ANGUILLA

Sources: Second Administrative Level Boundaries Dataset (SALB), a dataset that forms part of the United Nations Geographic Database, available at: http://www.who.int/whosis/database/gis/salb/salb_home.htm, and the Digital Chart of the World (DCW) located at: http://www.maproom.psu.edu/dcw. The boundaries and names shown here are intended for illustration purposes only, and do not imply official endorsement or acceptance by the Pan American Health Organization.

Anguilla, a small (35 square miles), low-lying, limestone island in the Eastern Caribbean, is part of the Leeward Islands in the British West Indies. It stretches for 16 miles from tip to tip and spans 3 miles across its widest point. It is surrounded by several offshore cays. Its highest point is Crocus Hill, which rises 65 m above sea level. The territory has a tropical climate, with average temperatures ranging between 27°C and 30°C.

GENERAL CONTEXT AND HEALTH DETERMINANTS

Anguilla is prone to hurricanes and has recently suffered from violent storms, the last being in November of 1999, when Hurricane Lenny, a category 4 hurricane, damaged the island's coastline. The estimated direct total cost incurred by damage caused by this hurricane was US$ 65.8 million. Damages to the social sector amounted to US$ 7.7 million and to the health sector was US$ 410,410.

Social, Political, and Economic Determinants

The territory has no distinct urban and rural settlements. According to the Ministry of Finance's Statistical Unit, the estimated population in 2005 was 13,000, about evenly distributed between males (49.2%) and females (50.8%). (See Figure 1.) The capital, The Valley, is the most densely populated area. All major settlements are easily accessible by the main road and a network of paved and unpaved roads.

The growth in vehicular traffic has called for improvements and expansions in the road network. Roads were resurfaced in 2003, and Anguilla's only highway officially opened in 2004.

There are two seaports and one airport. Expansion of Wallblake Airport, which began in 2003, increased the facility from 3,600 feet to 5,440 feet: the terminal and air traffic control system were upgraded and the fire and security services were improved before the airport reopened in 2005. The main seaport is located at Sandy Ground and handles commercial shipping lines that operate from Miami and Puerto Rico. The second seaport at Blowing Point handles a daily ferry and freight service that serves the St. Martin/St. Maarten-Anguilla route. There is no public transportation system; taxis and rentals are used as a means of public transportation.

Anguilla is a British overseas territory. As such, the Governor and the Deputy Governor are appointed by Her Majesty the Queen. The Governor is responsible for foreign affairs, defense, internal security, and international financial services. The territory is governed as a Westminster-style parliamentary democracy. Of the 12 members of the unicameral House of Assembly, 7 are elected by direct popular vote. General elections were last held in 2005.

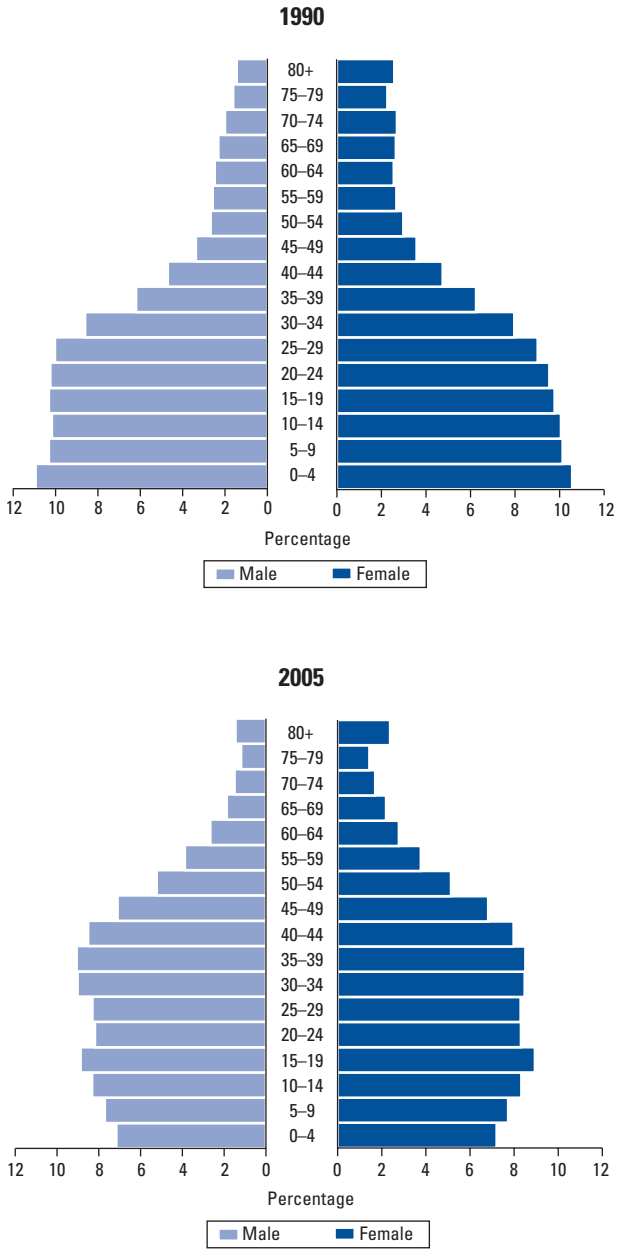
The Governor presides over the Executive Council, which comprises the Chief Minister, who is the head of government; three ministers; and two ex-officio members, namely the Deputy Governor and the Attorney General. The Executive Council is responsible for the government's political, fiscal, and administrative functions; it reports to the House of Assembly. Policies are developed at the various ministries of government, based on assessed needs of their various departments.

The Government of Anguilla's mission for 2005 and beyond is to promote a society in which there is justice and equity for all; to provide universal and equitable access to a basic package of quality social and community services; to manage the environment so as to achieve long-term sustainability; and to foster a robust and sustainable economic development as a foundation for the community's social development.

Anguilla's economic activity continued to expand, moving from –0.3% in 2000 to 3.3% in 2003. The gross domestic product (GDP) in 1990 constant prices remained unchanged at US$ 69 million in 2000 and 2002, and US$ 70 million in 2001. There are no direct forms of taxation in Anguilla. In addition there are no exchange controls and the official currency, which is the Eastern Caribbean dollar, is pegged to the United States dollar at EC$ 2.68. With the exception of 2000, the economy of Anguilla has performed well, with real GDP growing at an average of about 5% in 1997–2001.

