INTRODUCTION

The Cayman Islands, a British Overseas Territory, comprises the islands of Grand Cayman, Cayman Brac, and Little Cayman. The territory is located in the western Caribbean Sea, about 240 km south of Cuba and 290 km west of Jamaica. The three islands have a total land area of approximately 250 km². Grand Cayman, the most populous and largest island, is about 22 miles from west to east, a mile wide at its narrowest, and 8 miles wide at its widest. The capital, George Town, is located on Grand Cayman. The territory’s highest point is the bluff on Cayman Brac, rising to 140 feet above sea level. Cayman Brac is 11 miles long and about a mile and a half wide. Little Cayman is 10 miles long and a mile wide. Together, the three islands enjoy a coastline stretching for more than 100 miles.

The territory is governed as a parliamentary democracy, with judicial, executive, and legislative
branches. The territory has more than 165 years of representative government. The present constitution, the fourth issued by the British Crown since 1959, came into effect on 6 November 2009; it provides for the governing of the Cayman Islands as a British Overseas Territory. The Governor, who represents the Queen of the United Kingdom, heads the territorial Government and presides over the Cabinet. There is no second tier of local government. A district commissioner represents the Governor on Cayman Brac and Little Cayman.

Data from the 1999 census year and from preliminary results from the 2010 census showed that the resident population, including both Caymanians and non-Caymanians, increased from 39,410 to 54,397. This reflects an overall 38.0% rise between the censuses, for an average annual growth rate at 3.0% (1). The sharp increase in the population began in 2005, following Hurricane Ivan, when residents returned to the island and there was an increase in the labor force needed to reconstruct the territory. In 2010, 95.7% of the population resided on Grand Cayman, with 50.9% in just the capital city. The two sister islands accounted for the remaining 4.3% of the total resident population (1) (Figure 1).

The Cayman Islands is divided into six districts. Five are on Grand Cayman: East End, North Side, Bodden Town, George Town, and West Bay. The sixth district, Sister Islands, is comprised of Cayman Brac and Little Cayman.

Financial services continued to be the main driver in the economy, accounting for 22% of total government revenue in 2006. In its fiscal operations, the Government maintained a surplus of revenue over expenditures, thus allowing the territory to finance most of its infrastructure and other expenditures with minimum resort to debt financing. The exchange rate was CI$ 1.00 = US$ 0.82 in 2010.

Unemployment rose from 2.6% in 2006 to 6.0% in 2009. In 2006, males accounted for 51.0% and females 49.0% of the unemployed, while in 2009, males made up 59.6% and females, 40.4% (see Table 1 for other economic indicators for the Cayman Islands).

Based on the 1999 census, the largest proportion of the population (12.5%) was in the 30–34-year age group, followed by the age groups 20–29 years old and 35–39 years old (both 11.4%). Those 60 years old and older accounted for 8.3% (1). The dependency ratio was 33.8%.

In 2009, the population was estimated at 55,672. The 2009 age distribution of the population mirrored that seen in 1999. In 2009, Caymanians represented 58.9% of the population, and non-Caymanians 41.0%. The most popular religion was Church of God (25.5%), followed by Roman Catholicism.

![Figure 1. Population structure, by age and sex, Cayman Islands, 1989 and 2010.](image)
Catholic (12.6%). In 2007, the total adult literacy rate was 98.9% (males 98.7% and females 99.0%). In 2006, the birth rate was 13.7 per 1,000 population (710 births). This increased to a rate of 14.9/1,000 (821 births) in 2010. The number of registered deaths decreased from 182 (3.5/1,000 mid-year population) in 2006 to 152 (2.8/1,000) in 2010. Births and deaths of residents that occurred outside the territory are not included in these figures (2).

For the 2009–2010 period, live births were 48.4% female and 51.4% male.

In 2006–2010, the Ministry of Health, Environment, Youth, Sports, and Culture developed a comprehensive organizational succession plan to increase recruitment and retention of Caymanians within the health sector. The plan included quality and performance indicators, so that organizational performance could be measured and monitored against established objectives and so that necessary corrective measures could be implemented. The Ministry set up a facilities committee to plan and implement a program for preventive maintenance for the structures and equipment at the Cayman Islands Hospital, Faith Hospital, and the territory’s district health centers. Operating theater capabilities at the Cayman Island Hospital were expanded with the addition of a fourth operating room. The territory’s Forensics Laboratory is accredited under ISO 17025 by Forensic Quality Services in Florida, thereby enhancing its reliability and its ability to market services to other Caribbean countries.

HEALTH DETERMINANTS AND INEQUALITIES

The indigence line was estimated at US$ 2.23 (Cİ$ 1.83) per day, which represented the Cayman Islands’ lowest cost for consuming 2,400 calories in 2007. The calculation of this least-cost food basket was the basis on which other components were added to arrive at the poverty line, which was estimated as US$ 13.29 (Cİ$ 10.90) per day or US$ 4,857 (Cİ$ 3,983) per annum. The vulnerability line (persons at risk of not meeting their consumption needs) was set at US$ 6,072 (Cİ$ 4,979) per year. According to the findings from this survey, 989 persons (1.9%) were below the annual poverty line; 277 households (1.5%) fell below the average poverty line; 1,955 (3.7%) of the population lived in households below the vulnerability line; and 575 (3.1%) households were under the vulnerability line (3).

