

Cayman Islands Health System



To help the public service spend wisely

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INTRODUCTION

- 1. The objective of this public interest report on the Cayman Islands health system is to provide additional descriptive information about the health care system as a companion document to the Performance Audit Report (*Ensuring Quality Health Care and a Healthy Population*) also issued in January 2017 by the Office of the Auditor General (OAG). This public interest report addresses the lack of current, complete and readily accessible information on the Cayman Islands health system, including all types of health care services that fall within the public sector as well as those that are private. Public interest reports provide information on issues that are identified during the year and that, in the public interest, should be reported to the Legislative Assembly. The overriding consideration for issuing a public interest report is that it should add value for decision-making and accountability. The public interest report is the mechanism through which the OAG makes the information available for consideration by the Public Accounts Committee, as the Committee may consider only reports that have been presented to the Legislative Assembly of the Cayman Islands.
- 2. The health system in the Cayman Islands is a large, complex and rapidly evolving system with many categories of users, providers and stakeholders. This companion document will inform the Legislative Assembly and the broader public on the local context, organisation, financing, and provision of health care services to residents of the Cayman Islands. This report provides objective descriptions of the system without any assessment of performance while setting out the key elements of the health system and how they operate and interact to deliver services, produce health outcomes, and affect the health status of the population. To maintain the accessibility of this document, all sections in the core report have been kept to a minimum of descriptive detail, and much of the detailed information has been provided in appendices.

CONTEXT AND FRAMEWORK

3. For the purposes of this report, our terminology aligns with definitions used by the Cayman Islands Government (CIG or "the Government"). The Government has adopted the definition of health by the World Health Organization (WHO) as the "state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity." A good health system delivers quality services to all people, when and where they need them. The planning and configuration of a high-quality health care system includes robust funding mechanisms, a trained workforce, reliable information on which to base decisions and policies, and well-maintained facilities and logistics to deliver quality medicines and technologies.

The **health care system** is the total sum of all the public and private organisations, institutions and resources whose primary purpose is to promote, restore and maintain health. **Health services** include all services dealing with the diagnosis and treatment of disease, or the promotion, maintenance and restoration of health.

- 4. In 2015, the Cayman Islands health system provided care and services to a population of 60,413 residents across three islands (58,218 in Grand Cayman, 1,868 in Cayman Brac, and 328 in Little Cayman). The system is a mixed private and public system with some direct public funding for health services provided to specific patient populations. The publicly funded parts of the health system are delivered primarily through the Health Services Authority (HSA), a statutory authority of the Cayman Islands Government. Some of the Government-funded health services addressed in this report may not fall under the accountability of the Ministry of Health but have been included if they provide health care services as defined by the WHO.
- 5. The following health system framework identifies all the components of the health system of the Cayman Islands (both public and private) that are addressed in this report.

HEALTH SYSTEM FRAMEWORK

6. The health system framework includes the relevant legislation and regulations, the different patient populations seeking care, the types of health care services across the continuum of care from preacute care (non-urgent and preventative care) to acute care (typically provided in hospital settings) and post-acute care (longer-term, non-emergent care) and the associated funding and payment mechanisms.

Figure 1 - Cayman Islands Health System Framework

	Patient Populations	
Pre-Acute Care	Acute Care	Post-Acute Care
 Public health services Primary care Dental care Specialty and ambulatory care Pharmacy services Laboratory services Diagnostic imaging services 	 Urgent care Accident and emergency care Inpatient general hospitals Tertiary and overseas care Medical tourism 	 Home care Mental health and substance abuse facilities Rehabilitation facilities Long-term care and nursing homes Palliative and hospice care

OVERVIEW OF THE CAYMAN ISLANDS AND THE HEALTH OF ITS RESIDENTS

DEMOGRAPHICS

7. The population of the Cayman Islands has grown rapidly. The 1999 census showed a population of 39,410. In 2015, the Cayman Islands had 60,413 residents, representing a very rapid growth rate of 53% in just 16 years (Appendix 1). The population demographics of the Cayman Islands are unique compared to most Caribbean islands, as a result of having a very large non-Caymanian adult resident population. In population estimates for 2015 from the Economics and Statistics Office (ESO), the non-Caymanian resident population accounted for 43% of the total population and represented 54% of the total working age population (ages 25-64). The dependent population (children under 15 and adults over the age of 65) are primarily Caymanian, representing 75% and 83% respectively for those age groups.

Table 1 - End of year population estimates by age group and status

Age Groups	Population	Ca	ymanian	Non-	Caymanian
	Total	Number	% of Age Group	Number	% of Age Group
Total Group	60,413	34,237	57%	26,176	43%
Ages 0-14	11,044	8,331	75%	2,713	25%
Ages 15-24	5,564	4,297	77%	1,267	23%
Ages 25-64	39,765	18,276	46%	21,489	54%
Ages 65+	4,040	3,333	83%	707	18%

Source: The Economics and Statistics Office, Cayman Islands, 2015

PATIENT POPULATIONS

8. There are three distinct patient populations in the Cayman Islands; each has different considerations when it comes to accessing health care, insurance coverage, and use of public and private health services.

CAYMANIANS

9. In general, the sectors of the population that will use the health system the most are the young and the elderly, typically known as the dependent population. Within the demographic age groups of 0-14, 15-24 and 65+, the proportion of Caymanian to non-Caymanian population is dramatically higher, with Caymanians representing 75% of children age 0-14, 77% of youth and young adults, and 83% of the over 65 population. These age groups, particularly those over the age of 65, use the most health care services. Caymanians who work in the civil service, civil service pensioners, veterans and seafarers or who qualify as low income or elderly are eligible for the Government's insurance plan through the Cayman Islands National Insurance Company (CINICO). All other Caymanians must obtain private insurance coverage for health care services. Only Caymanians who cannot afford health insurance can be deemed medically indigent and have access to medical services paid for fully by the Government.

EXPATRIATES

10. Expatriates (non-Caymanian residents and work permit holders) represent 65% of the 25-34 age group, 63% of the 35-44 age group, and 40% of the 45-64 age group. The clear majority of expatriates are at the stage of life where they are at early to mid-career and typically accessing fewer health care services. These age groups tend to be among the healthiest, with some elevated costs attributed to women, particularly during childbearing years. Approximately half of the expatriate work permit holders originate from Caribbean nations and the other half from North American, European, Asian, South Pacific and African nations (Appendix 2). Expatriates are only permitted to have dependents (e.g. children) reside in the Cayman Islands with them if their income is considered sufficient to support the dependents. Expatriates who work in the civil service, who are civil service pensioners or who qualify as low income or elderly are eligible for the Government's insurance plan through CINICO; all others must obtain private insurance coverage for health care services.

MEDICAL TOURISTS

11. Medical tourists are a small but growing patient population in the Cayman Islands. Medical tourists receiving medical services from providers in the Cayman Islands must pay privately or have their health insurance provider confirm payment in advance.

ECONOMIC CONTEXT

12. The economic context of a nation is relevant to health care because health performance and economic performance are interlinked. Wealthier countries have healthier populations, and healthier populations in turn will be more productive. Poorer countries experience greater rates of infant malnourishment and mortality, adversely affecting life expectancy. National income has a

- direct effect on the development of health systems, through insurance coverage and public spending.
- 13. The Cayman Islands has the highest Gross Domestic Product (GDP) per capita of all the Caribbean islands at CI\$46,774 or US\$57,041 (excluding Bermuda, which is typically excluded from the region). This is comparable to the United States (USA) at US\$53,470 and Canada at US\$52,210. As such, we would expect many of the health outcomes of the Cayman Islands to be on a par with similarly economically advanced and developed nations such as the USA, the United Kingdom (UK) and Canada.

Per Capita GDP at Current Prices, 2011-2015 49,000 48.641.9 48,500 48,000 47,500 47,095.7 46,774.0 47,000 ci\$ 46,500 45,886.6 46,000 45,575.1 45,500 45,000 44,500 44,000 -2011 2012R 2013R 2014 2015* Year

Figure 2 - Cayman Islands Per Capita GDP

Source: The Economics and Statistics Office, Cayman Islands, 2015

14. In addition, the Cayman Islands has experienced low, but steadily increasing GDP growth from 2011 to 2015 and has seen the unemployment rate decrease from 6.3% in 2011 to 4.2% in 2015.

^{*} Revised numbers

Table 2 – Economic indicators, Cayman Islands

ECONOMIC INDICATORS	2011	2012	2013	2014	2015
GDP at current basic prices (CI\$M)	2,519.3	2,575.4	2,648.7	2,772.2	2,762.2 ^E
Real GDP growth (%)	1.2	1.3	1.5	2.4	2.0 ^E
Per capita GDP* at current basic prices (CI\$)	45,575	45,887	47,096	48,642	46,774 ^E
Employed labour force	35,267	36,401	36,106	37,723	39,138
Unemployment rate (%)	6.3	6.2	6.3	4.7	4.2
Inflation rate (%)	1.3	1.2	2.2	1.3	-2.3

Notes: ^E - Estimated based on selected economic indicators

Source: The Economics and Statistics Office, Cayman Islands, 2015

CONSUMPTION-BASED GINI COEFFICIENT

15. GDP per capita does not tell the whole story about the relative wealth of a nation; how evenly the income or ability to consume is distributed is also important. The "Gini coefficient" is a measure of statistical dispersion that is the most commonly used measure of income distribution. In 2015, the consumption-based Gini coefficient in the Cayman Islands was 0.378¹. This was higher than the OECD Gini coefficient average of 0.316, higher than Canada (0.324) and the UK (0.345), equal to the USA (0.378) but lower than the Caribbean/Latin American countries average of 0.50 and Jamaica (0.41). When the Gini coefficient is relatively high, it indicates greater inequality of income distribution or consumption ability. With a relatively high Gini coefficient, the Cayman Islands likely has portions of the population whose incomes are much lower than those in the highest earning deciles, and this may be reflected in poorer access to good health care and ability to adopt healthy lifestyles. Appendix 3 shows the breakdown of the Cayman Islands consumption population for 2015 showing that the poorest decile had a consumption level of approximately \$7,000 (2.3% of consumption) compared to the richest decile consumption level of approximately \$84,000, (30% of consumption). The highest earning 31% of the population consumed 60% of goods and services and the other 69% of the population consumed the remaining 40%.

HEALTH STATISTICS

16. Health statistics are numbers about aspects of a nation's health and include vital statistics of the population such as births and deaths. Health statistics are used to see patterns of disease in groups of people. This can help in understanding who is at risk for certain diseases, finding ways to control

^{* -} Per capita GDP estimate is based on mid- year population figures

¹ The Cayman Islands does not collect income data at national level, so consumption-based Gini is used to measure inequity.

diseases, and deciding which diseases should be studied. This section examines health statistics on mortality and morbidity in the Cayman Islands and it also looks at health risks and behaviours, which may be viewed as determinants of health status.

LIFE EXPECTANCY AND MORTALITY

17. Life expectancy at birth has climbed steadily over the years in the Cayman Islands and infant mortality rates have continued to decline. Overall indicators show that mortality rates in the Cayman Islands are favourable when compared with other developed nations and Caribbean islands. The following tables show some key health indicators for the Cayman Islands and other nations. Favourable results are shaded in green, and yellow shading indicates rates that are not as good as those of comparable nations, including members of the Organization for Economic Cooperation and Development (OECD) such as Canada, the United Kingdom, the United States, and other small island developing states (SIDS) such as Bermuda (Ber), Bahamas (Bah), Barbados (Bar), Jamaica (Jam), Turks and Caicos (T&C) and the British Virgin Islands (BVI). Comparator nation data was sourced from the OECD Health Statistics Database (2015) and the Pan-American Health Organization (PAHO) Basic Indicators 2015.

Table 3 - Comparative Health Statistics, 2015

Health Statistics	Cayman	CI Data Source 2015	OECD (Can, UK, US)	SIDS (Ber, Bah, Bar, Jam, T&C, BVI) Source: PAHO Basic
			, , , ,	Indicators
Life expectancy at birth	81.1	Mortality database	Can 81.8, UK	Ber 81.2, Bah 75.6, Bar,
(average age)			81.1, US 79.2	75.6, Jam 73.8, T&C 79.7,
				BVI 78.5
Infant mortality rate, per	4.2	Vital statistics:	Can 4.8, UK	Ber 3.5, Bah 22.7, Bar 12.4,
1,000 live births (less than 1		Mortality and live births	3.9, US 6	Jam 19.5, T&C 6.9, BVI 3.5
year)		databases		
Under-5 mortality rate, per	4.2	Mortality database	Can 5.5, UK	Ber 4.6, Bah 22.8, Bar 14.2,
1,000 live births *			4.9, US 7	T&C 6.9, BVI 3.5
Maternal mortality ratio	0.0	Mortality database	Can 4.8, UK	Bah 82.2, Bar 33.7, Jam 83.4
per 100,000 live births			6.7, US 12.7	
Low birth weight	10.0	Live births database	Can 6.1, UK	Ber 7.9, Bah 12.5, Bar 11,
proportion, per 1,000 live			7.5, US 8	Jam 10.4, T&C 8.2, BVI 11.7
births				
Mortality rate from	29.8	PAHO basic indicators	Can 33.3, UK	Ber 33.1, Bah 64.5, Bar 94.9,
communicable diseases		per 100,000 population	10.2, US 40.2	Jam 38.3, T&C 6.3
Mortality rate from	89.3	PAHO basic indicators	Can 210.2, UK	Ber 188.6, Bah 99.2, Bar
malignant neoplasms		per 100,000 population	252, US 182.8	174.5, Jam 119.2, T&C 33.5
Mortality rate from	29.8	PAHO basic indicators	Can 45.8, US	Ber 28.8, Bah 63.2, Bar 40,
external causes		per 100,000 population	61.1	Jam 69.7, T&C 18.8
Mortality from diabetes	14.9	PAHO basic indicators	Can 20.9, UK	Ber 33.1, Bah 29.3, Bar 64.3,
		per 100,000 population	9.2, US 23.6	Jam 82.3, T&C 14.7

Health Statistics	Cayman	CI Data Source 2015	OECD (Can, UK, US)	SIDS (Ber, Bah, Bar, Jam, T&C, BVI) Source: PAHO Basic Indicators
Mortality from ischemic	20.5	PAHO basic indicators	Can 97.3, UK	Ber 105.1, Bah 47.6, Bar
heart disease		per 100,000 population	115.7, US	58.4, Jam 39.4, T&C 39.8
			115.7	
Mortality from	13.0	PAHO basic indicators	Can 38.5, UK	Ber 44.6, Bah 40.6, Bar 79.3,
cerebrovascular diseases		per 100,000 population	65, US 40.3	Jam 77, T&C 10.5
Prevalence of hypertension	26.8%	WHO risk factor survey	Can 23%, UK	Ber 25-35%, Bar 38%, Jam
(25-64 yrs) **		2012 ² (% of population)	30%, US 29%	30.5%, T&C 34.2%, BVI 35%
Prevalence diabetes	9.0%	WHO risk factor survey	Can 7.4%, UK	Ber 13.1%, Bah 13.2%, Bar
mellitus, type II (25-64 yrs)		2012 (% of population)	4.7%, US	13.6%, Jam 11.5%, T&C
**			10.8%	11%, BVI 14.5
AIDS incidence rate	5.6	PAHO basic indicators	Can 0.4, UK	Ber 4.3, Bah 52.7, Bar 27.1,
		per 100,000 population	2.8, US 8.3	Jam 24.5, T&C 6.5, BVI >24

^{*} There were 3 deaths of children < 5 yrs old (all <28 days old, neonates). Same rate (4.2) is documented for Neonatal and infant deaths due to all deceased being <28 days old (likewise <1 yr old).

- 18. One of the most important health services that affect life expectancy and disease prevention is the public health system. The majority of public health functions in the Cayman Islands are publicly funded. Childhood vaccinations are free to all residents, but are not compulsory by law. However, the School Health Policy and Ministry of Education require evidence of vaccination before entry into school with two exceptions, for medical or religious grounds. Childhood vaccination rates in the Cayman Islands are therefore high, in the 90% range.
- 19. The top leading causes of death among Cayman Islands residents are related to chronic disease, including the circulatory system, cancer, respiratory, endocrine and metabolic diseases; this is similar to most developed comparator nations. External causes (homicide, car accident, drowning and other) show up as the 4th leading cause of death in men, but 7th in women.

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^{**} Hypertension and diabetes prevalence rates for SIDS is sourced from many different studies and should be considered approximate and unreliable.

² WHO STEPS Chronic Disease Risk Factor Survey, Cayman Islands, 2012 (STEPwise approach to chronic disease risk factor surveillance) households were surveyed across the six districts of the three islands (61.6% response rate, 1,297 participants).

