HEALTH SYSTEMS AND SERVICES PROFILE

BELIZE

(1st edition, May 28, 2001)
(2nd edition January 14, 2002)*

ORGANIZATION AND MANAGEMENT OF HEALTH SYSTEMS AND SERVICES
DIVISION OF HEALTH SYSTEMS AND SERVICES DEVELOPMENT
PAN AMERICAN HEALTH ORGANIZATION

EXECUTIVE SUMMARY

Belize is a sovereign state governed by the principles of parliamentary democracy based on the British Westminster system. The titular head of state is Queen Elizabeth II, represented by a Governor General. A Prime Minister and Cabinet constitute the executive branch of the government while a 29 member elected House of Representatives and a nine-member appointed Senate form a bicameral legislature, the National Assembly. The Cabinet consists of Ministers and Ministers of State who are appointed by the Governor General on the advice of the Prime Minister.

The Government is formed by the People's United Party (PUP) who won the General Elections in September 1998, by an overwhelming majority (26 of the 29 members of the House of Representatives). The opposition party is the United Democratic Party (UDP). Some of the main problems identified in the political and social sectors are: poverty and unemployment, depressed economic growth, insufficient human resources; centralized decision making and operation of the public sector and in some areas a lack of clear defined national priorities, goals and measurable targets.

The Ministry of Health is the only provider of health services in the public sector. The Government of Belize currently has a total of eight hospitals, one in each district, with the exception of the Belize and Cayo Districts, which have two each. Three of the 8 Hospitals are designated Regional Hospitals which provide a wide range of secondary care services in addition to routine primary care. Three of these are Community Hospitals or primary level facilities with limited capacity for the provision of secondary care. The Karl Heusner Memorial hospital functions as the National Referral Hospital and the general hospital for the Central Region. There is also a national Mental Health Hospital. Private sector health facilities are somewhat limited to Belize City.

There has been an increase in the number of health personnel in some of the health disciplines over the last decade, however there is inequity in distribution, with most located in the metropolitan district of Belize.

The major problems identified in the public sector drug management are an inadequate annual budget to cover the population's medical needs and an ineffective procurement and distribution system, resulting in frequent and prolonged "stock outs".

There are standardized treatment protocols for only a few of the prevalent pathologies in public health care facilities. At present, there are neither functioning quality improvement programs nor committees on ethics for the review of professional behavior in any of the existing public and private facilities. However, this situation is currently being addressed as part of the health sector reform process. Routine maintenance of equipment is compromised due to limited budgetary allocation, limited trained personnel, and limited existence and use of preventive and corrective maintenance protocols.

In 1995, the national health expenditure as a % of GDP was 3.3 % and in 1998 this proportion was 3.5%. The total health expenditure was estimated by the Health Policy Reform Project at BZ$ 65.4 million (US$ 32.7 million) for 1995 with 51% spent in the private sector and 49% by the government. Out of the private sector spending, over 50% were spent offshore. The health sector expenditure in Belize was around BZ$ 78.2 million (US$ 39.1 million) during 1998. Out of this amount approximately BZ$ 31.7 million (US$ 15.8 million) 40% was spent by the GOB, 58% was spent in the private sector and a small amount by donors (0.7%).

Availability of reliable and timely information to support the decision making process, is a problem in Belize. This is being addressed so that administrative decision making can be information based. The ability of those urban users who can pay, to choose among various providers for specific types of service in the private sector has increased in the last five years. Rural users do not have this privilege, since the private sector has developed primarily in the urban areas.

The Health Reform Process started in 1990 in Belize and is presently in the implementation stage. The priority areas addressed by the Health Policy Reform Project (HPRP) are efficiency in resource allocation; expansion and diversification of sources of financing. Other areas are sector design and policies; development of the private sector; organization and delivery of health services; human resources policies and management information systems; access to health services; and management of support systems. The Reform Process is in its second phase. The diagnostic phase of the Health Policy Reform Project was completed in June 1998 and provided the Government a final report with recommendations regarding Policy, Administrative, and Legal changes. Implementation of the proposed reforms is now in its initial stages with the following dates proposed for the project. Diagnostic Phase 1991-1998; Project Preparation Stage 1999-2000; Approval by the Bank & Signature 2000-2001 (April); Meeting Pre-Conditions May 2001-June 2002; Project Implementation February 2002; and Final Evaluation April 2005.

1. CONTEXT

1.1. Political Context

Belize is a sovereign state governed by the principles of parliamentary democracy based on the British Westminster system. The titular head of state is Queen Elizabeth II, represented by a Governor General. A Prime Minister and Cabinet constitute the executive branch of the government while a 29 member elected House of Representatives and a nine-member appointed Senate form a bicameral legislature, the National Assembly. The Cabinet consists of Ministers and Ministers of State who are appointed by the Governor General on the advice of the Prime Minister.

For the local government, there are six districts: Corozal, Orange Walk, Belize, Cayo, Stann Creek and Toledo. A locally elected town board of seven members administers each urban area. Unique to this system are Belize City and Belmopan, which have their own nine-member elected City Council. Village Councils carry out the administration at the village level with the traditional “Alcaldes” or mayoral system of the south (Toledo District) incorporated into the structure.[1]

Presently the Government is formed by the People’s United Party (PUP) who won the General Elections in September 1998, with a vast majority (26 of the 29 members of the House of Representatives). Two opposition parties exist, the United Democratic Party (UDP) and the People’s Democratic Party.

Currently, the various relevant Ministries define the national mechanisms for planning and managing development and social policy. Political Reform: Giving "Power to the People", was one of the chapters of the 1993-2003 Manifesto of the People’s United Party. Important reforms are also proposed for the Economic and Social Sector, which include participation of civil society and private sector in the development and management of national policies and programs.

Some of the main political and social problems that affect the health situation are poverty, unemployment, depressed economic growth, and insufficient human resources.

