivas. Washington DC: OPS, 1994; and Donavedian A. La Calidad de la Atencion Medica:

concerned with the physical condition of the building, equipment and staff, that is, everything available in the hospital before a patient is received. The analysis of the processes is subdivided into primary processes (x-rays, menus, nurse reports, etc.) and secondary processes (how primary processes are undertaken and how many are completed by patient). The analysis of results looks at the hospital as a health care team that in conjunction with other medical and non-medical teams contributes to health improvements. The product here is the level of health of the population that receives care and is gauged through health indicators and field surveys.

Ideally an analysis of the secondary processes is best divided into the following main areas: (i) Clinical Services; (ii) Hospitalization; (iii) Central Diagnosis and Treatment Services; (iv) Outpatient Care; (v) Hospital Emergency Room Services; (vi) General and Administrative Services; (vii) Hospital Management; (viii) Medical Division; (ix) Nursing Division; (x) Financial Management Department; (xi) Admissions, Registrar and Clinical Records; (xii) Patient Satisfaction Service; (xiii) Lodging and/or Hotel Services; Nutritional Services; and Technical or Clinical Care Quality.

At this time in Guyana there is no formal data to undertake an analysis of the regional hospitals and the national hospital.

Analysis of Demand for Services

Demand for health services in a population is a function of several factors, particularly income and education levels, needs stemming from demographic and epidemiological patterns, and specific care supply features. Most available information demonstrates that overall demand for services tends to rise in relation to income and education levels, the proportion of the over 65 population, and the oversupply of services. The kinds of services in highest demand are also a function of the demographic and epidemiological profiles and local or national cultural traits.

It is acknowledged that in Guyana 12½ percent of the population does not have access to any health care. The situation is proportionally more severe for the lower- income groups. For example, among the lowest income group 24% of the ill of injured does not seek medical care “ due to expense or distance factors’, in the next lowest, the corresponding figure was 19%, but in the highest it was only 3%.⁸¹

Deficiencia y Metodos de Evaluacion. Mexico DF: La Prensa Medica Mexicana, 1984

⁸¹ Government of Guyana, National Development Strategy, 2000

The most important factors affecting the demand side of health care utilisation are the distance and travel time to a health facility, the perceived quality of care, the education level of the patient, the type and severity of the illness and the out of pocket expenditures for health. The price of the service plays an important role, but is not the only determinant of health services demand. At the present time, health services are not responsive to users, particularly those most in need, thus resulting in increased inequity. In addition, poor accountability to users undermines the responsiveness of the system.⁸²

The level of consultations and discharges is the most commonly-studied indicators for general service usage. The annual per capita rate of overall medical outpatient visits is an indicator of primary care usage; per capita annual visits - inpatient and outpatient - to hospitals and emergency room visits are likewise all useful indicators of demand. Time series data on usage is required in order to study trends, and usage data from other similar geographic areas are useful for inferring trends.

Usage can be disaggregated into major clinical service divisions; into specific programs, and by motive for consultation, which is an indirect estimate of morbidity. It is helpful to distinguish usage rates among different population groups by education, income level, ethnic characteristics, etc. When groups show different rates of coverage, such as usage among groups covered by social security, the health ministry, private insurance, and those without coverage, a useful estimate of potential demand can be made by taking the usage rate of the groups with the highest coverage or with average coverage as an estimate of potential demand among underprivileged groups. This estimate of potential demand is compared with current capacity or supply of health services in order to indicate the gaps in coverage.

Although at the present time there is some outdated data (1998) on the usage of select services at the PHC level and of Regional Hospital utilization⁸³ in Guyana there are no known surveys or studies that have been conducted to estimate the potential demand for health services. Equally no studies exist of the general frequency of usage for primary, secondary and tertiary care, by distinct programs, or for public, private non-profit and for profit hospitals.

Recommendations

1. In order to elicit the enforcement of rules and regulations to license health establishments: (i) Develop a listing/directory of all public and private health facilities; (ii) Create a national health accreditation

⁸² Ibid

⁸³ GOG/IDB Health Sector Policy and Institutional Development Program, RMC Resources Management Consultant, Current Health Needs and Resources in Guyana, September 1999

program.

2. In order to help coordinate the supply of services and improve data collection and information flow for planning it is highly recommended that Guyana develop a portfolio of services provided by each health facility. This will serve as the basis for the development of a basic package of health services tailored to the needs of each individual region.
3. To strengthen human resources for PHC it is important to bring forward manpower planning as an appropriate function of the MOH. It is an essential public health function and individual regions are unlikely to have the expertise and planning power to undertake this task.
4. Also, ensure that the personnel at the delivery front have the necessary training and expertise to deliver the programs for which they are responsible. Some key administrative and clinical key areas for training, such as upgrading CHWs' skills for their role in immunisation outreach and or nurse midwives in the use of modern techniques and equipment.
5. There is also a need to provide specific in-service training and continuing education to upgrade and/or maintain the skills of doctors, nurses, and other health workers. It is highly recommended that periodic refresher courses be made mandatory for doctors and nurses. Attention to the curriculum of basic training is also required to prepare health workers for their role in PHC.
6. In terms of data collection and information flow for planning a detailed analysis of the requirements of PHC data is needed in order to propose standards, and design the information flow to and from the MOH.
7. In order to assess equity an estimate of the percentage of the population that lacks regular access to primary care services in Guyana must be undertaken. Presently, data on the percentage of the population who has regular access to mother and child primary care by region is not readily available. In addition, information is not readily available on the percentage of the population that has regular access to each of the major types of primary care services.
8. To analyse the technical quality of PHC services in Guyana, there is a need to determine: (i) the percentage of patients who have a standardized chart or clinical history; (ii) the average time for a patient's first visit; (iii) the total number of visits, the number per professional, and the ratio between first visits and subsequent ones; (iv) the percentage of patients who underwent treatment protocols; (v) the percentage of time devoted to activities, such as health promotion, education, and disease prevention; and (vi) the percentage of the primary care facilities that fail to meet the minimum operating standards.
9. To analyse the perceived quality of PHC services in Guyana, there is a need to determine the following: (i) Procedures to learn public and users' opinions; (ii) Whether there are programs to improve perceived quality and what they include; and (iii) If health facilities have determined objectives for quality.
10. The procedures for patient referral and counter referral and how they work should be determined. A felt need is a study for the audit of referrals.
11. A thorough analysis of the existent hospitals structure, analysis and results is imperative.
12. A survey or study should be conducted to estimate the potential demand for health services.