Table 4 - Ten Leading Causes of Deaths among Residents by Rank and Sex in the Cayman Islands

Causes of death	1	otal Deat	:hs	Male Deaths			Female Deaths		
Major group selection (body system)	#	%	Rank	#	%	Rank	#	%	Rank
Diseases of the circulatory system	51	30.0%	1	22	27.2%	1	29	32.6%	1
Malignant neoplasms (cancer)	48	28.2%	2	28	34.6%	2	20	22.5%	2
Diseases of the respiratory system	17	10.0%	3	7	8.6%	4	10	11.2%	3
External causes	16	9.4%	4	14	17.3%	3	2	2.2%	7
Endocrine, nutritional and metabolic diseases	12	7.1%	5	3	3.7%	5	9	10.1%	4
Infectious and parasitic diseases	5	2.9%	6	2	2.5%	6	3	3.4%	6
Diseases of the genitourinary system	5	2.9%	6	1	1.2%	7	4	4.5%	5
Diseases of the nervous system	4	2.4%	7	1	1.2%	7	3	3.4%	6
Symptoms, signs and abnormal clinical and laboratory findings	4	2.4%	7	1	1.2%	7	3	3.4%	6
Certain conditions originating the perinatal period	2	1.2%	8	1	1.2%	7	1	1.1%	8
Other	6	3.5%		1	1.2%		5	5.6%	
Total deaths, all causes	170	100%		81	100%		89	100%	

Source: The Economics and Statistics Office, Cayman Islands, 2015

INCIDENCE OF CHRONIC NON-COMMUNICABLE DISEASE

20. Most of the information available about non-communicable diseases in the Cayman Islands is from the 2012 WHO STEPS survey. However, the Cayman Islands 2010 census data provides more detailed information about the incidence rates of diagnosed illnesses, by sex and status. Of particular note is the significantly higher rate of disease in the Caymanian population, representing 56% of the total population in 2010 (the year of the National Census).

The rate of heart conditions in the Caymanian population is 5.7 times greater than the non-Caymanian population. The rate of diabetes is 3 times higher and that of cancer is 2.7 times higher in the Caymanian population (potentially under-reported due to lack of mandatory reporting requirements).

21. There are several reasons why the Caymanian rate of chronic disease is higher than that of the expatriate population. The older age of the Caymanian population is the largest contributing factor, along with lower incomes and poor lifestyle choices that can increase the rates of chronic disease. Furthermore, individuals who are chronically ill are less likely to choose to become an expatriate in a foreign nation, and in the Cayman Islands, all non-Caymanians must undergo a medical examination before being granted a work permit, likely contributing to the lower incidence of diagnosed illness in the expatriate population.

Table 5 - Incidence of Diagnosed Illness per 1,000 persons by Sex and Status, All Ages

Illness	Total			C	Caymanian			n-Caymar	Caymanian	
	Total	Male	Female	Total	Male	Female	Total	Male	Female	higher rate
2010 Population	53,834	26,623	27,211	30,313	14,588	15,725	23,521	12,035	11,486	of disease (vs non-
Population %	100%	49%	51%	56%	48%	52%	44%	51%	49%	Caymanians)
Diabetes	43	38.2	47.7	61.2	55.9	66.1	19.6	16.7	22.6	3.1 x
Hypertension	89.1	71.5	106.2	119.5	98.7	139.3	49.8	38.5	61	2.4 x
Heart condition	14.2	14.4	14	22.2	22.8	21.6	3.9	4.2	3.7	5.7 x
Cancer	7.9	5.8	9.9	10.9	8.2	13.7	4	3	4.7	2.7 x
HIV/AIDS		0.3 Data too small for furth						her detail		
Asthma	28.3	25.2	31.4	36.8	34.8	38.7	17.4	13.5	21.4	2.1 x
Other	17.1	14.2	20	25.2	20.8	28.4	7.4	6.1	8.9	3.4 x

Source: The Economics and Statistics Office, Cayman Islands, 2015

HEALTH BEHAVIOURS

22. Smoking, alcohol consumption and unhealthy weights are directly correlated to higher prevalence rates of chronic diseases. As the statistics have suggested, the health behaviours in the Cayman Islands, such as maintaining a healthy weight and reducing alcohol and tobacco consumption, have not been moving in a positive direction. The health risk factors listed in the chart below indicate that a large proportion of the adult population is engaged in unhealthy behaviours that may result in the higher adult rates of hypertension and diabetes noted in the WHO STEPS 2012 study and the 2010 census data.

Table 6 - Health Risk Factors for Adults, Cayman Islands, 2012

Health Risk Factors for Adults 25-64 years	Men	Women	Cayman Data Source
Smoking rate (currently smoke)	20.7%	9%	WHO Risk Factor Survey 2012
Alcohol consumption (drank in the past 30 days)	63%	39.4%	WHO Risk Factor Survey 2012
Overweight (BMI 25.0-29.9 kg/m2)	39.2%	29.2%	WHO Risk Factor Survey 2012
Obese (BMI ≥30 kg/m2).	29.5%	45.0%	WHO Risk Factor Survey 2012

23. In addition to the prevalence of unhealthy weight in the adult population, the Cayman Islands Government School Health Programme tracks the weight of school children entering the education system at ages 4-5 years. The following table shows the results of two years of weight checks of all school-age children entering the 2013-2014 and 2014-2015 academic years. In each year, the total percentage of overweight (obese and at risk for obesity rates combined) school children is approximately 50% and the proportion that falls into the obese category has increased.

Table 7 - Cayman Islands School Health Programme Weight Tracking, 2013/2014 – 2014/2015

Categories of Overweight School Children (Ages 4-5 years)	2013/2014	2014/2015
Total % at risk for obesity (percentile between 85-<95)	43%	38.5%
Males	23.5	18%
Females	19.1	20.5%
Total % obese (>95 percentile)	9.5%	11%
Males	2.3%	7.5%
Females	7.2%	3.5%

Source: Office of Public Health, Cayman Islands, 2016

24. The percentage of overweight school children in the Cayman Islands is higher than the Caribbean average prevalence rates of 28% - 35% for overweight/obese students. The percentage of Cayman Islands students who are overweight is also higher than in the United States where approximately one third of children and adolescents were overweight or obese in 2012.

ORGANISATION AND GOVERNANCE OF THE HEALTH SYSTEM

ORGANISATION OF THE HEALTH SYSTEM

25. The Constitution of the Cayman Islands affirms the intention to provide a comprehensive health care system. In the Cayman Islands, public and private health care practitioners provide health care services subject to regulations imposed by government. The Ministry of Home Affairs, Health and Culture has responsibility for oversight and regulation of health services within the Cayman Islands. Health services are also provided by departments in the Ministry of Community Affairs and by numerous private facilities and health care practitioners.

PUBLIC ORGANISATIONS

- 26. There are several government entities that are funded for, and oversee or are actively involved in the delivery of health services in the Cayman Islands. When determining which government services should be included in an analysis of the health system of the Cayman Islands, we referenced two sources: the terms "health", and "health system" as defined by the Ministry of Health in its *National Health Policy and Strategic Plan* (NHPP), and the 2011 System of Health Accounts, which is a collaborative effort between the OECD, Eurostat and WHO.
- 27. The NHPP defines *health* as the state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity. The *health system* is the sum of all the public and private organisations, institutions and resources whose primary purpose is to promote, restore and maintain health including mental and social wellbeing. The associated system and services to support health in the Cayman Islands requires the inclusion of services such as counseling, drug rehabilitation services and residential care provided by the Ministry of Home Affairs and Ministry of Community Affairs.
- 28. The chart below includes only those entities that are directly related to the provision of health services. For the purposes of this report, we note that some health care services are exclusively clinical and some, such as residential care, include a mix of clinical and social services. We have noted these latter entities with an asterisk in the chart below.

Deputy Governor Ministry of Health and Ministry of Finance & Ministry of Home Ministry of Community Culture **Economic Development** Affairs, Youth and Sport **Affairs Health Regulatory** Depart. Children and Community Rehabilitation * Services Family Services * Depart. of Counselling Services **Health Services** Cayman Islands Children and Youth National Drug Council* **Authority** National Insurance Services Foundation * Company (CINICO) Health Insurance Commission Board Health Practice **Commission Board Health Practice Councils:** Medical & Dental, Nursing, Pharmacy, Allied

Figure 3 - Descriptive Organizational Chart for Government Accountability for Health Care Services

MINISTRY OF HOME AFFAIRS, HEALTH AND CULTURE

- 29. The Ministry of Home Affairs, Health and Culture has the following health-related departments and entities under its direction:
 - Health Services Authority (HSA) including Public Health
 - Department of Health Regulatory Services (DHRS)
 - Health Practice Boards and Councils

Mental Health Commission

- The National Drug Council (under Home Affairs)
- Community Rehabilitation (under Home Affairs)
- 30. While the Department of Environmental Health (DOE) and the Mosquito Research and Control Unit (MRCU) and numerous other entities are under the direction of the Ministry of Home Affairs, Health and Culture, we do not note them in the chart above as they are not directly involved with health care services. It is however important to note that the DOE and MRCU do have a public health role in terms of communicable disease prevention and helping to protect the population's health from food-borne infections and mosquito-borne viruses such as dengue, chikungunya, and Zika.

CAYMAN ISLANDS HEALTH SERVICES AUTHORITY (HSA)

- 31. The Cayman Islands HSA was established in 2002 to operate all health care facilities previously run by the Government. The HSA operates the following facilities:
 - Cayman Islands Hospital
 - Faith Hospital (Cayman Brac)
 - Four District health clinics in Grand Cayman and one in Little Cayman
 - The Lions Eye clinic
 - The Merren Health Centre
- 32. The HSA in Grand Cayman provides services to all members of the community and to visitors, including public health, primary care, specialist care, acute care and post-acute care services. Two national health roles, the Chief Medical Officer and the Medical Officer of Health (a public health function) are based at the HSA. The Cayman Islands Hospital in George Town has a maternity suite, a critical care unit, a neonatal intensive care unit and the island's only dialysis unit and hyperbaric chamber (which is privately owned and operated). Faith Hospital serves the residents of Cayman Brac and Little Cayman. The facility provides primary, basic secondary and emergency care. There is an inpatient unit, as well as an operating theatre, maternity, accident and emergency department, outpatient clinic and a public health department. Specialist physicians from the Cayman Islands Hospital visit the Faith Hospital regularly. A registered nurse conducts clinics Mondays through Fridays at the Little Cayman health clinic and these clinics are complemented by a weekly physician's visit. The HSA serves as the primary source of health care services for patients covered by CINICO health insurance.

THE MINISTRY OF COMMUNITY AFFAIRS

- 33. The Ministry of Community Affairs provides the following health-related services (note that many of the programmes are a mix of clinical services such as counseling, therapy and social services):
 - mental health and addictions counseling;
 - residential substance abuse treatment; and
 - residential support for seniors and the disabled populations.

LOCAL PRIVATE HEALTH CARE FACILITIES

34. In addition to the health services provided directly by the Government, there are over 100 private health care facilities (including pharmacies, laboratories, physician clinics and therapy clinics) registered with the Health Practice Commission, with the majority (82) registered as outpatient clinics. There are two private hospitals, both located in Grand Cayman.

CHRISSIE TOMLINSON MEMORIAL HOSPITAL

35. The Chrissie Tomlinson Memorial Hospital (CTMH) is an 18-bed private hospital with approximately 40 physicians' offices/clinics with specialist physicians and/or general practitioners. CTMH is privately owned by a group of local investors including several of the physicians who practice at the hospital. The hospital primarily provides specialty, ambulatory and surgical services and has a 24-hour urgent care centre, but does not have an emergency department; nor does it provide obstetrical services.

HEALTH CITY CAYMAN ISLANDS

- 36. Health City Cayman Islands (HCCI) opened in early 2014 as a private tertiary care hospital focused on cardiac care, orthopedics and related surgeries, with a primary objective of attracting medical tourism to the Cayman Islands. The hospital is a partnership with Narayana Health from India and Ascension Health, the largest faith-based health system in the USA. The hospital does not operate an emergency department; however, some cardiac emergencies are transported to it as a centre that primarily provides tertiary cardiac care.
- 37. While HCCI is a private health care provider, it has received fee, duty, and regulatory concessions from the Cayman Islands Government as a strategic economic investment in medical tourism in the Cayman Islands. The scale of these concessions, given the investments made by HCCI, is larger than anything previously granted to other private health care entities in the Cayman Islands. Recently, HCCI has been expanding services and is listed as an in-network partner for several local health insurance companies for diagnostics, radiology and some primary care services that are in direct competition with other local providers.

OVERSEAS MEDICAL PROVIDERS

38. Patients may be referred to overseas hospitals for specific treatments that are either unavailable or not commonly performed in the Cayman Islands. Premature births, patients visiting specialists or having complicated surgery, as well as those injured in serious accidents, are often airlifted to Jamaica, Canada, Florida and other US destinations for treatment. Two of the main hospitals in Florida that often receive referrals of Cayman Islands patients are Baptist Health International (which maintains a Cayman Islands office) and Memorial Global Health. In addition, each of the approved private insurers maintains broad overseas provider networks.

NOT-FOR-PROFIT ORGANISATIONS

- 39. There are several not-for-profit organisations based in the Cayman Islands that also support the health care system by providing information, education, funding and some direct health services. These include:
 - The Cayman Heart Fund
 - The Cayman Islands Cancer Society
 - The Cayman Islands Red Cross
 - Alcoholics Anonymous
 - Al-Anon Information Service
 - Cayman Hospice Care
 - The Caring for Life Foundation
 - Alzheimer's & Dementia Association
 - Have a Heart Cayman

- The Cayman Islands AIDS Foundation
- Breast Cancer Foundation
- The Cayman Islands Diabetes Association
- Cayman Islands Diabetes Charitable Trust
- The Special Needs Foundation of Cayman
- Narcotics Anonymous
- The Pink Ladies Volunteer Corps
- Multiple Sclerosis Foundation Cayman Islands
- Sickle Cell Support Group

HEALTH PLANNING AND ACCOUNTABILITY

40. The Cayman Islands Government conducts an annual planning process to develop output-based budgets and plans and from time to time produces multi-year plans. Past multi-year planning exercises for the health system (2003 and 2012) included multiple ministries and non-government entities such as private health corporations, public—private partnerships and non-governmental organisations (NGOs).

MULTI-YEAR PLANNING

- 41. In 2011, the Ministry of Health, Environment, Youth, Sports and Culture invited a broad group of stakeholders from 23 organisations to contribute to the development of the NHPP 2012-2017. The purpose of the NHPP was to provide an overarching guiding policy for the Cayman Islands that outlines the vision, values, strategic directions and the objectives with regards to health and the health system. The vision articulated in the NHPP is "Health and Well-being for All in the Cayman Islands".
- 42. The NHPP as adopted by the Ministry of Health in 2012 acknowledges that actions to improve health and well-being for all in the Cayman Islands should not only focus on the delivery of health services, but also address the broader public health agenda, given the many non-health sectors impacting the health of the population. The guiding values expressed in the NHPP articulate a commitment towards equitable, accessible, affordable and sustainable high-quality care based on evidence. The plan stipulates that it should be accomplished with continuous performance monitoring, provided in a caring and compassionate manner with the patient at its centre. In 2015, the Ministry of Health, along with the assistance of PAHO, developed a draft work plan for implementing the NHPP. In

addition to the Ministry of Health, strategic plans have been prepared by the Cayman Islands HSA (2010-2018) and CINICO (2013-2018).

ANNUAL PLANNING DOCUMENTS

43. Annually, the Government of the Cayman Islands prepares and makes public an *Annual Plan and Estimates* budget document that summarises the planned actions and financial performance of government overall. At a more specific level, the Government ministries, statutory authorities, government-owned companies, public entities and any NGOs in receipt of funding from the Cayman Islands Government must prepare one or more of the following accountability documents: Annual Budget Statements, Purchase Agreements and/or Ownership Agreements that identify the outputs government is funding and at what cost. Further details about the planning documents are provided in Appendix 4.

REPORTING

- 44. On a monthly basis, ministries and portfolios bill Cabinet based on the amounts specified in the purchase agreements. The ministries then prepare a schedule of outputs that track year-to-date spending against the budget and the remaining budget for the year. These reports are prepared by a financial administrator, signed by the Chief Financial Officer and Chief Officer and, finally, approved by the Minister. Annual financial statements of entities (audited and released to the public) do not currently provide information about the outputs based on the *Appropriation Law*. The reporting on outputs is part of a government-wide report called "Schedule of Appropriations" which is currently given a "disclaimer of opinion" (last in 2013/14; further years still pending) by the Office of the Auditor General of the Cayman Islands.
- 45. The health information system at HSA does however enable more accurate costing of actual patient billing against some budgeted output categories that are the basis for payments from the Ministry of Health to HSA. Furthermore, billings for CINICO premiums, where actual persons are identified and accounted for, are considered reliable. Non-government suppliers of health services who receive funding from the Government will have a purchase agreement in place if the funding is part of a non-governmental services (NGS) grant. If grants are made through transfer payment funds, then a proposal is submitted and recommendations made to the Minister, but no purchase agreement or reporting process is established. Finally, in the absence of receiving any direct funding from the Government of the Cayman Islands, there are no requirements for the private sector health service providers to prepare, submit or publish any health service planning documents or statistics beyond mandatory public health reporting of births, deaths, communicable diseases and inpatient admissions and discharges.