1. 2. Economic Context

The country has an open economy based primarily on agriculture and services. One of the main attractions for foreign investments is a stable currency. Since 1976, the exchange rate has been pegged to the United States Dollar at US $1.00 = BZ $ 2.00. The 1999 per capita income was US $2,427 as compared to US$1,664 in 1989, a growth of 45.8% at current prices. The GDP at current prices, increased by 92% from US $306 million dollars in 1989 to US$589.7 million in 1999. The GDP has displayed a real growth rate of 8.1% in 2000, compared to 6.4% in 1999 and 1.5% in 1996. The inflation rate as measured by the consumer price index is relatively low in comparison to neighboring countries, though it has increased over the last year. The Consumer Price Index was 2.9% in 1995 and increased to 6.4% in 1996, but decreased

in 1999 to 1.2%. The average for the previous five years was 3.2%. The inflation rate decreased from 6.4% in 1996 to 1.2% and 0.6% in 1999 and 2000, respectively. The Ministry of Health spending, as a percentage of government spending, was 9% in 1998, and from 1994 to 1997 was 8% at current prices.

Selected Economic Indicators

Indicators	Year								
	1991	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
Per capita GDP in constant prices, in USD.	1,514	1,614	1,639	1,630	1,636	1,620	1,630	1,596	1,670
Economically active population	108,788	ND	120,030	122,235	126,405	134,475	137,505	145,895	150,355
Total public spending as a percentage of GDP	ND	41.2	38.5	37.1	32.7	30.4	32.0	33.5	37.1
Public spending on social programs as a percentage of GDP	ND	10.9	14.3	ND	14.7	10.2	ND	ND	ND
Annual rate of inflation	3.1	2.4	1.5	2.6	2.9	6.4	1.0	-0.8	-1.2
Total spending on health as percentage of GDP.	3.3	2.6	4.4	5.7	3.3	2.4	2.6	3.5	ND

Source: Belize Abstract of Statistics, 1999 Central Statistics Office.

Agriculture exports, which include sugarcane, citrus, concentrate, bananas, and marine products have historically dominated Belize's economy. It also relies heavily on forestry, fishing, and mining as primary resources. As a result, it is vulnerable to changes in the global economy. Recent economic trends include a significant widening of the trade deficit, which has placed pressure on net foreign reserves. Deterioration in public savings combined with an expansion of fixed investments has produced large increases in Central Government deficits; alongside declining aid flows and rising levels of external debt. In the long run, the growing shift toward free trade (NAFTA, GATT, EU) could erode some of the preferential market arrangements Belize now enjoys, thus forcing industries to become more competitive in the post-NAFTA world. The Central Government has done well in bringing expenditure more in line with revenue. However, it has not succeeded in generating the resources to undertake the investment needed to expand the infrastructure base at the pace required. Measures in expenditure reduction have hurt some services with regards to frequency and coverage, and has impaired the safety net, for example, health services have been reduced in rural communities; health posts and health mobiles provide reduced services[2]. Presently the new administration main priorities are: "… to reduce taxes and remove inefficiencies, encourage investment, stimulate economic activity, reduce unemployment, maintain Belize dollar stability, regulate monopolies and reduce utility rates, modernizing Belize's Industries, establish the small farmers and business bank, develop commercial free zones and strengthening rural economies…"[3]

In 1999, the main social investments were for Education 40%, Water and Sanitation 30%, Health 25%, and Human Development 5%[4]. Financial resources are allocated primarily to infrastructure and

administration as opposed to programs. The public sector budget in the health sector has declined to 2.0% of GDP in 1999. Of the 9% of the national budget allocated to the health sector (recurrent budget), 73% is for salaries.

1.3 Demographic and Epidemiological Context

The total population for the year 2000 was 249,800.[5] This represents an increase of approximately 55,800 persons since the 1991 Census. The intercensal growth rate is 2.7% per annum. This growth rate is approximately one percentage point higher than the growth between 1980 and 1991. The Urban/Rural ratio was 48:52 in 1991, this ratio by the year 2000 remains the same.

Fifty percent of the population is under twenty years of age and five percent is over 60 years. Life expectancy at birth is 70.1 years for males and 74.0 for females with an average of 71.8 years for the general population. Total live births over the last decade have shown a slight decrease with a crude birth rate of 31.5 in 1993 to 29.2 in 2000.

The total number of reported deaths has shown an increase over the last decade 4.5 per 10,000 in 1991, 5.1 per 10, 000 in 1997 to 5.7 per 10,000 1998. The estimated percentage of unregistered mortality in 1999 was 5%.

Indicators	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**
Crude birth rate	31.5	27.9	30.6	30.1	31.9	25.1	29.3	29.2
Total fertility rate	4.3	3.6	4.0	3.9	4.2	3.2	3.7	4.0
Crude death rate	4.6	4.5	4.3	4.3	5.1	5.7	4.9	6.1
Maternal mortality rate	154.8	118.9		59.9	40.8	167.1	42.2	54.8
Infant mortality rate	19.3	19.4	14.9	26.0	24.0	21.5	17.5	21.3

Source: Central Statistical Office 2000.

The percentage of adult deaths from ill-defined causes in 1999 was 4.1% while for children less than five years of age it was 5.1%. Reported deaths from communicable diseases over the past five years have decreased. The numbers of persons contracting the more common communicable diseases in Belize for example, malaria has shown a marked decrease from 8,934 cases in 1995 to 1,456 in 2000.

Within the last two decades there have been several new/emerging diseases. The most devastating of these is the human immune deficiency virus (HIV/AIDS). In Belize there has been a rapid increase in this disease, which is mainly spread by the heterosexual mode. The first case of HIV/AIDS was reported in 1986 and by the end of September 2001 there were 1773 cases with 420 cases of AIDS and 292 deaths. The number of cases of tuberculosis had started to show a decrease from 70 cases in 1993 to 41 cases in 1994. However with the increase in HIV/AIDS cases there has been an upsurge in the number of reported cases to 181 in 1998.

Diseases such as diabetes mellitus and hypertension continue to be the major contributors to mortality and morbidity. Heart disease continues to be among the first five causes of death ranking second in 1997, fourth in 1998 and first in 1999. Deaths resulting from complications of diabetes mellitus have also increased from seventh in 1997 to fifth in 1999.

Road traffic accidents continue to increase with 24 deaths in 1993, 82 in 1997 and 101 in 1998. In 2000 there was a decrease to 81. Of great concern is the age group and sex of the victims. There were seven times more males than females killed in 1999 and most of the deaths occurred in the 15 - 45 age group.