With an estimated 1.9% of the population (989 persons) falling below the poverty line, the Cayman Islands had the lowest rate of estimated poverty in the Commonwealth Caribbean since 1999. However, in terms of inequality, the Cayman Islands had a Gini coefficient of 0.4, which was

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<tbody>
<tr>
<td>Indicator</td>
<td>2006</td>
<td>2007</td>
<td>2008</td>
<td>2009</td>
<td>2010</td>
</tr>
<tr>
<td>GDP at current basic price CI$</td>
<td>2,448.90</td>
<td>2,637.10</td>
<td>2,667.40</td>
<td>2,541.60</td>
<td>…</td>
</tr>
<tr>
<td>Real GDP growth (%)</td>
<td>4.6</td>
<td>4.3</td>
<td>−0.7</td>
<td>−7.0</td>
<td>…</td>
</tr>
<tr>
<td>Per capita GDP at current basic prices (CI$)</td>
<td>47,101.0</td>
<td>48,745.0</td>
<td>47,634.0</td>
<td>45,111.0</td>
<td>…</td>
</tr>
<tr>
<td>Employed labor force (number)</td>
<td>35,016.0</td>
<td>36,026.0</td>
<td>37,450.0</td>
<td>33,920.0</td>
<td>33,463.0</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>2.6</td>
<td>3.8</td>
<td>4.0</td>
<td>6.0</td>
<td>6.7</td>
</tr>
<tr>
<td>Consumer price index (June 2008 = 100)</td>
<td>93.5</td>
<td>96.2</td>
<td>100.1</td>
<td>98.6b</td>
<td>98.9</td>
</tr>
<tr>
<td>Inflation rate (%)</td>
<td>0.8</td>
<td>2.9</td>
<td>4.1</td>
<td>(1.5)b</td>
<td>0.3</td>
</tr>
<tr>
<td>Visitor air arrivals (in thousands)</td>
<td>267.3</td>
<td>291.5</td>
<td>302.9</td>
<td>272.0</td>
<td>288.3</td>
</tr>
<tr>
<td>Cruise ship arrivals (in thousands)</td>
<td>1,930.1</td>
<td>1,715.7</td>
<td>1,553.1</td>
<td>1,520.4</td>
<td>1,597.8</td>
</tr>
<tr>
<td>Total fixed and mobile phone lines</td>
<td>126,642.0</td>
<td>136,547.0</td>
<td>134,079.0</td>
<td>144,850.0</td>
<td>137,242.0</td>
</tr>
</tbody>
</table>


Exchange rate is CI$ 1.00 = US$ 0.82
Revised as of November 2010.
higher than that for several other Caribbean countries. Moreover, given that its per capita GDP approximates that of a developed country, the high Gini ratio suggests that the territory experiences a higher level of inequality than is to be expected at its level of development. While only 1.9% of individuals were deemed to be poor, a review of conditions of the poorest 20% does provide additional insights into some of the difficulties Caymanians face. For example, conditions for women in the lowest quintile were worse than those for male-headed households. Female-headed households accounted for almost half of poor households, which was more than their presence in the overall number of households. It is noteworthy that, among the poor and the vulnerable, a large number had no children (3).

**THE ENVIRONMENT AND HUMAN SECURITY**

**Access to Clean Water and Sanitation**

In 2007, the main sources of potable water were mains piped to houses (84.2%); cistern, rain, or truck (7.2%); well (7.6%); and other (1.1%) (3).

There were three landfills operating in 2006–2011 and the total waste managed in those years was highest in 2007/2008 (151,601 tons), followed by 2008/2009 (126,177 tons), and then declining to 69,304 in 2010/2011; the last figure was about the same as that recorded in 2006/2007 (71,834 tons).

**Air Pollution**

The territory does not have any large industries, and pollution from car emissions was not linked to any negative health outcomes.

**Road Safety**

The number of road traffic accidents increased from 1,186 in 2006 to 1,430 in 2010. Of the 6,851 accidents in 2006–2010, 0.7% (47) involved fatalities and 1.6% (109) resulted in serious injuries. Of the 47 fatalities, males accounted for 34 (72.3%) and females for 13 (27.7%). The largest share of fatalities occurred in the 17–25-year age group, with 18 deaths, followed by the 36–65-year-old cohort, with 16 deaths (4).

**Violence**

Crime statistics for the 2006–2010 period indicated a decrease in serious crimes, from 912 in 2006 to 837 in 2010. These serious crimes represented 27.2% and 26.7% of all crimes committed in the respective years. The total number of crimes committed also decreased, from 3,357 in 2006 to 3,136 in 2010 (4). The crime recording data also showed that 232 (7.4%) of all arrests were related to illegal drug trafficking and/or use in 2006, compared to 360 (10.7%) in 2010 (4).

