HEALTH SYSTEMS PROFILE

Antigua and Barbuda

MONITORING AND ANALIZING HEALTH
SYSTEMS CHANGE/REFORM

2008

Area of Health Systems and Services HSS-SP

**Pan American Health Organization/
World Health Organization**

Pan American Health Organization
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Table of Contents

Executive Summary

The nation of Antigua and Barbuda includes the islands of Antigua, Barbuda, and the small uninhabited rocky island of Redonda, all of which lie at the center of the Eastern Caribbean's Leeward Islands. Antigua occupies 64% of the land mass and accounts for approximately 98% of the population. The country's total area is 440 km^2, with Antigua measuring 280 km^2, Barbuda, 160 km^2, and Redonda 1.6 km^2. Two-thirds of the island of Barbuda is merely a few feet above sea level. The estimated resident population in 2006 was 84,330 comprising 47% males and 53% females.

In the period 2001-2006, the epidemiological profile was dominated by chronic non-communicable diseases. During 2001-2003, heart diseases and malignant neoplasms alternated as the first and second leading causes of death. The infant mortality rate in 2007 was 20.95 per 1,000 live births. From 2004 to present, there were no maternal deaths. Primary health care is the foundation of the nation's health care delivery system.

The Ministry of Health is responsible for the health of the nation and it is financed mainly through allocations from the Ministry of Finance. There is a national Medical Benefits Scheme that provides financial and other assistance towards the cost of medical services and related activities. Health care is accessible through the lone hospital; a network of clinics and health centers; and overseas. A new well-equipped hospital, governed by a hospital board, is slated to open in 2009 in Antigua.

The government is committed to achieving the United Nations Millennium Development Goals (MDGs). Notably, the government has added three national goals: 1) increased access to affordable housing; 2) debt reduction because despite best efforts, a sizeable amount of debt remains in arrears; and 3) fight the scourge of crime and violence. The specific challenges facing the health sector include: retention of nurses; supply and distribution of human resources; financing of primary care services, disease surveillance, and the development of policies and legislative support for quality assurance and health information systems. The ten priorities for the health sector are articulated in the 2007 Business Plan which was developed with wide stakeholder participation. There is no health reform initiative *per se* since the public sector reform encompassed a reform of the health sector. Concomitantly, a series of legislative acts that transformed aspects of the health system were passed in the 1990s.

Problem definition, policies, plans, and activities in the health sector benefit from wide stakeholder consultation. In addition, regional and international agencies contribute in various ways to the restructuring of the sector through provision of grants, training opportunities, and skilled health personnel. This supportive environment will enable the government to achieve most, if not all of the MDGs by 2015.

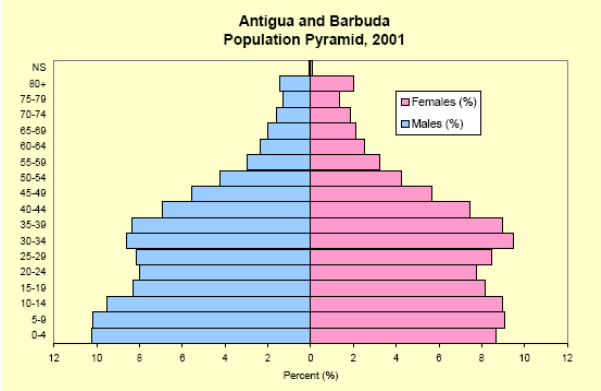
1. Context of the health system

1.1. Health situation analysis

1.1.1. Demographic analysis

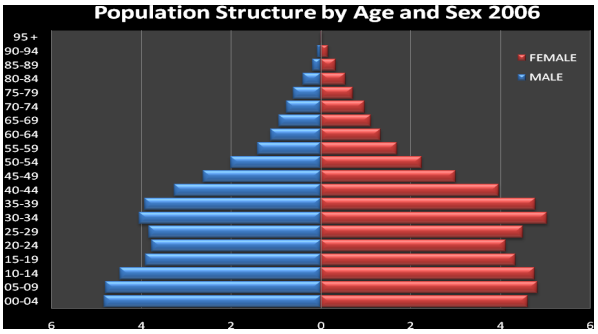
The population growth rate was 2.0% in 2004, 4.5% in 2005, and 2.0% in 2006. The estimated resident population rose from 81,270 in 2004 to 84,330 in 2006, of which 39,603 (47%) were male and 44,727 (53%) were female. The population density for Antigua and Barbuda was 191 inhabitants per km^2 in 2006. In 2006, the population density of Antigua was estimated at 295 persons per km^2 while the population density of Barbuda was 9 persons per km^2. Figures 1a and 1b show the population structure for the country based on the census of 2001 and projections for 2006.

Figure 1a. Antigua and Barbuda: Population structure, by age and sex, Census 2001



Source: National Statistics Office, Government of Antigua and Barbuda.

Figure 1b. Antigua and Barbuda: Projected population structure, by age and sex, 2006



Source: National Statistics Office, Government of Antigua and Barbuda.

Life expectancy at birth has shown an upward trend, from 71.9 years in 2005 (69.5 years for males and 74.4 for females) to 72.7 years in 2008 (70.3 for males and 75.2 for females). In 2000, it was estimated that 28% of the population was between zero to 14 years and 5% aged 65 years and older. The net migration rate averaged 6.32 migrants per 1,000 population.

Table 1. Antigua and Barbuda: Selected health indicators, 2001-2007

Indicators	2001	2002	2003	2004	2005	2006	2007
Crude birth rate	17.77	15.33	15.56	15.65	14.71	14.21	15.01
Total fertility rate	65.77	56.89	57.87	57.73	54.77	52.92	53.52
Crude death rate	6.01	5.67	5.69	6.36	6.00	5.76	5.87

Source: Ministry of Health (Health Information Unit).

1.1.2. Epidemiological analysis

According to data from Holberton hospital, in the period 2001-2006, the country's health profile was dominated by non-communicable diseases such as malignant neoplasms, heart disease, diabetes mellitus, hypertensive disease, and cerebrovascular disease. Other morbid conditions included acute respiratory tract infections, gastroenteritis, ciguatera poisoning, chickenpox, and food-borne illness. The number of confirmed cases of dengue in 2001, 2002 and 2007 were eight, five and two, respectively. During the years 2003-2006, there were no reported cases of dengue.

There were 856 reported cases of influenza in Antigua and Barbuda in 2007 according to public records compiled by the Health Information Division of the Ministry of Health. There were five imported cases of malaria in the period 2001-2006. In that same period, there were 20 cases of tuberculosis, with the highest number of cases (6) reported in 2005. According to data published by the regional core health data initiative of the Pan American Health Organization (PAHO), the incidence rate of tuberculosis for the country was 1.5 cases per 100,000 population in 2001. In the period 2005-2007, there were 191 HIV case notifications, of which there were 85 males, 101 females, and five for whom gender was not stated.