13. To increase efficiency rationalisation of health facilities at the primary level. Where travel time and distance have been improved consolidation of facilities will take place in order not to affect equity considerations.
14. No quality of care study has been completed either in the public or private sector. No user satisfaction survey has been completed in the regional or local level, only at the Georgetown Hospital.
15. Consolidation of services at the primary level and revise services to respond to the epidemiological/demographic pattern as to provide a basic package of health services that respond to the regional/local needs.
16. Establish a mechanism for inter-sectoral collaboration at the national, regional and local level.
17. Increase accountability for drugs and medical supplies. Increase staffing for drug supplies at the regional level. Essential Drugs Program strengthened.

CHAPTER 9

ESSENTIAL PUBLIC HEALTH FUNCTIONS

“Health sector reform processes have concentrated primarily on structural, financial, and organizational changes in the health systems and on adjustments in the delivery of health services to people. Public health as a social and institutional responsibility has been neglected, precisely at a time when the demand for care is higher and more government support is needed to modernize the infrastructure necessary for its practice.”⁸⁴

In September 2000, the 42nd Directing Council of the Pan American Health Organization passed a Resolution supporting an initiative aimed at strengthening public health practice in the Americas as well as strengthening the steering role or 'stewardship' of the National Health Authority (NHA) by way of defining and measuring the performance of essential public health functions (EPHFs).

The definition of the EPHF is based on the premise that “public health is a collective action of the State and Civil Society to protect and improve the health of individuals.”⁸⁵ Defining and measuring the EPHF is considered a way of contributing to the institutional development of public health and to improve the dialogue between public health and the other disciplines related to health.

The list of Essential Public Health Functions is seen in Table 8.1.

In December 2001, the instrument which has been developed to measure the EPHFs was applied in Guyana. The methodology used was self-evaluation. Measuring the degree to which EPHF are fulfilled by the health authorities should enable the Ministries of Health to identify critical factors to consider when developing plans or strategies to strengthen public health infrastructure.

⁸⁴ Essential Public Health Functions, PAHO/WHO, 2000

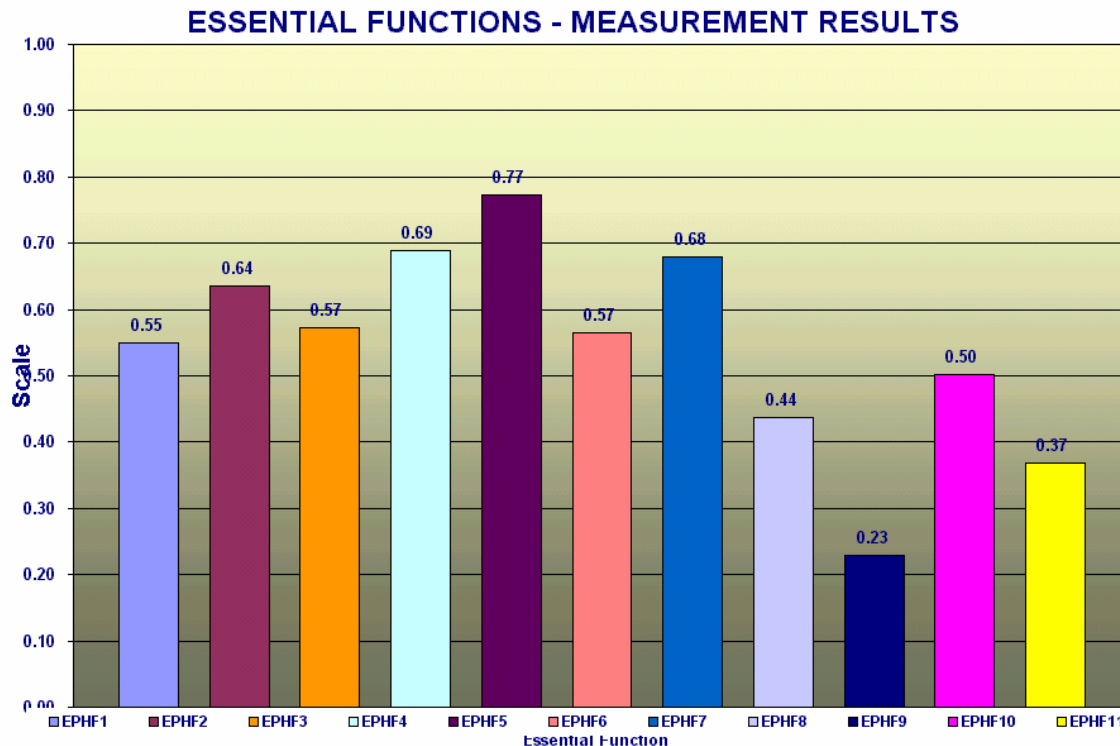
⁸⁵ Ibid

TABLE 8.1 List of Essential Public Health Functions

EPHF 1	Monitoring, Evaluation and Analysis of the Health Situation of the Population
EPHF 2	Public Health Surveillance, Research, and Control of Risks and Threats to Public Health
EPHF 3	Health Promotion
EPHF 4	Social Participation in Health
EPHF 5	Development of Policies and Institutional Capacity for Planning and Management in Public Health
EPHF 6	Strengthening of Institutional Capacity for Regulation and Enforcement in Public Health
EPHF 7	Evaluation and Promotion of Equitable Access to Necessary Health Services
EPHF 8	Human Resources Development and Training in Public Health
EPHF 9	Quality Assurance in Personal and Population-based Health Services
EPHF 10	Research in Public Health
EPHF 11	Reducing the Impact of Emergencies and Disasters on Health ⁸⁶

⁸⁶ Reducing emergencies and disasters in health includes prevention, mitigation, preparedness, response, and rehabilitation.