**Disasters**

In 2008, Hurricane Paloma, a category 4 storm, battered the territory, significantly damaging Cayman Brac. Damage costs were estimated at US$ 188.3 million (CI$ 154.4 million). No deaths were recorded. The World Meteorological Organization removed the name Paloma from its rotating tropical cyclone names list in April 2009 because of the extent of its damage (5).

**Food and Nutritional Security**

The small agriculture sector, comprising 302 registered farmers, cannot sustain food production (livestock and crops) to cover the population’s food needs. Most food was imported from North America, Europe, Central America, and Jamaica. Major supermarkets did maintain a three-month stock of food supplies for local consumption in case of an event that would threaten food security.
The Department of Children and Family Services provided free lunches to schoolchildren throughout the reporting period. The beneficiaries of this school-lunch program increased from 609 students in 2006 to 721 in 2010. Similarly, persons receiving poverty relief benefits increased from 915 in 2006 to 968 in 2010 (6).

HEALTH CONDITIONS AND TRENDS

HEALTH PROBLEMS OF SPECIFIC POPULATION GROUPS

Maternal and Reproductive Health

Virtually all births (97%) occurred in the public-sector hospitals (Cayman Islands Hospital in Grand Cayman and Faith Hospital in Cayman Brac); 3% occurred in the Chrissie Tomlinson Memorial Hospital (a private institution). There were 3,283 deliveries (including stillbirths) in the 2006–2010 period, excluding births in private institutions or other settings. Of these, cesarean deliveries represented 38.0% in 2006, 40.0% in 2007, 39.0% in 2008, 41.0% in 2009, and 41.0% in 2010. Preterm delivery averaged 10.0% of all births, and low-birthweight babies (<2,500 g) averaged 9.3%. The number of stillbirths was highest in 2006, at 12 (2.0%) of the 609 deliveries. Over the 2007–2010 period, stillbirths averaged three per year (7).

Children (under 5 years old)

There were 19 infant deaths (12 male and 7 female) in the 2006–2010 period, with the highest (6 each) in 2006 and 2007. For the reporting period, the average rates per 1,000 live births were: infant mortality, 5.1; perinatal mortality, 10.2; neonatal mortality, 5.1; and stillbirths, 4.8 (8). Of the infant deaths, 11 were attributed to certain conditions originating in the perinatal period, and 6 to congenital malformations, deformations, and chromosomal abnormalities (using nomenclature from the ICD-10 classifications).

In the age group 1–4 years old, there were only two deaths in 2009: one male from congenital abnormality (holoprosencephaly) and one female from an external cause, undetermined intent (environmental exposure to natural heat) (8).

There were no other infant deaths in the reporting period. Morbidity data were not available for these age groups.

In 2010, the Caribbean Food and Nutrition Institute conducted a regional analysis of anthropometric measurements that included a representative sample of children from both Grand Cayman and Cayman Brac. Those children were aged 0–60 months and attended child health clinics between February and April of that year. The results indicated that 17.0% of the Cayman Islands children were overweight or obese and an additional 25.0% were at risk for overweight\(^1\) (9). School health screenings done by the Public Health Department between 2006 and 2007 showed that, based on length/height-for-age, 1.6% of the children were stunted and 2.4% were severely stunted (10).

Children (5–9 years old)

There was only one death in this age group during 2006–2010, a 5-year-old male who died from an external cause (homicide, gunshot wound to the head) in 2010 (8). Morbidity data were not available for this age group.

Adolescents (10–19 years old)

There were two deaths among 10–14-year-olds in the reporting period: one male from endocrine, nutritional, and metabolic disease (morbid obesity) in 2009 and one female from symptoms, signs, and

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\(^1\) Using Centers for Disease Control and Prevention classifications, obesity in children is considered body mass index (BMI) at the 95th percentile and above; overweight and at risk for overweight are considered as BMI between the 85th percentile and the 95th percentile; and underweight in children is considered BMI less than the 5th percentile.
abnormal clinical findings (Coffin-Siris syndrome) in 2008 (8).

In the age group of 15–19 years there were eight deaths in the 2006–2010 period, four in 2006 and one each year in the following four years. Motor-vehicle accidents accounted for 50.0% of all deaths (three males, one female), followed by homicide (gunshot wounds) 25.0% (two males). There was one male suicide by hanging in 2010 (8).

Annual school health screenings conducted by the Public Health Department, Cayman Islands Health Services Authority, among schoolchildren 11–13 years old showed that from 2007 through 2010 an average of 20.6% were obese, 15.6% were overweight, and 6.2% were underweight (10).