LEGISLATION AND REGULATION

LEGISLATION

- 46. There are several pieces of legislation in the Cayman Islands that are directly and indirectly relevant to the governance and regulation of the health care system (full listing in Appendix 5). The legislation (and associated amendments and regulations) that are most directly related to the health care system include:
 - Births and Deaths Registration Law (2007 Revision)
 - Drug Rehabilitation Court Law (2015 Revision)
 - Health Insurance Law (2013 Revision)
 - Health Services Authority Law (2010 Revision)
 - Human Tissue Transplant Law, 2013 (Not in force)
 - Mental Health Law, 2013
 - Mental Health Commission Law, 2013
 - National Drug Council Law (2010 Revision)
 - Public Health Law (2002 Revision)

- Coroners Law (2015 Revision)
- Health Insurance Commission Law (2010 Revision)
- Health Practice Law (2013 Revision)
- Health Services (Fees) Law (2002 Revision)
- Legalisation of Cannabis Oil for Medicinal Purposes (2016)
- Medical Negligence (Non-Economic Damages) Law, 2011
- Pharmacy Law, 1979
- Pharmacy Law, 1991 (Not in force)

REGULATION OF PROVIDERS AND FACILITIES

- 47. Health care practitioners and facilities are regulated by the Health Practice Commission (HPC), supported by the Department of Health Regulatory Services (DHRS) under the Ministry of Health. The Commission reports directly to the Minister of Home Affairs, Health and Culture and with the administrative support of DHRS, promotes and enforces compliance with the following laws and regulations:
 - The Health Practice Law
 - Health Practice Regulations
 - National Standards (2007) Checklists

DEPARTMENT OF HEALTH REGULATORY SERVICES

48. The DHRS and the Superintendent of Health Insurance report directly to the Chief Officer, Ministry of Health. The Health Practice Commission Board reports directly to the Minister, is supported by the DHRS and liaises with the four Health Practice Councils: Medical and Dental Council; Nursing and Midwifery Council; Pharmacy Council; and Professions Allied with Medicine Council.

Minister of Home Affairs, Health and Culture

Deputy Governor

Health Practice
Commission Board

Ministry of Health
Department of Health
Regulatory Services

Health Practice Councils
- Medical & Dental
- Nursing & Midwifery
- Pharmacy
- Professions Allied
with Medicine

Health Practice

Regulation

Figure 4 - Descriptive Organizational Chart for the Cayman Islands Health Regulatory Services

REGULATION OF PROVIDERS

Health Insurance

Regulation

- 49. The Health Practice Council's accountabilities include but are not limited to registering health care practitioners; regulating the professional conduct and discipline of registered practitioners; regulating the training requirements of registered practitioners on the Islands; and promoting professional conduct and performance of registered practitioners. As there is no body in the Cayman Islands to conduct local exams for registration purposes, the Health Practice Regulations allow for four different pathways to satisfying the relevant Council as to education when applying for registration on the principal List. The practitioner must:
 - be fully registered in one of the seven jurisdictions (Australia, Canada, Jamaica, New Zealand, South Africa, UK or US, or those who have met the Caribbean regional registration requirements); or
 - have met Caribbean regional registration requirements under the Caribbean Association of Medical Councils (CAMC) or regional nursing body; or
 - have obtained qualifications from University of the West Indies or "any institution accredited by the Caribbean Health Education Accreditation Board, and has completed an internship; or
 - provide evidence that he/she is eligible for full registration in any of the seven countries listed.
- 50. In 2011, amendments to the *Health Practice Law* introduced a new category of "institutional registration" to facilitate registration of Indian physicians (as required under the agreement with HCCI) but also to allow for registration of practitioners from other jurisdictions beyond the seven

jurisdictions recognised for principal registration. Only licensed health care facilities that have received designation from Cabinet to employ institutionally registered practitioners can do so and then those practitioners are limited to only practicing in that facility. To date, HCCI is the only facility that has received that designation. In addition to the Health Practice Councils, there is a Health Appeals Tribunal that hears appeals of decisions by the Commission and the Councils.

REGULATION OF FACILITIES

51. The regulation of facilities is also managed under the DHRS. Pursuant to the *Health Practice Law* (2013), all health care facilities in the Cayman Islands must be inspected and certified at least every three years. Facility inspections are conducted by a DHRS inspector, based on the National Standards that were developed by the Health Practice Commission.

REGULATION OF MEDICAL TOURISM

52. There is currently no stand-alone legislation that governs medical tourism. However, when the Government of the Cayman Islands signed the agreement to establish the medical tourism hospital HCCI, it updated the *Health Practice Law* to allow for the designation of Medical Tourism Providers and Medical Tourism Facilities (refer to Acute Care – Medical Tourism on page 44 for further information on medical tourism). Beyond the certification of the facility under the *Health Practice Law*, there are currently no additional regulatory requirements for medical tourism services. Medical tourism facilities and their health care practitioners are subject to the usual provisions of the *Health Practice Law* and Regulations.

REGULATION OF INSURERS

- 53. The Health Insurance Law (2013), the Health Insurance Regulations (2013) and the Insurance Law (2010) provide the framework for monitoring and regulating the health insurance industry in the Cayman Islands. The Cayman Islands Monetary Authority (CIMA) is responsible for regulating the insurance industry in the Cayman Islands. This includes licensing, ongoing supervision, and enforcement. The Health Insurance Commission (HIC), assesses and monitors premium rates, administers the Segregated Insurance Fund (SIF) (which collects a small monthly contribution from all private plans to help fund health care for indigents), monitors the conduct of approved insurers, resolves complaints, and advises the Minister generally on any matter relating to health insurance, including advice on amendments to the Health Insurance Law and Regulations.
- 54. The health care fees covered by health insurance are regulated by the Government through the Standard Health Insurance Fees (SHIF). The SHIF provides the fees that health insurance companies pay to health care providers for services rendered. The current SHIF was created in 2005 and has not been updated. In November 2016, the Cabinet of the Cayman Islands Government agreed to not increase the SHIF fees.

REGULATION OF PHARMACEUTICALS

- 55. Pharmaceuticals in the Cayman Islands are primarily regulated through legislation; however, the current *Pharmacy Law* dates from 1979 and needs updating. There are currently no legislated regulations for pharmacies in the Cayman Islands. In 2010 the Pharmacy Standards of Practice was developed by the Pharmacy Council and is the only document that establishes boundaries and expectations for pharmacies; it is however voluntary to follow the Standards of Practice.
- 56. All physicians in the Cayman Islands can prescribe narcotics and all pharmacies can dispense them. There are no shared pharmacy information systems to ensure that patients are not receiving multiple prescriptions from different physicians and obtaining the drugs from multiple pharmacies. The Chief Pharmacist, who is based at the HSA, is required to monitor the statistics on narcotics and forecast expected inventory/importation requirements for narcotics to the International Narcotics Control Board (INCB). The National Drug Council (Cayman) is the agency responsible for the collection and compilation of reports for the INCB. However, this compilation does not account for the drugs that are brought in by individuals who travel off-island for medical purposes and likely bring back medications. There are currently no requirements for medications to be declared at customs.

OTHER REGULATIONS

57. Health care areas that are regulated in other jurisdictions, but have limited or no legislation or regulation in the Cayman Islands, include medical devices and aids, patient privacy and clinical research (human subjects). The following table outlines what regulation, if any, exists in these areas. Additional information is contained in Appendix 6.

Table 8 - Cayman Islands Additional Health Regulatory Areas

Regulatory	Details
Area	
Medical devices and aids	Regulation of medical devices and aids is common in OECD countries; however, only 18 of 41 Latin American and Caribbean countries have implemented regulatory systems. The Cayman Islands does not regulate market entry, manufacturing controls, approval, sales, marketing and safety controls of medical devices and aids.
Patient privacy	There are currently few regulations that pertain to patient privacy and the privacy and security (administrative, physical and technical safeguards) of health information in the Cayman Islands. The guidelines that do apply are noted in Appendix 6.
Clinical research	Section 9 of the Health Practice Law provides limited clauses that cover the protection of human subjects in clinical and non-clinical research requiring a manager of a health care facility to get written consent of the Health Practice Commission before carrying out clinical trials.

Regulatory	Details
Area	
Human tissue	The Cayman Islands Government passed the Human Tissue Transplant Law in 2013; however, it has not yet been enacted. There is no local regulation of blood banks. There are two blood banks, one at the HSA and a new one set up at HCCI in 2015. HSA reports that it is following the PAHO Blood Bank Guidelines ³ .

REGULATION OF PUBLIC HEALTH

- 58. The regulation of public health in the Cayman Islands, as in many other jurisdictions, is found in multiple areas of legislation. The *Cayman Islands Public Health Law (2002)* contains many of the core elements of public health regulation, including the following:
 - water supplies
 - powers of Chief Medical Officer (including emergency powers)
 - public Health laboratory services
 - sexually transmitted diseases
 - rodent control
 - infectious waste

- nuisances
- offensive trades
- notification, prevention and suppression of disease
- swimming pools
- removal and disposal of refuse and garbage
- cemeteries and crematoria
- 59. Additional legislation (beyond the public health and health practice laws) that addresses public health issues includes the following:
 - Tobacco Law (2008) and regulations
 - Tobacco Product and Intoxicating Liquor Advertising (1998)
 - Labour Law (2011) PART VIII Health, Safety and Welfare at Work and The Labour (Occupational Safety and Health) (Construction Industry) Regulations (2008)
- Traffic Law (2011) Seatbelt use, speeding, driving under the influence of alcohol or drugs, use of mobile phones, etc.
- Protection from Domestic Violence Law (2010)
- Mosquito (Research and Control) Law (2007 Revision)
- Education Law (2010) PART III Pupils suffering from contagious or infectious diseases; and Closure of school due to spread of disease
- 60. Other jurisdictions are increasingly adding public health regulations and laws that can influence consumers to make healthier choices to combat the growing burden of chronic, non-communicable diseases and associated risk factors like obesity. For example, laws and regulations in other jurisdictions are often enacted to increase access to healthy food and beverage choices and increase

³ PAHO acts as a regulator for the collection, processing, storage and distribution of blood and blood products.

opportunities for physical activity. These types of legislation and regulation are largely absent in the Cayman Islands.

HEALTH INSURANCE

- 61. Health insurance is mandatory for all residents in the Cayman Islands and must be obtained through one of nine approved insurance providers, including the Government-owned CINICO. Employers are responsible for covering 50% of health insurance premium costs for employees and making health insurance available for their dependents who reside in the Cayman Islands. Self-employed persons must provide for their own and their dependents' health insurance.
- 62. The total population of the Cayman Islands at the end of 2015 was estimated as 60,413, and information available from the HIC shows that 57,024 persons were covered by health insurance in December 2015 a coverage rate of more than 94%. This is a significant improvement since the 2010 Census, where it was reported that approximately 87% of the population was covered by health insurance, another 0.2% were uninsurable, 0.8% were not sure and 12% of the population did not have health insurance.
- 63. CIMA and the HIC license and regulate the health insurance companies respectively. The Standard Health Insurance Contract (SHIC) is the minimum contract of prescribed health care benefits established in the *Health Insurance Regulations (2013 Revision)* and sold by approved health insurance companies. Additional details about health insurance are provided below and in Appendix 7.

CINICO

64. CINICO is the government-owned insurance company, governed by a Board of Directors appointed by Cabinet. It was established in 2004 to facilitate the provision of insurance coverage to all civil servants, civil service pensioners, seafarers, veterans and their dependents, paid for by government at no cost to the subscribers. CINICO also provides health insurance coverage for selected statutory authorities and government companies, and two groups of the general public (basic SHIC plan only) and administers the health benefits for Caymanians deemed medically indigent by the Minister responsible for the Department of Children and Family Services.

PRIVATE HEALTH INSURANCE

65. The approved private health insurance companies operating in the Cayman Islands as of 2016 include Aetna, BAF, Pan-American Life Insurance Co., Cayman First, CayMed Plus, Colonial Medical/BritCay, Fidelity, and Generali. Private health insurance plans vary from the basic SHIC to some very comprehensive medical plans. The SHIC plan covers about a quarter of Cayman's residents, but most employers offer higher than mandated coverage through one of the approved private insurance companies.

HEALTH INSURANCE COSTS

- 66. The cost of health insurance plans varies with age, gender, benefits and employer size. A basic SHIC plan for an individual, including dental coverage, costs approximately CI\$170 per month per employee. A medical plan with comprehensive benefits, including primary care and specialist visits, extra preventative care, dental, vision and prescription coverage can cost up to CI\$400-CI\$800 per month per individual, and about CI\$350-CI\$750 without dental and vision coverage. The premium rates are roughly doubled for a couple and about tripled for a family.
- 67. If a person is refused health insurance coverage by two or more approved insurers, that person becomes an uninsurable person under the law. That person may then make an application for coverage with CINICO. The person will be required to pay the risk-adjusted premiums rate if he/she is able to afford it. If a Caymanian is unable to pay for health care services or pay for health insurance because of limited or inadequate financial resources, an assessment of their financial circumstances will be carried out by the Needs Assessment Unit to determine their eligibility for assistance.

HEALTH SERVICE INSURANCE EXCEPTIONS

- 68. The Health Services (Fees) Law (2002 Revision) ensures the right of children to access basic health care services even if the child is not adequately covered by insurance. According to the law, fees are not payable in respect of a patient at a health care facility where that patient has not attained the upper limit of school age as defined in the Education Law (1999 Revision). In addition, fees are not payable for antenatal services and contraceptive services including clinics, devices and drugs provided at a health care facility to Caymanians. Health insurance is still required and the law does not apply in respect of a patient who is covered by health insurance which would otherwise cover those fees and the exemptions listed above only apply once the insurance benefits are exhausted.
- 69. Where Caymanians do not have adequate health insurance, the Health Services (Fees) legislation also provides some categories of discounts or free services. The law stipulates reduced fees (at fifty per cent of the rate specified in regulations made under the law) for a Caymanian who is ordinarily a resident in Cayman Brac or Little Cayman and who is a patient at the Faith Hospital in Cayman Brac.

PATIENT EMPOWERMENT

70. In practice, patient empowerment means "interventions that resulted in patients or their carers:

- better understanding their condition;
- participating in making decisions about their care;
- being supported to better self-manage their health and treatment;
- expressing their views and preferences in a way that makes a meaningful difference;
- feeling confident to ask questions and challenge professionals and organisations; and
- having the chance to join networks or groups of other patients in similar circumstances."
- 71. Several other jurisdictions have enacted legislation and regulation to enable patient empowerment including ensuring access to information, having choices for health care services, having explicit rights as patients and having avenues to lodge complaints or concerns about health care services. In the Cayman Islands, there is limited legislation to enable patient empowerment. The following table outlines some of the patient empowerment considerations in the Cayman Islands; additional details are provided in Appendix 8.

Table 9 - Patient Empowerment Considerations in the Cayman Islands

Category	Detail
Quality and	• There are very few publicly reported quality indicators for health care practices.
cost	It is time consuming and difficult to access comparative costs of insurance and
information	health services.
Choice of	Patients with CINICO as their health insurance provider are limited to accessing
providers	services from the HSA unless they are unable to obtain the required service from
	the HSA and receive approval from the Chief Medical Officer to obtain services
	from another provider.
	Patients with private health insurers have a broader range of choices among local
	health service providers; however, most health insurers will still provide better
	coverage for their local and overseas 'in-network' providers.
Patient	The Cayman Islands does not have any legislation that specifically guarantees
rights	patient rights, however the right to health care is provided for in the <i>Cayman</i>
	Islands Constitution (2009).
	HSA provides their patients with a copy of the "Patient Rights and
	Responsibilities" brochure, which is also available on their website.
	The Code of Ethics and Standards for Practice for the Cayman Islands Medical and
	Dental Council, states that practitioners must inform and obtain consent from
0 1::	patients prior to treatment.
Complaints	When patients and their families have concerns about quality of health care
process	services they received and believe they should be compensated for their losses,
	there are three levels for them to consider when lodging their complaints. First,
	at the facility level; second, with the DHRS; and third through legal channels.

FINANCING THE HEALTH SYSTEM

72. The health system in the Cayman Islands is financed from both public and private sources. The following sections look at the total expenditures, the breakdown between public and private sources and provide greater detail on the public sector sources of funding and services provided.

