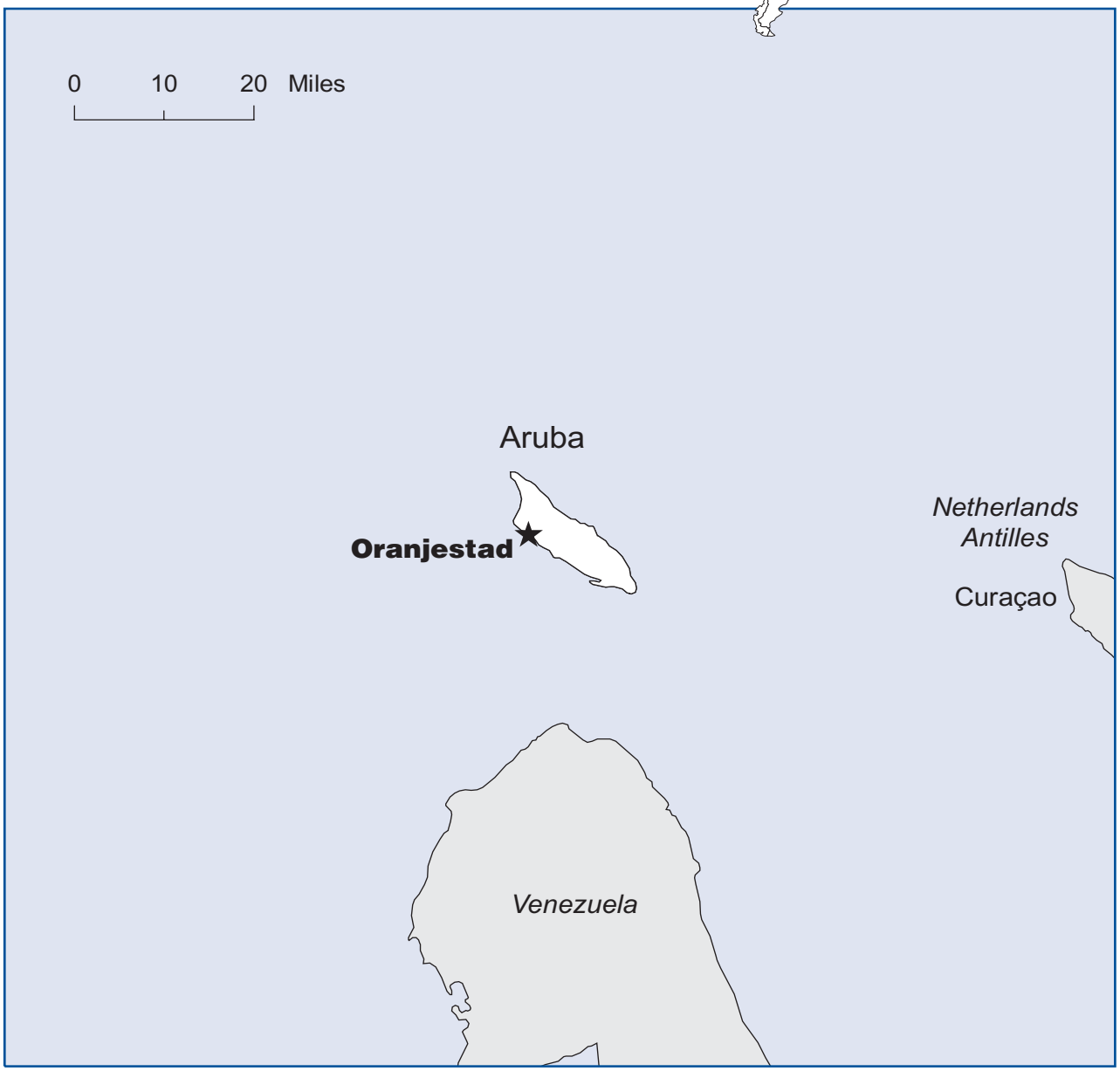
ARUBA



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.

The island of Aruba is located at 12°30' North and 70° West and lies about 32 km from the northern coast of Venezuela. It is the smallest and most western island of a group of three Dutch Leeward Islands, the "ABC islands" of Aruba, Bonaire, and Curaçao. Aruba is 31 km long and 8 km wide and encompasses an area of 180 km^2.