In the reporting period, approximately 85.0% of adolescent contraceptive users requested Depo-Provera, a long-lasting and reliable drug. Data compiled for this report by the Cayman Islands Health Authority in 2011 showed that there were 304 live births to mothers 18 years old and younger in the reporting period. There were 24 births to adolescents 15 years old or younger. As the age increased, the number of births increased, showing 38 births for those 16 years old; 82 for those 17 years old; and 160 for those 18 years old.

**Adults (20–64 years old)**

Data for 2006–2010 showed that there were 237 deaths among 20–64-year-olds: 174 males (73.4%) and 63 females (26.6%). The average age of death was 46 years (45 years for males and 47 years for females) (8).

External causes ranked first for both sexes, at 33.3%, with males accounting for 69 deaths and females, for 10. Motor-vehicle accidents accounted for 28 of the male deaths, and homicide, for 23. Among the female deaths due to external causes, motor vehicle accidents accounted for seven deaths and homicides for three. Other leading causes of death in males were malignant neoplasms (24.1%), diseases of the circulatory system (17.2%), motor vehicle accidents (16.1%), and external causes (homicide) (13.2%). For females, the leading causes of death were malignant neoplasms (28.6%), diseases of the circulatory system (25.4%), and external causes (motor vehicle accident and homicide) (15.9%).

Among women 20–53 years old, approximately 85.0% used Depo-Provera as a contraception method. Morbidity data were not available for 20–64-year-olds.

**The Elderly (65 years old and older)**

Persons 65 years and older comprised 9.0% of the population in 2010. Over the 2006–2010 period, there were 498 deaths in this age group. Males accounted for 48.4% and females for 51.6%.

The leading causes of death for both sexes were cardiovascular diseases (males 93 deaths and females 83), malignant neoplasms (males 81 and females 58), diseases of the respiratory tract (males 22 and females 25), and accidental falls (2 cases each for males and females). For males, the leading cause was diseases of the circulatory system (34.4%), followed by malignant neoplasms (33.6%). For females, the first cause of death was disease of the circulatory system (36.0%), followed by malignant neoplasms (22.6%) (8). Morbidity data were not available for this age group.

**The Family**

In 2008, 21.9% of the resident population owned a house free of mortgage, 24.2% owned with a mortgage, 49.9% rented, and 3.8% had rent-free housing. The average household size was 2.5 persons in 2007 (11).

Over the 2006–2010 period, there were 2,584 resident marriages2 and 609 divorces.

With respect to births, 64.0% of births in 2009 and 65.8% in 2010 were to married women; 27.9% and 27.2%, respectively, were to women who had never married (12). By age of the mother, 31.7% and 28.9% of all births were in the 30–34-year-old cohort in 2009 and 2010, respectively. The age group of 25–29 years ranked second, with 23.5% and 20.3% for those same years (8).

2 Either bride, groom, or both are residents.
Data on levels of unmet needs for contraception among the population were not available.

In 2006/2007, there were 18,875 households; of that total, 277 had “poor” socioeconomic status and 298 were “vulnerable.” Females headed 49.5% of the poor households and 28.2% of the vulnerable households.

**Mortality**

There were a total of 767 deaths over the reporting period. The 10 leading causes of death accounted for about 95% of all deaths in this period (see Table 2).

**Morbidity**

**Communicable Diseases**

**Vector-borne Diseases**

Dengue was not endemic in the territory, which did not experience sustained transmission of the disease during the reporting period. In 2006 and 2007, there were eight cases; in 2008–2009, there were two cases (imported) each year; and there were seven cases (two imported) in 2010. Over the 2006–2010 period, there were five cases of malaria (one each year). No other vector-borne diseases were reported (8).