Dengue Fever does not appear to be a major problem. There were 18 confirmed cases in 1995 and three in the year 2000. Re-emerging diseases, such as cholera began to be a problem in 1998 with three reported cases, and twelve in 1999. However, there were no reported cases in 2000. Drug abuse is perceived to be a problem, however, data to substantiate this assertion are not readily available.

1.4 Social Context

The major ethnic groups, are the Mestizo (46.4%), the Creole (27.7%), the Garifuna (6.4%), the Maya (10%), the East Indian (3.3%), and other smaller groups representing 2.9%.[6] The Chinese, Syrians and Lebanese mostly represent the smaller groups. The Human Development Index for 1998 ranks Belize 58 out of 171 countries. This places the country in the "High Human Development" ranking and among the top 30 in the developing world[7].

The unemployment rate in 1996 was 13.8%, in 1997, 12.7%, in 1998, increased to 14.3%, and in 1999 decreased to 12.8%. There is gender disparity in employment. In 1999 the employed work force comprised 69.1% males, and 30.9% females. There is some information available about the informal economic sector in Belize.

The 1995 Belize Poverty Assessment indicates that 33% of Belizeans live in poverty, and 13% fall into the very poor category. [8] There is discrepancy among males and females, and among districts in regards to poverty. Thirty two point eight percent (32.8%) of the male population are poor as compared to 33.1% in females. 23.6% of male heads of households, are considered poor while 30.5% of female heads are poor. In Toledo, where the greatest concentrations of Mayas live, 57.6% of the population are considered poor, whereas only 24.9% of Orange Walk's populations are poor. Moreover, 3.9% of children in the Toledo District suffer from growth retardation as compared to 4.1% in the Belize District.

In 1996 the basic literacy rate was 75.1%, a percentage that is more or less the same for males and females.[9] Only 42.4% of the population aged 10-65 years can be described as functionally literate. The primary school completion rate, is 98%. Statistics on the transition from primary to secondary schools

reveal a transition rate of approximately 80%. However this masks the reality of access to secondary education. An average of approximately 41% attends secondary schools in the 15-19 years age cohort.[10]

Socio-Economic Indicators: by District

District	Infant Mortality Rate				Poverty %	Unemployed		Potable Water %	Sanitation %	Stunting %
	1996	1997	1998	1999	1995	1996	1999	1994	1994	1996
Corozal	13.8	33.0	21.9	9.8	26.7	5.8	11.8	88.5	37.0	15.8
Orange Walk	32.6	20.3	23.6	13.0	24.9	6.6	5.4	90.5	27.5	16.8
Belize	29.4	28.1	28.1	29.1	24.5	18.4	16.2	86.5	57.0	4.1
Cayo	17.9	15.1	14.0	13.8	41.0	15.2	14.5	82.0	28.5	17.8
Stann Creek	32.2	28.9	20.5	5.7	26.5	15.4	8.4	84.5	18.5	13.5
Toledo	30.1	23.5	13.8	11.5	57.6	14.3	16.9	70.5	28.5	39
Country	26.0	24.0	21.5	17.3	33.0	13.8	12.8	83.7	39.0	15.4

Source: Belize Abstract of Statistics1999, Central Statistics Office.

The average percentages for males were significantly lower (3% to 9%) than for females. Adult literacy had no changes from 1996 to 1998, with 86.8 for the urban areas and 62.7 for the rural area.

2. HEALTH SERVICES SYSTEM

2.1. General Organization:

The Government is the main provider of health services including the provision of pharmaceuticals, which have for the past years been practically free to patients. This is gradually changing as a result of the policy of instituting cost recovery mechanisms, particularly for curative services. The private health sector is limited in Belize. However, in recent times there has been a steady increase, as a result of the Health Sector Reform process, which promotes a public-private mix of health care services.

During the present decade the predominant organizational model for health services has been characterized by centrality in its management and disease, and consumer-oriented in its programmatic orientation. Based on the principles of equity and sustainability, the emerging model of health care is one where there is recognition of the need for: (i) decentralization and participatory planning and programming at the managerial level; and (ii) the use of a people oriented approach at the programmatic level while ensuring the delivery of a comprehensive set of health services.[11]

Public Sector: The Ministry of Health (MOH) is the only provider of health services in the public sector. The Government of Belize currently has a total of eight hospitals, one in each district, with the exception of the Cayo and Belize Districts, which have two each. Three (3) of the eight hospitals are designated Regional Hospitals and provide a wide range of secondary care in addition to routine primary care. Another three hospitals are Community Hospitals or primary level facilities, which provide a minimum

amount of secondary care at the district level. Only one hospital functions as a National Referral Hospital (Karl Heusner Memorial Hospital) and as the general hospital for the Belize District. There is also a National Mental Health Hospital. It should be noted that with the exception of the agreement with the hospital at the University of the West Indies in Mona Jamaica, there are no standardized referral mechanisms in place with the neighboring countries.

There are 76 public facilities, which include 39 health centers and 37 rural health posts nationwide. The health centers provide pre and post-natal care, immunization services, growth monitoring of children under five, treatment for diarrhea and minor ailments and general health education. In addition, some specialist clinics offer services for hypertension, diabetes, tuberculosis, STI and AIDS; referrals and follow-ups. Each health center serves between 2,000 to 4,000 persons. Most centers also provide outreach services through mobile clinics, visiting smaller and more remote villages every six weeks. The mobile clinics account for about 40 per cent of the centers' service delivery. Public sector financing is provided by the Central Government. Cost recovery mechanisms exist in the form of direct payment for some services particularly for curative services. Nonetheless, the amount recovered is minimal. There is an effective standardized mechanism for referral of clients from health centers to community hospitals and from community hospitals to the Regional hospitals. The mechanism also covers referrals from the Regional Hospitals to the National Referral Hospital. This referral system applies to the public health network as well as the private sector.

The role of the Belize Social Security Services (BSSS) has not yet been finalized. One of the funding options that the Government is presently piloting is that of financing health care through a National Health Insurance fund. A Primary Health Care project with a defined package of services is presently being piloted with the BSSS being used as the purchaser of services from both the private and public sector.