During the period of 2000-2006, the adolescent fertility rate was 67 per 1,000 women. According to provisional clinic data, low birth weight rate (less than 2,500 g) fluctuated and ultimately decreased from 8.16% in 1996 to 5.43% in 2006. Averages of 78.4% of babies seen at the

primary health care clinics were breast-fed at three months in the period 1996-2006. The clinic data also showed that in 1995-2004, the percentage of children under age five years who were seen and tested for being underweight averaged 1.13%. Recent data, however, showed an increase from 1.28% in 2005 to 2.3% in 2006. The nutrient availability profile for Antigua and Barbuda between 1996 and 2002 showed that there was adequate energy availability per capita based on the average energy requirement established by the Caribbean Food and Nutrition Institute. Anemia (mainly due to iron deficiency) continued to be a problem among children under 5 years old. Vaccination coverage has been consistently high (98.5%) for children immunized against measles, mumps and rubella. There were no cases of vaccine-preventable diseases in the reporting period

The under-five mortality rate was reduced by more than two thirds from 24.08 per 1,000 live births in 1999 to 11.68 in 2006, but with fluctuations within the period. Preliminary data for 2007 showed that there were 31 deaths in this age group, increasing the death rate to 24.05 per 1,000 live births. The infant mortality rate decreased from 21.07 per 1,000 live births in 1999 to 10.84 in 2006, but spiraled upwards to 20.95 in 2007. Deaths classified under the broad category "certain conditions originating in the perinatal period" decreased from 19 deaths in 2001 to 12 in 2006. No information was readily available on the defined causes of death in this age group. There is no question that data on infant mortality appears unreliable since discrepancies are evident when data is reviewed by sources and years. Table 2 shows under-5 and maternal mortality figures for 1999-2007.

Table 2. Antigua and Barbuda: Under-five and maternal mortality rates, 1999-2007

Indicators	1999	2000	2001	2002	2003	2004	2005	2006	2007
No. of deaths in under-5 age group	32	38	30	24	19	32	19	14	N.A.
Mortality rate/1000 live births	24.08	24.87	21.96	19.98	15.31	25.16	15.60	11.68	N.A.
Certified under-5 deaths	16	19	13	5	8	23	15	11	N.A.
% certified	50.00	50.00	43.30	20.83	42.11	71.88	78.95	78.57	N.A.
Infant mortality rate	N.A.	N.A.	17.57	17.49	14.50	22.01	13.14	10.85	20.95
Maternal mortality rate	N.A.	N.A.	0.73	0.00	0.40	0.00	0.00	0.00	N.A.

Source: Health Information Division and National Statistics Division

In the period 2001-2006, there were 2,860 deaths from defined causes, averaging 477 deaths annually. Table 3 shows the ten specific leading causes of death for 2001–2003, with heart

diseases and malignant neoplasms alternating as the first and second leading causes in the period. The number of deaths from cancer in 2004 was 466; 219 males and 247 females. The most common site for males was prostate and, for females, breast and cervix. Causes of death were coded according to the WHO International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10).

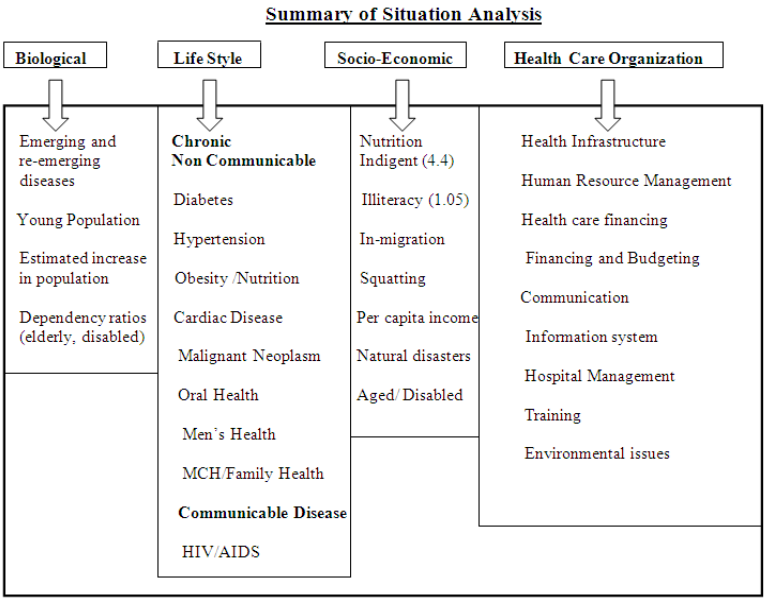
Table 3. Antigua & Barbuda: Ten leading causes of death reported, 2001–2005

Cause of Death	2001		2002		2003		2004		2005	
	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.
Heart Diseases	1	83	2	68	1	106	8	89	1	90
Malignant Neoplasms	2	70	1	77	2	73	1	103	2	67
Diabetes Mellitus	3	50	3	52	3	62	3	59	3	47
Hypertensive Diseases	4	44	4	38	4	35	5	34	4	42
Accidental and intentional Injuries	5	38	6	25	7	18	6	30	6	30
Cerebrovascular Diseases	6	37	5	37	5	34	4	54	5	41
Diseases of the Respiratory System	7	25	8	22	6	28	9	16	7	28
Certain Conditions Originating in the Perinatal Period	8	19	9	18	8	12	7	18	N.A	12
Septicemia	9	18	10	9	N.A.	8	10	10	11	13
HIV/AIDS	10	14	10	9	N.A.	4	N.A.	6	8	18
Other Diseases of the Digestive System	11	13	7	24	8	12	7	18	8	18

N.A – not available.

Source: Planning Unit, Ministry of Health, 2008

Figure 2. Antigua and Barbuda: Summary of situation analysis, 2008



1.1.3. Millennium Development Goals (MDGs)

The United Nations Global Conference agreed in 1990 to a set of eight key development goals intended to address and monitor critical elements of human development. The government is cognizant of the association between economic deprivation and ill-health and accorded high priority to the implementation of poverty-reduction strategies. In this context, Antigua and Barbuda has added three national goals: 1) increase access to affordable housing; 2) reduce debt because, despite best efforts, a sizeable amount of debt remains in arrears; 3) fight the scourge of crime and violence, because the country continues to experience an increased incidence of crime against people and property, as well as other crimes. With the addition of these three goals, the government affirmed its understanding of the socio-economic climate in the country and its earnest commitment to address the transparent issues that impact negatively on the well-being of the population.

In 2007, the National Millennium Goals Task Force presented a comprehensive report on its assessment of the country's potential to achieve the MDGs by 2015. Among other things, the report provided a detailed account of the country's status at the half-way mark. Table 4 shows that Antigua and Barbuda has the overall potential to achieve the MDGs on target in a strong supportive environment.

Table 4. Status at a Glance: Reaching the Goals and Targets, Antigua and Barbuda, 2007

GOALS/TARGETS	WILL THE GOAL OR TARGET BE REACHED?	NATIONAL SUPPORTIVE ENVIRONMENT
Goal 1. ERADICATE EXTREME HUNGER AND POVERTY		
Target 1: Halve the proportion of people living below the national poverty line by 2015	Likely Potentially Unlikely	Strong Fair Weak
Target 2: Halve the proportion of people who suffer from hunger between 1990 and 2015	Likely Potentially Unlikely	Strong Fair Weak
Goal 2: ACHIEVE UNIVERSAL PRIMARY EDUCATION		
Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling	Likely Potentially Unlikely	Strong Fair Weak
Goal 3: PROMOTE GENDER EQUALITY AND EMPOWER WOMEN		
Target 4, Indicator 9: Achieve equal access for boys and girls to primary & secondary schooling, preferably by 2005	Likely Potentially Unlikely	Strong Fair Weak
Target 4, Indicator 12: Increase women in Parliament to 30% of all members	Likely Potentially Unlikely	Strong Fair Weak
Goal 4: REDUCE CHILD MORTALITY		
Target 5: Reduce under-five mortality rate by two-thirds by 2015	Likely Potentially Unlikely	Strong Fair Weak
Goal 5: IMPROVE MATERNAL HEALTH		
Target 6: Reduce maternal mortality ratio by three-quarters by 2015	Likely Potentially Unlikely	Strong Fair Weak
Goal 6: Combat HIV/ AIDS, Malaria and other diseases		
Target 7. Have halted by 2015 and begun to reverse the spread of HIV/AIDS	Likely Potentially Unlikely	Strong Fair Weak
Target 8. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	Likely Potentially Unlikely	Strong Fair Weak
Goal 7: Ensure Environmental Sustainability		
Reverse loss of environmental resources	Likely Potentially Unlikely	Strong Fair Weak
Target 10, Indicator 30: Halve, by 2015, the proportion of people without sustainable access to safe drinking water	Likely Potentially Unlikely	Strong Fair Weak
OTHER COUNTRY SPECIFIC GOALS/TARGETS		
ACCESS TO AFFORDABLE HOUSING		
Significant improvement in housing accommodation	Likely Potentially Unlikely	Strong Fair Weak
DEBT REDUCTION		
Reduce the debt burden	Likely Potentially Unlikely	Strong Fair Weak
CRIME REDUCTION		
Reduce the incidence of criminal offences	Likely Potentially Unlikely	Strong Fair Weak
OVERALL STATUS →	**POTENTIALLY**	**STRONG**