Figure 6: Results of the Measurement by Function for Guyana



The following scale was used as the guide for overall interpretation:

76-100%	(0.76 to 1.0)	Quartile of optimal performance
51-75%	(0.51 to 0.75)	Quartile of above average performance
26-50%	(0.26 to 0.50)	Quartile of below average performance
0 - 25%	(0.0 to 0.25)	Quartile of minimum performance

This overview of the performance of the eleven essential public health functions (Figure 1) shows how Function 5 Development of Policies and Institutional Capacity of Planning and Management in Public Health obtained the highest score, while Function 9 Quality Assurance in Personal and Population-based Health Services scored the lowest.

Using the quartiles as indicated earlier we can see from the bar chart in Fig 1 that:

Function 5 – is in the quartile of optimal performance.
 Functions 1, 2, 3, 4, 6 and 7 are in the quartile of above average performance.
 Functions 8, 10 and 11 are in the quartile of below average performance.

Function 9 is in the quartile of minimum performance

Essential Function No 1: Monitoring, Evaluation and Analysis of Health Status

This function looks at the ability of the National Health Authority to be updated on the country's health situation, trends and their determinants. It reviews the identification of the population's health needs, including the assessment of health risks and the demand for health services. The overall score was 0.55 which indicated above average performance.

The evaluation showed that the Ministry of Health does not have its own guidelines for measuring and evaluating the population's health status. However various programmes within the Ministry of Health that are funded by the donor agencies have established clear guidelines.

While an annual report is produced and disseminated, the data are limited to social, demographic, mortality and morbidity data. Other variables that should be monitored are risk factors, lifestyles and environmental risks, access to personal and population based services, service utilization and cultural barriers to access. Since the health status profile that is generated is limited, its use in planning and prioritizing is also limited. However whatever information is currently generated is used for planning purposes.

An assessment of the information systems showed that there were several weaknesses. No specific protocols for accessing data have been developed to protect the confidentiality of information. The quality of the information was assessed as an area of great weakness. There is no unit that evaluates the information generated by the health system for quality, except for the Auditor General who monitors the financial information. No periodic audits of the information system that assesses the country's health status are conducted. The percentage of medically certified deaths is known and the Ministry of Health considers that based on that percentage the mortality data are reliable.

The Ministry of Health has expertise in collection, evaluation, management, translation, interpretation, dissemination and communication of health status data. There is also expertise in monitoring and evaluation and in the conversion of data into useful information for decision-makers.

The Ministry has access at the national level to personnel with expertise in epidemiology and statistics. Access to persons who are highly skilled in these subjects is also available through the Caribbean Epidemiology Centre which serves the Caribbean.

Computers are available within the Ministry of Health and are used for monitoring and evaluating health status at all levels. High-speed computer links are not available nor is there a dedicated line to the Internet. There are no linkages to the computers at other levels.

The Ministry from its central office is seen as the core that drives collection of data at the regional levels. Once data is collected it is passed up to the central level for analysis and interpretation. Training of regional personnel exists but not as a systematic undertaking. Support for the preparation and publication of community profiles exists but such profiles are not often done.

Essential Function No 2: Public Health Surveillance, Research and Control of Risks and Threats to Public Health

This function looks mainly at the surveillance system and the capacity of the system to conduct research that will provide information to augment the surveillance data. The overall score obtained for this function is 0.64.

The Ministry of Health has a surveillance system in place. While the system can identify many of the public health threats, data on risk factors are not routinely asked for and as such the system is deficient. The system also does not monitor changes in living conditions that call for a public health response.

It was strongly perceived that the Ministry of Health does not have sufficient expertise in public health surveillance to analyze threats and risks to public health. The following are lacking: adequate forensic medical services, expertise in the management and use of geographical information systems or environment health and toxicology services. The Ministry does not conduct population-based research on infectious, chronic non communicable, mental and occupational diseases. It also does not use rapid epidemiological evaluation methods. It was also felt that the Ministry does not have the expertise to design a new surveillance system.

The Ministry of Health regularly evaluates information generated by the public health surveillance system. However, while information is collected, its quality is not reviewed annually.

The laboratory network does not have the capacity to identify the causative agents of all reportable diseases in Guyana. The laboratories do not have standardized procedures for obtaining information from public and private laboratories to monitor diseases. The laboratory network could not meet the routine epidemiological needs. However, strict procedures are in place for the handling, transportation and storage of

samples. In the public sector, there are formal mechanisms for coordination and reference with international laboratories of recognized excellence. There are linkages between the private and public sector laboratories.

The Ministry of Health does have the capacity to respond in a timely and effective manner to control public health problems. There is no formal mechanism in place to recognize good performance by surveillance teams or emergency response teams.

The Ministry does not evaluate the response capacity of its surveillance system as it relates to the types of health emergencies with which it deals. System evaluation to identify deficiencies is not done, and therefore no results could be communicated to contributors of information for corrective action to be taken.

While it was agreed that the Ministry of Health supports the sub-national level, a more detailed assessment of personnel, training, equipment and maintenance of equipment and other needs for surveillance should be done. The Ministry of Health does not receive regular reports from sub national levels on disease trends and behavior since most of the analysis of the data is done at the national level.

Essential Function No. 3: Health Promotion

This function addresses support for health promotion activities, assessing whether intersectoral partnerships and empowerment of individuals and communities are fostered. The score for this function was 0.57.

The Ministry of Health has no written definition of its health promotion policy, nor does it have clearly defined short term or long term goals related to health promotion at the national or sub-national levels.