HEALTH EXPENDITURES

73. In 2015, the total health expenditures by government and the private sector were approximately CI\$269 million. This spending represents 9.74% of total GDP for the Cayman Islands. Health expenditures have been steadily increasing, as is the case in comparable nations. Health spending now accounts for about 9% of GDP on average in OECD countries. In 2015, public funding constituted approximately 51% of health care expenditures in the Cayman Islands and 49% was privately funded (through private insurance and out-of-pocket). The ratio of public to private spending has been changing over the past five years as private health care expenditures are growing in relation to public health care expenditures. Along with overall increases in health expenditures, public health care expenditure as a % of the Government's total spending (including statutory authorities and government companies) has increased from 23% in 2011 to over 25% in 2015. The full exhibit of health care expenditures can be found in Appendix 9 of this report.

TOTAL HEALTH CARE EXPENDITURES

74. The following section summarizes the total expenditures on health care as well as some of the key health expenditure ratios for the Cayman Islands from 2011-2015. It is important to note that for this table and all subsequent tables in this section of the report, the data was collected and compiled from primary data and information sources including, but not limited to, government financial systems and reports. We compiled the information from government accounting systems; however, it is unaudited. The public expenditures for the years 2010-11 to 2014-15 were sourced from executive books trial balance from IRIS (core government's main accounting system) for the Ministry of Health and Ministry of Community Affairs, the core government general ledger, the executive general ledger from the Ministries and the HSA output schedule from the HSA Finance Department. The private expenditures for the years 2010-11 to 2014-15 were sourced from CINICO accounting systems, HSA Cerner Schedule revenue report by health plan, CIMA and the Cayman Islands Household Budget Survey (HBS), 2015.

Table 10 - Cayman Islands Total Health Care Expenditures 2011-2015 (Unaudited)

Health expenditures	2010-11	2011-12	2012-13	2013-14	2014-15
Total health expenditures	\$214,152,113	\$225,638,298	\$236,624,814	\$247,465,100	\$269,076,545
Total public	\$118,435,545	\$124,718,858	\$131,599,091	\$133,514,450	\$137,851,315
% public	55%	55%	56%	54%	51%
Total private	\$95,716,568	\$100,919,439	\$105,025,723	\$113,950,650	\$131,225,231
% private	45%	45%	44%	46%	49%

PUBLIC EXPENDITURE ON HEALTH CARE

75. The public portion of health care expenditures in 2015 represented 25% of the core government budget and 18% of the total government spending (includes core government and all statutory authorities and government-owned companies). The total per capita expenditure on health care in the Cayman Islands was \$4,454 in 2015. This is comparable to the average per capita expenditures in the UK and Canada, and less than the USA.

Table 11 - Cayman Islands Health Care Expenditures 2011-2015 Ratios (Unaudited)

Health care expenditure ratios	2010-11	2011-12	2012-13	2013-14	2014-15
National health expenditure as a % of GDP	8.50%	8.76%	8.93%	8.93%	9.74%
Public spend on health care as a % of GDP	4.7%	4.84%	4.97%	4.82%	4.99%
Private spend on health care as a % of GDP	3.80%	3.92%	3.97%	4.11%	4.75%
Public health expenditure as a % of total government spend*	16.56%	17.39%	17.24%	17.73%	18.34%
Public health expenditure as a % of core government spend	23.11%	21.4%	23.15%	24.34%	25.77%
Per capita total expenditure on health care	\$3,857	\$3,977	\$4,245	\$4,249	\$4,454
Per capita government expenditure on health care	\$2,133	\$2,198	\$2,361	\$2,293	\$2,282

^{*}Includes statutory authorities and government companies.

CATEGORIES OF PUBLIC EXPENDITURE

76. Health care expenditures include exclusively clinical services as well as services that are a mix of clinical and social services, such as those provided by the Ministry of Home Affairs and Ministry of Community Affairs. Where it has been possible to identify the cost of purely clinical services, we included those activities as health care services. Where services are a mix of clinical and social services, we allocated 50% of the cost of activities as health care services.

77. As outlined in the table below, forty-four percent of public health expenditures are directed to paying for CINICO health insurance premiums on behalf of the public sector employees, public sector pensioners, seafarers and veterans. The next largest category of publicly funded health expenses supports the health care services for the indigent population at HSA, the public health programmes, district health centres and health care services for HSA employees. The third-highest category of expenses provides for overseas indigent care and the departments at the Ministry of Health. The remaining publicly funded services cover the Ministry of Community Affairs counselling, and seniors and disabled persons residences and programmes and support to other non-government programmes.

Table 12 - Public Health Care Expenditures Categorised by Source of Funding, 2014/15 (Unaudited)

Public Health Care Expenditures Categorized by Source	%	Expenditures
Ministry of Finance (CINICO premiums funding for public servants, public	44%	\$60,548,309
servant pensioners and seafarers and veterans)		
HSA (Public Health, district clinics, indigent programs, HSA employees	29%	\$40,484,348
health care)		
Ministry of Health (overseas indigent care, Health Insurance Commission,	15%	\$20,392,806
Health Regulatory Services, policy and legislation)		
Ministry Community Affairs (Mental Health Counselling, Children and	5%	\$7,070,491
Youth Services (CAYS), Seniors and Disabled Persons Residential Care and		
Drug Rehabilitation)		
Statutory Authorities and Government Companies Health Insurance	6%	\$7,750,845
Premiums (excluding HSA)		
NGO programmes funded by government (HIV/AIDS, Hospice Care, Elder	1%	\$1,604,516
Care, Counselling)		
	100%	\$137,851,315

EXPENDITURE ON INDIGENT HEALTH CARE

78. Public funding for indigent health care (approximately 1,200 individuals in 2015) is split between the HSA and the Ministry of Health, with HSA providing some direct programming for indigents and the Ministry of Health covering expenses for the non-HSA and overseas care. In total, indigent care represents approximately 24% of the total public expenditure on health care as summarised below.

Table 13 - Medical Indigent Health Care Expenditures 2015 (Unaudited)

Publicly Funded Care Expenditures 2015	Expenditures	As % of Total
Indigent Care	\$ 32,251,796	24%
Other Direct Care Services	\$ 105,599,519	76%
Total Publicly Funded Health Care	\$ 137,851,315	100%

OUT-OF-POCKET PAYMENTS

79. Out-of-pocket (OOP) payments are health care costs paid directly by consumers. They include direct payment for health services, coinsurance, co-payments and deductibles. In 2015, the ESO of the Cayman Islands conducted a Household Budget Survey (HBS) covering January to December 2015, with OOP health care expenditures (excluding health insurance premiums) as one of the 12 main categories. The HBS 2015 had responses from a total of 1,015 randomly selected households in Grand Cayman, Cayman Brac and Little Cayman. In 2015, the total annual household expenditures on health amounted to \$35.93 million or an average of \$600 per person per year, including overseas care, but not including the OOP costs for health insurance premiums (which, by law, are covered 50% by employers for the employee, but not for the employee's dependents). This is an increase of 12.8% from 2007 (when the previous survey was conducted), with the increase primarily spent on medical products, appliances and equipment and hospital services. The changes in each category of expenditure may also be due to changes in insurance coverage as well as increased availability and consumption of new medical products and equipment.

Table 14 - Cayman Islands Out-of-Pocket Health Expenditure 2007 & 2015 (Unaudited)

Out-of-pocket health expenditures	2007	2015	
Medical products, appliances and equipment	\$6,507,970	\$15,113,986	
Outpatient services	\$23,441,349	\$13,867,058	
Hospital services	\$1,887,324	\$6,950,640	
Total out-of-pocket health expenditures	\$31,836,643	\$35,931,684	

Source: The Cayman Islands' Household Budget Survey 2015 Report

PHYSICAL AND HUMAN RESOURCES

80. Physical health care resources include the buildings and equipment that are used to provide health care services. Health human resources refer to the trained and qualified professionals who provide health care services. Most jurisdictions, since the 1970s, have seen an increase in ambulatory facilities, such as physician and dentist offices and ambulatory surgical centres, and a decrease in institutional settings such as hospitals and nursing homes. In the Cayman Islands however, the opposite is true: the health care market has been steadily growing over the years, from few health care resources in the 1970s to many new buildings and services serving a population that has almost doubled in size over the past 20 years.

PHYSICAL RESOURCES

CAPITAL STOCK AND INVESTMENTS

81. The physical facilities for providing health care in the Cayman Islands can be placed into several categories based on the types of health services provided. This section touches upon several types of facility in the categories of pre-acute care, acute care, and post-acute care. Pre-acute care facilities include physicians' and dentists' offices, pharmacies, laboratories, diagnostic imaging and community and public health buildings. Acute care includes hospitals and ambulatory surgical centres. Post-acute care includes institutional forms of long-term care facilities such as nursing homes and residential mental health facilities, and non-institutional forms such as home health care agencies and hospice care. Health care facilities may be under public or private ownership and, in accordance with the *Health Practice Law* and regulations, must be licensed if the health services are provided by registered practitioners.

Table 15 - Inventory of Health Care Facilities

Health Care Facilities (2016)	#	Data Source
Pre-Acute Care (Primary, Ambulatory etc)		
Total number of outpatient health care facilities (including general and specialist and allied health care provider facilities, but excluding prisons, dental, optical, laboratories, diagnostic imaging (DI), spas, and pharmacies)	68	Health Practice Commission Registry
Number of outpatient health care facilities managed by the HSA or Ministry of Health (including 2 prison clinics, excluding lab, DI and Pharma)	14	Health Practice Commission Registry
Dental practices	12	Health Practice Commission Registry
Diagnostic imaging (including hospital DI facilities)	8	Health Practice Commission Registry
Laboratories (including hospital laboratories)	7	Health Practice Commission Registry
Optical practices	7	Health Practice Commission Registry
Pharmacies (including hospital pharmacies)	17	Health Practice Commission Registry
Acute Care		
Hospitals (two private, two public)	4	Health Practice Commission Registry
Number of inpatient hospital beds *	235	Data from four 4 hospitals
Post-Acute Care		
Long-term care and nursing homes (adult and elderly)	5	Ministry of Community Affairs
Mental health and substance abuse facilities	1	Ministry of Community Affairs
Homes for disabled children	1	Ministry of Community Affairs
Palliative and hospice care (one villa at the Pines)	1	Health Practice Commission Registry

^{*}A private hospital downsized by 6 beds; A new private hospital opened its door to 104 beds. Hence total beds for Private and Public sector was 235 in year 2014, compared to 137 in year 2013.

MEDICAL EQUIPMENT

82. Medical equipment is another important part of the physical resources needed to provide health care. Diagnostic, surgical and medical equipment are just some of the types of devices used. The use of medical equipment has skyrocketed over the past decade as part of the overall increased use of medical technology. There has been a significant increase in the acquisition of new medical technology in the Cayman Islands over the past decade including MRIs, CT scans etc. The HSA has invested in new equipment directly, through public-private partnerships and also from donations. The two private hospitals have also recently invested in new equipment. Full details of recent medical equipment acquisitions are outlined in Appendix 10.

HEALTH INFORMATION SYSTEMS

- 83. Health information systems can be used for clinical, administrative, financial, quality and safety purposes. In the Cayman Islands, the most integrated health information systems are those that are used by the HSA. The HSA information systems operate with over 850 users, and uses a Microsoft and CISCO- based network environment that connects the two hospitals and 6 regional clinics on all three Islands. HSA's Information Services Section is responsible for the transmission and storage of medical data ranging from personal medical records to insurance claims. The core information system for the HSA has multiple modules for clinical, administrative and financial information and patient records. There is also a General Electric Picture Archiving and Communication system software for radiology that integrates with the Cerner system.
- 84. For patients, HSA recently implemented a basic patient portal that will eventually be expanded to provide patients with access to diagnostic information, appointment scheduling and mobile access. HSA has been working on enabling electronic claim submissions with the health insurance companies; however, not all health insurance companies have been connected. The private sector health care providers, including the two private hospitals, all use their own health information systems which are not integrated with the HSA's systems.

HEALTH HUMAN RESOURCES

THE CAYMAN ISLANDS HEALTH CARE WORKFORCE

85. All health human resources in the Cayman Islands are registered with their respective health practice council under the Health Practice Commission per the DHRS. Over the past five years in the Cayman Islands there has been a steady increase in the number of health professionals providing health care services in all categories of care. The following table outlines the number of professionals per 1,000 population as reported by the ESO (excluding visiting and locum professionals) and the health practice council registries. In general, the Cayman Islands has more physicians and dentists per 1,000 population than most comparable jurisdictions in the Caribbean and OECD. However, the number of nurses is comparatively lower per 1,000 population.

Table 16 - Cayman Islands Health Human Resources per 1,000 Population

	2011	2012	2013	2014	2015	2016*
Physicians per '000 population	3.4	3.5	3.7	5.1	5.5	4.56
Nurses per '000 population	5.8	5.1	6.1	7.1	7.3	6.31
All health professionals per '000 population	16.8	14.7	15.9	20.1	21.7	18.7

^{*2016} population estimate is based on average population growth from 2010 – 2015 of 1.3%

Sources: The Economics and Statistics Office, Cayman Islands, 2015 and gazetted lists of the health practice councils, 2016

86. The following is the breakdown of the 1,162 health human resources registered in the Cayman Islands from the 2016 council registration gazettes.

Table 17 - Cayman Islands Health Practitioner Categories

Health Practitioner	Details
Public (HSA) and private practice physicians	 There are 281 physicians registered with 2016 Medical and Dental Council. 121 are public (HSA) physicians and 160 are private physician which includes 30 institutionally registered physicians who are limited to practicing at HCCI.
Dental care providers	There are 46 dentists registered to practice and 89other dental workers. 12 dentists are affiliated with HSA and 34 are private practice dentists.
Nursing and midwifery	There are 392 nursing and midwifery professionals registered in the 2016 Nursing and Midwifery Council Gazette list.
Pharmacy	 There are 17 pharmacies in the Cayman Islands including the pharmacies associated with the HSA Cayman Islands Hospital, the HSA facilities on the sister islands and the two private hospitals in Grand Cayman. There are 65 pharmacists registered by the 2016 Pharmacy Council including 36 operating in private pharmacies, 26 affiliated with HSA services and 3 with HCCI.
Professions allied with medicine	There are a broad range of Health Human Resource professionals who are registered with the Council of Professions Allied with Medicine. In 2016, there were 286 professionals registered with this Council under 25 different categories (as outlined in Appendix 11).

PROVISION OF HEALTH SERVICES

87. The broad range of health care services provided in the Cayman Islands can be categorized based on the level of acuity of the care and where the service is provided. The following chart outlines the three broad levels of care across the continuum of care including pre-acute, acute and post-acute care as described in the framework on page 2. For each level of care, we have identified the relevant health care services that fall into that level. The subsequent sections provide definitions and details of each level of care and the associated services provided in the Cayman Islands.

Figure 5 - Cayman Islands Continuum of Care

Pre-Acute Care	Acute Care	Post-Acute Care
 Public health services Primary care Dental care Specialty and ambulatory care Pharmacy services Laboratory services Diagnostic imaging services 	 Urgent care Accident and emergency care Inpatient general hospitals Tertiary and overseas care Medical tourism 	 Home care Mental health and substance abuse facilities Rehabilitation facilities Long-term care and nursing homes Palliative and hospice care

PRE-ACUTE CARE

88. Pre-acute care includes both preventative care and primary care services. Preventative care consists of services that promote health and prevent illnesses or diseases and includes promoting nutrition and fitness, conducting health screenings, ensuring up-to-date immunizations, and providing genetic counseling and testing services. Primary care services consist of services that seek to maintain the optimal health of patients with all manner of acute and chronic physical, mental and social health issues, including multiple chronic diseases.

PUBLIC HEALTH

89. Public health focuses on promoting health at the population level through investigating and intervening in the environmental, social and behavioural factors of health and disease. The HSA through the Public Health Department is responsible for public health programmes as funded through the Ministry of Health. A team of public health nurses, a public health surveillance officer, a health promotion officer, a genetics counsellor, a nutritionist and administrative staff provide these services under the direction of the Medical Officer of Health. HSA's public health unit provides the following services:

- health advice and vaccines for international travelers;
- school health including primary care, health assessments, vision and hearing tests, etc.;
- nutrition and dietary counseling clinics;
- health promotion;
- child health including growth and development monitoring;
- communicable disease screening;
- disease control programmes, including surveillance, immunization (adults and children); and
- special programmes relating to genetics and sexual health.
- 90. Private practices are required to report all communicable diseases to the HSA public health unit and also provide vaccinations, health assessments, nutrition and dietary counseling and screenings.

 There are also several NGOs in the Cayman Islands that contribute to health promotion and screening activities.

PRIMARY CARE

91. The primary care practice is often the comprehensive first contact and continuing care for persons with any undiagnosed sign, symptom, or biological, behavioural or social health concern. Primary care practices provide many preventative care services in addition to diagnosis and treatment of acute and chronic illnesses. Primary care is performed and managed by personal physicians often collaborating with other health professionals and services through consultation and by making referrals to diagnostic services, specialists and other health services along the continuum of care as required.