Source: Draft copy of the Millennium Development Goals Report for Antigua and Barbuda, 2007

1.2. Determinants of health

1.2.1. Political determinants

Antigua and Barbuda has developed its own system of government based on the Westminster model. There is a stable democracy with two main political parties: the United Progressive Party which forms the ruling party (2008) and the opposition, the Antigua Labor Party. Antigua and Barbuda is governed by an elected parliament with the party holding the majority of elected seats forming the ruling government. The parliament is the legislative arm of government and is responsible for enactment of all laws governing processes and services. The Prime Minister and his appointed ministers form the Executive arm of government with the Prime Minister having supreme authority. The decision-making body is comprised of twelve cabinet ministers. Barbuda manages its affairs through the Barbuda Council which was set up by an Act of Parliament in 1976.

The government recognizes the importance of maintaining regional and international partnerships for trade and economic development. In 1983, Antigua and Barbuda took the lead in the Eastern Caribbean in establishing diplomatic relations with the People's Republic of China. Additionally, Antigua and Barbuda is signatory to many trade agreements which provide for duty free access to its agricultural and manufacturing products. However, the country has not been in a position to benefit greatly from these agreements in any meaningful way because 'services,' in particular tourism, constitute the main industry.

1.2.2. Economic determinants

The economy continued to experience a period of high growth as a result of improvements in the tourism, construction, hotel, and housing sectors. Over the period 2004-2007, real economic growth averaged over 7% per annum while for the period 2000-2003, real GDP grew at an average annual rate of about 3%. This strong economic performance may be attributed to robust growth in the tourism and construction sectors. In 2004-2007, tourism, as represented by the hotel and restaurant sectors, grew at an average rate of about 3% compared to about 1% in 2000-2003. Further, the construction sector grew at an average rate of 17% in 2004-2007,

compared with 5% in 2000-2003. Throughout the review period, the exchange rate remained constant at EC$2.70 to US$1.00.

Table 5. Antigua and Barbuda: Selected economic indicators, 2001-2006.

Indicators	2001	2002	2003	2004	2005	2006
Per capita in constant prices $US (factor prices)	6,182	6,191	6,339	6,548	6,780	7,469
Per capita in constant prices $US (market prices)	7,184	7,231	7,470	7,863	8,080	8,922
Annual inflation rate	1.50	2.40	2.00	2.00	2.10	1.80
Total public spending as % of GDP	28.56	30.44	33.09	30.78	28.16	33.71
Public expenditure on health, as % of GDP	3.68	4.18	4.71	4.32	3.83	3.33
Foreign debt, as % of GDP (constant prices)	0.90	0.96	0.97	1.08	0.64	0.67
Percentage of female-headed households	43.45	N.A	N.A	N.A	N.A.	N.A.
Service of the foreign debt, as % of GDP (constant prices, market prices)	10.23	8.36	6.63	11.55	30.81	12.28

Source: Antigua Government Statistics Division, Ministry of Finance

NA – not available

The United Nations Development Program (UNDP) used several sources to prepare an overview of Antigua and Barbuda's social and economic situation for the period 2003-2004. This analytical review revealed that the government had accumulated a large level of debt and severe fiscal imbalance. In the period 1997-2001, the government pursued a bilateral external debt renegotiation strategy to reschedule and refinance several loans. The review concluded that the Government of Antigua and Barbuda needs to improve its institutional capacity to improve its fiscal situation as well as to collect, record, and analyze economic data.[1]

Poverty levels

The Caribbean Development Bank conducted a joint Survey of Living Conditions and a Household Budget Survey covering the second half of 2005 to the first half of 2006. The survey used a combination of qualitative and quantitative design to provide an overview of the extent and location of poverty in the country.

[1] United Nations Development Programme, www.bb.undp.org/index.php?page=antigua-barbuda.

Table 6. Antigua and Barbuda: Population living below the poverty line, 2005-2006

Indigence line	EC$2,449 per annum (US$917.23) or US$2.51 per day
Indigent individuals	3.7%
Poverty line	EC$6,318 per annum (US$2,366.29)
Poor and indigent individuals	18.36%
Poor but not Indigent Individuals	14.6%
Vulnerable individuals	10.0%
Gini Coefficient of Inequality	0.475

Source: Living Conditions in Antigua and Barbuda, Poverty in a Services Economy in Transition, Volume I – Main Report (August 2007)

The survey revealed that 18.4% of the population lived in poverty. In 2005-2006, the poverty line in Antigua and Barbuda was estimated at US$2,366 per year when adjustments were made for non-food expenditure. The indigence line, based on prices that existed at that time, was estimated at US$917 per year. When compared with the rest of the English-speaking Caribbean, the poverty survey revealed that Antigua and Barbuda had the second lowest level of poverty after Barbados.

Employment conditions

The survey also showed that labor force participation increases with consumption quintile; higher consumption quintiles have higher rates of labor force participation than lower consumption quintiles irrespective of gender. Unlike other countries, women were only marginally more affected by unemployment than men. Unemployment for women was very low (4.1%) across all quintiles and unemployment fell as socio-economic status improved. According to the 2001 Population and Housing Census, almost 37,000 persons were employed in 2000.

1.2.3. Social determinants

According to the United Nations Human Development Report, the 2005 Human Development Index (HDI) for Antigua and Barbuda was 0.815, which gives the country a rank of 57th out of 177 countries with data. In 2004, the HDI was 0.808, placing the country 59th out of 161 countries. Of all the CARICOM countries, Antigua and Barbuda maintained its position of 4th behind Barbados, Bahamas, and St. Kitts and Nevis. The index highlights the very large gaps

in well-being and life changes that divide our increasingly interconnected world.[2] Average literacy rate between the Census of Population and Housing for 1991 and 2001 is estimated at 96%. The total adult literacy rate in 2005 was 85.8%. There was more parity between the female to male ratio in the data from the 1991 census (1.01) than what was recorded in the 2001 census (1.14). Between 1990 and 2006, the overall net enrollment ratio in primary education fluctuated between a low of 58.5% in 2001 and a high of 78.2% in 2006. However, the male net enrollment ratio was higher than that of the female.[3] According to the 2007 MDG Task Force report, the proportion of households with access to improved sanitation or water-borne toilet facilities increased from 52.8% in 1991 to 72.7% in 2001. There was a corresponding change in the use of pit latrines which declined from 41.3% in 1991 to 25.3% of households in 2001.[4] The number of households in Antigua and Barbuda with access to water piped into dwelling or yard from public or private sources was recorded at 83.3% in 2007 over 79.2% in 2001.