GENERAL CONTEXT AND HEALTH DETERMINANTS

Aruba's capital is Oranjestad, and the island divides geographically into eight districts: Noord/Tanki Leendert, Oranjestad-West, Oranjestad-East, Paradera, Santa Cruz, Savaneta, San Nicolas-North, and San Nicolas-South. The average temperature is 28°C with a cooling northeast tradewind. Rainfall averages about 500 mm a year, with October, November, December, and January accounting for most of it. Aruba lies outside the hurricane belt and at most experiences only fringe effects of nearby heavy tropical storms. While Dutch used to be the sole official language, in 2004 the Parliament of Aruba accepted Papiamento, the native language spoken exclusively on the ABC islands, as an official language. In addition, English and Spanish are compulsory in primary school and are spoken by many Arubians.

Social, Political, and Economic Determinants

Historically, Aruba was part of the Netherlands Antilles, a six-island federation, which also included Bonaire, Curaçao, St. Maarten, Saba, and St. Eustatius. On 1 January 1986, Aruba became a separate entity within the Kingdom of the Netherlands, which now comprises three constituents: Holland, the Netherlands Antilles (five islands), and Aruba. Aruba has its own constitution, based on Western democratic principles. The Queen of the Netherlands appoints the Governor of Aruba, who holds office for an eight-year term and acts as her representative. The Arubian Parliament consists of 21 members elected by universal suffrage; the last elections were held in 2005, resulting in the present Parliament formed by a Social Democratic party (11 seats), a Christian Democratic party (eight seats), and two new parties with one seat each. The Cabinet consists of a maximum of nine ministers and is headed by the Prime Minister. Aruba is responsible for its own administration and policy-making, except for defense, foreign affairs, and the Supreme Court, which are the responsibility of the Kingdom. Despite its separate status, Aruba retains strong economic, cultural, and political ties with Holland and with its "sister" islands.

Estimated real GDP growth for 2005 was 3.2%, a slight contraction of the estimated 2004 growth rate of 3.5%; a further contraction of 2.4% is projected (Table 1). While Aruba has made considerable progress toward alleviating poverty, available data suggest that income inequality is still considerably larger than in countries with comparable income levels.

According to the Centrale Bank van Aruba, at the end of 2005, inflation stood at 3.8%, compared to 2.8% a year earlier. Measured as a 12-month average percentage change, the inflation rate accelerated by nearly 1% to 3.4% in 2005, reflecting mainly price increases for water, electricity, and gasoline following the rise in oil prices on the international market. At the end of 2005, the overall economy continued to show an upward growth trend (Table 2).

The main economic driver is the service sector, in which tourism is the major industry. According to the most recent figures of the Aruba Tourism Authority, the number of stay-over visitors and of their nights spent on the island increased by 2.2% and 2.1%, respectively, during the first 10 months of the year of 2005 compared to 14.5% and 11.9% in the same period of 2004. Most tourists (73%) come from the United States, followed by Venezuela (8.1%) and the Netherlands (5.2%). From 2002 to 2004, the number of stay-over visitors increased from 642,627 to 728,157, that of hotel rooms increased from 6,831 to 7,226, and in 2004 average hotel occupancy rates were 80.7%.

The highest unemployment (28%) experienced over the last three decades was in 1985, when the oil refinery closed down. Accelerated investment in the labor-intensive hotel and construction sectors in the late 1980s and in the first half of the 1990s, coupled with the reopening of the oil refinery, caused enormous pressures on the local labor market: the total number of employed persons rose 43% from 1991 to 2000. Many of the newly created jobs in the economy had to be filled by foreign workers, to the extent that 41% of the working age population in 2000 was non-Arubian. The unemployment rate at the end of September 2005 was 6.2%, which represented a drop of 12.1% (427 persons) to 3,114, compared to a rate of 7.2% in the corresponding period in 2004; most of these were probably structurally unemployed persons, given the mismatch between the needs of employers and the skills and training of the unemployed. Inversely, the number of employed persons rose by 1,967 to 47,350, and most of that increase reflected the greater number of persons employed by the private sector—1,592 more persons thus employed or a 4% in-

TABLE 1. Gross domestic product, Aruba, 2001–2005.

	2001	2002	2003	2004[a]	2005[b]
Nominal GDP (US$ million)	1,942.2	1,954.9	2,056.5	2,182.3	2,326.3
Real GDP (1995 = 100; US$ million)	1,637.7	1,596.0	1,620.6	1,677.7	1,731.4
GDP per capita (nominal in US$)	2,1,140	20,951	21,632	22,346	23,139
Percentage changes					
Nominal GDP	2.2	0.7	5.2	6.1	6.6
Real GDP (1995 = 100)	–0.7	–2.6	1.5	3.5	3.2
GDP per capita (nominal, Aruba florin)	0.7	–0.9	3.2	3.3	3.5

Source: Aruba Central Bank (CBA), Central Bureau of Statistics, International Monetary Fund (IMF).
[a]Preliminary estimates of the CBA.
[b]Preliminary estimates of the CBA and the IMF.