Anguilla's 2000–2005 United Front Manifesto has identified tourism as the main driver of economic development. Impressive developments occurred in the tourist industry, including construction of a five-star resort and an entertainment complex. These developments have important implications for the territory, because there is a labor shortage that calls for a careful strategy if negative social impacts and a significant increase in the inflation rate are to be avoided. The hotel and restaurant industry represented roughly 30% of the GDP (US$ 37,542,435). GDP per capita was US$ 7,646 in 2001 and US$ 7,498 in 2002. The hotel and restaurant industry employs 36% of the total labor force.

FIGURE 1. Population structure, by age and sex, Anguilla, 1990 and 2005.



The financial service sector focused on incorporating and managing internal business corporations. As a share of GDP, the finance sector contributed about 16% and construction 12% in 2005. Agriculture, mining, and manufacturing together only accounted for 7% of GDP. After tourism, the financial sector was the second most important contributor to the territory's overall economic activity, contributing US$ 17.28 million. The Government employed 29% of the labor force; the financial services industry accounted for less than 7%.

Commercial banking, accounting firms, law firms, company managers, stockbrokers, trust companies, and overseas agents make up the directory of the Anguilla financial services. However, most financial assets are concentrated in the domestic banking sector. There are four licensed domestic banks and, until recently, two offshore banks. According to the International Monetary Fund's 2003 Country Report, bank deposits in the domestic sector at the end of 2002 totaled US$ 292 million, reflecting a significant increase from the US$ 182 million in 1999. The relatively large proportion of foreign currency and nonresident deposits contributed to the decision for some banks to establish offshore subsidiaries to which these deposits are being transferred. It is intended that only foreign currency deposits held by nonresidents will be transferred to the offshore banks.

The company services sector has seen the fastest growth rate in Anguilla's offshore industry. Anguilla is attractive because it offers administrative ease and flexibility of incorporation, as well as imposing no taxes. In 2002, there were 29 licensed company managers and 12 trust companies. As of 2002, 4,642 companies and partnerships were registered. Trusts are not required to register. There is one entity engaged in securities business on the Island and one unit trust that operates a trust license.

The last national housing and population census was conducted in 2001; it recorded 3,787 households, representing a 44.6% increase since 1992. The average number of persons per household in 2001 was 3.1. The population density is 134 persons per km^2, as estimated in the Government of Anguilla Statistical Report of 2001.

A Poverty Assessment Survey conducted in 2002 showed that the unemployment rate had increased slightly, rising from 6.7% in 2001 to 7.8% in 2002. Among women, the unemployment rate rose from 7.0% in 2001 to 7.8% in 2002; among males, the rate held at 6% in both years.

In 2001, there were 100 dwelling units built entirely of wood, and 98 built of wood and concrete. In 1992, there were 151 homes built entirely of wood. Most dwelling units are built of concrete, which is also used as roofing material on slightly more than three-quarters of all dwellings (one-fifth of dwellings have metal or galvanized roofs).

The 1992 census found that the only public water supply sources were standpipes or public wells or tanks. Private sources that year were cisterns and piped water. At that time 12.2% of dwellings used public sources, compared to 4.7% in 2001.

In 2001, 41% of households drew their water primarily from private catchments piped into the dwellings; 33% drew their water from cisterns not piped into the home; and the remaining households relied on public water supply either piped into their yard or into their dwelling. Each hotel has its own desalination plant. The Government also operates a desalination plant that produces water for the island, at a cost. Because all government wells have been closed, the population does not rely on groundwater.

According to the 2001 census, 93% of the population had flush toilets. Of a total 3,787 households, 144 had pit latrines. Indoor

bathing facilities were available in 171 households, and 153 households shared bathing facilities with another household. Electricity was available in 96.6% of homes and 3% used kerosene for lighting. Most houses have access to radio and television.

Formal education is delivered through a structured education system that covers pre-primary to postsecondary levels. Anguilla's educational system is compulsory through age 17 years. The territory has 11 private preschools, 10 of which receive a Government subsidy to facilitate access to them. There were 467 students enrolled in preschools in 2004/2005.

There are six public primary schools and two private ones distributed throughout the island. There are two special education centers attached to two of the larger primary schools. Student enrollment in public and private primary schools remained much the same in each academic year in the 2000–2005 period (1,489 students enrolled in 2000/2001, 1,427 in 2001/2002, 1,462 in 2002/2003, 1,437 in 2003/2004, and 1,473 in 2004/2005), as did the teacher:student ratio (1:19, 1:17, 1:15, 1:14, and 1:14 for the same years). Females accounted for 49.8% of students in primary school during 2005.

Secondary education in Anguilla is provided at the Albena Lake Hodge Comprehensive School, which is located in the Valley. The curriculum caters to academic, technical, and vocational subject areas. Secondary school enrollment was 1,085 in 2004/2005.

The University of the West Indies Distance Education Center and the Department of Education's Adult and Continuing Education Unit provide tertiary education. The Adult and Continuing Education Unit offers primary and secondary teacher training programs. The Distance Education Center offers a range of distance education programs. Government scholarships and loans facilitate access to tertiary education.

The adult literacy rate is 95.4%, with no differences between the sexes. According to the 1999 Labor Force Survey, 12% of the labor force (population 15 years and older) had attained university education, and 21% had tertiary education. More than half of those aged 20–34 years had obtained at least a General Certificate in Education or a Caribbean Examination Council qualification.

According to data from Anguilla's Police Force, there were five murders in 2001–2005, two each in 2002 and 2003, and one in 2004. In 1996–2000, two murders were recorded. There were no reported cases of rape or manslaughter.

There were 62 reported cases of indecent assault and 90 cases of wounding and assault.

Demographics, Mortality, and Morbidity

The average annual population growth rate was 2.5% in 2005. The average annual rate of natural increase for 2001–2005 was 0.6%. Life expectancy at birth is 74.3 years for males and 80.3 years for females. The fertility rate in 2005 was 1.7 children per woman.

The crude birth rate was 14.3 per 1,000 population in 2005, with an average of 153 live births in 2001–2005.

The number of annual live births fluctuated some, going from 182 in 2001, to 169 in 2002, 141 in 2003, 164 in 2004, and 167 in 2005. There were 35 births to teenage mothers (15–19 years old). There appears to be a downward trend of birth to teenagers in the period: 35 in 2001, 30 in 2002, 22 in 2003, 25 in 2004, and 21 in 2005.