***Private Sector**:* **T**he private health sector is limited in terms of number of providers and range of services. It is for the most part limited to ambulatory services with some secondary care provided in the areas of obstetrics and simple surgical procedures. However in Belize City recently, there has been an expansion of the services to offer the four major specialties and some secondary care.

However, the tendency is to provide them as a package by group practices rather than by solo practitioner services. The private sector group falls into two categories – Profit and Not for Profit organizations with different coverage and capabilities.

For Profit Private Sector: Private institutions are legally registered as business institutions, however there is no legislation at present that addresses the regulation of the private sector health services. The Medical Services and Institutions Act relates to narrowly defined public sector institutions. This applies to both the profit and non-profit private sector. There is only one private hospital (25 beds) located in Belize City.

Fifty-four (54) private clinics exist which provide ambulatory services, the majority of them located in Belize City.

Private physicians are allowed to use Government Facilities for the provision of those services not available in their private setting. Mainly the users provide financing, directly or through private health insurance. Private health insurance is limited in Belize but has increased rapidly during the 1980's and 1990's. Many of the insurance companies are affiliates of large international firms. The benefits packages are fashioned to cover expenses for medical care acquired outside of Belize. Insurance companies also sell executive schemes that cover services provided in the United States. Premium levels are high and generally out of reach for the average worker. Family coverage can cost as much as US $100 monthly (group medical policy) representing at least 20% of the earnings of many Belizean workers.

Non-Profit Private Sector: There is one non-profit hospital in the Cayo District (20 beds) and four (4) clinics throughout the country. The non-profit private health sector institutions are legally recognized. There is no specific legislation to regulate non-profit health sector institutions. A number of non-profit organizations are involved in the provision of ambulatory services: the Red Cross; the Belize Family Life Association; the Belize Council for the Visually Impaired (BCVI); the Lions Club and Alliance Against AIDS, among others. Financing is based on cost recovery mechanisms, donations and external aid. The coverage is limited, particularly to urban areas.

On August 1, 1999 the Ministry of Health entered into an agreement with the Belize Emergency Response Team (BERT) for the provision of ambulance services in Belize City. This arrangement has been running smoothly and negotiations are under way to have the service extended to the Regional Hospitals. There is no properly defined mechanism for referrals and interaction between public and private organizations.

2.2 System Resources

Human Resources: There has been an increase in the number of health personnel in the last decade. In Belize, there is approximately one doctor per 1000 persons and one nurse per 620 persons. There is a large concentration of health personnel in the metropolitan district of Belize, where more than half of the health staff is employed (54% physicians, 52% practical nurses, and 57% professional nurses). There is gross inequity in the rural to urban distribution of health professionals. To address the disparity created in the concentration of human resources in the rural setting, technical cooperation agreements have been made between the Belize, Cuban and Nigerian governments, where health personnel, mainly General Practitioners are deployed to work in the rural areas.

Almost 75% of the health personnel work in the public sector, the largest group comprises practical and professional nurses (83.9%). Physicians and dentists constitute 57% of the health personnel in the private sector. Approximately 14% of health personnel work in both, the public and private sector. Community health personnel consist of midwives and traditional birth attendants. Other Ministry of Health staff

includes 17 pharmacists, 19 public health inspectors, 68 vector control personnel, 7 health educators, and a network of 202 community health workers[12], 4 regional and 2 deputy regional health managers, 3 hospital administrators, 3 sanitary engineers, 4 nutritionists, 8 radiographers, 69 pharmacists, 3 physiotherapists, and 5 occupational therapists.

HUMAN RESOURCES IN THE HEALTH SECTOR

TYPE OF RESOURCE	1993	1994	1995	1996	1997	1998	1999	2000
Ratio of physicians per 10,000 pop.	5.9	6.6	6.5	6.4	6.5	6.6	7.0	7.9
Ratio of nurses per 10,000 pop.	14.6	14.2	13.8	18.1	17.6	17.1	16.6	16.2
Ratio of dentists per 10,000 pop.	0.6	0.7	0.9	1.0	1.0	1.1	1.2	1.2
Ratio of mid-level laboratory technicians per 10,000 pop.	ND	ND	ND	ND	ND	ND	ND	1.4
Ratio of pharmacists per 10,000 pop.	0.8	1.0	1.0	1.1	1.2	1.3	1.4	1.4
Ratio of radiologists per 10,000 pop.	ND	ND	ND	ND	ND	ND	ND	0.2
No. of Public Health graduates	ND	ND	ND	ND	ND	ND	ND	22

Source: National Health Information Unit 2000.

There is no structured programme for the management, development and continuing education of Health Personnel. The Ministry of Health is in the process of establishing a Human Resource Management Unit as well as a Caring for Care Provider Program to deal with staff development and employee assistance. There has been an increase in numbers of health professionals over the years and a unemployment problem among them has not been identified. The average remuneration of General Practitioners in the country is not readily available. Specialists in the government service are paid an average of $32,000 per annum versus Medical Officers (entry level) who are paid $27,912. When compared to other professionals, lawyers in the government service receive the same salary as General Practitioners; Professional Nurses' starting salary is $14,940 per annum.

Drugs and other Health Products: There is no information available to conduct a comprehensive analysis of the drug market and the trends of per capita spending on drugs. There is a Belize Drug Formulary with a total of 241 drugs included and its use is mandatory for all registered physicians.[13] The first publication of the Belize Drug Formulary was in December 1984; a revision was conducted in 1994 and published in July 1997. The Maximum Price Contract for the procurement of drugs was recently implemented and a drug inspectorate established to monitor and enforce the implementation of the Formulary. All Belizeans have permanent access to the drugs in the list when using the public sector health services, and granted that the requested drug is available. Three major problems have been identified in the public sectors' drug management: (1) the annual budget is insufficient to cover the

population's medical needs; (2) procurement is ineffective, with many purchases occurring at unnecessarily high prices; (3) the distribution system is sound in theory, but dysfunctional in practice, with frequent and prolonged unavailability of drugs. There are but a few standardized treatment protocols for the prevalent pathologies in public health care facilities. However, others are in the elaboration process. In theory, the presence of a pharmacist is required in private pharmacies and hospitals, but in practice, there are no accreditation mechanisms in place to enforce the law.