There is no incentive system in place to encourage participation in health promotion activities nor is there a system for recognition of excellence in health promotion. The Ministry provides finance and training for health promotion events but this is not done on a competitive basis.

There is no coordinating unit that provides an intersectoral approach to health promotion. However sectors collaborate for specific programmes or activities such as the implementation of Health and Family Life Education in schools. Not enough resources are allotted to measure the health impact of public policies, although there is expertise to measure such impact.

The Ministry has developed and implemented an agenda for community education that promotes initiatives to improve population health. However, that agenda does not include the private sector, and does not have nationwide consistency. Health promotion activities have been carried out regularly in the print and electronic media, with the exception of the internet. Results are not evaluated through focus groups or population surveys.

The Ministry of Health does not have a web page or a clearinghouse for information. There is however a hotline but this has not been evaluated in the six months preceding the assessment. A prevailing view was that more needs to be done to convince people that it is worth investing in promotion.

Not enough is being done to develop strategies for reorienting health services to the public health approach. The Ministry of Health has not developed a payment mechanism to encourage the National Insurance Scheme to get involved in health promotion activities; has not yet developed any plans to change the public infrastructure in health promotion; also has not developed guidelines for the accreditation of facilities in health promotion, nor does it have clinical protocols validating effective practices in health promotion.

Based on the response to the questions, it was determined that the Ministry of Health has not adequately promoted the strengthening of primary health care. Health teams were not trained in promotion of population-based models of care. Some resources and authority were provided for the implementation of health promotion programmes for target populations. Incentives for development of health promotion programmes are weak.

The Ministry of Health has been strengthening its human resources development by using a health promotion approach. Training programmes for staff include health promotion content in an effort to instill positive attitudes towards health promotion. Health promotion is incorporated in continuing education programmes for health personnel.

It was the opinion of the group that evaluation of health messages for cultural appropriateness, and messages representing the current best practice were not done.

At the sub-national levels there is some expertise in various aspect of health promotion including health education, working with groups and development of education materials.

The Ministry of Health has several tools such as radio and television to maximize impact at the sub-national levels. There are facilities and equipment that permit the development of education materials.

Essential Function No. 4: Social Participation in Health

This section deals with the strengthening of intersectoral partnership and facilitating participation by the community in all aspects of health. The overall score for this function was 0.69.

The Ministry of Health has positively taken action as a means of empowering citizens for decision-making in public health. Mechanisms are in place to consult civil society on matters of public health. While the Ministry produces a report on public health status at least once every two years, the report findings are not necessarily distributed to communication media nor community groups. There are no formal channels for feedback on any of the reports.

Social participation is taken into consideration when defining the public health goals and objectives. This is done at all levels of the system. The Ministry has also established formal entities that strengthen social participation in health.

The Ministry of Health does not have a programme in place to educate the public about its rights to health at the national, regional or the local level. It was also felt that the Ministry needs to disseminate information about successful social participation initiatives.

The health authorities do support the sub national levels to develop and strengthen social participation mechanism with respect to decision making in public health. However, while a lot has been done in this respect, areas which need strengthening are the design of public accountability mechanisms and the implementation of effective mechanisms for conflict resolution

Essential Function No. 5: Development of Policies and Institutional Capacity for Planning and Management in Public Health

This function deals with the development of political decisions in public health through a participatory process at all levels. The overall score was 0.77.

The Ministry of Health seeks the input of key actors in identifying priorities at the national and sub-national levels. National health plans are based on these priorities. However, there is not adequate financing to execute plans and programmes aimed at attaining health goals and objectives. The Ministry of Health does not develop performance indicators that measure the levels of achievement of the defined health goals and

objectives, policies and activities. Organizations outside of the Ministry of Health are not involved with setting the indicators.

The Ministry of Health assumes leadership in developing the national health policy agenda which has the endorsement and approval of the Executive and Legislative branches of Government. The Ministry also coordinates social participation activities to help define this agenda.

The Ministry has the institutional capacity to exercise leadership in the management of the public health system but has very little institutional capacity for evidence-based decision making. Among some of the deficiencies are: no database of existing resources, no service output data, no quality of service data, no consistent use of regular information from different sources to improve the management of public health systems.

The Ministry of Health has the capacity for strategic planning and uses strategic planning in its activities and operations. There was strong agreement that there is a permanent organizational development process in place. However the organizational culture does not facilitate the empowerment of personnel for their own development. There is some institutional capacity for resource management. However the Ministry needs more control over its allocation of resources.

The Ministry scored very high in terms of its management, negotiation and implementation of international cooperation in public health. The Ministry has strong relationships with its international partners.

The Ministry of Health advises and provides technical support to the subnational levels for their activities in policy development, planning and management in public health. However the necessary systems are not in place to rapidly and accurately detect needs for improving management at the sub national level.

Essential Function No. 6: Strengthening of Institutional Capacity for Regulation and Enforcement in Public Health

This function addressed the development and enforcement of sanitary codes and /or standards aimed at improving health and promoting health environments. The overall score for this function was 0.57.

The National Health Authority does not have expertise in the drafting of laws and regulations designed to protect public health. It does not have its own legal counsel, nor is a legal counsel contracted specially to

the Ministry. While the Ministry conducts reviews of laws and regulations, recommends the drafting of new laws that are consistent with scientific knowledge, and also considers the negative and positive impacts that they may cause, these reviews are not timely or periodic. In the drafting of laws, the Ministry of Health normally consults extensively with key lawmakers, legal advisors, other government agencies, civil society and interested international organizations.

The Ministry of Health normally spearheads efforts to revise laws and regulations by offering advisory services and assistance to lawmakers, and is engaged in advocacy to facilitate the necessary legal revisions that protect the health and safety of the population.