TABLE 2. Inflation, growth, and debt, Aruba, 2002–2005.

	2002	2003	2004	2005
Real GDP (1995 = 100, US$ million)[a]	1,596.0	1,620.6	1,677.7	1,731.4
Inflation, end of period[b]	4.2	2.2	2.8	3.8
Inflation, 12-month average[b]	3.3	3.6	2.5	3.4
Real growth (%)[a]	–2.6	1.5	3.5	3.2
Domestic debt (US$ million)[c]	410	431.2	494.1	516.5[d]
Foreign debt (US$ million)[c]	510.7	413.8	477.5	532.7[d]
Total debt (US$ million)[c]	920.6	845	971.5	1,049.2[d]

[a]Aruba Central Bank, Central Bureau of Statistics, International Monetary Fund.
[b]Aruba Central Bank, Central Bureau of Statistics.
[c]Aruba Central Bank.
[d]End September 2005.

crease to 41,036. The number of public employees also went up by 375 or 6.3% to 6,314. The active portion of the working age population declined slightly to 63.3%.

Demographics, Mortality, and Morbidity

The total population increased from 92,017 in 2001 to 98,829 in 2004 (7.4%), of which 47.7% were males and 52.3% females; most of the increase was attributable to the arrival of immigrants, which ranged from 3,076 in 2002 to 3,906 in 2004. From 2001 to 2004, live births averaged 1,228 and total deaths 482. Between the censuses of 1991 and 2000, the population increased from 66,687 to 90,506, a rise of 35.7%, most of which was likewise caused by immigration. Of the total population in 2000, 66.1% were born on the island and the other 33.9% elsewhere. The density of population increased steadily from 501 inhabitants/km^2 in 1999 to 549 inhabitants/km^2 in 2004.

The total fertility rate in 2005 was 1.8. The crude birth rate per 1,000 inhabitants was 14.3 in 2000 and 12.1 in 2004. In 2005 life expectancy at birth was 71.9 years—69.5 years for males, and 74.4 years for females. According to the 2000 census, life expectancy for males was 70 years and for females 76 years, in each case approximately one year less than life expectancies in 1991 of 71.1 years for males and 77.1 years for females, according to the census of that year (Figure 1). Immigrants concentrated in age groups of high economic activity are an important contribution to the distribution of the population by age. The percentage of persons 65 years of age and older has remained stable: 7% according to the census of 1991 and 7.3% according to that of 2000. Predictions are, however, that a noticeable aging of the population is in the offing, as the mean age of the population has increased from 32.9 to 33.9 years since 1991; notwithstanding, much of the aging is masked by the arrival in recent years of large groups of mostly younger foreign workers.

Between 2000 and 2004, crude death rates for Aruba were consistently around 5 per 1,000 (Table 3). The probabilities of men dying in the 55–70-year age group and of women dying in the 60–70 age group were considerably higher in 2000 than in 1991. In 2004, of a total of 499 deaths defined by cause, 36.3% were attributed to diseases of the circulatory system, 24.7% to malignant neoplasms, 7.8% to external causes, and 6.1% to communicable diseases. Between 2000 and 2004, diseases of the circulatory system

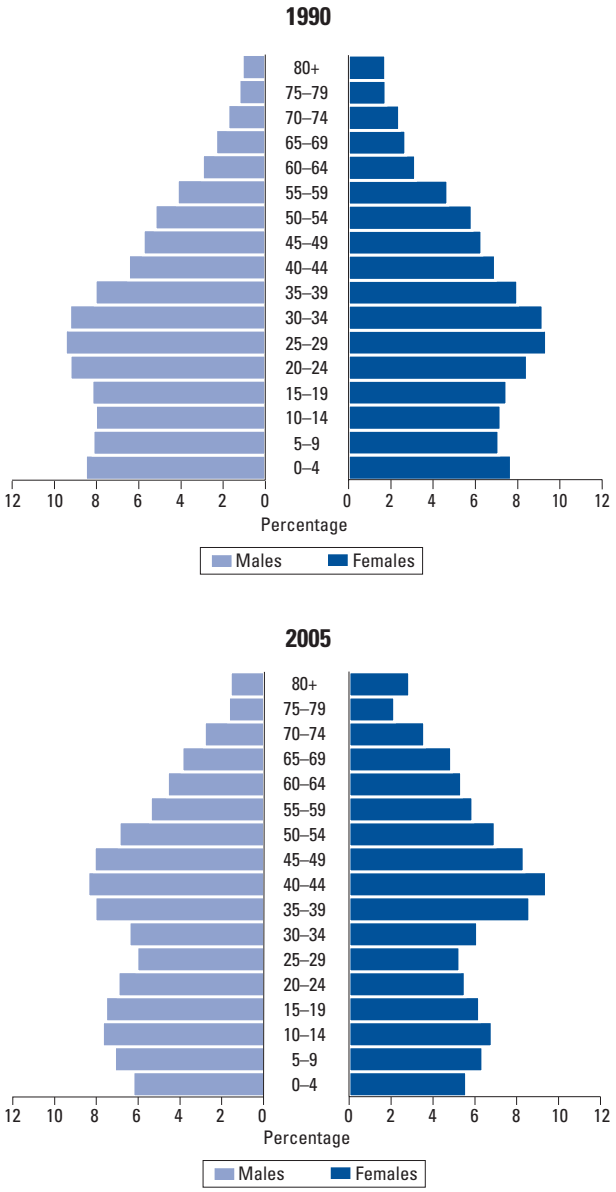
and malignant neoplasms consistently occupied first and second place among leading causes of death, while communicable diseases and external causes alternated for third and fourth place.