The total number of blood donations for the period 1996-1998 is as follows: 2,445 in 1996; 2,726 in 1997; and 2,797 in 1998. For the year 2000 the blood Bank collected 3,275 units. The blood bank was damaged as a result of the Hurricane Keith but has since been repaired with funding from the European Community.

Equipment and Technology*:* Equipment and technology are still limited in Belize. The number of countable beds in the public sector by 1999 was 598, with a ratio of 2 beds per 1,000 population. The private sector had 44 beds.

AVAILABILITY OF EQUIPMENT IN THE HEALTH SECTOR, 1999

	Type of Resource			
Sub Sector	**Countable beds per 1000 pop**	**Clinical Laboratories per 1000 pop**	**Blood Banks per 1000 pop**	**Radiodiagnostic equipment per 1000 pop**
Public	554	7	1	10
Private (for profit and non-profit)	44	15	0	18
Total	598	22	1	28

Source: Policy and Planning Unit, Ministry of Health.

With Health Sector Reform there are plans for improvement in the areas of equipment and technology development. New investments are taking place albeit in an ad-hoc manner. These include a new programme for the donation of medical equipment implemented by Rotary International in Belize.

AVAILABILITY OF EQUIPMENT IN THE HEALTH SECTOR, 1999

Sub Sector	**Type of Resource**					
	Delivery Rooms		**Clinical Laboratories**		**Radiodiagnostic Equipment**	
	1st Level	2nd level	1st level	2nd level	1st level	2nd level
Public	6	3	6	1	9	1
Private (for profit and non profit) *	5	3	13	2	5	13
Total	11	6	19	3	14	14

Source: Policy and Planning Unit, Ministry of Health. *Information on private sector is not readily available. It is known that many private laboratories exist with minimal technical capacity but they are not registered.

Routine maintenance of equipment is compromised due to limited budgetary allocation; lack of trained personnel, and limited use of preventive maintenance protocols. High technology units and equipment are

available only in Belize City in both the public and private sector. Even though the Ministry of Health has sophisticated radio-image diagnosis equipment, these are under-utilized due to lack of trained personnel. Maintenance is centralized, 80% of the maintenance resources go to the National Hospital, (KHMH). The most developed areas in the private sector are radio-diagnostic and clinical laboratories. The number of private laboratories is on the rise, but there is no regulation of the private sector in this area. Presently since Karl Heusner Memorial Hospital became semi-autonomous, it is expected that they sustain the expenditure for maintenance of equipment.

2.3 Functions of the Health System

Steering Role: The Ministry of Health is responsible for the regulation of the provision of health services and exercise of sanitary authority. A key responsibility is regulatory management. Included in this is policy direction and planning of national programs. Central Government exercises supervision and control over the public financing of the sector.

Since December 1995, the Ministry of Health established a Planning Unit responsible for policymaking, planning and coordination for the implementation of health services. This unit has been renamed, 'Policy, Analysis and Planning Unit'. Presently it has two distinct roles: a) to provide technical secretariat services, including planning, advice and assistance to the Health Sector Reform Project (HSRP) Steering Committee and, b) to advice and assist the managerial entities responsible for implementation of the HSRP.

Financing and Expenditure. Presently, there is no reliable and timely information on financing and health expenditures. Information on sectoral financing and expenditure is not readily available, unless required by special projects. Presently, the public sector is financed by the Central Government. Cost recovery mechanisms exist for hospital admissions and diagnostic tests, but the amount received is minimal. Revenues collected at the 7 hospitals during fiscal year 95/96 amounted to US$ 313,000, which represents 4.2% of operation costs. In addition, funds collected go directly to general revenue and cannot be used by the collecting facility. The Belize Social Security Board also provides US$ 500,000 per year to the Ministry of Health in return for free services to cover employees with job-related injuries.

Donor funding and international loans have been a major source of capital and program support in Belize. During the period 1993 to 1997, Belize received US$ 28,367m, as donations (61.2%) and US $11m as loans (38,8%). In 2001, the Government of Belize signed a loan to cover the estimated costs of the Health Sector Reform Project equivalent to US$ 18,126,000 in accordance with the following sources of financing: IDB (US$ 9,800,000), CDB (US$ 4,716), EU (US$1,600) and GOBL (US$ 2,010) and investment categories: Component 1 - Sector Restructuring, Component 2 – Services Rationalization and Improvement and Component 3 – Support to the National Health Insurance Fund (NHIF).

It is envisioned that in the future a National Health Insurance Fund, within the Belize Social Security Board, will be set up in order to collect contributions from employers and employees that will finance public health expenditures. Health care services will be provided by accredited providers, both public and private, which will be reimbursed according to fees previously negotiated with the NHIF. The Belize Social Security Board is presently running a Pilot Project to test the feasibility of the project.

Belize spends around US$ 39,4m per annum on health care services and related costs. Approximately US$ 16,0m (40.5%) is spent by the Government of Belize, US$ 23m (58.8%) directly by the consumer, and a small amount by donors (0.7%). At the present moment there is no information available regarding private health expenditure in the country.

Insurance: There is no public health insurance scheme at present. Health Insurance is not part of the benefits within the existing Social Security Scheme, which only covers "job related diseases". At present Social Security has 55,000 contributors, representing 67.9% of the estimated labour force as of April 1997 (80,940). There is a big gap in terms of access to health services between the rural and urban population, and between poor and non poor. At present, the Ministry of Health is not collecting and processing data regarding the various private health insurance modalities, and there is no basic package of health benefits of a basic health plan to which all citizens are entitled. Private health insurance is on the increase in Belize. Presently Insurance Companies do not offer individual policies but only collective schemes for the main companies in the country. It is estimated that around 10% of the working population and their families are covered by private health insurance.

2.4 Delivery of Services

Outreach Community Health Services. Belize ratified the 1994 Caribbean Charter for Health Promotion. As a result, health education was incorporated into vertical programmes. The utilization of mass media and community mobilization is a countrywide strategy. The establishment of local health promotion coordinators contributed significantly to the decentralization of health education and promotion. A major constraint is the limited availability of training institutions for health educators.

Within the context of regionalization and decentralization all the vertical programs such as AIDS, tuberculosis, MCH and Health Education and Promotion, e.g. have been incorporated into the regional health service delivery system. The former Program Managers now act as Technical Advisors to the office of the Director of Health Services.