There are systematic processes in place to enforce laws and regulations as well as clear written guidelines that support enforcement in public health. There are personnel who are responsible for the enforcement of these regulations. Mechanisms are in place to supervise the enforcers and prevent the misuse of authority. When abuse is detected, it was felt that the Ministry of Health did not act in a timely manner.

The Ministry is doing a good job in educating the public about health regulation and encouraging compliance. The Ministry does have the capacity to exercise its regulatory and enforcement functions, however more emphasis should be placed on the provision of adequate human resources and financing.

The Ministry of Health has been providing training courses to orient new staff in enforcement. These courses include best practices in enforcement and are offered regularly. More work is needed for personnel to develop interpersonal communication skills and personal safety skills.

Developing laws and regulations is not done at the subnational level but the Ministry of Health does provide the sub-national levels with orientation and support to enforce laws and regulations.

Essential Function No. 7: Evaluation and Promotion of Equitable Access to Necessary Health Services

This function deals with the promotion of equitable access to health care by all citizens. The overall score for this function was 0.68.

The Ministry of Health conducts a national evaluation to determine access to the necessary population-based health services. This evaluation is conducted with the involvement of all levels. Evaluation

of personal health services is also conducted. However, the national evaluation does not examine the problem as it relates to cost of services, and the payment system for these services. Analysis of services in the private entities, insurance companies and other payees is not done.

In most evaluations to identify barriers to necessary health services, the variables used were age, gender, language, literacy, residence, transportation, level of education, physical disability, mental disability and types of diseases. Variables such as culture and beliefs, gender, ethnicity, religion, income, insurance coverage, nationality and sexual orientation were not considered. These evaluations are not used as an opportunity to disseminate information on best practices nor to promote equity in access.

The Ministry of Health does not have personnel that are specialized in community outreach activities. There are no dedicated personnel to identify and track utilization of services, or problems relating to barriers to accessibility of services. The Ministry has personnel who inform civil society about access to necessary health services. However, the personnel did not have competencies in reducing linguistic and cultural barriers, nor are they able to develop early national detection programs. There is also need for closer collaboration with social security agencies to monitor vulnerable and underserved groups.

Based upon the evaluation, the Ministry of Health is able to improve its services to the population. It has introduced innovative methods of service delivery that promote access to health services.

The Ministry has been engaged in advocacy to improve access to necessary health services. It advocates the adoption of policies, laws and regulations that increase accessibility to vulnerable groups. It also maintains partnerships with groups that are working in this area and involves training institutions in this process. The Ministry of Health has undertaken a very proactive role in improving access to health care. The current reforms currently taking place in the sector is a testimony to this.

While it was the consensus that the Ministry of Health is assisting the sub national levels to promote equitable access, it was felt that an area of focus should be in developing strategies to overcome the identified barriers to access.

Essential Function No. 8: Human Resources Development and Training in Public Health

This function focuses on the education, training and evaluation of the public health workforce to identify the need for public health services and health care. The overall score was 0.44.

The consensus was that the Ministry of Health has evaluated its current needs for public health workers at the various levels. It was also the view that the Ministry of Health has maintained a profile of workers needed to discharge these functions at the various levels.

However, the gap analysis of public health workers, that is, the supply of workers to fill the current and future demand has not been done.

There is periodic evaluation of the public health workforce. There is access to information on wage structure and other pecuniary benefits, geographical distribution, educational profiles and competencies. The Ministry of Health does not have access to the distribution of healthcare workers according to type of employment in the private sector and non-governmental organizations. Evaluations as to whether the workforce can perform transcultural tasks are not done.

The Ministry of Health does use a pre-existing profile to update inventory of posts needed to discharge public health functions and services. However the inventory does not include a mechanism for filling vacancies based on priorities, an in-depth analysis of filled and vacant posts, an estimate of volunteer workers within the public sector nor identification of areas for potential growth. The Ministry's evaluation of quantity and quality of the workforce does not involve inputs from other entities.

The Ministry of Health has strategies in place to improve the quality of the workforce. These includes guidelines for accreditation and certification of public health workers, policies for training, collaboration with academic institutions, encouragement for continuing education, and development and implementation of plans for improvement of quality of the workforce.

The Ministry does not offer adequate guidance to academic institutions and promote continuing education and graduate training in public health among its public health workforce. There are formal agreements that permit access to continuing education and academic institutions are encouraged to offer these programs. However there is need for annual assessments of the institutions that employ these persons on the knowledge and skills gained through continuing education and graduate training activities. There is also need to ensure that strategies and mechanisms for retention of these workers are in place.

While the Ministry of Health takes cognizance of gender, it still has to orient its workforce to be more culturally sensitive. There is need to study the barriers to make the service more culturally sensitive and to ensure that recruitment practices are reflective of these sensitivities.

The national level assists the sub-national levels in developing their workforce by providing guidance and strategies for their development at some levels. However more work has to be done to make the programs more culturally and linguistically appropriate.

Essential Function No. 9: Quality Assurance in Personal and Population-based Health Services

This function assesses the promotion of permanent systems and the development of the basic standards required for a quality assurance system. The overall score was 0.23 for this function.

The Ministry of Health does not have a policy that promotes continuous quality improvement in health services. There is an absence of national performance goals with standards, evaluation of staff attitudes towards user satisfaction, measurement of user satisfaction and policies and procedures on quality improvement of population-based and personal health services.

The Ministry of Health does set standards and periodically evaluates the quality of population-based health services throughout the country. While this is periodically done, there is little dissemination of the results to users. There is no independent body that accredits and independently evaluates providers of population-based health services.

Less evaluation of quality personal health services is done. Weaknesses were the lack of instruments to measure processes and results, identify performance goals for quality improvement and procedures for data collection and analysis. Even when studies are undertaken feedback to providers and users of personal health services is minimal. Also there is no autonomous entity that accredits and evaluates quality of the personal health services.

The Ministry of Health actively encourages community participation. There is need though to regularly evaluate user satisfaction with population and personal health services. These evaluations must

incorporate factors that decision makers and civil society have identified. The results of these evaluations must be disseminated to providers and users, and cognizance must be taken of them to inform policies on quality.