Among causes of death, mortality from communicable diseases has been under control, but the incidences of diseases of the circulatory system and malignant neoplasms have grown significantly, mainly as a result of unhealthy lifestyles such as poor eating habits and inactivity (Table 4).

More detailed data for causes of death for 2004 show differences between the sexes (Table 5). Diseases of the circulatory system and neoplasms constituted the leading causes of death for both males and females, but external causes of death represented 12.1% of all causes of death for males, while they represented only 2.3% of female deaths. Communicable diseases came in third place for females (8.1%) and in fourth place for males (4.5%).

Conditions originating in the perinatal period account for most of the mortality among children under 1 year of age. For the 1–4-year, 5–9-year, and 15–24-year age groups, external causes are the principal cause of death. Diseases of the circulatory system and malignant neoplasms are the most important causes of death in the 25–64-year age group, followed by external causes; in this age group, men die more often from diseases of the circulatory system and external causes. In the 65 year and older age group, diseases of the circulatory system and malignant neoplasms are the two leading causes of death, while communicable diseases come in third place.

FIGURE 1. Population distribution, by age and sex, Aruba, 1990 and 2005.



HEALTH OF POPULATION GROUPS

Children under 5 Years Old

The number of infant deaths in the period 2000–2004 ranged from 7 in 2000 to 1 in 2004, and infant mortality rates (IMR) were 5.4, 4.8, 2.4, 2.4, and 0.9 deaths per 1,000 live births. According to the Registry Office, the IMR in 1990 was 4 deaths per 1,000 live births. Over the 15-year period 1990–2004, the IMR fluctuated between 1 and 8 deaths per 1,000 live births, with an average of 4 deaths. Between 2000 and 2004, the most common cause of the 20 registered infant deaths—responsible for 12 deaths or 60% of the total—was related to conditions originating in the perinatal period. Subcategories of these conditions included disorders related to length of gestation and fetal growth, constituting 5 deaths or 25% of all causes of registered infant deaths; followed by congenital malformations, deformations, and chromosomal abnormalities with 3 deaths; fetus and newborn affected by obstetric complications and birth trauma with 2 deaths; and respiratory disorders specific to the perinatal period with 2 deaths. Another important cause of death in infants was external causes with 2 deaths of all registered infant deaths.

In the period 2000–2004, six children 1–4 years old died—three males and three females. The most common cause of death

TABLE 3. Crude mortality rates, Aruba, 2000–2004.

Year	Population	Deaths	Number of deaths per 1,000 inhabitants
2000	91,064	531	5.9
2001	92,676	435	4.7
2002	93,945	492	5.2
2003	96,207	501	5.2
2004	98,829	499	5.0

Source: Central Bureau for Statistics and Population, Registry Office.

TABLE 4. Causes of death as a percentage of all deaths, Aruba, 2000–2004.

Causes	2000	2001	2002	2003	2004
Diseases of the circulatory system	34.8	30.3	34.5	35.6	36.3
Malignant neoplasms	22.9	21.7	25.7	27.9	24.7
External causes	6.7	8.7	9.6	8.5	7.8
Communicable diseases	7.3	9.6	7.6	4.7	6.1
Symptoms, signs, and ill-defined conditions	9.2	6.4	5.1	4.3	2.9
Certain conditions originating in the perinatal period	0.4	0.6	0.6	0.2	0.0
All other diseases	18.7	22.6	17.0	18.8	22.2

Source: Department of Public Health, Epidemiology and Research.