Between 1993 and 1997 two significant activities took place to improve the control of measles using the measles, mumps and rubella vaccine. In 1999 the Expanded Program on Immunization data showed that for of children under 1 year immunization coverage was 89% for DPT3, 90% for OPV3, 95% for BCG and 95% for MMR.

The Vector Control Program implements antivector activities, surveillance, diagnosis and treatment countrywide. Over the past 6 years there has been a steady decrease of malaria cases in the country. In 1994, there were 10,415 cases reported. This figure has gradually declined reaching 1,847 cases in 1999, and 1,441 cases in the year 2,000. It is important to mention that immediately after hurricane Keith (2,000) and Hurricane Iris (2,001) there was no outbreak of Malaria nor Dengue. This achievement can be attributed to the efforts placed in environmental sanitation immediately after both hurricanes. Assistance was received from the Mexican Government and the neighboring Mexican State of Quintana Roo to combat the vector and consolidate surveillance activities against Malaria and Dengue.

The public health bureau conducts active anti-rabies vaccination programs and health education activities to encourage individuals to vaccinate their domestic animals.

A multisectoral Food and Nutrition Security Policy was approved by Cabinet in October of 2000 and was officially launched in February 2001. The Ministry of Health has agreed on a National Policy for Older Persons and a Reproductive Health Policy. The Healthy Municipality concept has been introduced in four of the six districts of the country and efforts are underway to develop the initiative throughout the country.

There is a National Tuberculosis Prevention and Control Program. This has the responsibility for the Diagnosis, Treatment, Health Education and Surveillance of Tuberculosis. The Directly Observed Treatment Services is being implemented throughout the country by Public Health and Rural Health Nurses, in cooperation and with the support of local physicians. The pattern of tuberculosis has remained stable since 1996. In 1999 and 2000, there were 101 and 104 total cases, respectively.

HIV infection and AIDS are top priority problems. By the end of the year 2000 a cumulative total of 1,263 persons had been infected since the beginning of the epidemic in late 1986. The age group mostly affected has been the 20 to 39 years age group. The epidemic is predominantly due to sexual transmission, the heterosexual mode being mostly responsible. In December of 2000, a Mother to Child Transmission Prevention and Control Project was launched in collaboration with the Ministry of Health of Bahamas and with technical and financial support from PAHO Belize.

The Maternal Morbidity and Mortality National Survey reported 87.0% coverage of prenatal care (at least one visit) and the average number of visits 5.8. Only 12.1% of women had their first antenatal visit in the first trimester, while 51.9% had it in the second trimester and 25.8% in the third trimester. Of the total deliveries 18.4% were attended by physicians, 66.2% by nurses, 0.8% by auxiliary nurses and 11.5% by nursing students.

Secondary Level of Care. The secondary care services are provided by three community hospitals, three regional hospitals and one referral hospital (Karl Huesner Memorial Hospital, KHMH) in Belize City. There are 34 health centers distributed in the four health regions. The hospitals provide the fours basic

specialties: Internal Medicine, Surgery, Paediatrics, Gynecology and Obstetrics. The KHMH also provides services for Neurology, Physiotherapy, ENT and Orthopedic Surgery. Outreach community services include: dental health, mental health, communicable disease prevention and control.

In the latter part of 2000, a pilot project of the National Health Insurance Initiative of the Ministry of Health commenced. It is expected that at the end of the pilot project the Ministry will be able to consolidate efforts for the implementation of a National Health Insurance scheme that will cover most of the health problems that are presently being funded by the Government through the Ministry of Health. The human resources are being complemented by Cuban and Nigerian Medical health professionals through bilateral country agreements.

SERVICES PRODUCTION, 2000

Indicators	National	Belize	Belmopan	San Ignacio	Corozal	Orange Walk	Stann Creek	Punta Gorda
Total No. of discharges	17,724	7,731	2,180	1,372	1,139	1,431	2,242	1,669
Occupancy rate (%)	46.6	75.4	34.4	20.3	17.3	46.4	37.6	34.0
Average length of stay	3.2	3.9	2.7	1.5	2.0	4.4	2.8	2.3

Source: Medical Statistics Office, Ministry of Health.

The production of the hospitals is low, the average occupancy rate at the national level is only 46.6%. The five more frequent reasons for hospital discharges from the Ministry of Health in 2000, were:

Most Frequent Reasons for Hospital Discharges, 2000.

Condition	Percent (and number) of all hospital discharge
Deliveries	ND
Respiratory Infections	6% (923)
Complications of Pregnancy	41% (6444)
Intestinal infections	3% (454)
Other Injuries	9% (1399)

Source: NHISU, Ministry of Health.

3. MONITORING AND EVALUATION OF SECTORAL REFORM

3.1 Monitoring the Process

Monitoring the Dynamics. Health Sector Reform is recognized to be the main MOH strategy that will enable the Government of Belize to achieve defined goals and targets, increase equity, efficiency and sustainability. Through the "Health Financing and Sustainability Project (HFS), financed by the USAID, a comprehensive assessment for policy makers was conducted by an international firm. The report, presented to the Government of Belize in 1991, included short, medium and long-term recommendations leading to a large-scale sector reform. The main short-term recommendation was to develop and

implement the Ministry of Health decentralization strategy, while the main long-term recommendation was the development of a comprehensive health insurance system. Between 1992 and 1993 PAHO support at the Ministry of Health to develop a decentralization strategy was proposed. However, it was not implemented. In 1996, the Ministry of Health launched its National Health Plan 1996-2000 with the technical support of the PAHO/WHO, and started the Health Policy Reform Project (HPRP) with the technical and financial support of the Inter-American Development Bank, Caribbean Development Bank and European Union.

With the award of a technical assistance contract to Cambridge Consulting Corporation (CCC) and Resources Management Corporation (RMC), the Government of Belize formally began the diagnostic phase of the Health Policy Reform Project in May 1996, which ended in July 1998. A final report was presented to the Government of Belize containing major recommendations for the improvement of the health sector.