<table>
<thead>
<tr>
<th>Condition</th>
<th>Rank</th>
<th>No. of deaths</th>
<th>Proportion of total deaths from all causes (%)</th>
<th>Condition</th>
<th>Rank</th>
<th>No. of deaths</th>
<th>Proportion of total deaths from all causes (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malignant neoplasms</td>
<td>1</td>
<td>50</td>
<td>29.9</td>
<td>Diseases of the circulatory system</td>
<td>1</td>
<td>42</td>
<td>27.8</td>
</tr>
<tr>
<td>Diseases of the circulatory system</td>
<td>2</td>
<td>42</td>
<td>25.1</td>
<td>Malignant neoplasms</td>
<td>2</td>
<td>32</td>
<td>21.2</td>
</tr>
<tr>
<td>External causes</td>
<td>3</td>
<td>23</td>
<td>13.8</td>
<td>External causes</td>
<td>3</td>
<td>23</td>
<td>15.2</td>
</tr>
<tr>
<td>Diseases of the respiratory system</td>
<td>4</td>
<td>11</td>
<td>6.6</td>
<td>Diseases of the respiratory system</td>
<td>4</td>
<td>10</td>
<td>6.6</td>
</tr>
<tr>
<td>Endocrine, nutritional, and metabolic diseases</td>
<td>5</td>
<td>5</td>
<td>3.0</td>
<td>Endocrine, nutritional, and metabolic diseases</td>
<td>5</td>
<td>9</td>
<td>6.0</td>
</tr>
<tr>
<td>Symptoms, signs, and abnormal clinical and laboratory findings</td>
<td>6</td>
<td>6</td>
<td>3.6</td>
<td>Symptoms, signs, and abnormal clinical and laboratory findings</td>
<td>6</td>
<td>7</td>
<td>4.6</td>
</tr>
<tr>
<td>Diseases of the genitourinary system</td>
<td>7</td>
<td>7</td>
<td>4.2</td>
<td>Diseases of the genitourinary system</td>
<td>7</td>
<td>4</td>
<td>2.6</td>
</tr>
<tr>
<td>Diseases of the nervous system</td>
<td>8</td>
<td>2</td>
<td>1.2</td>
<td>Diseases of the nervous system</td>
<td>8</td>
<td>9</td>
<td>6.0</td>
</tr>
<tr>
<td>Diseases of the digestive system</td>
<td>9</td>
<td>6</td>
<td>3.6</td>
<td>Diseases of the digestive system</td>
<td>9</td>
<td>4</td>
<td>2.6</td>
</tr>
<tr>
<td>Infectious/communicable diseases</td>
<td>10</td>
<td>5</td>
<td>3.0</td>
<td>Infectious/communicable diseases</td>
<td>10</td>
<td>4</td>
<td>2.6</td>
</tr>
<tr>
<td>Total deaths from 10 leading causes</td>
<td>NA(^a)</td>
<td>157</td>
<td>94.0</td>
<td>Total deaths from 10 leading causes</td>
<td>NA(^a)</td>
<td>144</td>
<td>95.4</td>
</tr>
<tr>
<td>Total deaths from all causes</td>
<td>NA(^a)</td>
<td>167</td>
<td>100.0</td>
<td>Total deaths from all causes</td>
<td>NA(^a)</td>
<td>151</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Compiled by the Cayman Islands Health Services Authority, Statistics-Cayman Islands, 2011.

\(^a\) NA = not applicable.
In 2010, the immunization schedule included BCG; hepatitis B; diphtheria, tetanus, and pertussis (DTP); polio (IPV); *Haemophilus influenzae* type b (Hib); varicella; and measles, mumps, and rubella (MMR). In 2009, the pentavalent pneumococcal conjugate vaccine was routinely administered to infants for the first time. That same year, the Cayman Islands began administering the rotavirus vaccine commenced, given simultaneously with combined DTP/IPV/Hib. The territory carried out a human papillomavirus (HPV) pilot project between August 2009 and December 2010 to assess the demand and acceptability of an HPV vaccine among girls 11–17 years old. The vaccine's safety also was strictly scrutinized (13).

**HIV/AIDS and Other Sexually-transmitted Infections**

From 1985 through 2010, there were 96 cases of HIV infection (53 males and 43 females) (8). Of these, 50 progressed to AIDS (26 males and 24 females). There were 35 deaths (21 males and 14 females). The main modes of transmission were heterosexual (64.0%), homosexual (19.0%), and bisexual (8.0%) intercourse; perinatal transmission (4.0%); and IV drug use (3.0%). The largest proportion of deaths (45.8%) occurred in the age group 30–39 years old, followed by 45–49-year-olds (11.4%) (8). Over the 2006–2010 period, there were 26 new HIV infections (20 males and 6 females) (0.9/10,000 population), 12 new AIDS cases (4 males and 8 females) (0.4/10,000 population), and 10 deaths. No child lost one or both parents to HIV/AIDS in the reporting period.

There were 942 cases of sexually-transmitted infections (STIs) in 2006–2010 (some individuals may have had multiple STIs). Chlamydia accounted for 414 cases (44.0%); gonorrhea for 115 (12.2%); herpes for 96 (10.2%); syphilis for 197 (21.0%); and trichomonas for 120 (12.7%). There were no cases of hepatitis B (8).

**Tuberculosis**

There were nine confirmed cases of tuberculosis in the reporting period (five males and four females). Only one was a Caymanian national; the largest proportion (four cases) were in individuals from Asia (8).

**Emerging Diseases**

The only emerging disease that occurred in the territory was influenza A(H1N1), with 129 cases (57 males and 72 females) and one death in 2009, the pandemic year. There was one case of H1N1 in 2010 (8).

**Chronic, Noncommunicable Diseases**

**Cardiovascular Diseases**

The number of deaths from cardiovascular diseases remained fairly constant over the 2006–2010 reporting period, with 30 deaths in 2006 and 31 in 2010. Over the same period, 59.0% of persons with cardiovascular diseases were male and 41.1% were female. In 2006, the public health system recorded 3,645 clients (41.1% male and 58.9% female) with cardiovascular diseases and 4,408 clients (41.2% male and 58.8% female) in 2010. Table 3 shows the breakdown of inpatient and outpatient visits, by chronic disease, for the reporting period.