1.2.4. Environmental determinants

The MDG Task Force report mentioned that data on energy and greenhouse gas emission was not available in 2007. The government intends to conduct a national greenhouse inventory in time for the next reporting on the status of achievements of the MDGs. The report informed that the nation has begun a national phase out process of ozone-depleting substances; banning several substances and restricting entry of others. Over the years, the government has developed policies designed to improve national access to safe drinking water. There is a monitoring program in place by the Central Board of Health (CBH) for weekly testing of drinking water for microbiological parameters; daily testing for free available chlorine at the stand pipe; and weekly testing for the potential of hydrogen (PH) and turbidity. The CBH is under the Ministry of Health and, in collaboration with other agencies, is responsible for monitoring port health, food safety, public water supply, beach and marine water, public and private sanitation and other environmental indicators. Ongoing surveillance is an important function of this unit.

[2] Human Development Report 2007/2008 – Country Fact Sheets – Antigua and Barbuda.
[3] Millennium Development Goals Report, National MDGs Task Force, 2007.
[4] Ibid.

2. Functions of the health system

2.1. Steering role

The public health care system is managed singularly by the Ministry of Health. The Ministry is responsible for financing and regulation; policy; guidance; human resource management; and health care delivery. The vision and mission of the Ministry of Health incorporate the promotion and provision of comprehensive and integrated health care through policy formulation, regulation, networking and cost effective services for the people of Antigua and Barbuda. The 1997 Health Policy features a reiterated approach to government's commitment to the universal provision of health services as a right to all residents and citizens, but recognizes and calls for creative approaches to health care financing.[5] Public health services continue to be provided from a central government level. In Barbuda, the management of the health services is provided through the Barbuda Council.

The Minister of Health represents the government of Antigua and Barbuda in many regional and international health-related organizations. Chief among these are the Caribbean Community Secretariat (CARICOM), PAHO, and the World Health Organization (WHO).

2.1.1. Mapping of the Health Authority

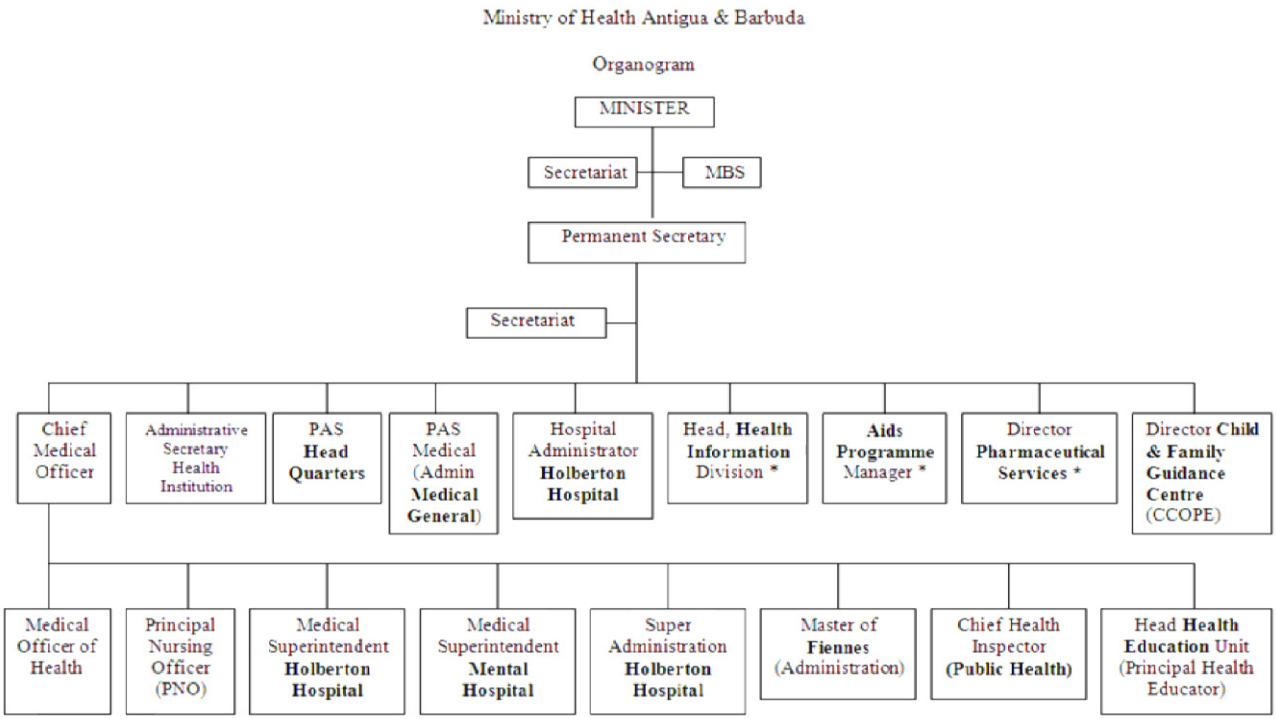
The delivery of health care is organized according to the British Westminster model and is headed by a Minister of Health who is a member of the governing Cabinet. The administrative authority is delegated to the Permanent Secretary who, together with other technical and administrative staff, directs the Ministry. The Chief Medical Officer serves as an advisor to the Minister and has responsibility for the coordination of the health service delivery services in hospitals and clinics.

The Ministry of Health is the administrative body that is primarily responsible for implementing the country's Essential Public Health Functions. The Ministry oversees the Medical General Division, Holberton Hospital, the Health Information Division, and the Central Board of Health (CBH). The Medical General Division is comprised of Community Health Services and the

[5] Health Policy, Government of Antigua and Barbuda, Ministry of Health and Civil Services Affairs, 1997

CBH. The CBH is responsible for Environmental Health Services which include port health; water management; and food safety and sanitation. Additionally, the Ministry is responsible for the National Emergency Medical Services and the Central Stores and Drug Procurement Services.

Figure 3. Organizational structure, Ministry of Health, Antigua and Barbuda, 2007



Source: Ministry of Health, Health Information Unit.

2.1.2. Conduct/Lead

A heath reform process was contemplated in the 1990s to introduce substantive changes into different health sector entities and functions with a view to increasing equity, efficiency, effectiveness, quality, and financial sustainability to meet the health needs of the population. In 1997, a National Health Policy was approved by the government; the previous health policy was issued in 1984. The purpose of this revised policy was to focus developments in the health sector and to assess the strategic directions and activities slated under the 1984 policy—all in an effort to evaluate and improve the health and welfare of the country's population. The new policy addressed issues pertaining to: health promotion, accessibility of quality care;

organization and management; infrastructure development; human resources development; environment; and legislation. In addition, the policy took into account regional and international commitments such as the Caribbean Cooperation in Health Initiative, the Caribbean Charter for Health Promotion, and the Alma Ata Declaration. The policy also informed the framework for the draft national health plan for 1997-2001.

In 2006, the Cabinet mandated the creation of Business Plans as a mechanism for public sector planning, monitoring, and improved accountability. In 2007, the Ministry of Finance commissioned a Business Plan for the Ministry of Health. The Plan was developed with wide stakeholder participation and addressed ten health priorities: management and organization of the health sector; environmental health; control of communicable diseases; control of non-communicable diseases; family health; pharmaceutical services; healthcare financing/hospital management; nutrition, health information system; and health infrastructure.