Anguilla has experienced an increase in immigration, particularly from elsewhere in the English-speaking Caribbean. According to the 2001 census, these immigrants represented 15% of the population, compared to 10% in 1992. United States citizens are the next largest group migrating to the territory, representing 6% of the population in 2001, compared to 5% in 1992. Most of these non-Anguillians are working-age adults and children.

Between 2001 and 2005, the broad causes of mortality were diseases of the circulatory system (112 deaths, for 30.6% of all deaths); malignant neoplasms (42, for 11.5%); endocrine, nutritional, and metabolic diseases (27, for 7.9%); and external causes (14, for 3.1%).

In 2001–2005, there were 294 deaths, 173 males and 121 females. A breakdown of deaths by age group in the period shows that 2% of deaths (6 deaths) were among children under 1 year of age, 0.6% (2) were in the 1–19-year-old group, 9.2% (27) were among 20–39-year-olds, 15.6% (46) were among 40–59-year-olds, 29.2% (86) were among 60–79-year-olds, and 43.2% (127) were among the age group 80 years old and older.

HEALTH OF POPULATION GROUPS

Children under 5 Years Old

According to the 2001 census, children 0–4 years old accounted for 18.9% of the total population. There were 829 deliveries in 2001–2005; 10 stillbirths were recorded. All births take place at the Princess Alexandra Hospital and are attended by trained health care professionals. There were six deaths among children under age 1 year in 2001–2005 (two each in 2002, 2003, and 2005 and none in 2001 and 2004). Of these, four were due to conditions originating in the perinatal period, one was due to congestive heart failure, and one due to smoke inhalation and burns. Most infant deaths occur in the neonatal period. There was one death among children 1–4 years old in the period.

Infant and child health services monitor growth and development, and the nutritional status of children under 5 years of age. These services are provided at the five primary health care facilities on the island.

Children 5–9 Years Old

According to the 2001 census, children 5–9 years old accounted for 17.6% of the population. A school health assessment program evaluates the health status of children 5–9 years old. Children entering primary school for the first time undergo vision, hearing, and dental screenings, as well as height and weight

measurements. Children are screened again in the third grade, and another follow-up is done in the sixth grade. Routine blood analysis is also carried out, and children with hemoglobin levels at or under 10.5mg/dl are referred to the doctor and treated. An eye specialist from St. Martin conducts weekly clinics to which children are referred.

Adolescents 10–14 and 15–19 Years Old

Early onset of sexual activity, teenage pregnancy, alcoholism, and drug abuse are major concerns in these age groups. According to a 2002 National Adolescent Survey conducted with 1,225 primary- and secondary-school students, 21% were sexually active. Sexual activity in girls began at the age of 14 years and for boys, 10 years or younger. Forced sex appears to have played an important role in this young age of initiation of sexual activity for both boys and girls. According to the survey, adolescents used alcohol, cigarettes, and marijuana most often. The adolescents who regularly used these substances were somewhat more likely to have parents who had problems with alcohol, drugs, violence, or mental health. There was also a fairly strong correlation between using alcohol and/or marijuana on a regular basis and skipping school.

Of the adolescents surveyed, 14% reported that they have carried a weapon; gang involvement also was associated with carrying a weapon.

Of the students interviewed, 8% reported having been physically abused; most of the perpetrators were adults who lived with the youths. In addition, 6% reported that they had been sexually abused, with most of the perpetrators being adults outside the household. The study also showed that 65% suffered from depression and 20% had attempted suicide. Data from Anguilla's Statistical Unit, however, showed that there had only been two cases of reported child abuse in 2001–2005, one in 2002 and one in 2003.

The Ministry of Social Development established the Anguilla Probation Service in 2005, with the mandate to develop juvenile care programs. The service began accepting youth 10–17 years old as of June of 2005.

In 2001–2005, 15.8% of all births were to mothers 13–19 years of age. The Family Life Education Program that began in secondary schools in the late 1970s includes peer counseling and skills training. Family planning services also are available to adolescents at this school. The number of births to mothers under age 15 years were one each in 2001, 2002, and 2004; three in 2005; and none in 2003.

Adults 20–59 Years Old

There were 74 deaths among adults during the period 2001–2005, 49 males and 25 females. The leading causes of death were diseases of the circulatory system, malignant neoplasms, and external causes.

There was one maternal death in 2002. Prenatal care is conducted by public health trained nurses and by a resident obstetrician/gynecologist in the district health centers for the duration of pregnancy. Approximately 30% of pregnant women attending prenatal clinics enroll before the 12th week of pregnancy. Vitamins, iron, and folic acid supplements are routinely distributed. In 2005, 22% of mothers attending prenatal clinics had hemoglobin levels below 11 mg/dl, an increase from the 6.8% figure in 2004.

According to data provided by the family planning services offered at the health centers, there were 870 registered clients in 2005; 65.4% used oral contraceptives, 24% used injectables, and 8.7% used condoms. There were 80 new family planning acceptors, accounting for 9.1% of registered clients. In 2001–2005, there were eight intrauterine devices inserted. These statistics do not cover private clinic visits.

Pap smears are available at health centers but coverage was sporadic—7 examinations conducted in 2003, 24 in 2004, and 48 in 2005. Data available from the Princess Alexandra Hospital revealed that 132 cervical examinations were conducted in 2000, 67 in 2001, 102 in 2002, 113 in 2003, 70 in 2004, and 78 in 2005. Pap smears done in the private sector are not included in these numbers.

Older Adults 60 Years Old and Older

According to the 2001 census, 450 males and 508 females (8.4% of the population) were between the ages of 60 and 79 years old. In 2005, there were 13 deaths in this age group (9 males and 4 females). The main causes of death for older adults were ischemic heart disease, hypertensive disease, diabetes mellitus, and cancer of the prostate.

According to the same census, 100 males and 118 females (2% of the population) were older than 80 years old. There were 37 deaths in persons over 80 years old (23 males and 14 females) in 2005, with the main causes of death being cerebrovascular accidents, diabetes mellitus, cancer of the stomach and prostate, and acute myocardial infarction.

Primary health care providers offer routine monitoring and nursing care to home-bound elderly. The Social Security Board provides old-age pension to persons older than 65 years old, based on past contributions. Through a special arrangement with the Department of Social Development, the Social Security Board provides non-contributory pensions to persons 69 years and older who never contributed to a pension scheme. A needs assessment is conducted to ensure that the person qualifies for this pension. Free or partially subsidized medical assistance to persons in this age group is provided by the Social Welfare Department through the Medical Assistance Program.