PUBLIC PRIMARY CARE

- 92. The HSA provides the following health care services in the public health care system. The primary health care services are delivered through:
 - Faith Hospital in Cayman Brac
 - 5 district health clinics in Grand Cayman (with the George Town clinic located at the hospital)
 - 1 district health clinic in Little Cayman
 - school health clinics
- 93. In the Sister Islands, the Faith Hospital serves both islands and provides primary, secondary and emergency care; the Little Cayman Clinic is a new purpose-built facility, with waiting and triage areas, a treatment room, physicians' office and a dental office. Little Cayman does not have a resident physician; however, a resident registered nurse is on call around-the-clock and a physician visits on a weekly basis.
- 94. To address access to care and wait time issues with primary care at HSA, in July 2015, a pilot project was launched offering non-emergency walk-in care and extended hours at the HSA George Town

District Health Clinic. Early results of the pilot indicated that the majority of patients (70%) attended the clinic from 8:00am–4:00pm and wait time for walk-in patients decreased from the previous year.

CAYHEALTH PROGRAMME

95. In terms of proactive primary care management, the HSA started the CayHealth programme in 2010 for the medically indigent population (approximately 1,200 patients) to track and report on the status of those patients monthly and proactively manage their chronic conditions such as diabetes and hypertension. The programme has not yet been extended to the broader CINICO patient population.

PRISON HEALTH SERVICES

96. At Her Majesty's Prison Northward (the men's prison), a registered nurse provides primary care services. At Her Majesty's Prison Fairbanks (the women's prison), a female registered nurse provides regular clinics and a visiting female physician provides medical care. Out of hours, prisoners have access to emergency care at the Cayman Islands Hospital. Clinical records are kept on the HSA's health information system, which is accessible from other HSA services, including the Cayman Islands Hospital. At the time of the 2015 prisons inspection report carried out by Her Majesty's Chief Inspector of Prisons, primary care services were described as good. However, the clinical care environment at Northward was described as poor and not meeting modern standards for primary care design and infection control. The health care room at Fairbanks was described as adequate for the purpose.

PRIVATE PRIMARY CARE

97. There are 24 health care practices in the Cayman Islands that focus on general practice, internal medicine, or pediatrics registered with the Health Practice Commission. Collectively, these practices employ over 100 physicians providing primary care services to adults, children and families in the Cayman Islands. In addition, some private primary care services are provided through the two private hospitals in Grand Cayman. Private primary care practices work closely with both public and private acute and post-acute care services in the Cayman Islands and overseas.

DENTAL CARE

98. Dental care includes preventive and corrective care of the teeth and gums. Preventive care involves fluoridation, teeth cleaning, X-rays of the teeth, and inspection of the mouth, gums and teeth. Corrective care is wide-ranging and includes filling of cavities, placing of sealants, repairing of fractures of the teeth, straightening teeth, fitting dentures, and surgical treatment of gum disease.

99. The HSA dental services are delivered on site at the Cayman Islands Hospital, the Faith Hospital and the Merren Health Centre as well as through the schools and district clinics in Grand Cayman and the clinic in Little Cayman. There are also eleven private dental centres in the Cayman Islands employing 34 registered dentists providing preventative care, corrective treatments, orthodontics and dental surgery procedures.

SPECIALTY AND AMBULATORY CARE

- 100. Specialty care focuses on a specific disease or organ system of the individual. Specialty care practitioners have specific education and training in the specialty area and they treat their patients only for problems or interventions in that area of expertise. Specialists practice in private practices or in hospitals or other diagnostic or treatment departments or facilities. Ambulatory care is medical care provided on an outpatient basis not requiring an overnight stay and can include diagnosis and treatment (including surgical procedures) provided outside of hospitals. Ambulatory care practitioners typically include specialty care providers who provide emergent and non-urgent care in clinic or hospital settings. Improvements in surgical equipment, techniques and anaesthesia have led to more and more surgeries on an ambulatory and outpatient basis in the Cayman Islands.
- 101. In the Cayman Islands, there are many specialty care services that can be accessed locally (or from visiting specialists) through physicians registered with the HPC. Where care services are limited (2 or fewer specialty trained providers) or not available, patients may access the specialty care from overseas providers as outlined in the table below:

Table 18 - Access to Specialty Care

Specialty Area	Access	Specialty Area	Access
Allergy and immunology	Limited local	Neurological surgery	Local
Anaesthesiology	Local	Nuclear medicine	Limited Local
Cardiology	Local	Obstetrics and gynaecology	Local
Clinical genetics and genomics	Limited local	Oncology	Limited Local
Colon and rectal surgery	Limited local	Ophthalmology	Local
Critical care medicine	Limited local	Neurology	Local
Dermatology	Local	Orthopaedic surgery	Local
Diabetes and metabolism	Limited local	Otolaryngology	Local
Diagnostic radiology	Local	Pathology-anatomic/pathology-	Local
		clinical	
Emergency medicine	Local	Paediatrics	Local
Endocrinology	Local	Physical medicine and	Local
		rehabilitation	
Family medicine	Local	Plastic surgery	Limited local
Gastroenterology	Local	Psychiatry	Local
General surgery	Local	Public health	Local
Geriatric medicine	Overseas	Pulmonary disease	Limited local

Specialty Area	Access	Specialty Area	Access
Haematology	Local	Rheumatology	Local
Hospice and palliative medicine	Limited local	Sleep medicine	Overseas
Infectious disease	Overseas	Sports medicine	Limited local
Internal medicine (general)	Local	Thoracic and cardiac surgery	Local
Mental Healthy	Local	Undersea and hyperbaric medicine	Local
Nephrology	Limited local	Urology	Local

PHARMACEUTICAL CARE

- 102. Pharmaceutical care is the responsible provision of drug therapy for the purposes of curing a disease, eliminating or reducing symptoms, arresting or slowing disease process or preventing a disease or symptoms. In the public system, HSA has a Chief Pharmacist who reports to the Medical Director along with a Drug and Therapeutics (D&T) Committee. All new pharmaceutical products must undergo review by the D&T Committee. The D&T committee meets every two months and examines the type of drug, quality, long-term availability, and primary and secondary supply options. The HSA does have standards for the tendering process for pharmaceuticals and some other pharmacies have adopted those standards. However, the process is not currently regulated and the adoption of standards is entirely voluntary. There are 17 pharmacies in the Cayman Islands including the hospital-based pharmacies.
- 103. The Chief Pharmacist at HSA also functions as the Cayman Islands' National Chief Pharmacist reporting to the Chief Medical Officer. The Chief Pharmacist is required to monitor the statistics of narcotics importation on the island (given the international controlled substance status) and forecast expected inventory requirements for narcotics to the International Narcotics Control Board (INCB).

LABORATORY SERVICES

104. Medical laboratories provide testing on clinical specimens to obtain information about the health of a patient to diagnose, treat, and prevent disease. The HSA, CTMH and HCCI all house medical laboratories. The Pathology Laboratory of the HSA is the de facto national laboratory and serves much of the population of the Cayman Islands. Requests are received at HSA for approximately 500,000 laboratory tests every year from Grand Cayman, Cayman Brac and Little Cayman and the services include clinical chemistry, haematology, microbiology, blood banking, serology, cytopathology and histopathology. In addition to the hospital-based laboratories, there are six stand alone and clinic-based private medical laboratories in Grand Cayman.

DIAGNOSTIC IMAGING SERVICES

105. Diagnostic imaging refers to a variety of non-invasive methods of generating detailed images of the internal anatomic structures and organs of the body to assess the functioning of the inner organs and structure of the patient's body and to identify and monitor diseases or injuries. The technology used for diagnostic imaging in the Cayman Islands includes ultrasound, magnetic resonance imaging, computed tomography scans, and traditional x-ray or radiology. Diagnostic imaging services are offered in all the local hospitals and also in three registered stand-alone clinics in Grand Cayman. The specific diagnostic imaging equipment available in the Cayman Islands is noted in Appendix 10.

ACUTE CARE

106. Acute care is a branch of secondary health care where a patient receives active but typically short-term treatment for a severe injury or episode of illness, an urgent medical condition, or during recovery from surgery. Acute care services are often delivered by teams of health care professionals including physicians, nurses, and therapists from a range of medical and surgical specialties. Acute care is delivered in emergency departments or urgent care centres or in the inpatient units of a hospital, an ambulatory surgery centre, or other facility.

URGENT CARE

107. When a patient's condition is not life-threatening but needs to be taken care of right away, then urgent care is a good option, especially outside of normal business hours. Urgent care is provided outside the emergency department setting in centres that provide care on a walk-in basis; have extended hours into the evening, Monday to Friday and at least one day over the weekend; and typically have on-site laboratories and radiology. In Grand Cayman, there are two private facilities that provide urgent care services. The CTMH provides a 24-hour urgent care centre with laboratory and diagnostic imaging services. TrinCay Medical Centre and Urgent Care is open from 2pm - 9pm Monday to Saturday and 9:00 AM - 5:00 PM Sunday and public holidays and also provides laboratory and pharmacy services.

ACCIDENT AND EMERGENCY CARE

108. The HSA Cayman Islands Hospital is host to the only accident and emergency care centre in the Cayman Islands; however, effective 2014, some cardiac emergencies are now being directed to the HCCI tertiary care centre. HSA also provides the only public ambulance service in the Cayman Islands along with the facilitation of air ambulance services via private air ambulances. In 2016, land was donated on Cayman Brac adjacent to the Faith Hospital to provide a helipad to improve medical air transportation services. In addition, the police services helicopter has been fitted out to meet the standards for patient transportation.

INPATIENT CARE AT HOSPITALS

109. Individuals who are acutely ill and need to have round-the-clock nursing care require inpatient care provided in hospitals. There are four acute care hospitals in the Cayman Islands, two public and two private. The HSA hospitals can be most accurately described as general hospitals, whereas CTMH is more of a specialist care hospital and HCCI is more of a tertiary care hospital. All hospitals in the Cayman Islands are required to report the number of patient discharges from inpatient care. Per the Inpatient Census Reports that are collected by the HSA on behalf of the Ministry of Health, in 2014 there were a total of 6,973 hospital inpatient discharges from the two public and two private hospitals.

PUBLIC GENERAL HOSPITALS

110. The HSA has two hospitals in the public system, the 124-bed Cayman Islands Hospital on Grand Cayman and the 18-bed Faith Hospital on Cayman Brac. The Cayman Islands Hospital provides a range of inpatient and outpatient medical and specialist services along with the only emergency department in Grand Cayman, the only maternity suite on Grand Cayman, a critical care unit, a neonatal intensive care unit and the islands' only dialysis unit and hyperbaric chamber (which is privately owned and operated). Specialist services are available in the fields of surgery, obstetrics and gynaecology, paediatrics, internal medicine, dermatology, anaesthesiology, public health, orthopaedics, psychiatry, cardiology, gastroenterology, radiology, neurology, ophthalmology, ear nose and throat, periodontology, reconstructive surgery, faciomaxillary surgery, and urology. The Faith Hospital provides primary, basic secondary and emergency care on a much smaller scale than the Cayman Islands Hospital. Physicians from the Cayman Islands Hospital frequently visit the Faith Hospital and where required, patients from the Faith Hospital can be transported to George Town for their care. HSA service volumes information is provided in Appendix 12.

PRIVATE HOSPITALS

111. The Chrissie Tomlinson Memorial Hospital (CTMH) is an 18-bed hospital and is privately owned. There are approximately 40 private physicians' offices/clinics with specialist physicians and/or general practitioners. CTMH offers a wide range of medical services including diagnostic and imaging capabilities (including MRI), family practice and paediatric medical care, ear nose and throat surgery, neurosurgery, laparoscopic and general surgery, bariatric surgery, thoracic surgery, obstetrics and gynaecology, podiatry, pain management, orthopaedic surgery, sports medicine and a 24-hour urgent care centre. The Hospital also regularly hosts a variety of visiting specialists offering care in many fields. There is no comprehensive, publicly available information on patient and service volumes or quality of care metrics for CTMH.

- 112. **Health City Cayman Islands** (HCCI) opened in early 2014 as a tertiary care hospital focused on growing medical tourism in the Cayman Islands. The hospital is a partnership with Narayana Health from India and Ascension Health, the largest faith-based health system in the United States. The services offered at HCCI include:
 - Cardiology department for adults and children (prevention, diagnosis, emergency care, surgery, treatment, rehabilitation and wellness services)
 - Cardiovascular and thoracic surgery
 - Pulmonology services
 - Medical oncology
 - Spine surgery
 - Bariatric surgery
 - Critical care unit with 17 ICU beds
 - Executive health checks

- Laboratory (haematology, biochemistry, serology, immunology, microbiology and immunohaematology)
- Orthopaedic services (joint replacements and reconstructions, arthroscopic surgeries and deformity corrections)
- Sports medicine
- Paediatric endocrinology
- Radiology and diagnostic services
- 113. There is no comprehensive, publicly available information on patient and service volumes or quality of care metrics for HCCI.

HOSPITAL ACCREDITATION

114. HCCI is a hospital accredited by the Joint Commission International (JCI). The JCI is an independent, not-for-profit organisation that certifies hundreds of health care organisations and programs worldwide. JCI accreditation and certification is widely recognised as a symbol of quality that reflects an organisation's commitment to meeting certain performance standards. The JCI has a set of "core measures" for acute care quality, such as heart failure, asthma, and myocardial infarction. The JCI also has a set of "sentinel events"—incidents causing death or severe injury—which should never occur and which hospitals must report to the Joint Commission. The HSA hospitals and CTMH are not currently accredited by any international health care quality and standards accreditation body. The HSA has established a phased plan to achieve JCI accreditation by 2018 and has already accredited the forensics DNA and toxicology lab as well the pathology lab.

TERTIARY AND OVERSEAS CARE

115. Tertiary care is specialised health care, typically provided in an inpatient hospital environment that has personnel and facilities for advanced medical investigation and treatment. In some cases, general hospitals may provide tertiary care from specialists who use their facilities for highly specialised treatment such as neurosurgery, cardiac surgery and cancer management. However, in larger jurisdictions, tertiary care centres are established as centres of excellence to specialise in tertiary care conditions. In the Cayman Islands, most highly specialised cancer care, cardiac surgery,

neurosurgery, paediatric care, orthopaedic surgery, maxillofacial surgery, organ transplant, spinal surgery cases are sent off island to Jamaica, the USA or Canada for care. Recently however, with the introduction of HCCI, more cardiac care and orthopedic surgeries can be performed locally.

MEDICAL TOURISM

116. Medical tourism services include inpatient and ambulatory medical and surgical services provided to individuals who have travelled to the Cayman Islands for the purposes of obtaining health care. Medical tourism is a relatively new service in the Cayman Islands with the first official provider (HCCI) creating an agreement with the government in 2010. The government of the Cayman Islands then amended the Health Practice Law in 2011 to make a provision in respect of medical tourism services, specifically to establish a category of special designation for Medical Tourism Providers and Medical Tourism Facilities.

HEALTH CITY CAYMAN ISLANDS

- 117. HCCI came into being with the signing of an agreement made in April 2010 between the Government of the Cayman Islands and the Narayana Hrudayalaya Private Limited, a hospital corporation based in Bangalore, India founded by Dr. Devi Prasad Shetty. In the agreement, the first phase of HCCI was to provide tertiary care services not currently available in the Cayman Islands, including open-heart bypass, angioplasty, heart valve replacement, cancer treatment, bone marrow transplant, nuclear medicine, organ transplant and similar major tertiary care procedures. In addition, the agreement states that "in the main, the hospital will cater for those non-resident patients who can afford to come to the Cayman Islands. However, it will also cater for the people of the Cayman Islands of all backgrounds and will provide the best health care for all those in need." HCCI is not limited in any way or form to providing just medical tourism services; it can provide any health care services it chooses to the local population.
- 118. As part of the agreement with government, many concessions were made, including but not limited to the following:
 - HCCI to be satisfied with new terms of a law limiting malpractice/negligence claims for non-economic losses to a maximum of US \$500,000;
 - recognition of Indian medical qualifications, timely approvals of the issuing of all certificates under the *Health Practice Law*, and registration of all health professionals (limited, however, to practicing health care only in HCCI unless they achieve board licensing from one of the seven approved countries);
 - waiving of a portion of the work permit fees; and
 - exemption from paying customs or duty on the first \$800 million in value of all medical equipment and medical supplies and for the subsequent years be applied at a reduced rate.

119. Since the 2010 agreement with HCCI, additional local health care practices, including but not limited to the HSA and CTMH, have applied for and been granted medical tourism provider and medical tourism facility designations.