Primary health care (PHC) is the foundation of the nation's health care delivery system. The PHC concept has served to reduce inequities in health by making health services more responsive to the population's health needs. The PHC approach requires reliable and timely data to monitor and evaluate specific programs. In addition, the government's increased focus on result-based management also highlights the need for good health data as part of the enabling environment for sustained development. A national strategy for strengthening statistical capacity in health is one of the greatest challenges for the health sector, a point not missed by the major actors and stakeholders in the sector.

2.1.3. Regulation

The Medical Act enshrined in the Laws of Antigua and Barbuda (CAP. 269) dated 1938 contains the legal framework for: the medical board, registration, medical practitioners, dentists, opticians, chemists and druggists, and sale of drugs and poisons. The regulatory framework is weak and outdated. Enforcement functions are handled by the Medical Registration Board, Nursing Council, the Midwifery Board, and the Pharmacy Council for their respective professionals. A major effort at legislative reform occurred with the Pharmacy Act (1995), the Hospitals Board Act (1999) was implemented in 2000, and the Midwifery Act of 1959.
The Medical Benefits Scheme (MBS) was established under the Medical Benefits Act, Cap 271 of the Laws of Antigua and Barbuda. The purpose of the Scheme is to provide for financial and

other assistance towards the cost of medical services in the country. Initially, the Scheme was designed to assist beneficiaries, particularly those suffering from certain chronic diseases. The diseases as defined under the Medical Benefits Regulations of 1980 are: asthma, hypertension, diabetes, cardiovascular diseases, cancer, leprosy, certified lunacy, glaucoma, and asthma. In 1998, the Act was amended to augment the scope of the Scheme's operations allowing it to provide financial assistance towards specific health-related activities.

2.1.4. Development of Essential Public Health Functions

An evaluation of the Essential Public Health Functions (EPHF) was done in 2002 to assess the strengths and weaknesses of the health care system. According to the evaluation, the outstanding matters to be addressed to advance the reform agenda included: an institutional review to establish sound recommendations for design and restructuring of the health sector; policy review to formulate policies for health sector management, monitoring, financing, and service delivery; implementing legislative reform; establishing a quality assurance networked with all levels of care and health providers; implementing a national health information system for management of clinical and health promotion functions of the health sector; developing a human resource development and training plan; and reviewing the health financing strategy to ensure equity at all levels of the health system.

2.1.5. Orientation of financing

Revenue for the public health care system comes mainly from the Ministry of Health through allocations from the Ministry of Finance; contributions from employers and employees; and from beneficiaries of the Medical Benefits Scheme. To a lesser extent, collections are made from medical services rendered to a segment of the population not insured under a formal insurance regime or medical plan. Table 7 shows the approved and estimated investments in the health sector for 2005-2007. Expenditures for the Medical General Division relate to direct personal primary health care and CBH expenditures concern solid and liquid waste management, street cleaning, water quality and other environmental issues. In 2005, 2006, and 2007, 49.24%, 52.87%, and 38.36% (estimated), respectively, were spent on primary care services (Medical General Division and Central Board of Health). In the same period, the expenditure on secondary/tertiary care (Holberton Hospital and the Mental Hospital) averaged 38.30% annually while allocations to the Health Information Division averaged 0.28%. The health information

system has several challenges and chief among them are the scarcity of financial resources, and the absence of a national health information policy and legislative support for the management and dissemination of health statistics.

With the proposed opening of a new private/public hospital in early 2009 and the decommissioning of the Holberton Hospital site, investments in, and financing of health care will reflect elements that address cost-effectiveness, equity and efficiency in the delivery of care. The new hospital, Mount Saint Johns Medical Centre, will be financed principally but not exclusively through a per capita mechanism. It is estimated that a total of US$20m will be expended to close the Holberton Hospital and open the Mount Saint Johns Medical Centre.

Table 7. Antigua and Barbuda: Ministry of Health expenditure, by departments, 2005-2007

Agency	Actual 2005 (%)	Actual 2006 (%)	Estimate 2007 (%)
MOH Headquarters	4.72	3.65	4.07
Medical General Division	13.17	14.92	12.95
Central Board of Health	36.07	37.95	25.41
Holberton Hospital	33.34	33.11	32.48
Mental Hospital	5.69	4.52	5.77
Fiennes Institute	3.04	3.10	2.46
Health Information Division	0.32	0.23	0.31
School of Nursing	1.05	1.61	0.83
AIDS Secretariat	0.82	0.91	0.86
Other	1.79	0.00	14.86
Total Ministry of Health (only)	100	100	100

Source: Antigua and Barbuda Recurrent and Development Estimates, 2007, 2008

2.1.6. Guarantee of insurance

All employed persons are mandated by law to contribute to the MBS contributing 3.5% through salary deductions; employers contribute 3.5%. Other persons become beneficiaries of the Medical Benefits Scheme regardless of age or employment status so long as they are medically certified to be suffering from any of the nine chronic diseases (hypertension, diabetes, cancer, cardiovascular disease, mental illness, glaucoma, asthma, leprosy and sickle cell anemia). The Scheme provides free medications to persons below 16 years of age and those over 60 years

as well as those living with the nine chronic diseases. Pharmaceutical drugs and antiretrovirals for persons with HIV/AIDS are available free of cost at government pharmacies.

2.2. Financing and assurance

The government is the provider and main financier of health care. The health sector is funded through the submission of a detailed program and budget to the Ministry of Finance. All health facilities within the public sector are allocated an approved amount based on the programs and activities it projects for a one-year period. In the years 1999 and 2000, the Ministry of Health received grants totaling US$2.5m and US$4 million, respectively.

The government is cognizant of the need to define the package of health goods to be offered in-country and/or overseas. The range of services that can be accommodated under this package will depend on the expected revenues in the health system, the capabilities of the health care infrastructure, the health situation profile, and national priorities. As part of the sectoral reform, the government plans to introduce a series of directed changes in the health care delivery system to control financing and manage growth in the sector while ensuring equity of benefits, efficiency, consumer satisfaction, and sustainability of health gains.

In 2003, the government engaged the services of a consulting firm to carry out a Definitional Assessment of the National Insurance Project. It was then determined that a unique opportunity exists to set up a formal National Health Insurance scheme particularly because of the structure and operations of the MBS. The MBS provides for financial and other assistance towards the cost of medical services in Antigua and Barbuda.

2.3. Service provision

2.3.1. Supply and demand for health services

The health system is pluralistic consisting of strong public and private sector elements. This however has resulted in sizeable disparities between the services accessed in the public sector as opposed to those accessed privately.

The Medical General Division is responsible for a network of 7 community clinics classified as health centres. These offer a variety of services including ambulatory care, dental care, maternal and child health care (including immunization), community psychiatric services; and nutritional services. The Division is also responsible for 17 satellite clinics which provide primary health care services. Medical conditions that fall outside the ambit of the capacity of the community health services are referred to the government-run 140 bed-Holberton Hospital, the acute health care institution in Antigua.

The Holberton Hospital provides emergency and in-patient services to include internal medicine, general surgery, orthopaedics, ENT, pathology, radiology, paediatrics and obstetrics and gynaecology. It also provides specialized outpatient services to include diagnostic (radiological and laboratory) services as well as outpatient follow-up clinics. Other inpatient facilities providing both primary and secondary care include the following: the Adelin Clinic - a privately run medical facility comprised of 20 beds; the Mental Hospital - a psychiatric facility with an in-patient capacity of 120; the Fiennes Institute - a long term geriatric facility with a capacity of 54; and the Hannah Thomas Hospital - an 8 bed facility located on the island of Barbuda.