TABLE 5. Causes of death, as a percentage of all deaths, by sex, Aruba, 2004.

Causes	Males	Females	Total
Diseases of the circulatory system	36.0	36.7	36.3
Neoplasms	22.5	27.6	24.7
External causes	12.1	2.3	7.8
Communicable diseases	4.5	8.1	6.1
Certain conditions originating in the perinatal period	0.0	0.0	0.0

Source: Department of Public Health, Epidemiology and Research.

in this age group was external causes of injury and poisoning, with three deaths.

Children 5–9 Years Old

Eight children in the 5–9-year age group died in the period 2000–2004. Two deaths occurred due to external causes by injury and poisoning, and two due to congenital malformations, deformations, and chromosomal abnormalities.

Adolescents 10–14 and 15–19 Years Old

In the 10–14-year age group 10 deaths occurred in the period 2000–2004; most (7) were males and five of the male deaths were due to external causes. In the same period, 14 deaths occurred in the 15–19-year age group, of which 11 were males. In this age group, nine died of external causes (eight died in traffic accidents, of which only one death was female).

In 2004 the fertility rate of 15–19-year-old girls was 37 live births per 1,000 adolescent girls—considerably lower than the 2000 rate (51 live births per 1,000) and the 1991 rate (58 live births per 1,000).

Adults 20–59 Years Old and 60 Years and Older

Of deaths occurring in 2004 in the 20–64-year age group, 89 were males (73%) and 33 females (27%). From 2000 to 2004 no maternal mortality was reported. The most common cause of death in 2004 for males in this age group was land transport accidents (10), followed by cardiac arrest (9) and ischemic heart disease (7). The most common cause of death for females in this age group was neoplasms, chiefly carcinoma of the breast (4).

The crude birth rate according to the 2001 census was 13.8 births per 1,000, as compared to the 1991 census rate of 18.5 births per 1,000. Age-specific fertility rates for 2000 were likewise lower than those of 1991. Fertility rates for women in the 20–24-year age group dropped 40% from 1991 to 2000. For women in the 25–29-year and 30–34-year age groups, the decline in fertility was also significant. The total fertility rate decreased from 2.8 children per woman in 1991 to 1.85 children per woman in 2000. From 1991 to 2000, the mean age at which women had their children remained relatively stable at 27 years. According to calculations of the Central Bureau of Statistics, the fertility of Arubian women is currently below replacement level.

The Family Planning Foundation, founded in 1970 to promote responsible parenthood, distributes contraceptives to the general public irrespective of marital status; it is worth noting, however, that from 2000 to 2004 the number of clients dropped from 3,517 to 2,335. In 2004, of those women who used contraception, 60% used oral contraceptives, 25% used injections, 11% used condoms, and 5% used intrauterine devices. All women now have a choice of a general physician, a midwife, or a gynecologist to attend to them during pregnancy, whereas prior to the introduction of the General Health Insurance program—which covers the differences in costs of services for perinatal care—the choices were more limited: women with private health insurance and employed women could always choose which health professional they wanted to attend to their pregnancy, but women with *pour pouvre* cards (cards for people living in poverty) only had access to a midwife.

Of all deaths during 2004 in the 60 years and older age group, 196 were male (52%) and 184 were female (48%). The most common cause of death in males was ischemic heart disease (19), followed by cerebrovascular diseases (17) and diabetes mellitus (13), while the most common cause of death for females was cerebrovascular diseases (20), followed by diabetes mellitus (19) and hypertensive disease (14).

Demand for Foreign Labor Stresses the Health System

The boom in Aruba's hotel and construction industries that began in the 1990s led to a labor shortage that required bringing in foreign workers to fill the gap. By 2000, the number of employed persons had risen by more than 40%, and two in every five persons in the island's working-age population were foreigners. This influx of a younger population of non-Arubians challenges the capacity of the health system to cope with demand: on the one hand, it must cope with injuries and infectious diseases that the younger population faces; on the other, it must address the chronic diseases and disabilities among the ever-aging Arubian population. To address these issues, the Department of Public Health is providing an array of diverse services, as well as contracting and coordinating with nongovernmental agencies to provide additional health care services.

The Family

The 2000 census counted a population of 90,506 persons, 29,264 households, and an average of 3.1 persons per household, as compared to household sizes of 3.5 in 1991 and 4.0 in 1981. Since 1991 the number of individuals living in a small household (1–3 persons) has increased, while the number living in households with more than three persons has decreased. The number of nuclear households—those with a married couple with or without children, father alone with children, or mother alone with children—increased by almost 40% between 1991 and 2000, from 9,800 to 13,693; nevertheless, the percentage of this type of household among all households decreased from 51% to 47%. The relative number of extended households also fell, from 18% to 16%, as did the number of collective households—institutions such as homes for elderly, youths, or the disabled—from 20% in 1991 to 15% in 2000.