**Malignant Neoplasms**

There were 199 deaths attributed to malignant neoplasms in 2006–2010. Malignant neoplasms of the lung accounted for 22.6% of deaths; of these, 75.5% were among males and 24.5% among females. Malignant neoplasms of the prostate ranked second, with 15.1% of the deaths, followed by female breast with 10.1% and cervix with 2.0%. All other sites combined were 49.7%, with males making up 59.6% and females 40.4%. In 2006, there were 303 clients with malignant neoplasms (56.1% male and 43.9%
female). The number increased to 360 clients in 2010 (48.1% male and 51.9% female) (8).

**Diabetes**

There were three deaths from diabetes in 2006 and three in 2010. In 2010, there were 1,889 clients with diabetes; of these, 1,162 (61.5%) were female and 727 (38.5%) male, representing 3.4% of the total population. In 2006, 1,450 patients with diabetes made 6,451 visits to inpatient and outpatient facilities. In 2010, 1,691 patients with diabetes accounted for 7,055 such visits. Notably, of all the cases in 2010, 18 (1.0%) were among persons under 20 years old; 10 (55.6%) in the 10–14 age group, 5 (27.8%) in the 15–19 age group, and 3 (16.7%) in the 0–9 age group (8).

**Chronic Respiratory Diseases**

There were 880 clients (48.2% male and 51.8% female) who accessed services through the Health Systems Authority with a diagnosis of chronic obstructive pulmonary disease (COPD) in 2006. Of these, 698 (79.3%) had asthma and 176 (20.0%), bronchitis. The total number of cases with COPD decreased to 756 in 2010 (8).

**Hypertension**

There were 12 deaths from hypertension in 2006 and 11 in 2010. In 2006, there were 2,840 cases of hypertension (38.3% male and 61.7% female), decreasing to 3,534 (38.8% male and 61.2% female) in 2010.

**Nutritional Diseases**

The public health system recorded 56 clients with nutritional deficiencies in 2006 (37.5% male and 62.5% female). In 2010, this increased to 133 clients (28.6% male and 71.4% female).

**Mental Disorders**

In 2006, 1,640 clients with mental disorders accessed services through the Cayman Islands Health Services Authority: 954 male (58.2%) and 686 female (41.8%). Of these, 292 (17.8%) were diagnosed with depression, 257 (15.7%) with anxiety, and 96 (5.8%) with schizophrenia. In 2010, there were 1,705 clients with mental disorders: 711 male (41.7%) and 994 female (58.3%). Of these, 261 (15.3%) were diagnosed with depression, 119 (7.0%) had schizophrenia, and 225 (13.2%) had anxiety disorders (8).

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**TABLE 3. Inpatient and outpatient visits to health facilities, by diagnosis and number of patients, Cayman Islands, 2006 and 2010.**

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>2006</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of patients</td>
<td>Proportion of all encounters (%)</td>
</tr>
<tr>
<td>Hypertension</td>
<td>2,581</td>
<td>10</td>
</tr>
<tr>
<td>Diabetes</td>
<td>1,450</td>
<td>6</td>
</tr>
<tr>
<td>Mental disorders</td>
<td>1,640</td>
<td>6</td>
</tr>
<tr>
<td>Asthma</td>
<td>670</td>
<td>3</td>
</tr>
<tr>
<td>Cancer</td>
<td>254</td>
<td>1</td>
</tr>
<tr>
<td>Coronary heart disease</td>
<td>245</td>
<td>1</td>
</tr>
<tr>
<td>Chronic lung disease</td>
<td>215</td>
<td>1</td>
</tr>
<tr>
<td>Osteoarthritis</td>
<td>311</td>
<td>1</td>
</tr>
<tr>
<td>Congestive heart failure</td>
<td>140</td>
<td>1</td>
</tr>
</tbody>
</table>

*Source: Cayman Islands Health Services Authority.*

*The total number of all inpatient or clinic encounters was 25,412 in 2006 and 26,636 in 2010.*

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CAYMAN ISLANDS

$183
Other Health Problems

Oral Health

The Cayman Islands’ 2009 Oral Health Survey included 268 adults (131 males and 137 females) (14). Of these, 17 (6.3%) did not need curative treatment; 194 (72.4%) needed routine restorative treatment or prophylaxis; 42 (15.7%) needed prompt treatment including scaling; and 15 (5.6%) needed immediate treatment for painful infection of dental or periodontal origin.

Risk and Protection Factors

In 2006 and 2010, students in grades 7–12 participated in the Cayman Islands Student Drug Use Surveys (CISDUS) conducted in collaboration with the Cayman Islands Health Services Authority. The study showed that the percentage of the sample who had used alcohol in the year prior to the study decreased from 45.5% in 2006 to 39.2% in 2010. However, the percentage of the sample who had used tobacco products increased from 6.8% in 2006 to 14.4% in 2010. As for the use of illegal drugs, the percentage increased from 9.7% in 2006 to 12.8% in 2010 (15).