POST-ACUTE CARE

120. Post-acute care refers to a range of medical care services that support the individual's continued recovery from illness or management of a chronic illness or disability. Post-acute care is treatment rendered immediately after or instead of acute hospitalisation to treat one or more specific, active, complex medical conditions or to administer one or more technically complex treatments. Post-acute care can be provided in dedicated units in general hospitals and specialty hospitals, other specialised residential and outpatient facilities or in a patient's home.

HOME CARE

- 121. Home care refers to services that are provided at home for a short time, and that require visits by a health care professional such as a registered nurse. The care typically follows a hospitalisation and may be covered by public or private insurance. Private duty home care is an option for individuals who need ongoing nursing or custodial care and whose families have the resources to keep the patient at home. With this type of long-term care, a nurse and/or home health aide goes to the patient's home for a prescribed period of time and frequency, anywhere from a few hours on a few days a week, to several hours daily, to around-the-clock. Many patients receiving home care services will often attend adult day care if they need supervision during the day, support with meals and to participate in activities, and opportunities for socialisation.
- 122. In the Cayman Islands, home care and nursing services are provided by the Ministry of Community Affairs through the Department of Children and Family Services Adult Special Needs Programme and the HSA visiting public health nurses and mental health nurses. In 2015, the HSA recorded 6,500 home visits, which is a significant decline from 8,186 home visits in 2011. There are also two private caregiving and home nursing care services available to patients in the Cayman Islands.

MENTAL HEALTH AND SUBSTANCE ABUSE FACILITIES

123. The mental health care landscape has changed over the past few decades in most jurisdictions with fewer long-term institutions, more community-based outpatient care, and short-term inpatient stays. Pharmaceuticals have helped make it possible to treat mental illness outside the institutional setting and outpatient therapy remains a significant treatment modality for mental illness. In addition to psychiatrists, psychologists, social workers, nurses or others with appropriate training can provide therapy and other mental health services.

124. As at July 2016, there were 8 registered psychiatrists practicing in the Cayman Islands, 4 in the public system and 4 in the private system. In addition, there are several other mental health providers including but not limited to psychologists, social workers, counselors and therapists who work either independently or as part of the HSA mental health clinic and 8-bed unit or private outpatient mental health clinics. Currently, public inpatient facilities for mental health are available only at the HSA adult inpatient unit in the Cayman Islands Hospital. The public system also provides an outpatient programme and home-visiting community psychiatric nurses. There is no long-term residential mental health facility and patients who require long-term stays are typically sent to facilities in Jamaica or the USA. There are five private mental health outpatient clinics registered in the Cayman Islands.

WHO-AIMS REVIEW

- 125. In 2014, the WHO completed a review (WHO AIMS) on the Cayman Islands mental health system and provided the following observations:
 - the Cayman Islands needs a mental health policy;
 - the 8-bed inpatient psychiatric unit is limited and does not make allowances for children and adolescents;
 - there is no long-term residential mental health facility on island;
 - additional mental health professionals are required in the outpatient facilities particularly for treating children and adolescents;
 - the collection of data on mental health patients is fragmented; and
 - training in human rights should be encouraged for all health sector employees.
- 126. Since the release of the WHO-AIMS report, the Ministry of Health has developed an Outline Business Case to develop a long-term residential mental health facility and has committed to developing a national mental health policy.

SUBSTANCE ABUSE

- 127. Substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. In 2000, the Department of Substance Abuse at the WHO was merged with the Department of Mental Health to form the Department of Mental Health and Substance Abuse, reflecting the many common approaches of management of mental health and substance use disorders.
- 128. In the Cayman Islands, most substance abuse legislation and regulation is found under the jurisdiction of Home Affairs in the either the National Drug Council or the Community Rehabilitation departments. In the *Drug Rehabilitation Court Law (2015)*, the Cabinet may declare any house, building, enclosure or place, or any part thereof, to be an approved drug treatment centre for the purposes of supervising and controlling a drug offender's participation in a prescribed treatment

programme under the Law. Caribbean Haven (a residential facility), the Counselling Centre (Department of Counselling Services) and the HSA (Mental Health Department) are considered "Approved Treatment Providers" in the Cayman Islands.

REHABILITATION FACILITIES

129. Rehabilitative care aims to cure, improve, or prevent the worsening of a condition. Examples are physical, occupational, speech and other therapies following an injury, a stroke, or physical therapy following orthopaedic replacement surgeries such as hip or knee. Rehabilitation settings typically include outpatient centres, inpatient rehabilitation departments, freestanding rehabilitation hospitals, departments in sub-acute care facilities, nursing homes, and home care. In the Cayman Islands, there are no freestanding rehabilitation inpatient facilities; however, rehabilitation services are provided in the outpatient clinics at the public and private hospitals as well as through eight private outpatient clinics providing a range of physiotherapy, occupational therapy, sports injury and chiropractic rehabilitation services.

LONG-TERM CARE AND NURSING HOMES

- 130. Long-term care is a category of health care embracing many different health care services for individuals with conditions that are part of normal ageing, or that are not expected to significantly improve, and that need ongoing care. The long-term care population includes older people, people with physical and mental disabilities and people with chronic diseases. Disability refers to problems and difficulties encountered in any or all three interconnected areas of human functioning:
 - impairments are problems in body function or alterations in body structure for example, paralysis or blindness;
 - activity limitations are difficulties in executing activities—for example, walking or eating; and
 - participation restrictions are problems with involvement in any area of life—for example, facing discrimination in employment or transportation.
- 131. In the Cayman Islands, there are four long-term care facilities for the elderly and disabled adult population in Grand Cayman and one facility in the Brac. Each home varies in terms of the types of services offered and the degree of acuity of the residents. In addition to the retirement and nursing homes, in the Cayman Islands, the Ministry of Community Affairs Department of Children and Family Services manages the homes for disabled adults and children. The Maple House in George Town is a residential facility for disabled young people with capacity for 9 residents. East End Sunrise Cottage and Hillside House are residential facilities for seniors and for handicapped and mentally ill adults.

PALLIATIVE CARE (INCLUDING HOSPICE)

132. Palliative care is the care of persons for whom there is no hope of recovery from a terminal illness. It entails the relief of pain and other symptoms to make the person comfortable, and psychosocial and spiritual support. Cayman Hospice Care (CHC), a not-for-profit organisation that receives some funding from the Ministry of Health provides total care to patients at any time from diagnosis of cancer or of any other end stage nonmalignant disease to a time when life expectancy is very short. The primary programme goals are controlling pain and other symptoms, facilitating the patients' remaining at home if they wish, providing psychosocial support to patients' and their families and interfacing with the patients' primary care physician with end of life decisions. CHC also provides Advanced Home Care, which is care in a dedicated home (located at the CHC Villa, in-patient facility) primarily for individuals whose own home is not safe or not suitable, or where families need short breaks and access to respite care.

CLOSING COMMENTS

- 133. I am pleased to provide this information to the Legislative Assembly at the same time I have issued an audit report about how well the Government is providing oversight and regulation of the health system. Given the lack of current, complete and readily accessible information on the Cayman Islands health system, it is our hope that this report will shed light on this important government responsibility and the decisions being made by legislators.
- 134. The assistance and cooperation received from government officials in conducting this work is gratefully acknowledged. Without their help this report could not have been completed.

Sue Winspear, CPFA Auditor General

George Town, Grand Cayman

Cayman Islands

16 January 2017

APPENDIX 1: POPULATION GROWTH IN THE CAYMAN ISLANDS 1990 - 2015

End of year population estimates by status, 1990 - 2015									
Year		Resident population	% Annual change	Caymanian	%	Non- Caymanian	%		
1990		26,969	5.0	17,654	65.5	34.5			
1991		28,039	4.0	18,253	65.1	9,786	34.9		
1992		29,308	4.5	18,652	63.6	10,656	36.4		
1993		30,719	4.8	19,487	63.4	11,232	36.6		
1994		31,931	3.9	20,035	62.7	11,896	37.3		
1995		33,332	4.4	20,666	62.0	12,666	38.0		
1996		35,200	5.6	20,768	59.0	13,785	39.2		
1997		36,600	4.0	21,228	42.0				
1998		38,400	4.9	21,120			45.0		
1999		39,600	3.1	20,988	20,988 53.0		47.0		
2000		40,800	3.0	21,624	21,624 53.0 19,176		47.0		
2001		41,900	2.7	22,207	53.0	19,693	47.0		
2002		43,004	2.6	24,892	58.0	18,112	42.1		
2003		44,144	2.7	26,087	59.1	18,057	40.9		
2004	*	36,340	(17.7)	22,131	60.9	14,209	39.1		
2005	**	52,466	44.4	31,787	60.6	20,679	39.4		
2006		53,172	1.3	30,840	58.0	22,332	42.0		
2007		54,986	3.4	31,342	57.0	23,644	43.0		
2008		57,010	3.7	31,858	55.9	25,152	44.1		
2009		56,005	(1.8)	31,264	55.8	24,741	44.2		
2010		55,036	(1.7)	30,979	56.3	24,057	43.7		
2011		55,517	0.9	31,325	56.4	24,192	43.6		
2012		56,732	2.2	32,201	56.8	24,531	43.2		
2013	R	55,747	(1.7)	32,798	58.8	22,949	41.2		
2014		58,238	4.5	33,447	57.4	24,791	42.6		
2015		60,413	3.7	34,237	56.7	26,176	43.3		

Notes:

^{*} End of year estimate includes Grand Cayman (post Hurricane Ivan) and Cayman Brac estimate. The drop in population level is related to the temporary relocation of residents abroad in the aftermath of Hurricane Ivan (Ivan).

^{**} The sharp increase in population is related to the return of residents who left after Ivan, and the increase in the labour force needed for the reconstruction of the country.

During 2002 to 2004 a large number of persons were granted Caymanian Status.

R - Revised

APPENDIX 2: WORK PERMITS BY NATIONALITY, 2014

Country		Country		
Argentina	39	Italy	11	
Australia	192	Jamaica	8,47	
Austria	45	Kenya	7	
Bahamas	27	Lebanon		
Bangladesh	19	Malaysia	1	
Barbados	75	Mexico	10	
Belize	45	Nepal	11	
Bermuda	12	Netherlands	2	
Brazil	76	New Zealand	E	
British Overseas Territories	10	Nicaragua	28	
Bulgaria	18	Pakistan		
Canada	1,082	Panama	1	
China	39	Peru	5	
Colombia	185	Philippines	2,69	
Costa Rica	79	Portugal	3	
Cuba	148	Romania	7	
Czech Republic	12	Russia	1	
Denmark	8	Serbia	1	
Dominican Republic	261	South Africa	24	
Ecuador	17	Spain	4	
France	43	Sri Lanka	3	
Germany	72	St Vincent & the Grenadines	2	
Guyana	251	St. Lucia	3	
Haiti	21	Thailand	3	
Honduras	774	Trinidad and Tobago	11	
Hungary	50	Turkey		
India	880	United Kingdom	1,810	
Indonesia	37	United States of America	1,347	
Ireland	302	Venezuela	2	
Israel	15	Zimbabwe	3	
		Other	24	

Total includes persons on government contracts.

Source: The Economics and Statistics Office, Cayman Islands, 2014

APPENDIX 3: CONSUMPTION-BASED GINI COEFFICIENT TABLE CAYMAN ISLANDS, 2015

Deciles	2015	2015	0	/o	9/	6	Gini	
Decnes	Consumption	Population	Consumption Population		Consumption	Population	Giiii	
1	38,696,956	5,486	2.3	9.2	2.3	9.2	0.0021	
2	64,476,392	5,698	3.8	9.5	6.1	18.7	0.0080	
3	79,014,625	5,708	4.7	9.6	10.7	28.3	0.0161	
4	95,226,630	5,880	5.6	9.8	16.3	38.1	0.0267	
5	113,364,331	6,071	6.7	10.2	23.0	48.3	0.0400	
6	138,247,853	6,162	8.1	10.3	31.2	58.6	0.0559	
7	166,482,864	6,263	9.8	10.5	41.0	69.1	0.0756	
8	208,931,957	6,286	12.3	10.5	53.3	79.6	0.0992	
9	284,210,697	6,166	16.7	10.3	70.0	89.9	0.1273	
10	508,413,377	6,013	30.0	10.1	100.0	100.0	0.1712	
Total	1,697,065,682	59,734	100.0	100.0				
					2015 Gini (wi	th deciles)	0.3779	

Source: The Cayman Islands Household Budget Survey 2015 Report

APPENDIX 4: PLANNING AND REPORTS

Annual Budget Statements list what the Government Ministries are accountable for and funded to do. The two Ministries that have much of the accountability for health-related functions, entities and services are:

- the Ministry of Home Affairs, Health and Culture
- the Ministry of Community Affairs

Purchase Agreements specify the quantity, quality, timeliness and location of outputs the supplier organisation has agreed to produce during a given year. The health-related ones apply to:

- British Red Cross Cayman Islands
- Cayman AIDS Foundation
- Cayman Hospice Care
- Cayman Islands Crisis Centre
- Cayman Islands National Insurance Company Limited (CINICO)
- Children and Youth Services (CAYS) Foundation
- Health Service Authority (HSA)
- Music Therapy Without Borders / Cayman Music Therapy
- National Drug Council (NDC)
- Pines Retirement Home
- Wellness Centre Limited

Ownership Agreements specify the ownership performance that the Cabinet and the Board of each statutory authority or government company have agreed the Authority or Company will seek to achieve each year. The health-related ones apply to:

- Cayman Islands National Insurance Company Limited
- Children and Youth Services (CAYS) Foundation
- Health Services Authority
- National Drug Council

Planning for Emergencies and Natural Disasters

In cases where the public health consequences are serious, planning by governmental bodies is necessary. Natural disasters and emergency preparedness planning receive a lot of attention in the Caribbean region due to the seasonal threat of hurricanes. In 2007, Hazard Management Cayman Islands was established as the government agency responsible for coordinating all programs dealing with national disasters, whether natural or man-made, and implementing the *National Hurricane Plan*. Accordingly, the other government ministries, including the Ministry of Home Affairs, Health and Culture, work very closely with Hazard Management Cayman to prepare for and respond to emergencies and natural disasters.

APPENDIX 5: HEALTH-RELATED CONSOLIDATED INDEX OF LAWS AND SUBSIDIARY LEGISLATION

Compiled by The Law Revision Commissioner Cayman Islands Government 2016

LAW TITLE	REFERENCE
Births and Deaths Registration Law (2007 Revision)	G14/2007 s4
Coroners Law (2015 Revision)	GE59/2015 s2
Coroners Rules, 2014	GE72/2014 s1
Explanatory Memorandum and Guidelines to the Coroners Rules	GE74/2014 s1
Drug Rehabilitation Court Law (2015 Revision)	GE53/2015 s9
Drug Rehabilitation Court Regulations, 2008	G26/2008 s2
Health Insurance Commission Law (2010 Revision)	G22/2010 s12
Health Insurance Commission (Amendment) Law, 2016	G13/2016 s1
Health Insurance Law (2013 Revision)	G21/2013 s2
Health Insurance (Amendment) Law, 2016	G13/2016 s2
Amendment by Law 30 of 2012	GE26/2012 s5
Commencement Order	GE2/2013 s1
Commencement Order	GE2/2013 s2
Health Insurance Regulations (2013 Revision)	G21/2013 s3
Standard Health Insurance Fees for the Cayman Islands-October 2013	GE15/2014 s1
Code of Practice: Administrative Fines for Health Insurance Offences	GE58/2014 p15
Health Practice Law (2013 Revision)	G21/2013 s4
Health Practice (Medical Tourism Provider) (Health City Cayman Islands Ltd) Order,	GE10/2014 s1
2014	
Health Practice (Medical Tourism Facility) (Health City Cayman Islands) Order, 2014	GE54/2014 s1
Health Practice (Medical Tourism Provider and Facility) (Seven Mile Medical Clinic)	G19/2014 s1
Order, 2014	
Health Practice (Medical Tourism Providers and Medical Tourism Facilities) Order,	G19/2014 s2
2014	
Amendment by amending Order	G12/2015 s1
Council for Professions Allied with Medicine-Code of Ethics and Standards of	G16/2008 s4
Practice	
Health Practice Regulations (2013 Revision)	G21/2013 s5
Medical and Dental Council-Code of Ethics and Standards of Practice	G16/2008 s5
Nursing and Midwifery Council-Code of Ethics	G16/2008 s2
Pharmacy Council-Code of Ethics and Standards of Practice	G16/2008 s3
National Standard (2007) Checklist (Revised Nov. 2009)	G9/2010 s16
Health Practice (Designated Health Care Facilities) Order, 2013	GE99/2013 s1
Health Services Authority Law (2010 Revision)	G22/2010 s13
Health Services Authority Charge Master	GE60/2014 s1
Health Services Authority (Amendment) Law 2016	GE13/2016 s3
Health Services (Fees) Law (2002 Revision)	G13/2002 s3
Health Services (Fees and Charges) Regulations (2008 Revision)	G13/2008 s5
Human Tissue Transplant Law, 2013 Note: This Law is not yet in force	G9/2013 s7