Workers

The Occupational Health Center for the public sector, Bedrijfsgezondheids Dienst, carries out pre-employment health controls and monitoring of sick workers and deals with the prevention and control of occupational risks, workers' health education, and the registry of accidents and occupational diseases. In 2003 the absenteeism index for the public sector was 4.7%, and the average period of absenteeism was 5.5 days. The most frequent causes of morbidity contributing to absenteeism were influenza, digestive disorders, and headaches; injury in the home setting, traffic accidents, and occupational accidents were the largest contributors to accident-related absenteeism.

Persons with Disabilities

According to the 2000 census, 5,034 persons (5.6% of the population) had physical and/or mental disabilities; the most frequent disability was motor impairment (30.3%), followed by visual impairment (20.6%). The prevalence of disabilities was slightly higher among men (5.8%) than women (5.4%). The Foundation for the Mentally Handicapped gives several kinds of services and day care, based in various operating centers: Daycare Bibito Pin for children 2–16 years old; Dununman School for children 8–18 years old who have learning difficulties; Daycare Briyo di Solo for adolescents and adults 16 years old and older; Center Man an Obra, a school that provides craft training and skills; and Home Sjabururi, which offers permanent care for disabled adults. The Foundation Ambiente Felis, which is subsidized by the government and by monthly contributions from clients' parents, provides permanent care for adults with mental impairments. The three most common disabilities among clients at this foundation are Down syndrome, serious mental impairment (low functionality), and double mental and physical disabilities (such as deafness, blindness, and the inability to walk); their most common burdens of disease are: influenza, epilepsy, diabetes, chronic airway infection, and heart problems.

HEALTH CONDITIONS AND PROBLEMS

Communicable Diseases

Vector-borne Diseases

In 2001, 2002, and 2003, 20, 27, and 33 **dengue** cases, respectively, were reported. In 2004 the island experienced a dengue 3 outbreak resulting in 171 cases. At the end of 2005 another dengue epidemic lasted for a period of six months and resulted in 3,880 cases being reported to the Department of Public Health, 42% of which were confirmed in the laboratory; one case of **hemorrhagic dengue fever** was observed; and dengue serotypes 2 and 3 were isolated. All dengue serotypes except for 4 have been observed in Aruba. No other vector-borne diseases have been reported.

TABLE 6. National vaccination program, Aruba.

Vaccination	Age of vaccination
DPTPolio and Hib	3, 4, 5, and 12 months
MMR	14–15 months
DTPolio	5 years
DTPolio and MMR	10–11 years

Source: Youth Health Service, Department of Public Health, Aruba.

Vaccine-Preventable Diseases

As part of the Kingdom of the Netherlands vaccination program (Table 6), all infants and schoolchildren in Aruba are vaccinated for DPTPolio (diphteria, pertussis, tetanus toxoid, and poliomyelitis), Hib (*Haemophilus influenzae* type b), MMR (measles, mumps, and rubella), and DTPolio (diphteria, tetanus toxoid, poliomyelitis).

Infectious Intestinal Diseases

Aruba has no history of **cholera**. During 2004, 13 cases of **shigellosis** and 47 cases of **salmonellosis** were registered.

Chronic Communicable Diseases

In 2003 and 2004, 12 and 2 cases of **pulmonary tuberculosis**, respectively, were registered; no cases of other forms of tuberculosis were reported. In the same two years, 19 and 11 cases of **syphilis**, respectively, were registered. No cases of **leprosy** were registered during 2004.

Zoonoses

No cases of **rabies** or other zoonoses were reported from 2001 to 2005.

NONCOMMUNICABLE DISEASES

Nutritional and Metabolic Diseases

According to a 1998 survey of schoolchildren's eating habits and physical activity, 20% of children in the 6–14-year age group did not eat breakfast before going to school, and as they grew older they were less likely to eat something in the morning; about three-quarters of schoolchildren consumed a warm meal every day or almost every day; primary school children were more likely to eat fruits (46%) than vegetables (39%); 45% of children consumed at least one bottle of soft drink per day; more than three-quarters consumed more than two glasses of water per day; and 70% of children carried food and 65% carried a beverage to school, but as they grew older they were less likely to do so.