HEALTH POLICIES, THE HEALTH SYSTEM, AND SOCIAL PROTECTION

Health Policies

The Ministry of Health’s mission is to empower Caymanians to achieve optimal well-being through strategic policies, innovative programs, and proactive services. These efforts are governed by the highest principles of justice, personal and public integrity, and excellence of standards.

As part of this effort, the school food policy titled “Cayman Islands Public Schools: Standards for Food Provisions” was implemented. The policy issued 12 standards governing school food and nutrition practices in government schools.

The 2008 Tobacco Law and the 2010 Tobacco Regulations mandated, among other things, that tobacco products display graphic health warnings and not be sold to minors; they also banned smoking in public places.

In order to meet the requirements of the International Health Regulations 2005, the Government repealed the Ships (Rodent Control) Regulations (2003 Revision) and enacted the Ships (Sanitation Control) Regulations in 2011. To the same end, the Government enacted the Public Health (Quarantine) Amendment Regulations, also in 2011.

The Health System’s Stewardship Role

The Ministry of Health, Environment, Youth, Sports, and Culture3 regulates health care services in the Cayman Islands. Services offered through the public health system include district health centers, child health services, school health services, health advice and appropriate immunizations for international travelers, communicable-disease investigation, community health education, genetics counseling, organizing of surveillance systems for foodborne illness, compilation of vital and health statistics, health promotion activities, and monitoring public and professional compliance with public health laws. The medical officer of health heads the Public Health Department.

The Health System’s Performance

A 2010 telephone market research survey involving 500 patients found that the respondents were satisfied with the territory’s health services: 54.2% reported being “very satisfied,” and 39.3% reported being “satisfied.” Reports of great dissatisfaction were negligible: 4.6% were “dissatisfied” and 1.9% “very dissatisfied” (15).

3 In 2009, the Ministry of Health and Human Services was renamed the Ministry of Health, Environment, Youth, Sports, and Culture.
Over the 2006–2010 period, there were eight “Class A” insurers that were approved by the Health Insurance Commission to provide health insurance coverage in the territory. Although carrying health insurance is required by law, coverage only reached 80.2% of the population in 2006, 90.3% in 2009, and 89.5% in 2010 (16). The Cayman Islands National Insurance Company (CINICO) is a government-owned company that provides health insurance coverage on a cost-effective basis to civil servants (employees and pensioners), seamen, and those who serve in the armed forces, as well as other residents of the Cayman Islands who historically have had difficulty obtaining coverage through their employer or the private insurance market. Persons without health insurance coverage are also eligible to participate in CINICO.

**Health Expenditures and Financing**

The total operating budget for the Health Services Authority climbed from US$ 77.8 million in 2006/2007 to US$ 100.2 million in 2008/2009. For 2009/2010, the budget decreased to US$ 94.8 million, increasing again to US$ 97.6 million in 2010/2011. Expenditures for health programs that were financed by the Government of the Cayman Islands, excluding expenditures for the Health Services Authority, averaged US$ 28.5 million annually.

**The Health Services**

Health care is provided by the Health Services Authority, a Crown corporation, and the private sector. The Health Services Authority provides patient care through the 124-bed Cayman Islands Hospital, which is the principal health care facility in the territory. Faith Hospital, an 18-bed facility, serves the residents of Cayman Brac and Little Cayman. There are five district clinics, four on Grand Cayman and one on Little Cayman. There is one privately owned hospital, the Chrissie Tomlinson Memorial Hospital, and about 40 private doctors’ offices/clinics with specialist doctors and/or general practitioners.

Caymanians and non-Caymanians have equal access to health care services. Since some tertiary and secondary services were not available in the territory, provision was made by the Cayman Islands Health Services Authority for overseas treatment. The patients’ insurance pays for the medical expenses. This is dependent on the insurance company and the type of plan that they have. All government employees and indigents are covered 100% by CINICO. Seamen are covered 90%, having to pay 10% by CINICO.

No drugs or medical supplies are manufactured locally, so all health goods were imported. Vaccines were procured through PAHO’s Revolving Fund. All essential drugs were available in the health services formulary. The cost of pharmaceuticals in the public sector varied over the reporting period, from US$ 4,596,795.0 in 2006/2007, US$ 3,175,944.3 in 2008/2009, and US$ 4,720,983.7 in 2009/2010. Australia, Barbados, Canada, the United States, the United Kingdom, and other European and Central American countries were among those that provided substantial amounts of pharmaceuticals to the Cayman Islands.

**Knowledge, Technology, Information, and Human Resource Management**

The Cayman Islands has the latest equipment and fully qualified and trained doctors and technicians on hand to perform such procedures as blood analysis, urinalysis, CT scans, MRIs, x-rays, bone density and digital mammography, echocardiograms, stress tests, and thallium scans.

**Human Resources**

There was no human resource development policy in place. During 2009 and 2010, the Government launched a comprehensive organizational plan to increase recruitment and retention of Caymanians.
There is one offshore medical school, St. Matthew’s University. Admission to it is open to all Caymanians who meet entry requirements. In addition, the University of the West Indies reserves two slots per year for Caymanians to study medicine there.