LAW TITLE	REFERENCE
Medical Negligence (Non-Economic Damages) Law, 2011 (Law 11 of 2011)	GE 27/2011 s1
Mental Health Law, 2013 (Law 10 of 2013)	GE41/2013 s4
Commencement Order	GE87/2013 s2
Mental Health Regulations	GE87/2013 s4
Mental Health Commission Law, 2013 (Law 14 of 2013)	GE41/2013 s5
Commencement Order	GE87/2013 s3
Mosquito (Research and Control) Law (2007 Revision)	G16/2007 s2
Mosquito (Research and Control) Regulations (2006 Revision)	G15/2006 s5
National Drug Council Law (2010 Revision)	G23/2010 s15
Pharmacy Law, 1979 (Law 23 of 1979) Note: See note below Pharmacy Law, 1991	G21/1979 s1
Pharmacy (Poisons and Restricted Pharmaceuticals) Regulations (1999 Revision)	G5/1999 s3
Pharmacy Law, 1991 (Law 15 of 1991) Note: This Law is not yet in force. When it is	GE 15.8.91 s2
brought into force, section 54(1) provides that the Pharmacy Law, 1979 is repealed.	
Public Health Law (2002 Revision)	G12/2002 s13
Public Health (Communicable Diseases) Regulations (1997 Revision)	G26/1997 s8
Public Health (Garbage and Refuse Disposal) Regulations (2011 Revision)	G23/2011 s14
Public Health (Infectious Waste) Regulations (2002 Revision)	G12/2002 s14
Public Health (Miscellaneous Fees) Regulations (2011 Revision)	G24/2011 s4
Public Health (Quarantine) Regulations (1997 Revision)	G26/1997 s10
Amendment by amending Regulations	G9/2011 s3
Ships (Sanitation Control) Regulations, 2011	G9/2011 s4
Status of Children Law, 2003 (Law 23 of 2003)	G2/2004 s11
Tobacco Law, 2008 (Law 18 of 2008)	G25/2008 s4
Commencement Order	GE28/2009 s1
Amendment by amending Order	GE71/2009 s2
Tobacco Regulations, 2010	GE43/2010 s2
Tobacco Product and Intoxicating Liquor Advertising Law (1998 Revision)	G7/1998 s7
Amendment by Law 18 of 2008 (part)	G25/2008 s4

APPENDIX 6: REGULATIONS

The Health Practice Commission

The Health Practice Commission does the following:

- advises the Minister on policies relating to health practice in the Islands, including determining the types of health professions that should be permitted in the Islands;
- provides guidance to the Councils and monitors their performance in order to ensure consistency in their practices;
- advises the Director of Planning on applications for the development of health care facilities;
- certifies and inspects health care facilities; and
- delivers other activities provided in the law or as the Governor may, from time to time, determine.

Health Practice Councils

Each of the Health Practice Councils, other than the Council for Professions Allied with Medicine, consists of the Registrar (currently the Deputy Director of the Health Practice Commission) and five other members, appointed by the Governor. The Council for Professions Allied with Medicine has six members.

The Health Insurance Commission (HIC)

The HIC has a nine-member Board consisting of the Chief Officer of the Ministry responsible for health insurance, the Chief Medical Officer, the Superintendent of Health Insurance, five members appointed by the Governor from among persons experienced in the areas of health, health insurance, finance (including accounting) and regulation of insurance, and one member of the public who is not experienced in any of these areas. As of 2016 the HIC has a staff of six, including three Health Insurance Inspectors.

National Standards for Facilities

The main themes of the National Standards for health care facilities are patient-centered services; the safeguarding and security of patient information; management and personnel; accountability; consistency; safety; and quality assurance.

Regulation of Pharmaceuticals

In 2011, the Pharmacy Council sub-committee (pharmacists and a lawyer) submitted suggestions for revisions to the law and regulations based on other jurisdictions (Canada, USA, UK, Jamaica, etc.). The *Pharmacy Law* has not been updated. It is important to note that the Pharmacy Law overlaps with other ministries and departments, specifically Customs and the National Drug Council (NDC).

The International Narcotics Control Board (INCB) is the independent and quasi-judicial control organisation for the implementation of the United Nations drug conventions. It plays an important role in monitoring enforcement of quotas and restrictions on narcotics and psychotropics for all nations. The NDC compiles the volume of narcotic and psychotropic drug volumes that are ordered as well as the customs and police data for seizures.

Regulation of Patient Privacy

In legislation, the only references to patient records are found in the HSA law stipulating that "the Auditor General shall not access or copy the medical records of a patient of a health care facility (whether an in-patient or an out-patient) without the written permission of the Chief Executive Officer" and "the Director of the Internal Audit Unit shall not access or copy the medical records of a patient of a health care facility (whether an in-patient or an out-patient) without the written permission of the Chief Executive Officer."

The Health Practice Commission National Standards Checklist for inspection of health care facilities require that:

- the premises (internal and external) shall be designed and maintained with the safety of patients in mind, and the patient's privacy and dignity protected; and
- where patients are required to undress, changing room facilities shall enable privacy and dignity.

In addition, although not yet enacted, the proposed Bill for a Law to *Provide for the Protection of Personal Data (2016)* includes some clauses that pertain to health records and patient personal information.

Finally, there are patient privacy and confidentiality clauses in the Code of Ethics and Standards of Practice for each of the four Cayman Islands health practice councils which generally state "trust may be breached if a practitioner improperly discloses information, which he obtained in confidence from or about a patient" and that health care professionals "do not divulge information that identifies the patient; except in instances where there is a compelling need...to share information in order to protect the patient or another person from harm, or where authorized by the patient or required by law."

Regulation of Clinical Research (Human Subjects)

The following are the specific clauses in the *Health Practice Law* pertaining to clinical research:

- The manager of a health care facility shall not permit any person to carry out clinical trials in a health care facility without the prior written consent of the Commission.
- A manager who contravenes [the above] commits an offence and is liable on summary conviction to a fine of ten thousand dollars.
- All approved research applications shall be subject to the following guidelines:
 - o a clear, ethical process shall be established;

- o all participants, having received all relevant information regarding the study, shall have given written consent prior to enrollment; and
- o record keeping shall be thorough, appropriate and ensure patient confidentiality.

The Code of Ethics and Standards of Practice for the Cayman Islands Medical and Dental Council addresses clinical trials of drugs, stipulating that "it may be improper for a practitioner to accept per capita or other payments from a pharmaceutical firm in relation to a research project such as the clinical trial of a new drug, unless the payments have been specified in a protocol for the project that has been approved by the relevant national or local ethical committee."

Regulation of Human Tissue

In the agreement between the Government of the Cayman Islands and Narayana Hrudayalaya Private Limited signed in 2010 to establish Health City Cayman Islands (HCCI) was the stipulation that the Government will "allow the importation into the Cayman Islands of human organs, tissues (including non-foetal stem cells) and body parts obtained by lawful means and intended for the provision of medical services at the hospital. The *Human Organ & Tissue Transplant Law* was approved by the Legislative Assembly in 2013, but is not yet in force.

APPENDIX 7: HEALTH INSURANCE

Uninsurable Persons

The *Health Insurance Law's* regulations make it difficult for an insurance company to turn down applicants with pre-existing conditions or to refuse to insure a person on any grounds. A health insurer must present a case to the Health Insurance Commission if it wants to refuse to insure an individual. Per the 2013 revision of the *Health Insurance Law*, an "uninsurable person" means a person who, due to a medical condition or illness, has been deemed unacceptable for cover under the standard health insurance contract by two or more approved insurers and has been certified by the Commission to be uninsurable and eligible for coverage with an approved insurer designated by the Commission.

CINICO Details

CINICO offers two basic insurance plans for all residents as follows:

- SHIC Plan Silver Group 30104 This health plan is available to residents 60 years of age or over, and is limited to individual coverage only.
- SHIC Plan Affordable Group 30104 This health plan is available to any resident 18 59 years of age. This plan is available in an individual, couple or family subscription. Children under the age of 18 can also be added to individual or couple coverage. Persons aged 19 29 can also be added to a policy as a "dependent offspring" subject to the *Health Insurance Law*.

CINICO also has a Medical Case Management Unit (MCMU). This unit is responsible for case management of all CINICO members seeking medical services locally, ensuring that members are receiving appropriate and timely care with suitable follow-up periods when necessary. On behalf of the Cayman Islands Government, CINICO provides the administration of health benefits for those deemed indigents through an Administrative Services Only (ASO) arrangement. The ASO arrangement is also provided for advanced patients, seafarers and veterans who receive non-HSA and overseas medical care.

In general, CINICO insurance members are provided with local and overseas coverage, with specific benefits applicable to the type of plan they hold. However, regardless of the type of plan, CINICO members are generally required to obtain their local health services from the Cayman Islands Health Services Authority (HSA) unless it does not have the service available. If a specific health service is not available at the HSA, the treating HSA physician can seek approval from the Chief Medical Officer or Chief Dental Officer, respectively, for the service(s) to be provided by another local provider or an overseas provider. Only after an approval is received from the CMO or CDO can the patient be covered for services provided by a non-HSA local or overseas health service provider. Based on the required medical service, an in-network provider in the United States, Canada, Jamaica or another country will be selected.

The Standard Health Insurance Contract (SHIC)

The SHIC benefits form the basis of all other health insurance plans and were amended in 2013. The plan covers participants for up to CI\$100,000 per annum with a CI\$1,000,000 lifetime maximum. SHIC plans cover hospital, surgical, chemotherapy and radiation services along with emergency care. All SHIC plans have limited local outpatient benefits and any overseas care is usually restricted to major care, which has been properly referred and is unavailable in Cayman. The more comprehensive insurance plans offer wider access to overseas services, larger per annum allowances (e.g. \$500,000 and as high \$2,500,000), fuller prescription coverage, more outpatient services and options to have dental, routine optical and/or life insurance benefits.

Health Service Fees Waived

The *Health Services (Fees) Law (2002 Revision)* also stipulates that fees are not payable for a patient at a public health care facility for the following list, however, health insurance is still required, and the exemptions listed below only apply once the insurance benefits are exhausted:

- Caymanians who have not attained the upper limit of school age (age 16) as defined in the *Education Law (2010 Revision)*.
- Ante-natal services provided at a health care facility to a Caymanian or his spouse.
- Contraceptive services including clinics, devices and drugs provided at a health care facility to a Caymanian or his spouse.
- A patient who is unable to pay all or any part of the fees at a health care facility and the Director
 of Health Services waives the fees, in whole or in part, after such assessment as shall be
 prescribed in regulations.
- Patients presenting a card issued or recognized by the Director of Health Services identifying the patient to be:
 - o a public officer or the spouse or a dependent of a public officer (but only to the extent provided in the officer's terms of employment);
 - o a member of the Cayman Islands Veterans Association or the spouse of such a member;
 - o a member of the Veterans' and Seamen's Society of Cayman Brac and Little Cayman, or the spouse of a member
 - o a member of the Cayman Islands Seafarers' Association, or the spouse of a member, who satisfies certain age and length of service conditions
 - a person receiving a pension from the Government or the spouse of a pensioner;
 - a patient who is being investigated or treated for AIDS, tuberculosis or malaria if so certified by the Medical Officer of Health;
 - o a prisoner as defined in the *Prisons Law*;
 - patients for medical examinations carried out at the request of a government ministry or portfolio as a condition of engagement as a public officer; or
 - o medical examinations or tests certified by the Medical Officer of Health as being conducted in the interests of the public health of the Islands.

APPENDIX 8: PATIENT EMPOWERMENT

Access to Information

In general, there are no reliable, consistent publicly available sources of information that provide quality ratings of health care providers, hospitals, nursing homes, home health care, and ambulatory care clinics in the Cayman Islands. There is also limited information about fees associated with medical care before treatment is accessed in the Cayman Islands. There are few practices that publicly post their fees for health services. The onus is on patients and their families to get an estimate of the cost of any health care services from a health practitioner's office and to contact their insurance company to determine how much, if any, of the service will be covered by insurance or will need to be paid out-of-pocket. In general, this requires a lot of inquiry and administration on the part of patients and their families to obtain accurate information on health service fees.

Patient Choice

Cayman residents have a choice of one of nine approved health insurers (including CINICO). As mentioned in the section Health Insurance on page 25, the provider networks at the different health insurance companies vary and premium fees may also vary depending on the level of plan to which a patient and family subscribe. Where the health insurance plan is provided by an individual's employer, the employee may be limited to the level of plan the employer has selected for their group insurance. In instances where the group plan does not meet the needs of an employee and family, they may need to obtain additional health insurance coverage to provide a broader range of health service coverage and choice of providers. When paying directly out-of-pocket for health care services, choice is limited only by the individual's ability to pay for the services.

Patient Rights

The Constitution of the Cayman Islands specifies that:

- the people of the Cayman Islands affirm their intention to be a country that provides a comprehensive health care system; and
- the legislature shall enact laws to provide that every child and young person under the age of eighteen...has the right to basic nutrition, shelter, basic health care services and social services.

In other jurisdictions, a patient has certain rights guaranteed by law, such as the right to get a copy of one's medical records and to keep them private, and a right to informed consent (if you need a treatment, your health care provider must give you the information you need to enable you to decide the best course of action). In the Cayman Islands, the HSA Patient Rights cover areas including, but not limited to the following:

- privacy, respect and dignity
- prompt access to information in various categories in a language of choice

- financial (cost of care)
- non-discriminatory access to care
- consent, safety, and involvement in care decisions
- complaint process

At the individual practitioner level, the Code of Ethics and Standards for Practice for the Cayman Islands Medical and Dental Council stipulates that practitioners must obtain consent from patients: "Practitioners must respect the right of patients to be fully involved in decisions about their care. Wherever possible, practitioners must be satisfied, before providing treatment or investigating a patient's condition, that the patient has understood what is proposed and why, any significant risks or side effects associated with it, and has given consent".

Patient complaint practices

Facility level

The first level of the patient complaint process would be to lodge a complaint directly with the institution that provided the care. As part of the risk management procedures stipulated in the Health Practice Commission's National Standards checklist, every health care facility shall maintain a process for the receipt, investigation and resolution of complaints. In addition, every facility shall possess adequate insurance coverage against professional malpractice and public liability.

• Department of Health Regulatory Services

If a concern is not resolved at the facility level, the second level of the patient complaints process would be to escalate concerns to the DHRS. The complaint will be reviewed and addressed by the appropriate Council depending on the category of health care provider. As required, complaints may also be escalated to the Health Practice Commission and brought to the attention of the Ministry of Health.

Legal channels

Failing resolution through the first two levels, patients and their families may consider legal recourse if appropriate. All health care practitioners are required to carry malpractice insurance. Legislative changes in 2016 removed a 2004 amendment in the HSA Law that had conferred immunity from negligence suits on all HSA staff, including physicians and nurses. It is important, however, to note that the *Medical Negligence (Non-Economic Damages) Law* introduced in 2011 does limit claims for non-economic damages. Specifically, in a claim for medical negligence, the civil liability (including vicarious liability) for non-economic damage is limited to an amount not exceeding five hundred thousand dollars for each claimant, regardless of the number of (a) registered practitioners against whom, and (b) health care facilities in respect of which, the claim is asserted or the number of separate causes of action on which the claim is based.