The Ministry of Health has ratified its vision, national goals and targets, for the period 1996-2010, and acknowledges that while the National Health Plan is a conceptual and strategic guide, the "health reform program" is to be the operational guide to make the Plan a reality. The overall goal of the Health Sector Reform Program is to raise the health status of the Belizean population by improving the efficiency, equity and quality of health care services and promoting healthier lifestyles. Within that context it has defined three objectives, namely: (i) restructuring and strengthening the organizational and regulatory capacity of the central and regional level of the public sector to plan, organize, produce, deliver, and procure good quality services; (ii) rationalizing and improving the coverage and quality of services of public and private sectors by restructuring public facilities, purchasing selective services from the private sector to support the public supply, providing mobile services and transport in less accessible areas, training community nursing aides and other health professionals; and (iii) achieving an equitable and sustainable financing system by setting-up a National Health Insurance Fund and focusing public spending on the poor. A clear definition of its implementation, the decentralization process, its legal implications and the financial and organizational models to be developed, are expected outcomes of the Health Sector Reform process.

To accomplish the above, three major components were designed with their respective specific objectives as follows: *Component 1: Sector Restructuring* to promote the development of institutional capabilities within the Ministry of Health, so that it may exercise its role as a regulator and policy designer, and can effectively stimulate and support deconcentration towards newly created health regions. *Component 2: Health Services Rationalization and Improvement*: the component supports investment activities in infrastructure and medical equipment. Investment will be aimed toward improving the public supply of health care services by concentrating surgical and other key hospitals services in a smaller number of regional centers (three) so as to increase the utilization of capacity and to improve quality. Investment will

be tied to the implementation of performance agreements. This mechanism will forge the link between improvements in performance to infrastructure deployment. *Component 3: Support to the National Health Insurance Fund (NHIF)*: will provide support to the new NHIF in the acquisition of managerial and financial capabilities as a purchaser of services. To achieve the above purpose, the program will finance technical assistance, training and financing for running pilots aimed to develop purchasing skills.

Monitoring the Contents

Legal Framework: The legal framework has been reviewed as part of the health sector reform project and changes to the legislation were proposed. The Report titled, "Review and Analysis of Legislation relevant to the Health Policy Reform Process," provides recommendations on the reorganization of the Ministry of Health at the central and local level, and the delegation of power from the Central Government to the MOH to perform certain functions which are now responsibility of the Public Service.[14] Since the aforementioned report was made public, following are the legal and quasi-legal changes that have been made. In terms of organization and management: (i) the Karl Heusner Memorial Hospital has acquired statutory management board status; (ii) the Public Service Commission gave the PS/CEO power to transfer, recruit etc. staff; (iii) Regional Managers have been appointed with delegated power to run services at the regional level. The authority that they use is that delegated to the District Medical Officer; and the Policy Analysis and Planning Unit has been created.

The Right to Health Care and Insurance: The Social Security Act has been amended to allow the introduction of National Health Insurance. The rationale is to make the National Health Insurance the sole health purchaser for government. The National Health Insurance has done some costing in order to launch a pilot project in the Southside Belize District. The Ministry of Health in the person of the Director, Health Services is still responsible for the provision of government health services in Belize.

This component of the Reform Project, which addresses the creation of a new National Health Insurance Fund (NHIF), and includes the capability to purchase services also includes two sub components: (1) the technical development of the NHIF and (2) the Innovation Fund. The two sub components will support: (a) the formation and training of the Policy Committee of the NHIF; (b) the design, implementation and evaluation of a financial model aimed to forecast the financial performance of the NHIF; (c) the permanent assessment mechanism to monitor the impact of the payroll contribution on the labor market; (d) the technical assistance to improve the administrative skills within the Social Security Board to collect contributions, update database, and install a comprehensive information system which combines affiliation, collection and utilization databases and design; and (e) validation and implementation of a mechanism to identify the enrollees in the subsidized segment of the NHIF.

Steering Role: The steering function within the health sector and the functions of the agencies responsible for carrying out the role have been reviewed. The health sector reform process demands that the Ministry accomplish objectives that can only be achieved through reorganization. Within this context the Ministry is putting in place mechanisms to effectively implement the function of regulation, development and enforcement of norms and standards. The role of the Ministry of Health is focused on policy advice to the Minister, public health protection, planning, regulation, research, quality and standards, international and regional collaboration, and monitoring the overall performance of the health system. There are two key important arm of the Ministry of Health i.e. the Directorate of Health Services and the policy Analysis and Planning Unit with the latter reporting to the DHS.

The Director of Health Service is the key technical department of the Ministry of Health and has the following responsibilities: (i) Public Health advice to the Minister and the Chief Executive Officer; (ii)The enforcement of the public health laws of Belize; (iii)The regulation and inspection of health institutions and providers; (iv)Establishment and monitoring of quality standards for all areas of health care provision; (v)Definition of a comprehensive and adequate model of health and health care thereby ensuring universal access; (vi)Definition of mechanisms for the development of adequate health policy and planning; (vii)Development of an effective and efficient system for organizational management; (viii)Development of a functional national health information system; and (ix)Human resources management and development.

The following outcomes are expected; (i) A more effective and responsive administrative arrangement; (ii) The achievement of management by objectives within the framework of a team approach; (iii) A more efficient use of available human and financial resources; (iv) The development of a high degree of personal satisfaction and pride on the part of health workers and community members resulting from improved quality and equity in the delivery of health care; and (v) The movement towards a participatory culture in the planning, implementation and evaluation of health services.

Separation of Functions: The Ministry of Health is responsible for regulation, financing, and health service delivery. These functions are organized in a centralized and vertical structure, in which the decision making relies on the senior level of the Ministry (Minister of Health, Chief Executive Officer, and Director of Health Services). However the Planning Unit was strengthened to develop the health sector reform process. The first component of the Health Sector Reform Project deals with the sector restructuring.

It will address the activities needed to promote the development of institutional capabilities within the Ministry of Health to exercise its role as a regulator and policy designer for the sector, and further stimulate and support deconcentration towards newly created health regions and autonomous hospital

bodies. It will include the following five sub-components: reorienting the Ministry of Health, deconcentrating operational authority to Health Regions, piloting autonomy with the Karl Heusner Memorial Hospital Authority, public information strategy, and promoting knowledge and behavioral change.