The Cayman Islands Health Services Authority operates a school to train practical nurses through an 18-month curriculum; there were 23 graduates during the reporting period. The number of doctors in the Georgetown Hospital (main hospital) decreased from 73 in 2006 to 48 in 2010, while they increased in the private sector, from 54 in 2006 to 115 in 2010. Between 2006 and 2010, there were five doctors at the Faith Hospital in Cayman Brac. The number of nurses at the main hospital decreased from 245 in 2006 to 208 in 2010, but increased in the private sector from 63 in 2006 to 76 in 2010. An average of 27 nurses per year (2006–2010) were employed at Faith Hospital. In 2010, there were 10 dentists in the main hospital and 33 in private practice. There was one dentist at Faith Hospital between 2006 and 2008. Beginning in 2009, a dentist from Georgetown Hospital conducted weekly clinics at Faith Hospital. In 2010, other health professionals numbered 16.5 per 1,000 population, including physiotherapists, occupational therapists, psychologists, pharmacists, radiographers, genetic counselors, and forensic scientists.

**Public Health Workforce**

The Cayman Islands allows health practitioners who are fully registered or eligible for full registration in Australia, Canada, Jamaica, New Zealand, South Africa, the United Kingdom, or the United States, or those who have met the Caribbean regional registration requirements, to register in the territory. The Council for Professions Allied with Medicine, the Medical and Dental Council, the Nursing and Midwifery Council, and the Pharmacy Council are responsible for ensuring that applicants for related positions are properly credentialed. As such, each applicant is responsible for providing the respective council with proof of registration or eligibility.

**Health Personnel Training**

The Cayman Islands Medical and Dental Society has regular continuing medical education activities, and the Cayman Islands Nurses Association also offers regular continuing education to members and nonmembers. In addition, the Cayman Islands Health Services Authority has regular continuing education sessions. Finally, organizations such as the Cayman Islands Cancer Society and the St. Matthews Medical School offer continuing education events.

**Health and International Cooperation**

The Pan American Health Organization provided the Cayman Islands with technical cooperation through in-country consultancies, fellowships, and workshops. Technical support also came from the Department for International Development (DFID), which is a unit of the United Kingdom Government.

The Cayman Islands did not receive any external funding for the delivery of health care.

**Synthesis and Prospects**

The territory’s high standard of general and specialist care that is universally available within the Cayman Islands or, when necessary, outside its borders led to the population’s very good health status during the reporting period. The infant mortality rate was very low, at 5.1/1,000 live births, and there has been only one maternal death in the last 10 years. The Cayman Islands was not endemic to any vector-borne diseases, and the incidence of vaccine-preventable diseases was negligible.

The leading health problems in the population were noncommunicable diseases, including cardiovascular diseases, malignant neoplasms, hypertension, diabetes, and obesity. To minimize the incidence of, and effects associated with, these diseases, the Cayman Islands mounted a public campaign titled “Be Fit Cayman” in 2010. That health promotion
campaign encouraged healthy lifestyles by focusing on healthy eating habits and physical fitness. In addition, the country is implementing the Cay-Health Programme, which will give patients better access to health care (see Box 1).

As a way to address the escalating cost of quality health care, the Ministry of Health convened a conference titled “Health Care 20/20” in both 2010 and 2011. The gathering was designed to identify ways to sustain quality and affordable health care. An initiative to develop a comprehensive national health plan also was underway. To minimize the cost of externally accessed care for cardiac and cancer treatment, the Government continued to collaborate with Narayana Hrudayalaya Hospitals in India to develop a tertiary care hospital (center of excellence) in the Cayman Islands to provide such care.

REFERENCES


The CayHealth Programme is a joint initiative of the Ministry of Health and the Ministry of Community Affairs. It was launched in 2010 to provide every patient with access to a general practitioner who will oversee his or her health. Having a primary care physician managing the patient’s health at a district center will streamline care and bring efficiency into referrals to specialists in or outside the territory. Patients also will be able to fill their prescriptions at the district health center, instead of having to go outside their community. With these changes, the patient will have easier access and shorter waiting times.

CayHealth intends to track the progress of patients suffering from chronic, noncommunicable diseases, which should reduce visits to multiple doctors and to the accident and emergency department, as well as cut down on self-referrals to specialists.

CayHealth will become a national program incrementally. The first persons to have accessed the enhanced services have been clients of the Department of Children and Family Services (DCFS). When fully implemented, Cay-health will cover all Caymanians.

The CayHealth Programme is expected to give clients the benefit of scheduling all their appointments with a preferred general practitioner who will also coordinate their access to specialists and overseas care, if required. This program brings health care to clients at their district health centers instead of traveling to the Cayman Islands Hospital—this will reduce time and improve access to quality health care. In addition, residents will also be able to fill their prescriptions at the district health centers and avoid unnecessary waiting times. Finally, the program will increase access to education and healthy lifestyles programs.