An area which needed attention is the implementation of systems for technological management and health technology assessment. The Ministry of Health does not establish and encourage use of technology management and health technology assessment systems to support decision-making in public health. There is no entity within the Ministry with responsibility for technology management and health technology assessment. There is need for such a unit, with the relevant skills, personnel and methodologies for the systematic assessment of safety, effectiveness, cost effectiveness, usefulness, utility cost and social acceptance. A consultative mechanism needs to be in place to determine the kinds of technology required.

The Ministry of Health has been providing assistance to the subnational levels in collecting and analyzing data on the quality of population-based and personal public health services. However because of the lack of capacity at the national level in terms of technology assessment, it is unable to provide assistance at the lower levels.

Essential Function No. 10: Research in Public Health

This function assesses the efforts of research to promote changes in public health and development of a research capability at the various levels. The overall score for this function was 0.5.

Some research is being conducted but there is no formal research agenda. The Ministry of Health is developing its institutional capacity for public health research through training of staff in research methodology.

The Ministry has the ability to conduct independent research on issues relevant to public health and to ensure that these research studies are interdisciplinary and take into account gender and cultural diversity. An approval procedure for conducting research in its facilities and on the population is also in place. The procedures could be strengthened in several ways. These include establishment of national priorities and avoiding the duplication of efforts, a formal mechanism that adheres to internationally accepted norms for monitoring of ethical aspects of the research, a transparent mechanism for funding budgets allocated to research units and a mechanism to reward researchers.

The Ministry of Health has analytical tools for conducting public health research. There is statistical software available for analyzing high-volume data, and experts to utilize this software. Computer support is available for analyzing high-volume data and capacity for qualitative and quantitative data analysis. The

Ministry has the capacity to communicate research findings to key actors in the health system for use in decision-making. However this is not necessarily done in a timely manner and there is no structured mechanism to disseminate findings. Currently the databases that are contained in the Ministry of Health are not regularly updated.

The Ministry of Health supports the training of the sub-national levels to use operations research methodologies in public health. Training in research on outbreaks of epidemics, food poisoning and risk factors for chronic diseases has been done. Training in health services delivery research and community health has been done at the subnational levels however these still need to be strengthened.

The Ministry does not have a broad or network of key persons dedicated to or benefiting from public health research findings. There is also limited participation of the subnational levels in research projects that emanate from the national levels.

Essential Function No. 11: Reducing the Impact of Emergencies and Disasters on Health

This function assesses the planning and execution of public health activities in disaster prevention, mitigation, preparedness, response and early rehabilitation. The overall score for this indicator was 0.37.

The Ministry of Health has an institutionalized national plan for reducing the impact of emergencies and disasters on the population's health. However the plan does not include a national map of risks, threats and vulnerability to emergencies and disasters nor is there a special unit within the Ministry that is dedicated to emergency preparedness and disaster management in health.

The Ministry of Health's coordinating ability in implementing emergency and disaster preparedness measures is restricted. While the Ministry of Health has a communication and transportation network in place it has not been periodically evaluated.

Training of personnel at all levels in emergency preparedness and disaster management is limited. There is no formal training in the prevention and control of communicable and non-communicable diseases or mental illness resulting from an emergency or disaster. Health workers are not trained to carry out emergency simulation exercises, or to man emergency transport systems. No formal training exists in the administration of post-disaster aid or rehabilitation projects for the health sector.

On the other hand, persons while not formally trained in a disaster management program have the following competencies: ensuring food safety, sanitation and environmental health following disasters. They are able to undertake vector control activities in emergencies and conduct rapid risk and needs assessments request, obtain and distribute critical equipment/ and health supplies for emergencies and disasters. There are persons at various levels who would be able to manage the health system in such emergencies.

There are no national sanitation standards, no standards and guidelines that help prepare for the consequences of emergencies and disasters in the national emergency plan. There is need to develop norms and regulations for the donating of essential drugs and necessary supplies. There is also need for standards and guidelines re equipment, drugs and supplies necessary for emergencies and disasters, construction and maintenance of health infrastructure and services. Standards and guidelines are also required to deal with the consequences of emergencies and disasters and to develop backup mechanisms in health services delivery for emergencies.

Emergencies and disaster management is done by an agency outside of the Ministry of Health called the Civil Defense Authority. The Ministry collaborates with that agency and other relevant organizations and agencies. The Ministry of Health offers limited assistance in terms of capacity building for disaster prevention at the sub-national levels.

Conclusion

The priority action areas identified by the 24 participants in the Guyana Essential Public Health Functions Workshop were the result of merging all the functions into three strategic areas, namely (1) Improving performance through the achievement of results and of key processes; (2) Development of capacities and infrastructure; and (3) Development of decentralised competencies.

The functions related to “Improving performance through the achievement of results and of key processes” represent a substantive component of the work of the health authority in public health. Therefore, the primary goal of actions along these lines is to improve performance through actions, such as those related to the improvement of management and technical skills sensitive to cultural and gender concerns. It may also involve adopting measures so that installed capacity can be used more efficiently to improve its operations and results. Within this strategic area the functions that were identified as being in the range of less than optimal performance included: the evaluation of the quality of information; improving the workforce to ensure culturally-appropriate delivery of services; improving user satisfaction with health services; and the

development of standards and guidelines that support emergency preparedness and disaster management in health.

Specific actions in the area of “Development of capacities and infrastructure” relate to increasing the institutional capacity to manage, regulate and control. It also includes those actions that help improve access to health services, and to technology management and research that will help to increase institutional capacity. They tend to involve investment in training, and procurement of technology resources to improve performance in functions where capacities are deficient. The results of the performance measurement suggested that improvements could be made in developing capacities and expertise in public health surveillance; knowledge, skills, and mechanisms to review, improve and enforce regulations, and to improve access to health services; improve the quality of the workforce; and health technology management and assessment that support decision-making in public health.