2.3.2. Human resources development

In general, clinical care standards in the public health sector have improved with the increased number of doctors in the public sector and improved infrastructure. Health care in the private sector has improved significantly with the return of highly trained and entrepreneurial national medical professionals. Despite these improvements, there is need for an institutional human resource plan, policy, and/or strategic solutions to strengthen and retain the workforce. This is reflected in the lack or shortage of certain categories of personnel and the frequent ad hoc search for medical and technical skills to complement local resources. The current approach to human resource development is limited to recruitment and training in specialized areas. Promotion and salary increases are based on the acquisition of additional qualifications and/or upon recommendations for years of service.

Human Resources Training

The Schools of Nursing and Pharmacology, located at the Antigua State College, train individuals for careers in nursing and pharmacy. The government also awards scholarships for

training of other health technicians as per its priority list of studies. Individuals may pursue studies in the area of public health, management, health statistics, epidemiology and other pertinent fields. From time to time, the Government, through the Ministry of Health, and in collaboration with its counterpart agencies, (for example, PAHO/WHO and national governments) nominate individuals to pursue specific training in areas related to health. The preferred practice is to upgrade and recruit from within the organization to ensure retention of trained personnel. Traditionally, physicians were trained at the University of the West Indies (UWI); however, the current cadre of physicians received medical training primarily at the UWI, and in the United States of America, Canada, Cuba, or the United Kingdom. During 2008, public sector pharmacists are being trained in pharmacovigilance.

Management of human resources and employment conditions

The management and deployment of human resources are highly centralized through the Ministry of Health. Recruitment and appointment of health care workers are done upon recommendation from the Ministry of Health to the Ministry of Finance or to the government Civil Service. The Permanent Secretary and a team of support staff within the Ministry of Health are responsible for all administrative functions within the organization. The Medical Superintendent at Holberton Hospital and the Medical Officer of Health manage the deployment and function of the medical officers employed in the public sector. The Principal Nursing Officer is in charge of the cadre of nurses in the public sector.

Supply and distribution of human resources

In the period 2000-2006, there were 2 physicians and 33 nursing and midwifery personnel per 10,000 inhabitants. The outward migration of nationals and contractual issues affecting non-nationals are two of the factors that frequently affect the supply and deployment of human resources in the public sector. There is active recruitment of nurses from the Caribbean to work in the United States and Canada. The offer of attractive remuneration packages has lured nurses from Antigua and Barbuda to migrate, primarily to the United States. The overall shortage of skilled health personnel is being addressed through recruitment from within the Caribbean region, through technical cooperation agreements with the government of Cuba, and through exposure in the wider health resource market. The government has agreed to the CARICOM Single Market and Economy (CSME) which allows for the free movement of certain

categories of workers among Member States. It is hoped that this inter-Caribbean initiative will alleviate the shortage of health professionals in the region. Table 8 shows a breakdown of human resources in the health sector for 1997, 1998 and 2005. However, disaggregation by private/public sector and gender was not available.

Table 8. Antigua and Barbuda: Selected health personnel, 1997, 1998, 2005

Category	1997	1998	2005
Dentists	12	12	16
Laboratory technicians	7	7	8
Obstetricians	2	2	4
Ophthalmologists	2	2	2
General Practitioners	8	8	20
Pediatricians	2	2	3
Surgeons	4	4	4
Pharmacists and pharmacy assistants	18	18	15
Internists	N.A.	N.A.	4
Nurses	219	218	175

Source: Ministry of Health, 2007

NA – not available

Governance and conflict in the health sector

The mission statement of the national Ombudsman states, inter alia, that it will impartially and efficiently investigate complaints of members of the public against unjust administrative decisions of officers of government or statutory bodies with a view to righting wrongs and so contribute to good governance and the further development of the democratic process of the country.[6] In accordance with Section 21(1) of the Ombudsman Act 1994 No. 5, of the Laws of Antigua and Barbuda, the Ombudsman submits reports annually upon the affairs of his office to the president of the senate and the speaker of the House of Representatives. The annual reports include the number of written and verbal complaints received in the office of the ombudsman from members of the public against various ministries in the public sector. Written reports are formally investigated and verbal reports are dealt with and settled by telephone. This process increases the capacity for overall conflict management in the health sector. In addition, the Antigua and Barbuda Nurses Association and the Antigua and Barbuda Medical

[6] Office of the Ombudsman, Annual Report, 2005.

Association address the working conditions of nurses and doctors, respectively. Other health workers are represented by the Antigua and Barbuda Public Service Association and the Antigua Trades and Labor Union. Commissions of inquiry are set up, as needed, to handle allegations of unprofessional practice in the health sector.

2.3.3. Medicines and other health products

The pharmaceutical service has a National Drug Formulary prepared by the National Formulary Committee. There is no essential medicines observatory neither is there a national essential medicines policy. The government realizes significant savings through the bulk purchasing of prescription drugs under the Organization of Eastern Caribbean States/Pharmaceutical Procurement System (OECS/PPS). The PPS has an essential medicines list consisting of 515 dosage forms and 462 chemical moieties that are contained in its regional formulary and this list is updated annually. An annual audit is conducted in the hospital pharmacy and four other pharmacies in public sector clinics. Although prices are competitive among pharmacies in the private sector, there is no real pricing policy as the market controls the prices. Three-hundred and sixty generic drugs are in the hospital formulary and access to affordable essential drugs is almost 100%. There is limited availability of certain drugs in the public sector but ample supply exists in the private sector. The Medical Benefits Scheme provides medication, free of charge, for the nine diseases for all its beneficiaries. Additionally, antiretroviral medication is provided free of charge to all persons living with HIV/AIDS. The Pharmacy Act of 1995 mandates that a licensed pharmacist is required in both public and private pharmacies.

2.3.4. Equipment and technology

Antigua and Barbuda has one blood bank which is located in the general hospital. Since 1999, there has been a proliferation of high-technology diagnostic equipment in the public and private sectors. In 2004, the Holberton Hospital acquired new ventilators and cardiac monitors, a doppler ultrasound unit, new general ultrasound unit, and a spiral CT scanner. An additional dialysis machine was acquired in 2006 for a total of 6 machines in the public sector. Other medical equipment items were purchased in 2006 to strengthen the public health response for hosting the Cricket World Cup. These included defibrillators, electrocardiogram machines and other medical equipment. In 2004, the private sector acquired a magnetic resonance imaging (MRI) and several obstetricians acquired new ultrasound machines, some of which provide

three-dimensional viewing. The new state-of-the-art Mount Saint Johns Medical Center will be equipped with new diagnostic equipment. There are five clinical laboratories in the private sector and one in the public sector.

In 2005, 0.82% of the operating budget for Holberton Hospital was appropriated for maintenance of furniture and equipment. In 2007 and 2008, it was reduced to 0.30 and 0.25%, respectively. The reduction in the appropriated amount over the last two years is due to the fact that the overseas vendors' contractual agreements include maintenance. Table 9 provides a breakdown of the types of equipment that are available in both the public and private sectors.