The Miriam Gumbs Senior Citizens Home provides institutionalized care to the elderly and the destitute. In addition, a private six-bed facility became operational in 2004.

The Family

The 2002 Poverty Assessment found that slightly higher proportions of men live in poor households. In contrast, the proportion of female heads of household is higher for poor households—42% compared to 33% in not-poor households. The proportion of poor households with no adult men also is higher—25% compared to 20% in non-poor households. Poverty affects women to a much greater extent than men. Workers from poor households are more likely to be employed in the tourism sector and manual and service occupations, and these jobs tend to be amongst the lowest paid. Poor families have a greater incidence of diabetes and hypertension. Teenage pregnancies are higher among poor households.

Family health, one of the priority areas in Anguilla's National Strategic Plan for Health, intends to improve health and quality of life through comprehensive programs such as reproductive health, healthy child development, adolescent and youth health development, health of the elderly, and vulnerable populations, by addressing actual and potential health needs of the population. These services are accessible through both the public and private health care system.

Workers

The Labor Department is responsible for monitoring and investigating workers' accidents and injuries and enforcing legislation regarding the workers' health. As of December 2004, there were 11,025 employees registered with the Social Security Board, 5,979 males (54%) and 5,046 females (46%). The Social Security Board paid US$ 386,944.64 in sickness benefits in 2004 and US$ 449,904.79 in 2005. There were 2,076 and 2,573 claims in 2004 and 2005, respectively, including injury claims.

Persons with Disabilities

There are no special services available for the physically disabled but wheelchairs and other devices are procured by the family or provided by the Anguilla Red Cross in limited amounts. There is also a daily transportation service operated by the Anguilla Red Cross that takes the disabled to clinic sessions, recreational functions, and shopping.

According to the 2001 census, 601 people stated that they suffered from long-standing disability: 305 males and 296 females. The main types of disabilities are impairment of lower limb, 108 (18%); impairment of upper limb, 51 (8.4%); behavioral, 50 (8.3%); neck or spine impairments, 33 (5.4%); speech impairments, 32 (5.3%); hearing impairments, 29 (4.8%); and learning disability, 12 (2.0%).

HEALTH CONDITIONS AND PROBLEMS

Communicable Diseases

Vector-borne Diseases

There were 49 cases of dengue in 2001–2005; one case of **dengue hemorrhagic fever** was identified during the reporting period. Dengue type 3 was isolated in 2001, 2002, and 2003; dengue type 2 was isolated in 2002 as well.

The *Aedes aegypti* mosquito, the vector for **dengue**, is highly prevalent on the island, breeding in cisterns and rock holes; it poses a constant threat of dengue and dengue hemorrhagic fever outbreaks.

According to the Princess Alexandra Hospital's Medical Laboratory, there were no reported cases of **malaria**, **yellow fever**, **plague**, **Chagas' disease**, **schistosomiasis**, or **lymphatic phylariasis** in the reporting period.

Vaccine-preventable Diseases

Immunization coverage for the population under 1 year of age was 100% for BCG and polio in 2001–2004 and 94% in 2005; 100% for the pentavalent vaccine in 2001–2004 and 97% in 2005; and 100% for MMR in 2001–2004 and 97% in 2005. Immunization week is celebrated annually in the month of April.

There were no confirmed cases of **poliomyelitis**, **tetanus**, **whooping cough**, **rubella**, **diphtheria**, or **measles** in 2000–2005.

All pregnant women are immunized against tetanus and diphtheria.

Intestinal Infectious Diseases

According to statistics from the Health Information Unit at the Princess Alexandra Hospital, there were no reported cases of **typhoid fever**, **paratyphoid fever**, **shigellosis**, **food poisoning**, or **amebiasis** over the period under review. According to Princess Alexandra Hospital's Medical Laboratory, there were six cases of **necatoriasis**, three cases of **ascariasis**, four cases of **tapeworm**, three cases of **trichuriasis**, no cases of **ancylostomiasis** (hookworm) in 2001–2005.

Chronic Communicable Diseases

There were no reported cases of **tuberculosis** or **leprosy** in 2002–2005.

Acute Respiratory Infections

There were no deaths due to acute respiratory infections reported for the period under review. However, there were 12 deaths due to diseases of the respiratory system and the ages ranged from 27 years to 100 years.

HIV/AIDS and Other Sexually Transmitted Infections

According to the Medical Laboratory at the Princess Alexandra Hospital, there have been 30 cases of HIV/AIDS since the

virus was first detected in Anguilla in 1988. Blood investigations revealed 11 HIV-positive cases in 2001–2005, 6 males and 5 females. All were in the age group 20–60 years of age. There were no deaths that occurred from AIDS in the period.

Zoonoses

Agricultural reports indicated that there were no reported cases of **hantavirus**, **rabies**, **Venezuelan equine encephalitis**, **bovine spongiform encephalopathy** (mad-cow disease), or **foot-and-mouth disease** in 2000–2005.

NONCOMMUNICABLE DISEASES

Metabolic and Nutritional Diseases

There were 21 deaths in adults due to **diabetes mellitus** and 2 due to **protein-energy malnutrition** in the period under review.

Cardiovascular Diseases

Ischemic heart disease (24 deaths), **cerebrovascular disease** (18 deaths), **cardiac arrest** (8 deaths), and **hypertensive disease** (7 deaths) were among the leading causes of death in 2001–2005.

Malignant Neoplasms

There were 58 deaths due to malignant neoplasms in 2001–2005, representing an increase of 23 deaths over the 1996–2000 period. The main cancer sites were the prostate (17.2%), the stomach (8.6%), the breast (6.8%), the rectum (5.1%), and the colon (3.4%).

Mental Health

The prevalence of mental disorders for 2003–2005 was 147 cases. These included 79 cases of schizophrenia, 22 of depression, 17 each of anxiety disorder and of bipolar disorder, and 6 cases of Alzheimer's disease.

There were 26 new cases of mental disorders in the period, 9 in males and 17 in females. These included 11 cases of anxiety disorder, 6 cases related to substance abuse, 2 cases of eating disorders, 1 case of personality disorder, and 3 cases of schizophrenia.

OTHER HEALTH PROBLEMS AND CONDITIONS

Oral Health

Screening for oral health and treatment takes place at the Dental Unit and as of 2004 at the Welches Polyclinic. The number of visits at these two facilities ranged from 8,533 in 2001 to 9,525 in 2005; the latter number represents a slight increase since 1997–2000, when visits ranged from 9,030 to 9,369. The number of tooth extractions dropped slightly from 827 in 2001 to 802 in 2005. The ratio of tooth extractions to fillings was 5.5:1 in 2005.