According to a 2003 survey, 80% of last-born children were still being breast-fed 4 weeks after birth, and 24% of them were being exclusively breast-fed; only 37% were being breast-fed after 17 weeks and 8% exclusively; by 26 weeks 15% were breast-fed and only 3% exclusively. The study suggests that scant practical knowledge of the value of breast-feeding, insufficient trust in breast-feeding capability, and children's refusal to breast-feed are the main reasons that this practice stops.

Overweight is another issue that merits special attention. Anthropometrical measurements from a 2001 survey conducted by the Department of Public Health indicated that only one-quarter of the population had a normal body weight; 16% were mildly overweight; 19.5% were more than mildly overweight, with risk to their health; and 38% were obese (BMI = >30).

The prevalence of **diabetes** is very high. In a 2001 health survey conducted by the Department of Public Health, 5.7% of the population reported that they suffered from diabetes. Concurrent with that survey, a subsample of the participants 20 years of age or older were subjected to medical examination, according to which 13.2% had diabetes and another 9.2% had glucose intolerance. From 2001 to 2004, mortality from diabetes ranged from 25 deaths in 2002 to 37 in 2004.

Cardiovascular Diseases

Diseases of the circulatory system are the leading cause of death. Annual deaths from cardiovascular diseases ranged from 142 deaths in 2001 to 185 in 2004.

Malignant Neoplasms

Malignant neoplasms are the second leading cause of death, accounting for 24.7% of the total 499 deaths in 2004. The most common sites of malignancies leading to death for both sexes combined are the digestive organs and peritoneum, stomach, and colon. In females the leading cause of death is malignant neoplasm of the breast, and in males it is lung cancer.

OTHER PROBLEMS

Oral Health

The Youth Dental Care Service, with two dentists and one hygienist, works closely with the public, especially through kindergartens and elementary schools, to provide information about dental care to parents and children. Preventive dental care service entails weekly flouride wash programs conducted at kindergartens and elementary schools, and curative dental care service involves referral of schoolchildren to the government dentist.

RESPONSE OF THE HEALTH SECTOR

Health Policies and Plans

Health care on the island is founded on general regulations—specifically the Public Health Act that entrusts the Department of

TABLE 7. Laws regulating the functioning of public health care systems and conditions, Aruba.

General regulation
Public Health Act (1989)
Specific regulations
Law on Medical Practice (1996)
Law on Dental Practice (1989)
Law on the Authorization of Pharmacists and Pharmacy Assistants (1960)
Law on Midwives (1999)
Medical Disciplinary Law (1957)
Mental Health Law (1992)
Law on Drug Provision (1969)
Narcotics Law (1960)
Law on Food Safety (1995)
Law on Contagious Diseases (1992)
Law on Quarantine (1992)
Law on Importation of Small Animals (1992)
Law on Pesticides (1961)
Law on Slaughter and Inspection (1996)
Law on Burials (1999)
Law on Death Certificates (1999)
Law on Environmental Protection (1995)
Law on General Health Insurance (AZV; 1992)

Public Health with the organization of health care and the supervision and promotion of health—and specific regulations dealing with discrete public health areas such as health professions, mental health, drug and narcotic supervision, hygiene, and diseases (Table 7).

Organization of the Health System

The Department of Public Health, under the Ministry of Public Health and Environment, is responsible for promotion of public health and administration of the public laboratory. Its services include the youth health care service, youth dental care service, occupational health service, yellow fever and dengue mosquito control service, sanitary and food inspection service, veterinary service, health promotion and education, epidemiology and research, social psychiatric service, and the public laboratory.

The Youth Health Services monitors and assists the growth and development of children, including the conduct of periodic surveillance of the sight, hearing, weight, teeth, and hair of schoolchildren in the first and fifth grades. Children found to have problems are referred to specialists. In addition, for children and youths who have social, emotional, and behavioral problems, three residential institutions operating on the island give temporary care and education to children referred to them by the Department of Social Affairs and the Guardianship Board: Casa Cuna Progreso admits infants and children in the 0–5 age group; Imeldahof takes children and adolescents 6–18 years old; and Cas pa Hubentud handles individuals in the 12–21-year age range.

Public Health Services

The objective of the Epidemiology and Research Unit is to systematically collect, generate, process, and analyze data in order to disseminate relevant health information for policy development, planning, and evaluation. The unit undertakes surveillance implementation; outbreak investigations; data collection necessary to measure needs assessments and to establish health care policies, strategic plans for AIDS, dengue, and nutrition programs, health care research, and health promotion activities; presentations and the production of publications—the Epi-Alert (bulletin on epidemics or outbreaks in Aruba or in the region) and Epi-Info (epidemiological information); provides data to other sections within the Department of Public Health as well as to other governmental and nongovernmental departments; and conducts surveys.