Table 9. Antigua and Barbuda: Summary of diagnostic equipment, by facilities, 2008

Diagnostic Equipment	Medical Facilities					
	Holberton (Public)	Adelin	Medical Association	Belmont Clinic	Ortho Med Association	Other
MRI	0	0	0	1	-	-
CT Scan	1	0	0	1	-	-
EKG	1	1	1	1	1	1
Mammography	1	0	1	2	-	-
X Ray Machines	2	2	1	1	1	
Ultrasound	1	1	1	1	Physio-ultras	5
Endoscope	0	0	1	-	0	1
Dialysis Machine	6	0	0	-	0	-
Cardiac Monitors	-	2	-	-	-	-
Colposcope	0	0	0	-	0	1

Source: Ministry of Health, 2008

2.3.5. Quality assurance

There is no national overarching policy in the health sector to effectively and efficiently regulate the cadre of health workers. However, some practitioners are governed by independent professional licensing boards or councils. In 1999, the Caribbean Association of Medical Councils (CAMC) established uniformed registration and licensing for physicians (doctors, dentists, and optometrist/optician) in the English-speaking Caribbean. As reported in the Health Systems and Services Profile, 2001, there are no provisions for the registration of other

categories such as chiropractors, podiatrists, psychologists, and naturopaths. The CARICOM Regional Nursing Body is responsible for the assessment of nurses through regional examinations but at the national level, the Nursing Council controls the registration of nurses and nursing assistants. The Midwifery Board is a separate regulatory body for the registration of midwives. The Pharmacy Council is responsible for the regulation of the training and practice of pharmacists and the control of the operation of both public and private pharmacies.

2.4. Institutional mapping of the health system

As shown in Table 10, the Ministry of Health is singularly responsible for the steering role, regulatory framework, financing and provision of health care in the country. However, both public and private stakeholders participate in these processes.

Table 10. Antigua and Barbuda: Institutional mapping of the health system, 2008

Function/Organization	Conduct/Lead	Regulation/ Enforcement	Financing	Assurance	Provision
Central Government	N	N	Y	N	N
Ministry of Health	Y	Y	Y	Y	Y
Ministry of Justice	N	Y	N	N	N
Social Security	N	N	Y	N	N
Private insurers	N	N	Y	N	N
Private providers	N	N	N	N	Y

Y= Yes N= No

Source: Ministry of Health, 2008.

3. Monitoring health systems change/reform

3.1. Impact on the health systems functions

There is no single "document" that outlines the process, timeline, and evaluation of a "health sector reform initiative" in Antigua and Barbuda. However, a reorientation of the health sector was an integral component of the wider public sector reform for the economy and society as a whole. The determinants of health are linked to the problems and challenges in the wider society. As such, the public sector reform was the catalyst for a health sector reform. Accordingly, in the 1990s, there was a cycle of legislative Acts that transformed aspects of the health system. These Acts and similar activities reflect the essence of a reform since they introduced substantive changes in different health sector entities to increase the effectiveness of the health system.

In the late 1990s, there was a critical assessment of the organizational structure of the hospitals in the island with special emphasis on Holberton Hospital. In 1999, parliament enacted the Hospitals' Board Act. It was envisioned that the Board would establish a directorate responsible for the administrative management and overall organization of the hospitals in an efficient manner. The intention was that the Board would be responsible for the management of all public hospitals in the island including the Mental Hospital and Fiennes Institute. The rationale was to improve the efficiency and effectiveness of the health services delivery in the island's hospital by delegating authority and some responsibility closer to service location. In 2000, the Hospital Board was appointed and regulations that dictate guidelines for staff appointments and the establishment of medical committees were adopted. However, this Board was short-lived owing to administrative decisions.

In 2008, a new Board was appointed specifically for the new Mount Saint Johns Medical Center with an initial mandate to oversee the completion and commissioning of the center. As of this writing, the Board is charged with the overall management of the center and it is in the process of recruiting management personnel and other support staff to facilitate the opening in 2009.
In 2003, the government, recognizing the increased demand for medical care, engaged consultant services to carry out a "Definitional Assessment of the National Insurance Project." The assessment concluded that the structure and operations of the Medical Benefits Scheme in Antigua and Barbuda provide a unique basis to set up a National Health Insurance Scheme.

3.2. Impact on the guiding principles of health sector reforms

3.2.1. Equity

Coverage

Every resident of Antigua and Barbuda is covered under the primary health care system. With respect to secondary and tertiary care, the public health care delivery system lacks the technology to keep pace with the demand for specialists services in the area of trauma management and emergency response. Persons requiring care for severe burn trauma, brain aneurysms, heart diseases, and neurological diseases are sent to other territories, the United States, or the United Kingdom to access care and treatment. In such cases, the government provides the airfare and a small stipend. However, additional considerations are given based on recommendations from the Ministry of Health to the Cabinet of Antigua and Barbuda. In some instances, the individual bears his/her own cost to access health care abroad. For the period mid-1999 to 2000, approximately US$1m was disbursed for overseas treatment. To ensure equity, the government aims to provide full coverage for all possible health care requirements by 2020.

Distribution of resources

Resources are distributed equally throughout the 24 primary health care facilities. There are three health centers and one clinic equipped to provide certain secondary care services that would normally be handled at Holberton Hospital. With the changed epidemiological profile where communicable diseases are, for the most part, controlled and there is a prevalence of chronic non-communicable diseases, more resources are needed in the areas of prevention and health promotion. Similarly, additional resources are required at the primary health care level, specifically at the health centers, to address the dental health needs of vulnerable populations. In 2006, an Oral Health Survey was conducted in selected primary schools to assess levels of decayed, missing, and filled teeth. Although the results of the survey are not final, the preliminary data shows a high incidence of dental caries in children ages 5-12 years old.

The deployment of staff is standard at all the facilities with a complement that includes trained staff nurses, nurse/midwives, community health aides, and support staff to meet the daily

demands of the catchment population. Although the physician to patient and nurse to patient ratios are not documented, the complement of physicians and nurses has proven adequate for the population.

Access

There is same-day service at all primary health care facilities. These services include: child and maternal health; diabetic and hypertension; injections and dressings; mental health; contraception services; and routine medical visits. Additionally, limited screening and testing are done for cervical cancer, obesity, and anemia. Secondary care is prioritized and treatment given based on the severity of the condition and the availability of hospital beds; the maximum wait for a hospital bed is approximately 12 hours. In the interim, treatment commences within the emergency room or in adjacent treatment rooms. Medical emergencies are tended immediately with the full range of required services. Renal dialysis, chemotherapy, and physiotherapy services are available in the island.

Care and treatment for Spanish-speaking persons was a challenge but it is less so with the cadre of trained health professionals from Cuba that are deployed in the public sector.

3.2.2. Effectiveness

Informal assessments of the primary health care system indicate that gains have been achieved and maintained—immunization coverage is around 99%; 100% of pregnant women receive pre-natal care from trained health personnel; and no maternal deaths were reported since 2004. The upgrading of four community clinics to health center status has greatly reduced the burden on the single public hospital since they are equipped to respond to minor emergency and provide some secondary level care. Recent statistics on the number of persons accessing the primary health care facilities and number of persons seen for chronic non-communicable diseases such as diabetes and hypertension was not available. Many patients access treatment from private physicians but visit the public sector facility for frequent testing only (e.g. Blood pressure, glucose level, and weight). The need for close monitoring and surveillance of chronic non-communicable diseases was evident since these diseases impose a heavy burden on the primary health care system. Consequently, a health chart audit was conducted in the period 2007-2008 to assess whether patient data were adequately captured and whether appropriate

monitoring and follow-up of patients were undertaken at regular intervals. To date, the results of this audit are not available.