RESPONSE OF THE HEALTH SECTOR

Health Policies and Plans

In 2003, the Government of Anguilla approved the 2003–2008 National Strategic Plan for Health, which is guided by a vision of a "Nation of Healthy and Productive Individuals, Families, and Communities." To attain this vision, the Government has identified ten priority areas—health system development, health services, human resource development and management, family health, food and nutrition and physical activity, chronic noncommunicable diseases, HIV/AIDS, communicable diseases, health and the environment, mental health, and substance abuse. These priority areas mirror those established in the Caribbean Cooperation in Health, Phase II. The Plan establishes strategic goals, objectives, expected results, and indicators for dealing with the priority areas.

In 2002, the Government of Anguilla embarked on an ambitious health sector reform program. In an effort to make the health system more efficient, the Health Authority of Anguilla was established by law in 2003 to take responsibility for the provision and efficient management of primary and secondary health care, the Miriam Gumbs Senior Citizens Home, the primary health care units, including the dental unit, the mental health unit, all health centers, and the health promotion unit. The Act also provides for the establishment and payment of health service fees and charges and personal care fees and charges. The Health Authority began to function in January 2004: it is governed by a board of directors who have the responsibility for the operational delivery of all health services, and its operations are guided by the 2003–2008 National Strategic Plan for Health. The 11 essential public health functions are addressed in the Health Authority's work programs.

The Health Authority is charged with providing the population with quality health care that is affordable, efficient, equitable, sustainable, and accessible. This mandate is specified in an annual services agreement between the Ministry of Health and the Health Authority, whereby financial resources are delegated to the Authority so it can discharge its functions. This structured approach to service planning allows resources to be allocated according to the health priorities established by the Ministry of Health. The Government planned to introduce a National Health Fund in 2006, and the first draft of the Manual of Intentions and Procedures has been circulated.

According to the 1999 United Kingdom Overseas Territories White Paper, environmental issues are the responsibility of local governments with the Government of the United Kingdom supporting local efforts. In line with this policy, the United Kingdom

Minister for Overseas Territories and Anguilla's Chief Minister signed the territory's Environment Charter in 2001.

The Department of Environment was established in 2005, under the direction of the Office of the Chief Minister. Its mandate is to provide the legal and institutional framework for conservation of biodiversity and environmental management by providing leadership for Anguilla's management of its resources and addressing the impact of rapid growth on all sectors.

Since its establishment, the Department has commissioned the drafting of four key pieces of legislation, namely the Environmental Protection Act, National Biodiversity and Cultural Heritage Act, the International Trade and Endangered Species Act, and the Conservation Easement Act. It has also developed the National Environmental Management Strategy (NEMS), which is a long-term strategic approach to achieving sustainable development in Anguilla. The other environmental legislation that are being revised are the National Trust Act and the Fisheries Management and Conservation Act and Regulation.

A Health Professions Act is being drafted. The future legislation will regulate health professions and their conduct, establish a health professions council, and provide for the registration and the annual licensing of health professionals. Also, a piece of legislation that will accredit health professionals and health facilities is pending, as is the drafting of a national communicable disease surveillance manual. The Public Health Act has been revised and renamed the Environmental Health Act. Relatively few regulations apply to the private sector.

Organization of the Health System

The Minister of Health has the overall responsibility for the population's health. As such, the Minister is charged with formulating policy, setting standards and protocols for health care, conducting monitoring and evaluation, and determining technical procedures for regulating public and private health facilities. The Department of Health Protection assesses, supervises, issues standards, monitors, and coordinates the work of other health system components and other sectors on matters related to environmental protection, basic sanitation, food hygiene, vector control, and port health. The Ministry of Health retains the Environmental Health Unit (renamed the Department of Health Protection in 2005), the Water Laboratory, and the Quality Assurance Unit (renamed the Directorate of Health Services Quality Management).

The public and private sector collaborate closely in providing health care, but the responsibility for public health care lies with the Ministry of Health. Since the inception of the Health Authority of Anguilla, the Ministry of Health is composed of the Department of Social Development, Her Majesty's Prison, the Anguilla Probation Service, the Department of Health Protection, the Water Laboratory, the Office for National AIDS Coordination, and the Directorate of Health Services Quality Management. Under the authority of the Permanent Secretary and the Social Development Planner, each department is responsible for its own daily operations.

Private health care is provided by general physicians and specialists to those who have the capacity to pay either directly to the provider or through private insurance companies. One private health facility has its own medical laboratory and a subsidiary of the only private pharmacy on the island commenced operation at this facility in 2001.

In 2003, the Government of Anguilla set three main goals for implementing a national health insurance scheme: equity of access, cost containment, and sustainability. A manual of intentions and procedures was drafted in 2005.

According to Anguilla's existing insurance scheme the Government grants insurance benefits to all civil servants, and health benefits cover expenses in and outside of Anguilla. To be able to cover the large number of non-citizen workers employed in the hotel sector, three of the major hotels provide health insurance for their employees. Two of them use insurance companies registered in the territory and the third uses a company registered in St. Kitts and Nevis.

A national HIV/AIDS Program Office was established in 2005. In addition, a national policy for reducing mother to child transmission of HIV is currently being implemented.

Public Health Services

The Government of Anguilla is committed to relying on primary health care as the key for attaining health for all. The first point of contact with Anguilla's health care system is the primary health care physician who prescribes drugs or diagnostic tests, recommends admissions, and refers patients to specialists. To organize primary health care, the island has been divided into three health districts since 2005. Each health district is managed by a center manager who is a public health trained nurse. Moreover, to increase health care access for hotel employees, many of whom are immigrants, the Health Authority has created an additional three health zones and has introduced more clinic sessions in the western zone where most of the hotels are located. Non-citizen immigrant workers receive health care, but pay twice as much for every kind of treatment except for medication and intravenous fluids.

The HIV/AIDS coordination office within the Ministry of Health organizes public awareness campaigns and conducts seminars and workshops. The office also distributes condoms as part of the HIV/AIDS prevention and control program. Other areas for disease prevention and control are noncommunicable diseases such as diabetes, hypertension, and cancer.