Decentralization Modalities: The administrative levels of the public health system, their functions, and the relationships among them were reviewed. Such review became part of the first component that will address the creation of Health Regions with basic management and financial capacities. Their subcomponents are the appointment and training of the technical teams working at the regional level, the technical assistance to develop the managerial tools at the regional level and the organization of technical workshops for exchanging experiences and organization of integration workshops to foster social participation and public information. The services rationalization have created the Western, Northern, Southern, and Central Health Regions. Financial resources have been partially transferred to the district level, but not authority. Districts have little control over funding and personnel decisions; especially in relation to the main public health programmes, which continue operating in a centralized and vertical manner (Vector Control, Public Health, EPI, MCH, AIDS/STD and TB).

Social Participation and Control: Social Participation is not an explicit objective in the Health Policy Reform Project. However, it is an explicit strategy in the National Health Plan and in the ruling Party Manifesto. The Ministry of Health, through the Health Education and Community Participation Strategy, has promoted the development of Intersectorial District Health Teams and Village Health Teams to facilitate Social Participation in Health. A functional Intersectorial District Health Team exists in almost every district to support local health planning and programming, mobilize resources and participates in the implementation of social mobilization activities. These entities are not legal and are not yet institutionalized. They do not have the resources, nor the capacity and authority to carry out the responsibilities assigned. The Health Policy Reform Project has not given attention to this area and at present no policy options have been developed and presented to the Government within the Reform Package.

Financing and Expenditure: The strengthening of the Information Systems on financing and expenditure is an expected outcome of the health sector reform. At present, no measures have been taken to substantially modify the composition and trends in financing and health expenditures.

Services Delivery: The Ministry of Health has identified the need to redefine the health care model. The model envisioned is intended to be people-oriented, comprehensive, affordable and effective. A clear definition of the new model is an expected outcome of the reform process. New health care modalities have not been introduced. Decisions regarding provision of services have not been taken. Existing programmes do not focus actions in vulnerable or risk groups. There is a move within the Health Sector

Reform Programme (HSRP) to encourage the private sector to competitively provide primary care services.

Management Model: No changes are being introduced in the management model or in the relationships among the actors either inside or outside of the public or private health facilities. Management contracts or commitments between the different levels of the public health care system are not being introduced. There is no structured plan for the development of the legal and institutional capacity. Thus this is an expected output of the health reform project. Public health facilities are not organized using business or self-management criteria. The new administration has the commitment to establish an independent board for the administration of the Karl Heusner Memorial Hospital (National Referral Hospital and Hospital for the Belize District). An interim board has been appointed and is now functioning.

Human Resources: No changes have been introduced into the area of Human Resources Planning and Management. There are no modifications being designed or introduced into human resources education to respond to the needs generated by sectoral reform. The participation of health workers and their representatives in the sectoral process in regards to human resources has been in the form of workshops and general discussions, but not in the form of sustained participation in the definition of policy options. A statutory instrument drafted as part of the health sector reform project; gives the Permanent Secretary of the Ministry of Health and Sports power to appoint and transfer Public Officers. However, it has not been approved. Performance incentives are not being proposed for the personnel of public health facilities, except in the manner of better remuneration. The multidisciplinary approach is being promoted in the public sector in an ad-hoc manner. There is no structured continuing education/training plan at present and training of health workers is also being conducted in an ad-hoc manner. There is no information available regarding the volume of resources consumed in the past year in training by the main public health facilities. Certification mechanisms for health workers exist, nonetheless they need to be updated and reinforced.

Quality and Health Technology Assessment: The Health Policy Reform Project recommended that the Ministry of Health Planning Unit be in charge of accrediting facilities, regulating and monitoring, developing and implementing a national quality assurance programme. Mechanisms for health technology assessment before such technologies are introduced and/or during their use are not being contemplated within the Health Policy Reform Project.

3.2 Evaluation of Results

The Reform Process is in its second phase. The diagnostic phase of the Health Policy Reform Project was completed in June 1998 and provided the Government a final report with recommendations regarding Policy, Administrative, and Legal changes. Implementation of the proposed reforms is now in its initial stages with the following dates proposed for the project. Diagnostic Phase 1991-1998; Project

Preparation Stage 1999-2000; Approval by the Bank & Signature 2000-2001 (April); Meeting Pre-Conditions May 2001-June 2002; Project Implementation February 2002; and Final Evaluation April 2005. It is therefore not possible to evaluate the results at present.

* The second edition of this profile was prepared by a group of four professionals and national policy decision makers from the Ministry of Health and the PAHO/WHO Representation in Belize. Technical coordination of the national group was the responsibility of and the PAHO/WHO Representation in Belize. The external review was completed by UNDP, Belize. Final review, edition, and translation are the responsibility of the Program on Organization and Management of Health Systems and Services of the Division of Health Systems and Services Development of PAHO/WHO.

BIBLIOGRAPHY AND NOTES

[1] PAHO/WHO: " Health Conditions in the Americas 1994-1996. Belize's chapter", Vol II, Washington DC, 1998
[2] PAHO/WHO: "Op. cit" p. (page 78)
[3] Manifesto of the People's United Party 1998-2003: Set Belize Free, Strike 3, Belize, September 1998,
[4] CSO, WASA, PAHO, Public Health Bureau.
[5] Census 2000.
[6] 1999 Labor Force Survey.
[7] National Human Development Advisory Committee (NHDAC); United Nations Development Program: Taking Stock: National Human Development Report Belize, 1998.
[8] Caribbean Development Bank, Kairi Consultancy, the Ministry of Economic Development, Central Statistics Office: Belize Poverty Assessment Report, 1995.
[9] 1996 National Literacy Survey.
[10] Belize Study 20/20 Initiative.
[11] GOB/MOH: "The Quest for Equity: Belize National Health Plan 1996-2000", Belize, November 1996.
[12] PAHO/WHO- Belize: "Human Resources in the Health Sector", Belize, CA. June, 1997
[13] MINISTRY OF HEALTH: "Belize Drug Formulary and Therapeutic Manual", Seventh edition, Belize, July 1997.
[14]Cambridge Consulting Corporation , Review and Analysis of Legislation Relevant to the Health Policy Reform Process", 1997.