The objective of the “Development of decentralised competencies” is to strengthen the decentralisation processes by the health authority in regard to public health faculties and capacities directed to support the subnational levels consistent with the requirements of the modernisation of the State and Health Sector Reform. The evaluation results indicated that there were four specific activity areas that could be focused on to improve this component of institutional development. These pertained to: technical assistance and support to the subnational levels for policy development, planning, and management in public health, to develop and enforce laws and regulations, to ensure quality improvement in personal and population-based health services; and to reduce the impact of emergencies and disasters on health.

CHAPTER 9

POLICY OPTIONS AND RECOMMENDATIONS

The preceding chapters have provided a snapshot of the health sector of Guyana. There is a description of the political, social and economic context in which the health sector functions and which influence some of the policy decisions affecting the sectors. These include the high levels of poverty, the distribution of the poverty, the external debt, and the implementation of the Highly Indebted Poor Country Initiative dealt with the context in which health sector reform is taking place.

The demographic and epidemiologic profiles reveal the emergence of issues such as violence and injuries that must be addressed. The ageing of the population will probably lead to change in the disease patterns and influence the demand for health services. There have been improvements in many of the areas- reduction in infant and maternal mortality rates, reduction in the incidence of many of the communicable diseases.

Several successful diseases prevention and control interventions have been utilized. But there is an unfinished agenda. The burden- in terms of morbidity, disability and mortality- of the chronic non-communicable diseases is high and new strategies will have to be devised to reduce the incidence and prevalence of these diseases and their risk factors.

The institutional and organization issues which affect the delivery of the health services have been described. The limited human and financial resources require measures be instituted to improve efficiency and effectiveness and to attract additional resources. The health sector reform initiative is being implemented and seeks to address many of these issues. The assessment of the Essential Public Health Functions shows however that more attention needs to be paid to the insertion of these Functions into the health sector reform agenda.

The health sector analysis is meant to be more than an assessment of the present situation. It also includes recommendations and strategies for action. The recommendations will be based on the main guiding principles of the health sector reform programme.

A summary of the problems which will affect the achievement of the goals of the health sector reform is provided in Table 9.1.

Table 9.1: Some Critical Problems Grouped by Basic Categories

Categories	Problems
<i>Equity</i>	- Effects of poverty - Persistent inequalities in health conditions - Lack of universal coverage due to logistics, scarce resources or inadequate budget; - Unequal access to health services due to income level, location and communication. - Mal-distribution of available staff
<i>Effectiveness and Quality</i>	- Absence of quality control programs; - Absence of programs to assess medical technologies; - Some patient dissatisfaction. - Health care system not responding adequately to current and emerging health needs of the population
<i>Efficiency</i>	- Low priority given to health promotion strategies; - Poor management in health services - Poor maintenance of facilities and equipment - Distribution problems with drugs, supplies, and basic equipment - Chronic shortage of certain kinds of health personnel - Low wages and morale among health workers - Poor match between the private and public service capacities - Programme budgeting process not fully instituted - Inadequate management information systems - Weaknesses in the institutional capabilities for health care planning
<i>Community Participation</i>	- Limited social participation in meeting health objectives; - Insufficient community participation in the planning, implementation and monitoring of health service provision; - Need to strengthen linkages with other sectors for advancing effective intersectoral interventions that positively impact health.
<i>Financial Sustainability</i>	- Poor match between public and private financing; - Absence of cost containment and saving mechanisms; - Poor linkage of budgets to needs and results. - Need to attain greater efficiency in the allocation of resources and “value for money”

Adapted from Caribbean Regional Health Study

Equity

Equity in health implies reducing to a minimum all avoidable and unfair disparities in health conditions. Equity in healthcare implies that patients receive care according to their need (equity in coverage, access, and use) and that they contribute to the financing of that care according to their ability to pay (equity in financing).

Policy Options/Recommendations

- Ensure that reform of the health sector takes into consideration the recommendations of the world summits/conferences on the environment, population, women and social development.
- Advocate for improved economic opportunities for those living below the poverty line. Provide health and nutrition services which will increase productive capacity and satisfy the basic needs of health and nutrition
- Ensure better targeting of services to the poor and vulnerable
- Implement actions to assign and redistribute resources based on criteria of equity, epidemiology and needs with the objective of reducing the difference of access between regions, assuring coverage and universal access to basic services
- Ensure that priority is given to public health and intersectoral activities especially to improve water supply and sanitation
- Introduce/develop basic package directed either to the entire population or to special groups

Effectiveness and quality

Technical effectiveness and quality imply that the users of the services receive effective, safe, and timely care; perceived quality implies that the care is provided under satisfactory physical, psychological, and ethical conditions that meet the reasonable expectations of the users.

Policy Options/Recommendations

- Strengthen the regulatory role of evaluation and control of the Ministry of Health to guarantee quality of care which is offered in all the facilities of the health sector whether public or private.
- Ensure the separation of functions of the Ministry of Health and the decentralized agencies. This includes redistribution of resources and responsibility in the health sector to regional level
- Make the necessary changes in the organizational structure of MOH to accommodate the development of new functions consistent with steering role .
- Incorporate instruments for evaluating the activities of the sector e.g. protocols of care Strengthen links between the private and public sectors to achieve complementarity.
- Formulate a human resource development plan that addresses the challenges posed by health sector reform.
- Incorporate Primary Health Care and Health Promotion strategies into health programmes.

Efficiency

Efficiency implies a favorable ratio between the results obtained and the cost of the resources utilized. It is analyzed from two angles: resource allocation and the productivity of the services. Resources are

allocated effectively if they generate the maximum possible health gain per unit of cost. They are used efficiently when the maximum amount of product is obtained for a given cost.