The Social Psychiatric Care Service provides ambulatory services for chronic psychiatric patients, administers drugs and therapy, and offers patients and their families support in their own environment.

The reporting of a number of infectious diseases is mandated by law. Health care providers are required to report diagnosed or suspected cases of those diseases to the Contagious Diseases Service of the Department of Public Health, where public health nurses provide follow-up. The Department of Public Health takes control measures to prevent a possible outbreak.

Aruba has no natural source of fresh drinking water and very little rain. The water and energy company, W.E.B. Aruba N.V., carries out desalination of ocean water to produce drinking water that is of very high quality—quality that is assured by an array of testing measures by both the company and the public health laboratory.

A home nursing organization, the White Yellow Cross, provides care to new mothers and their infants, diabetics, terminal patients, and others in need of care at home. It also offers information and education on health topics such as safety at home, childcare, diabetes, and vaccination.

The sole hospital, Dr. Horacio Oduber Hospital, is administered by a private, nonprofit foundation. Built in 1970 and situated in the northwestern part of the island, it has 305 beds for inpatient care and is well-equipped to provide highly specialized services: internal medicine, surgery, cardiology, urology, gynecology and obstetrics, pediatrics, otorhinolaryngology, ophthalmology, neurology, neurosurgery, orthopedics, dermatology, plastic surgery, and psychiatry. In 2004 the hospital admitted 11,700 and had an occupancy rate of 88.7%; the average length of stay was 8.4 days. In addition, an emergency room operates 24 hours/day; outpatient care facilities provide consultation rooms for most of the specialists; and hemodialysis and auxiliary facilities such as physiotherapy, wound care, and radiology are offered.

Individual Care Services

Over the last few years a new trend has emerged of specialists establishing independent clinics—solo practices and centers of cooperating physicians in the same or related specializations—instead of their using the hospital's outpatient facilities (although many of these independent clinics are concentrated in the area of the hospital). Another trend is the establishment of private clinical laboratories, for which programs need to be set up to assure the quality of the equipment being used and of the tests being done in these laboratories. A private hemodialysis center, the Posada Clinic, mainly provides services to tourists visiting the island, although locals make use of them as well.

Nongovernmental organizations, whose numbers are growing, provide a range of health care services. The challenge for the Department of Public Health is to assure adequate surveillance of all NGO services and to encourage cooperation among them. In addition to the services for children provided by the Department of Public Health, many nongovernmental organizations offer services for children and youth such as shelters for abused and homeless children, recreational opportunities, and job creation. Other NGOs serve the interests of persons with mental, hearing, visual, and physical disabilities. A new nonprofit organization offers halfway houses for chronic psychiatric patients. Several nongovernmental organizations give care to the elderly. Collectively, these organizations manage three elderly homes in Oranjestad, Savaneta, and San Nicolas with a total of 253 beds. In the years to come, the aging of the population and increased life expectancy at birth will pose ever-greater and changing demands on the health system. Meanwhile, shortages in long-term care facilities for the elderly are already a reality: in 2004, 85 persons were on the waiting list to gain admission to a geriatric home.

Human Resources

In 2005, there was approximately one physician in general practice for every 2,900 persons, one surgeon general for every 16,500 persons, one dentist/orthodontist for every 4,000 persons, and one psychiatrist or neurologist/psychiatrist for every 16,500 persons (Table 8).

Research in Health

In addition to its epidemiological data management function, the Epidemiology and Research Unit conducts health research. Recent activities include surveys on eating habits and physical activity among primary school children; surveys of knowledge, attitudes, beliefs, and practices with respect to HIV/AIDS, nutrition, and exercise among adolescents; a national health survey on the population's general health; studies on the consumption of medical services; and research on lifestyle—eating habits, physical activity, smoking, alcohol consumption, etc.—and preventive behavior.

TABLE 8. Health personnel, Aruba, 2005.

General physicians	**34**
Specialists	**66**
Anesthesiologists	5
Surgeons general	6
Dermatologists	3
Gynecologists	4
Internists	8
Pediatricians	6
Neurosurgeons	2
Neurologists/psychiatrists	3
Psychiatrists	3
Ophthalmologists	3
Orthopedic surgeons	4
Radiologists	4
Traumatologists	2
Otorhinolaryngologists	4
Pathologists	0
Urologist	1
Plastic surgeons	2
Cardiologists	3
Nephrologist	1
Gastroenterologist	1
Oncologist	1
Physicians employed by the Government	**18**
Other physicians	**29**
Other health personnel	
Dentists/orthodontists	25
Pharmacists	21
Veterinarians	9
Midwives	7

Source: Department of Public Health, Aruba.