There is a structured protocol for monitoring and surveillance of communicable diseases but resources for rapid laboratory testing of suspected cases are limited. There were no outbreaks of communicable diseases in the reporting period. Incidence of HIV and other sexually-transmitted infections (STIs) are closely monitored and the data collection mechanism is very efficient. Currently, the Ministry of Health, in collaboration with the Pan American Health Organization/World health Organization (PAHO/WHO) is assessing the communicable diseases surveillance system; the report of the findings and recommendations is not yet available.

Efforts are underway to record and analyze data from antenatal services using the recently-adopted Perinatal Information System (SIP). Currently, the SIP is being pilot-tested in the four health centers and it expected to be fully implemented by January 2009. The effectiveness of the SIP will be assessed after the first five years.

Infant and Maternal Mortality

Table 11. Antigua and Barbuda: Infant mortality, maternal mortality and low birth weight, 2001-2007

Indicator	2001	2002	2003	2004	2005	2006	2007
Infant mortality rate/1,000 live births	17.57	17.49	14.50	22.01	13.14	10.85	20.95
Maternal mortality rate	0.73	0.00	0.40	0.00	0.00	0.00	NA
% Incidence low birth weight babies	5.27	7.49	6.04	6.13	4.35	5.43	NA

Source: Ministry of Health, 2008
NA: not available

Data for 1999 showed an infant mortally rate of 21.07 per 1,000 live births which was reduced to 17.57 in 2001. The rate increased from 10.85 per 1,000 live births in 2006 to 20.95 in 2007. To date, no analyses have been conducted to determine the factors that contributed to the fluctuations in infant mortality rates in the period 2001-2007. However, extreme pre-maturity is known to have been the main contributor to infant mortality in Antigua and Barbuda.

Mortality due to malignant neoplasms

Trends with respect to deaths due to breast and cervical neoplasm in women are shown in Table 12. Forty-three deaths were attributed to cancer of the breast and 16 to cancer of the cervix.

Table 12. Antigua and Barbuda: Number of deaths due to malignant neoplasms of breast and cervix, 2001-2006

Indicator	2001	2002	2003	2004	2005	2006
Breast	6	8	6	11	6	6
Cervix	3	2	4	3	3	1

Source: Ministry of Health, 2008

Incidence of malaria, tuberculosis, and HIV/AIDS

In the period 2001-2006, there were five imported cases of malaria and 20 new cases of tuberculosis. Patients diagnosed with tuberculosis receive therapy according to the Directly Observed Therapy Short-course (DOTS) free of charge. The increase in the number of HIV-positive cases between 2001 and 2006 may be due to the fact that increasingly, more persons are being tested.

Table 13. Antigua and Barbuda: Incidence of malaria, tuberculosis, and HIV/AIDS, 2001-2006

Period/Indicators	2001	2002	2003	2004	2005	2006
Annual number of confirmed malaria cases	2	0	0	0	2	1
Total number of incident cases of Tb	1	4	1	4	6	4
Total number of reported HIV positive cases	32	38	39	44	62	63

Source: Ministry of Health, 2008
NA: not available

3.2.3. Sustainability

The financial resources to manage the health sector in Antigua and Barbuda are mainly from government budgetary allocations. All divisions and units within the Ministry of Health must provide estimates annually for the financing of all projected programs and activities. The

administrative arm of the Ministry ensures that the criteria for resource allocation are taken into consideration and the dollar value is adequate to realize program goals and objectives.

The largest proportion of the appropriation to the health sector goes toward salaries and other emoluments, thereby creating a challenge to meet other operating expenses. The Ministry has the administrative capacity to manage its financial resources but challenges emerge because spending is highly centralized. This is a major problem affecting especially the procurement of supplies and equipment. As the reform progresses, a decentralized approach to resource management would facilitate greater efficiency in the operation of the sector.

The government continues to source extra-budgetary funds to complement national allocations and satisfy the demands in the sector. The technical and administrative arms in the Ministry of Health identify areas of need and formulate projects and programs to negotiate external donor financing and technical collaboration. The funded projects and programs usually relate to research, training, technical support, and infrastructure improvements.

3.2.4. Social participation

The health sector benefits from the involvement of several national non-governmental organizations such as: the Diabetes Association, Cancer Society, and Society for the Disabled/Handicapped, among others. These entities conduct ongoing awareness programs and activities to sensitize the public about certain health conditions. Other interest groups and clubs, such as, Rotary and Lions often make donations to health institutions in the form of beds, wheel chairs, and other equipment as well as assist individuals with receiving medical treatment overseas.

Private sector organizations plan, prepare and implement health activities as part of their Corporate Social Responsibility Programs. Participation included sponsorship of fund raising drives, walkathons, week of activities, and medical assistance. These organizations are recognized and lauded by government for their impact on improvements in the health sector.

3.3. Analysis of Actors

The Ministry of Health fostered institutional and collaborative support through its regional and international donor agencies. Table 14 shows a list of institutions that assisted in national development activities, particularly in the health sector. In addition, both the World Bank and the Department for International Development (DFID) have assisted the government of Antigua and Barbuda.

Table 14. Actors Involved in the health sector and level of technical support, Antigua and Barbuda, 2008

Name of Institution	Technical Support	Value US$	Comments
PAHO	Yes	$41,500 per annum	Includes training Research, equipment
CAREC	Yes	NA	Includes training, Research,
USAID*	Yes	1.6 million	Investment Programs
Caribbean Research Council (CHRC)	Yes	NA	Research
CDERA	Yes	NA	Disaster Services

Source: Ministry of Finance, Ministry of Health.
NA: Not available
*No direct assistance to the health sector

BIBLIOGRAPHY

1. Antigua & Barbuda Millennium Development Goals, Committee Status Report 2007
2. Antigua and Barbuda 2001 Census of Population and Housing
3. Antigua and Barbuda Recurrent and Development Estimates 2005
4. Antigua and Barbuda Recurrent and Development Estimates 2006
5. Antigua and Barbuda Recurrent and Development Estimates 2007
6. Antigua and Barbuda Recurrent and Development Estimates 2008
7. Antigua & Barbuda: Health Information Division, Ministry of Health – Annual Statistical Digest 1996, 1998, 1999.
8. Antigua & Barbuda: Annual Report of the Ombudsman 1998 and 2005
9. Government of Antigua & Barbuda: Health Policy February 1997
10. Government of Antigua and Barbuda, Medical Act Cap, 268 of the Laws of Antigua and Barbuda
11. Living Conditions in Antigua and Barbuda: Poverty in a Services Economy in Transition, 2007
12. Ministry of Health, Antigua & Barbuda: National Business Plan for Health 2008-2010
13. Ministry of Health, Antigua & Barbuda: Health Information Division.
14. Ministry of Tourism, Antigua and Barbuda: A little Bit of Paradise, 2008
15. Pan American Health Organization/World Health Organization Core Regional Core Health Data Initiative. Available at http://www.paho.org/english/dd/ais/coredata.htm
16. PAHO/WHO Health in the Americas: Antigua and Barbuda. Available at http://www.paho.org/hia/archivosvol2/paisesing/Antigua%20and%20Barbuda%20English.pdf
17. Pan American Health Organization/World Health Organization Indicator Data Base. Available at www.paho.org/english/dd/ais/cp 028.htm
18. Pan American Health Systems and Services Profile of Antigua and Barbuda (lst ed, November 2001). Available at http://www.lachealthsys.org/eng
19. United Nations Development Program. Human Development Report 2007/2008. Country Fact Sheet A and B. Available at http://hdrstats.undp.org/countries/country fact sheets/cty fs ATG.html

List of institutions that have participated in the elaboration of the profile:

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Health Information Division, Ministry of Health, Antigua

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