Surveillance of communicable diseases is the responsibility of the surveillance officer, the environmental health officers, and the public health nurse who work in the three health districts. Medical officers are required to report all communicable disease

cases to the Ministry of Health. The surveillance officer ensures that data from the public and the private sector are provided in a timely manner. The surveillance officer reports the number of cases of fever and respiratory symptoms, fever and neurological symptoms, fever and hemorrhagic symptoms, gastroenteritis, and fever with no other symptoms to the Caribbean Epidemiology Center (CAREC) on a weekly basis.

Vector control activities focus on controlling rodents and the *Aedes aegypti* mosquito. Mosquito-control activities involve stocking cisterns and water-storage facilities with larvicidal fish, conducting house inspections, and providing treatment. A mosquito awareness month supplements this effort with activities geared to all schools, from pre-primary to secondary.

The Ministry of Health's Environmental Health Unit has a vector-control program that aims at maintaining an annual *Aedes aegypti* household index at less than 5% by inspecting and abating all actual and potential mosquito breeding sites; inspections are supported by fogging and educational sessions.

Rodent control is ongoing, with baiting at food premises, schools, and public institutions.

The Ministry of Health's Water Laboratory monitors water quality for the territory, including that of the major hotels located along the coast on the western side of the island. Water is obtained from deep wells and then is desalinated. As discussed in this chapter's first section, all government wells—where much of the population got their water—have been shut down due to contamination. The Government desalinates water and distributes it at a cost. Those who cannot afford it must get their water from cisterns or catchments.

Each pleasure yacht that docks in Anguilla has its own agent on the island that is responsible for contracting a garbage collector to dispose of its waste.

Potable water is supplied by the Anguilla Water Department, which is responsible for the planning, construction, operation, and maintenance of the water supply. Anguilla has no central sewerage system; sewage is disposed of by septic tank soakaways.

The Department of Health Protection is responsible for Anguilla's solid waste management. For solid waste management purposes, since 2001 the island has been divided into four zones and household waste collection has been contracted out to private providers. In each zone, the contractor also is responsible for collecting waste from government establishments and waste generated at the beaches in the zone. The Department of Health Protection also collects and disposes of clinical waste from the hospital and the health centers, as well as bio-hazardous waste and bulky waste that accumulates around the trash bins. Hotels, business, and commercial establishments are responsible for removing their own waste to the landfill site. The Roadside Cleaning Program remained with the Department of Health Protection, and over the years, the volume of roadside litter has decreased considerably.

Anguilla does not have the technical capacity to monitor air quality, and there are no laws in place to prevent or control air quality.

The Labor Department and the Department of Health Protection are responsible for health and safety in Anguilla. As such, they receive and investigate reports of industrial accidents. Anguilla has no legislation on health and safety, but the Labor Department relies on CARICOM's Model Law on Occupational Safety and Health and the Working Environment for guidance.

Since 2004, the Health Authority has been pursuing hospital accreditation with the Canadian Council of Health Services Accreditation.

Occupational health and safety has been addressed through an assessment of the working environment, and many areas have been improved since the assessment was carried out.

The Anguilla Water Department works in collaboration with the Aqua Design Desalination Plant to provide the island with safe, reliable, and potable drinking water. The department is also responsible for the territory's water infrastructure and for protecting water resources. There is no central sewerage system on the island, but the Department of Health Protection works closely with the Chief Minister's Planning Unit to ensure that new residential building sites have the required sewerage systems (septic tank soakaways) and that government and commercial buildings have sewage package plants.

The Corito Landfill site is due to be revamped. Corito's lifespan was shortened from 18 to 2 years after excavations were done there in connection with WallBlake Airport's expansion. It has been recommended that an alternate landfill site be identified; the present site is to be temporarily improved.

The Water Laboratory monitors the coastal water around the island for fecal streptococci and issues advisories as needed. There is no monitoring for persistent organic contaminants in fish. Guidelines for pesticide use issued by the Department of Agriculture are adhered to. A Pesticide Board is planned for 2006.

Since 2003, the Food Handler's Education Certification Procedure has played an important role in the Food Safety Program. Food premises are encouraged to have food handler's registers, as a means of enabling environmental health officers to verify that workers have received the necessary food safety training, and they must ensure that their food handlers have valid permits. The Environmental Health Unit regularly monitors all food establishments. All first-time food handlers are required to participate in a training session and must pass an Environmental Health Unit examination before receiving a permit. Food handlers also must attend an educational session biannually to have their permits renewed.

The Environmental Health Unit's food handler's educational program includes sessions in personal hygiene, temperature control, cleaning and sanitation, and cross-contamination. Each food handler also must have stool tests for ova, cysts, and parasites.

Anguilla's Drinking Water

Traditionally, much of Anguilla's population drew their water from Government wells. Now, these wells have been contaminated. The Government shut down the wells to protect the population from drinking contaminated water. To fill the gap left by this water source, the Anguilla Water Department, which is responsible for the planning, construction, operation, and maintenance of the water supply, has partnered with the Aqua Design Desalination Plant to provide Anguillians with safe, reliable, and potable drinking water, at a cost.

Routine inspections of the food market and meat, poultry, and seafood products are carried out in collaboration with the Agricultural Department. Food handling premises are inspected to determine sanitary status; establish the wholesomeness of foods stored, handled, prepared, or manufactured; and ensure that food handlers have current permits.

Press releases, radio talks, and television interviews are used to inform and educate both consumers and food handlers.

In collaboration with major supermarkets and restaurants on the island, the Department of Social Development provides food vouchers to families and individuals who may need assistance. Children who are identified as needing assistance have meals provided for them through the school system. The Department also has identified the need for a meals-on-wheels program, and is currently collaborating with the Red Cross and other stakeholders to put it in place; a project proposal in this regard has been submitted to the Ministry of Health for approval. Through the Health Authority, the Senior Mental Health Nurse ensures that mentally challenged persons are provided with one cooked meal each day.

The Health Authority collaborates with the Departments of Environment and Health Protection in drafting policies that address the prevention of diseases that can be transmitted from animals to humans.

In October 2004, a five-year Comprehensive Disaster Management Strategy was developed to address various hazards—hurricanes, earthquakes, tsunamis, and human induced or technological hazards such as mass transport accidents, hazardous materials, and explosions—that could threaten Anguilla's sustainable development and the well-being of the population. A National Disaster Management Office was subsequently established in 2005. It seeks to provide an effective organization of preparedness, management, and mitigation of response to and recovery from emergencies and disasters. The Disaster Management Act also was passed in 2005.