Policy Options/Recommendations

- Implement the national health system in such a way that it supports the priority of primary health care
- Review the referral system and develop strategies for strengthening the system
- Ensure more efficient allocation of resources e.g. promoting the rational use of drugs, use of evidence-based medicine
- Develop an information and statistical system which includes the public and private sectors which will allow for the analysis of the sector and improve the quality and efficiency of the services
- Ensure clarification of roles and services at the different levels and by different (sub)-sectors

Sustainability

Sustainability has a social and a financing dimension. It is defined as the capacity of the system to resolve any current problems of legitimacy and financing and meet the challenges of long-term maintenance and development.

Policy Options/Recommendations

- Allocate resources based on equity
- Liaise more closely with the National Insurance Scheme to develop the benefit package that relates to health
- Ensure financing for basic package of services to be delivered to population
- Improve the efficiency of the international cooperation programme so that resources are allocated in accordance with the established priorities
- Conduct analyses to determine cost of providing services to hinterland communities
- Improve health financing and expenditure information systems-continue the preparation of National Health Accounts to monitor financial flows
- Conduct studies to determine the feasibility of introducing additional user fees
- Strengthen the planning and budgetary capabilities of staff at central and regional levels

Social Participation

Social participation involves procedures that allow the general population and relevant agencies to influence the planning, management, service delivery, and evaluation of health systems and services. Social participation also includes the notion that the public and other interested parties benefit from the results of their influence.

Policy Options/Recommendations

- Involve communities and individuals in the definition and assessment of health services
- Introduce initiatives such as Health Settings-communities, markets, schools
- Promote more efficient intersectoral coordination, perhaps based on specific issues of concern to all sectors
- Strengthen collaboration of Ministry of Health with non-governmental organizations and private sector
- Increase skills of health workers to enable them to work with communities in addressing health issues
- Empower communities through education and training to assume their roles in health

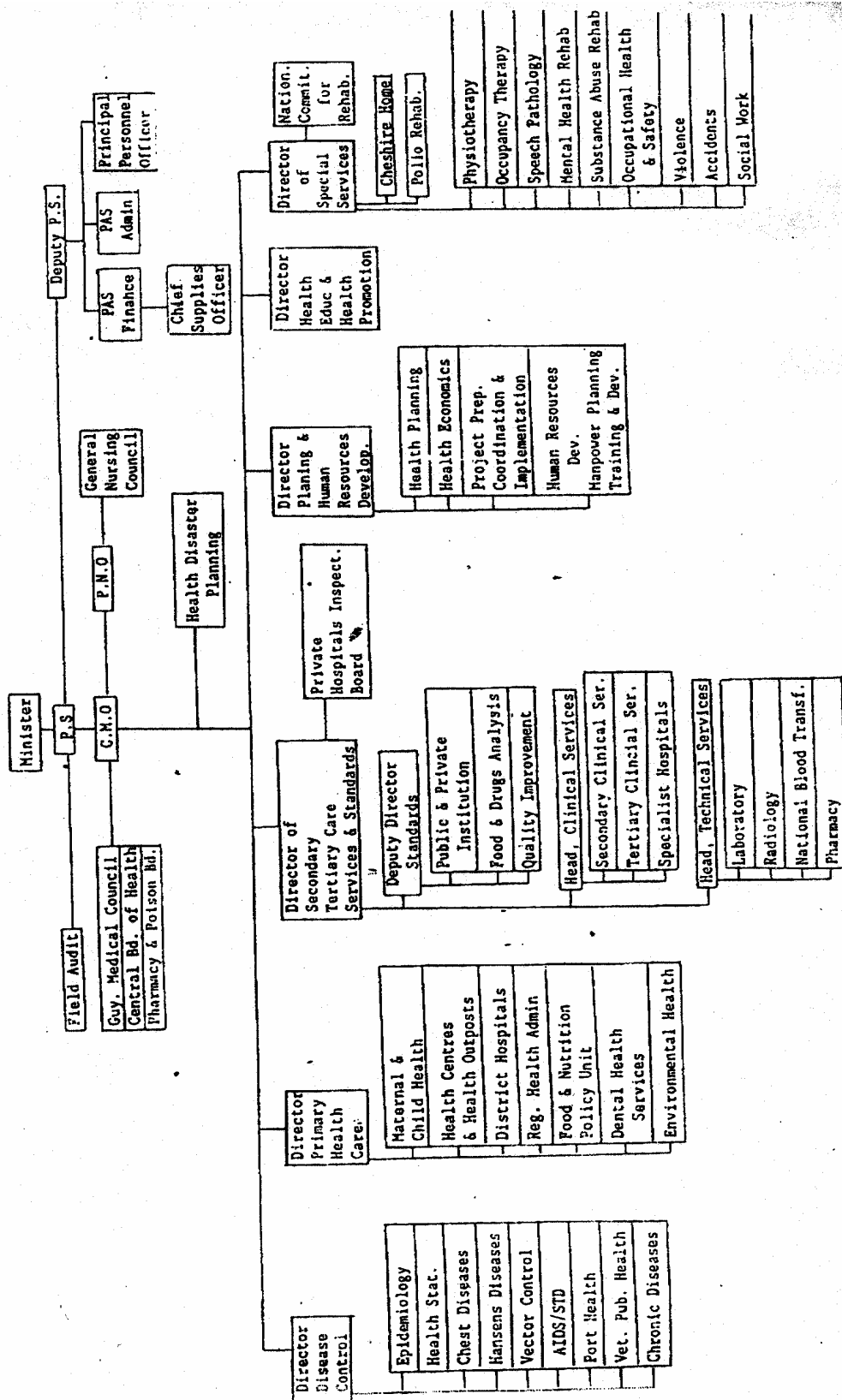
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ORGANIZATION OF THE MINISTRY OF HEALTH



APPENDICES

- I Participants at Health Sector Analysis Workshop, (1st workshop)
- II Participants at the Health Sector Analysis Workshop, (2nd workshop)
- III Present Staffing Ministry of Health