In 2005, a national surveillance policy to detect influenza in birds and humans was developed. There were no reported cases of avian influenza.

Individual Care Services

There are four health centers and one polyclinic spread among the three health districts. All the health centers are within easy access to the entire population. The health teams providing services in the health centers encompass district medical officers, public health nurses, staff nurse-midwives, staff nurses, community health aides, and clinic aides. The core services provided at the health centers include maternal and child health, immunization, family planning, nutrition counseling, daily medical clinics that are conducted by a medical doctor, chronic disease management, and health education. Since 2005, pharmacy services have been provided at a health center in two of the health districts. Patients go from the health centers to Princess Alexandra Hospital for laboratory and x-ray services.

In addition to a resident doctor, the polyclinic has a dental unit, a physiotherapist unit, and a pharmacy. Physiotherapy, dental, and ophthalmic services are offered every week. A full range of child health services, including growth and nutritional monitoring, developmental assessment, and treatment of common childhood illnesses, also are offered.

Dental services are supplemented by a mobile unit that brings dental care to primary schools. Three dental surgeons, three dental auxiliaries, and three dental assistants are employed at the Dental Unit. There is also a private dental facility that offers a full range of services. The Dental Unit has introduced a tooth brushing program at each primary school. Oral health talks are given from preschool to secondary school. An annual Dental Health Awareness Week has been introduced to make the general public more aware of their oral health. In 2005, a sealant program began and a fluoride excretion survey was carried out, which found that fluoride levels were below optimal concentrations. A salt fluoridation programme was planned for 2006.

The maternal and child health program emphasizes prenatal care, birth attendance by trained midwives, and monitoring of child health and development. The Expanded Program on Immunization (EPI) is part of the 2003–2008 National Strategic Plan for Health; the program is a priority for the Ministry of Health.

The Department of Education employs two school health nurses to ensure the daily care of students. A monthly meeting to discuss school health issues is held between the pediatrician employed by the Health Authority of Anguilla and the school health team. School health services offer hearing and vision screening, monitor nutritional status, and make referrals for treatment.

The 36-bed Princess Alexandra Hospital is the only public hospital on the island. Its services include accident and emergency treatment, inpatient and outpatient services, surgery, obstetric and gynecology, pediatric, internal medicine, radiology, hemodialysis, and pathology. Since 2004, prenatal care services have been transferred to the health centers; prenatal care starts at 36 weeks gestation and goes up to the time of delivery.

The main pharmacy is located at the hospital and serves both the public and private sector. Anguilla has no tertiary-level care facility; patients needing such care are transferred to St. Maarten, Barbados, Trinidad and Tobago, or other Caribbean islands. According to the medical records at the Princess Alexandra Hospital, there were 164 persons transferred during the reporting period; according to the Ministry of Health, the estimated cost of these transfers to the government in 2005 was US$ 95,760. As a United Kingdom overseas territory, Anguilla is granted care for patients annually in the United Kingdom. Institutionalized care for the elderly and the destitute is provided by the Miriam Gumbs Senior Citizens Home, a 16-bed geriatric care facility, and by a 6-bed private sector facility.

There is no public health laboratory in Anguilla, but Princess Alexandra Hospital has a medical laboratory and there is a private medical laboratory at the Hughes Medical Center. Samples requiring testing beyond the public laboratory's capability are sent to a private laboratory in Saint Lucia or to CAREC.

Laboratory services provide diagnostic testing for the public and private facilities, surveillance, and patient management. The medical laboratory at the hospital ensures that reagents are available and advises the Health Authority on the purchase and maintenance of equipment. The laboratory's services include routine hematology, clinical chemistry, blood banking, and microbiology that includes parasitology, bacteriology, and serology. Cytology and virology specimens are referred overseas. All blood donations are screened for HIV, hepatitis B, and syphilis. Of 150 blood donors who were tested in 2001, there was 1 (0.7%) case of hepatitis B. In 2002 there were 226 donors and 3 (1.3%) tested positive for syphilis. In 2003 there were 303 blood donors and 4 (1.3%) tested positive for syphilis and 2 (0.7%) for hepatitis B. In 2004, 238 blood donors were tested and 1 (0.4%) tested positive for hepatitis B, and in 2005, 232 donors were tested and 1 (0.7%) tested positive for syphilis. Throughout 2001–2005, blood investigations also revealed that there were 15 cases of hepatitis B and 26 cases of syphilis, a significant increase over 1997–2000, when 19 cases of syphilis were detected.

Physiotherapy services began to be offered at the hospital in 1998. After Anguilla's Health Authority was established in 2005, this service was transferred to the polyclinic.

Mental health services are provided primarily through the community nursing service by a team of trained mental health nurses. Mental health emergencies are referred to a district medical officer and acute mental health care is offered at Princess Alexandra Hospital. Patients with severe mental disorders are held in Her Majesty's Prison and are visited weekly by a doctor and a member of the mental health nursing team. Patients requiring specialized hospital care are referred to neighboring Caribbean islands at the Government's expense. A visiting psychiatrist reviews patient care every three months.

A Mental Health Association has been established to serve as an advisory board to the Ministry of Health. A mental health policy was drafted in 2003; it includes a set of values, principles, and objectives that will guide the development of the Mental Health Act.

Construction of a mental health facility began in 2004 with financial assistance from the British Government through the Department for International Development.

The Ministry of Health has committed itself to strengthen mental health programs; establish a framework for providing mental health services; mitigate the impact of mental health disorders; sensitize the general public about mental health issues; establish an information system for mental health program and delivery; and reduce substance abuse. Improvements have been achieved through alcohol and drug education and counseling, home visits, tracking defaulters, education and training of mental health personnel, general counseling sessions for individuals and families with mental health disorders, and monitoring and evaluation. In 2003–2005 marijuana abuse counseling was offered to four clients, alcohol abuse counseling to three, and crack-cocaine base counseling to two.

A renal dialysis unit with four dialysis machines was commissioned at the hospital in 2002. Clients from Saint Kitts and Nevis are treated, as are visitors from the United States. A nephrologist who joined the health team in 2002 oversees the medical aspects of the dialysis unit.

Reproductive health services are offered through community clinics, family planning clinics, and an adolescent health clinic. A peer helper group designed to counsel secondary school peers on sexual health and reproduction was formed through Anguilla's Family Panning Association. Twenty-five students were trained as peer helpers in a collaborative effort of Family Planning Association members and school guidance counselors.

Radiological equipment is located at Princess Alexandra Hospital and serves both the public and private facilities. Mammograms are provided by the private sector. Patients must travel to St. Maarten, Puerto Rico, or the United States of America for CT and MRI scans.

Health Promotion

The Health Authority's Health Promotion Unit collaborates with the Ministry of Health and other government agencies, such

as the Ministry of Education and the Department of Youth and Culture, as well as with health-related nongovernmental organizations to plan, implement, and evaluate health education, and promote health and wellness activities. Alliances have been formed with Anguilla's various media outlets and daily programs disseminate health information.

A health and family life education program has been introduced in primary and secondary schools. It addresses personal hygiene, sex education, substance abuse, HIV/AIDS and other sexually transmitted infections, and nutrition; sessions on domestic violence also are included. A healthy snack day was introduced in primary schools as a way to teach healthy eating to children.

Community leaders participated in the development of the 2003–2008 National Strategic Plan for Health.

Furthermore, the Health Authority's management team held meetings in 2004 and 2005 in several communities as a way to get feedback to them. Finally, in the preparatory process towards accreditation that began in 2004, community leaders were included on self-assessment teams of the health service, and participated in focus-group discussions with those assessing the quality of the health service.

Human Resources

The number of health personnel has increased since Anguilla's Health Authority was established. According to the Health Authority's Human Resource Department, there were 12 doctors, 3 dentists, 40 registered nurses, 4 pharmacists, 3 laboratory technologists, 2 radiographers, 10 emergency medical technicians, 1 physiotherapist, 1 nutritionist, 1 dietitian, 2 health educators, and 3 dental therapists working in Anguilla in 2005.

In 2005, permanent staff at the Hughes Medical Center were three doctors, five registered nurses, two laboratory technologists, and one pharmacist. Care at the facility also is provided by nine visiting specialists, seven males and two females, as well as a visiting nurse anesthetist.

The Department of Environmental Health employed five environmental officers (four males and one female); of the four vector-control officers, two are female.

Anguilla has seven doctors working in private practice; two are females.

Training of health personnel is determined by staffing needs of the Ministry of Health and the Health Authority, with support by the Government of Anguilla. Training is offered to public- and private-sector personnel. Because there are no training institutions for health personnel in the territory, training is obtained in various Caribbean islands, the United Kingdom, and the United States of America.

Continuing education is provided locally through the Ministry of Health, the Health Authority, professional organizations, and regional and international agencies. The Pan American Health Organization offers fellowships.

Both the public and private sectors attract health professionals from around the world. Non-nationals are offered two-year, renewable contracts. Turnover is high, especially among foreign physicians.

Health Supplies

Drugs are obtained through the Organization of Eastern Caribbean States' Pharmaceutical Procurement Services (formerly the Eastern Caribbean Drug Service). Anguilla's pharmacy is guided by the Pharmaceutical Procurement Services' regional formulary. In 2005, a national drug formulary was developed and implemented using the Procurement Services' formulary. In 2004, a Pharmaceutics and Therapeutic Committee was established to review and maintain adequate stocks, and monitor essential and necessary drugs. Drugs that are not on the regional formulary are procured mainly from an outlet in Barbados.

Vaccines for Anguilla's Expanded Program on Immunization are purchased through PAHO/WHO's Revolving Fund. Standards and protocols for the immunization program are stringently adhered to.

All reagents are obtained from various companies in the Caribbean and the United States of America.

Most laboratory supplies and equipment are purchased from companies in Puerto Rico or the United States of America. Preventive maintenance for equipment at the hospital, dental unit, the health centers, and the water laboratory is contracted out. Laboratory personnel are trained on how to use equipment by the company that sells the equipment.

Health Research and Technology

In 2004, the Health Authority purchased new hardware and Internet access for its Health Information Unit. There is no health research legislation. The Health Information Unit collaborates closely with the Statistical Unit, the Medical Records Unit, and the surveillance officer to provide necessary data for research. Anguilla participated in an adolescent health survey in 2002 and in an AIDS awareness survey in 2003. A reproductive health survey sponsored by the National Family Planning Association was conducted in 2003. A patient satisfaction survey and a dental fluoride survey were conducted in 2004. Every effort is made to implement recommendations issued in the surveys.

Health Sector Expenditures and Financing

The public health sector falls under the Ministry of Social Development. In 2005, the Ministry was allocated US$ 8,478,051, of which the public health sector received around US$ 6,962,644, or 82%. In 2005, the Health Authority received US$ 5,415,129 for its recurrent budget in 2005.

According to the Health Authority's Financial Department, public expenditure on community services amounted to US$ 817,219

in 2005; expenditures on ambulatory and hospital services amounted to US$ 2,592,881. Expenditures on drugs and other medical supplies amounted to US$ 610,332, or 11.2% of the Health Authority's budget. Expenditure for health care overseas was US$ 146,810.67 or 2.1%.

Financing for capital expenditure in the health sector is retained within the Ministry of Social Development, and equipment for the Health Authority is paid out of the capital budget. In 2005, US$ 2,996,310 was allotted to the health sector, and equipment for the Health Authority accounted for US$ 230,625, or 7.6% of the capital budget.

The health care system is financed through several mechanisms, namely insurance companies, the government insurance scheme for public servants, and patients who pay fees for service. The Health Authority is paid by the Department of Social Development for services rendered to patients who are deemed unable to pay and for the residents of the Miriam Gumbs Senior Citizens Home. Her Majesty's Prison pays for prisoners, and the Education Department pays for services rendered under the School Health Program.

Nongovernmental organizations do not provide health financing, but they may provide health services such as family planning and education on diabetes.

Technical Cooperation and External Financing

The Caribbean Environmental Health Institute (CEHI), the Caribbean Epidemiology Center (CAREC), the Pan American Health Organization (PAHO), the Caribbean Food and Nutrition Institute (CFNI), and the Caribbean Disaster Emergency Response Agency (CDERA) assist in developing policies and model legislation and in providing training.

In 2002, the United Kingdom's Department for International Development, in collaboration with PAHO, provided technical assistance to the Government of Anguilla for developing systems and mechanisms for the Anguilla Health Authority; costing of services and the development of a fee structure; and legislation for the operational regulations and the completion of the National Strategic Plan for Health. In 2005, the Department for International Development provided financial assistance to build a Water Laboratory and an acute care mental facility on the grounds of the Princess Alexandra Hospital. PAHO provides technical assistance as well as training.

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