APPENDIX 9: HEALTH CARE EXPENDITURES, 2010/11 – 2014/15 (UNAUDITED)

PUBLIC/GOVERNMENT FUNDED HEALTH CARE			2010-11		2011-12		2012-13		2013-14		2014-15	
NGS 53	Palliative Care Nursing	\$	68,400	\$	61,786	\$	55,607	\$	55,607	\$	50,825	
HSA 1	Medical Care for beyond insurance coverage/un-insured children	\$	1,462,188	\$	1,550,260	\$	1,569,715	\$	1,013,589	\$	493,697	
HSA 2	Medical Care for Uninsured Pregnant Women	\$	165,252	\$	202,583	\$	210,650	\$	175,846	\$	106,530	
HSA 3	Postnatal and Family Planning Services to Uninsured and Under-Insured Caymanians	\$	10,892,042	\$	-	\$	-	\$	-	\$	147,466	
HSA 7	Medical Care for Indigents	\$	-	\$	12,370,049	\$	12,564,831	\$	12,437,745	\$	14,685,053	
HSA 11	School Health Services	\$	1,497,897	\$	1,517,467	\$	1,913,774	\$	1,913,774	\$	626,981	
HSA 12	Dental Services to Children and Special Needs Population	\$	-	\$	-	\$	-	\$	-	\$	1,050,248	
HSA 21	Medical Services in Cayman Brac and Little Cayman	\$	3,635,686	\$	3,854,224	\$	3,365,061	\$	3,365,060	\$	3,445,157	
HSA 23	Ambulance Services	\$	2,322,473	\$	2,164,863	\$	2,519,496	\$	2,588,562	\$	2,247,294	
HSA 27	Paediatric Ward	\$	526,494	\$	355,676	\$	-			\$	-	
HSA 28	Mental Health Services	\$	1,913,255	\$	1,868,628	\$	2,059,221	\$	2,644,374	\$	2,231,203	
HSA 30	Services at West Bay Health Centre	\$	325,813	\$	543,008	\$	-	\$	-	\$	-	
HSA 31	Services at Bodden Town District Clinic	\$	368,484	\$	542,714	\$	632,215	\$	576,771	\$	181,386	
HSA 32	Services at East End District Health Centre	\$	10,895	\$	126,030	\$	4,682	\$	4,682	\$	40,944	
HSA 33	Services at North Side District Health Centre	\$	65,142	\$	164,750	\$	72,994	\$	72,994	\$	139,453	
HSA 34	Services at George Town District Health Centre	\$	2,073,938			\$	1,802,735	\$	1,858,179	\$	1,881,161	
HAS 35	A&E	\$	539,589	\$	264,477	\$	-					
HSA 37	Geriatric Services	\$	820,749	\$			815,367	\$	819,637	\$	815,364	
HSA 38	Medical Care for Chronic Ailments	\$	1,025,608	\$	1,027,722	\$	1,027,613	\$	1,033,922	\$	775,608	
HSA 39	Public Health Programmes	\$	1,001,180	\$	900,000	\$	1,106,822	\$	1,106,822	\$	1,330,577	
HSA 40	Medical Internship Program	\$	-	\$	-	\$	-	\$	333,948	\$	153,127	
HSA 41	Public Health Investigations and Treatment of Communicable Diseases	\$	-	\$	-	\$	-	\$	-	\$	361,438	
NGS 64	Residential and Nursing Care of Indigent, Elderly and Disabled Persons	\$	1,036,408	\$	1,210,437	\$	1,278,751	\$	1,400,000	\$	1,399,990	
HRB 12	Public Education Campaign – Health Insurance	\$	60,060	\$	14,724	\$	17,025	\$	3,987	\$	4,417	
HRB 18	Public Education Campaign – Health Practice Commission	\$	-	\$	-	\$	14,657	\$	12,878	\$	7,406	
DCS 19	Public Awareness Initiatives	\$	60,668	\$	62,606	\$	115,053	\$	110,794	\$	100,216	
DCS 28	Workshops and Presentations	\$	81,675	\$	44,608	\$	74,427	\$	128,616	\$	153,521	
NGS 4	HIV/AIDS and First Aid Public Education Programmes	\$	30,780	\$		\$	25,024	\$	25,024	\$	22,325	
NGS 54	Cayman AIDS Foundation	\$	58,701	\$	55,607	\$	50,046	\$	50,046	\$	45,125	
NDC 1	Policy, Prevention, Research, Information, Monitoring and Evaluation	\$	242,997	\$	227,979	\$	276,479	\$	270,569	\$	276,479	
CFS 8	Residential Care Services for Children and Young Adults with Disabilities	\$	396,660	\$			224,399	\$	238,387		271,888	
CFS 28	Social Work Intervention Services	\$	1,320,081	\$	1,157,012	\$	1,804,205	\$	1,693,347	\$	1,511,524	
CFS 30	Care and Services for Elderly and Adult Disabled Persons	\$	2,019,284	\$		\$	1,459,144	\$	1,401,858	\$	1,411,322	
DCS 15	Individual, Couples, Family and Group Therapy	\$	648,084	\$	676,537	\$	781,663	\$	644,065	\$	486,376	
DCS 16	Clinical Assessments and Reports	\$	187,014	-			113,661			\$	64,414	
DCS 18	Male Residential Substance Abuse Treatment Programme	\$	1,235,295	\$	1,017,181	\$	935,220	_		\$	1,349,305	
DCS 21	Non-Medical Detoxification Services	\$	5,234	-		\$	12,450		12,235	\$	17,569	
DCS 22	Female Residential Substance Abuse Treatment Programme	\$	9,474			\$	214,081	·	405,239		127,749	
DCS 24	Treatment Services to Participants in Drug Rehabilitation Court	\$	131,247			\$	186,970	\$			158,530	
DCS 33	Therapeutic Services to Cayman Brac and Little Cayman	Ś	72,707	-		\$		\$,	Ė		

PUBLIC/G	OVERNMENT FUNDED HEALTH CARE		2010-11		2011-12		2012-13		2013-14	2	2014-15
CAYS 2	Children And Youth Services (CAYS) Foundation	\$	914,207	\$	1,103,434	\$	1,089,000	\$	1,089,000	\$ 1,0	89,000
NGS 77	Music Therapy Services			\$	66,240	\$	59,661	\$	59,661	\$	59,526
NGS 76	Sexual Trauma Children & Adolescent Recovery (STAR) Programme	\$	128,408	\$	101,165	\$	42,655	\$	39,540	\$	26,725
MHE 1	Administrative Services for the Minister	\$	1,009,073	\$	1,209,089	\$	991,994	\$	831,301	\$ 9	75,155
MHE 2	Development of Legislation	\$	222,563	\$	97,092	\$	145,443	\$	104,784	\$ 1	82,461
MHE 3	Policy Advice to the Minister of Health and Culture	\$	580,961	\$	419,301	\$	446,614	\$	573,693	\$ 5	65,158
MHE 7	Monitor the Performance of Statutory Authorities, Government Companies and NGOs	\$	42,727	\$	41,926	\$	33,034	\$	18,765	\$	20,620
HRB 9	Certification of Health Care Facilities	\$	151,799	\$	148,925	\$	103,820	\$	318,249	\$ 3	15,301
HRB 10	Health Insurance Complaints Resolution	\$	455,960	\$	412,066	\$	401,580	\$	65,741	\$	12,144
HRB 11	Administer the Segregated Insurance Fund and the Number of Insured Persons	\$	26,861	\$	30,751	\$	41,311	\$	14,365	\$	12,389
HRB 13	Enforcement of Health Insurance Legislation	\$	103,296	\$	61,969	\$	29,257	\$	2,718	\$	2,875
HRB 14	Registration and Licensing to Practice of Health Care Practitioners	\$	281,476	\$	310,129	\$	327,387	\$	307,722	\$ 3	00,152
HRB 15	Policy Advice and Reports to the HIC Board and Ministry	\$	3,964	\$	-	\$	2,243	\$	9,000	\$	12,402
HRB 16	Advice and Support to the HPC Board , Councils and Ministry	\$	3,287	\$	4,200	\$	5,250	\$	13,800	\$	-
HRB 17	On-site Inspections	\$	-	\$	-	\$	11,314	\$	31,093	\$	39,298
HSA 25, 2	LPN Program	\$	264,996	\$	-	\$	-	\$	-	\$	-
CFS 1	Policy Advice on Matters Relating to Social Services	\$	1,305	\$	770	\$	4,178	\$	1,056	\$	3,495
DCS 26	Policy Advice to the Minister of Community Affairs, Youth and Sports	\$	6,205	\$	18,146	\$	16,081	\$	15,383	\$	24,521
MCA 1	Policy Advice to the Minister of Community Affairs, Youth and Sports	\$	70,283	\$	60,748	\$	85,859	\$	84,412	\$ 1	42,388
MCA 2	Ministerial Services and Support	\$	160,031	\$	169,023	\$	109,976	\$	91,990	\$ 1	58,674
		\$ 4	0,738,853	\$	42,109,979	\$	41,250,693	\$ 4	41,386,911	\$ 42,1	13,950
GOVERNI	MENT EQUITY INJECTIONS AND CONTRIBUTIONS										
EI-CIN	Equity Injections to CINICO	\$	-	\$	-	\$	-	\$	2,657,411	\$	-
EI-HEA	Equity Injections to CIHSA	\$	1,808,000	\$	-	\$	1,561,470	\$	849,567	\$ 8	47,500
HSAF	HSA health care services to employees	\$	7,480,608	\$	6,848,294	\$	7,275,816	\$	7,826,488	\$ 9,7	71,662
CINPCS	CINICO Premiums Civil Servants (Current)	\$ 2	26,354,337	\$	28,406,871	\$	32,290,745	\$:	31,809,150	\$ 32,5	81,514
SAGCHC	SAGC Premium expenses to CINICO or Private	\$	6,197,014	\$	5,964,436	\$	6,847,312	\$	7,216,602	\$ 7,7	50,845
CIN 1	Seafarers and Veterans Premiums (does not include overseas)	\$	7,167,486	\$	7,542,686	\$	8,753,835	\$	8,520,898	\$ 7,7	43,023
CIN 2	CINICO Premiums for Pensioners	\$ 1	4,233,080	\$	15,250,971	\$	18,285,344	\$:	19,021,518	\$ 20,2	23,772
NGS 55	Government (non-CINICO) Overseas Care for Indigents, Seafarers and Veterans	\$ 1	4,456,167	\$	18,595,621	\$	15,333,874	\$:	14,225,905	\$ 16,8	19,050
		\$11	8,435,545	\$1	24,718,858	\$1	31,599,091	\$13	33,514,450	\$137,8	51,315
	TOTAL GOVERNMENT EXPENDITURES (UNAUDITED)	\$1	18,435,545	\$	124,718,858	\$	131,599,091	\$ 1	133,514,450	\$137,	851,315
PRIVATE I	 HEALTH CARE										
CINHSA	Payments from CINICO Private Plan 30104 to HSA		913,984		1,159,508		1,641,675		2,125,144	1.0	904,149
CINPRI	Payments from CINICO Private Plan 30104 to Private Local Providers		149,206		258,953		354,578		366,671		341,630
CINOS	Payments from CINICO Private Plan 30104 to Overseas Providers		554,373		475,682		665,311		634,716		378,911
PIHSA	Payments from Private Insurance for HSA Health Care	1	4,591,728		15,090,806		15,534,068		15,873,678		23,166
PIPC	Payments from Private Insurance to Local AND OVERSEAS Private Clinics		6,216,388		50,144,237		52,532,985		60,138,878		43,638
	TOTAL PRIVATE SPEND BY INSURANCE ON HEALTHCARE		62,425,679		\$67,129,187		\$70,728,617		579,139,087		891,494
	TOTAL PRIVATE SPEND BY INDIVIDUALS ON HEALTHCARE				\$33,790,252		\$34,297,106		34,811,563		333,736
Total Priv	ate Spend on Health Care by Cayman Island Residents		33,290,889 95,716,568		100,919,439		105,025,723		13,950,650		225,231
- o tai i i i v				ļ		٧		Ų		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,
TOTAL HE	ALTHCARE SPEND IN THE CAYMAN ISLANDS (incl. overseas costs)	\$2	14,152,113	\$	225,638,298	\$	236,624,814	\$2	247,465,100	\$269,0	076,545

APPENDIX 10: MEDICAL EQUIPMENT INVESTMENTS AND DONATIONS

Facility	Medical Equipment Investments and Donations
Health Services Authority	 Since 2010, the Caring for Life Foundation donated major pieces of equipment to the HSA including ultrasound machines, x-ray readers, MRI, dialysis, surgical and sterilization equipment and patient lifts. In 2013, a public-private partnership with 3T Cayman brought the new MRI machine to HSA. In 2014, the HSA received a donation of a telemedical remote presence robot from the Cayman Islands Seafarers Association. The robot allows physicians on-Island and overseas to monitor patients remotely. In 2015, the Cayman Islands Cancer Society (CICS) donated a CUROS Vacuum Assisted Biopsy machine (CVAB). In 2016, the Cayman Heart Fund donated a new ambulance to the HSA. HSA's two recompression chambers (in Grand Cayman and Cayman Brac) were established with the assistance of the late Dr. James Poulson in the 1970s. Additional equipment acquired by HSA over the years includes a Computerized Tomography (CT) scanner and mammography equipment (capable of wire localization).
Chrissie Tomlinson Memorial Hospital	 3T Cayman has provisioned CTMH with ultrasound and fluoroscopy equipment CTMH also has a 3D CAT Scanner, Bone Density Scanner, Ultrasound, MRI machine, X-Ray, Pain Free 3D Mammography and Breast Tomosynthesis, and Echocardiography equipment.
Health City Cayman Islands	CT scanner, MRI machine, digital radiography, nuclear medicine equipment, ultrasound (including vascular Doppler), and a BMD scan for bone density.
Others	 There are three stand-along diagnostic imaging centres with various equipment. The Heart Health Centre has x-ray, ultrasound, EKG tracing and an MRI machine.

APPENDIX 11: THE CAYMAN ISLANDS HEALTH CARE WORKFORCE

Public (HSA) and Private Practice Physicians:

Physician Type	HSA Physicians	Private Practice	HCCI Private
Total General Practitioners	41	35	
Total Specialists (specific types listed below)	80	95	
- Surgeons*	10	24	
- Anaesthesiologists	12	5	20
- Emergency Medicine	10	1	30
- Obstetricians/Gynecologists	9	9	***The agreeted
- Paediatricians	6	7	***The gazetted list of Institutionally
- Radiologists	6	2	registered
- Internal Medicine	5	9	physicians at HCCI
- Cardiologists**	1	1	does not list their
- Dermatologists	1	4	specialties
- Otolaryngologist	3	4	Specialities
- Urologists	1	7	
- Psychiatrists	4	4	
- Other Various Specialties****	12	18	

^{*} Many private practice surgeons hold privileges at the HSA

HCCI Physicians:

The 30 registered HCCI physicians at fall into the following specialties based on their website information:

- 7 surgeons (including cardiac and orthopedic)
- 5 Anesthetists
- 3 Cardiologists
- 1 each of Radiologist, Pulmonologist, Internal Medicine, Pediatric Endocrinologist, Psychiatrist, Pathologist, Oncologist and Interventional Neurologist
- 14 HCCI physicians do not have specialties specified

^{**} Effective 2016, the Heart Health Centre no longer hosts 3 private visiting registered cardiologists.

^{***} Health City Cayman Islands (HCCI) are not listed by specialty on the HPC institutional registration list

^{****} Includes but not limited to other specialists in Pathology, Oncology, Gastroenterology, Neurology, Ophthalmology, Sports Medicine, Rheumatology, Nephrology, Physical Medicine, Podiatry, Orthopaedics, Social Medicine and Pain Management.

Dental Care Providers

Type of Provider	HSA Providers	Private Practice	HCCI Private
Dentist	12	33	1
Dental Assistant	10	41	
Dental Hygienist	5	26	
Dental Therapist	5	0	
Dental Technician	2	0	

Nursing and Midwifery

Type of Provider	HSA Providers	Private Practice	HCCI Private
Registered Nurse	160	91	45
Nurse Assistant	35	4	The gazetted list of
Midwife	29	3	Institutionally
Public Health Nurse	9	0	registered nurses at
Mental Health Nurse	7	1	HCCI does not list
Nurse Anesthetist	2	1	their specialties
Advanced Practice Nurse/ Specialists	1	2	
Nurse Practitioners	1	1	

Categories of Professionals Allied with Medicine (# - 286 total professionals)

- Acupuncturist (3)
- Chiropractor (6)
- Cytotechnologist (1)
- Emergency Medical Technician (28)
- Massage Therapist (27)
- Naturopathic Doctor (1)
- Occupational Therapist (8)
- Optometrist (8)
- Physiotherapist (42)
- Psychologist (20)
- Respiratory Therapist (2)
- Speech Therapist (5)
- Vascular Scientist/Technologist (1)

- Audiologist (1)
- Counsellors/Therapists (12)
- Dietician (7)
- Homeopath (1)
- Medical Laboratory Technologist (53)
- Nuclear Medicine Technologist (3)
- Ophthalmology Assistant/Technician (1)
- Paramedic (12)
- Polysonsographer (1)
- Radiographer (35)
- Social Worker (5)
- Ultrasound Technician (3)

APPENDIX 12: HEALTH SERVICES AUTHORITY VOLUMES

The overall volume of visits to the HSA district clinics is listed below for the years 2011-2015 from the Section ESO Monthly Statistical Reports & databases of HSA

Health Services Provided by the Cayman Islands Government, 2011 - 2015					
PRIMARY CARE AND DENTAL	2011	2012	2013	2014	2015
DISTRICT CLINIC VISITS	37,955	33,768	32,801	31,943	34,490
Grand Cayman	37,403	33,297	32,368	31,585	34,121
Cayman Brac	552	471	433	358	369
School Clinic Visits Grand Cayman	9,676	9,736	9,614	9,959	9,522
Dental Clinic Visits Grand Cayman	26,580	29,539	28,822	28,400	27,304
Dental Clinic Visits Cayman Brac	1,439	1,428	1,416	1,089	1,433
Outpatient clinic visits	66,203	66,336	67,171	68,605	70,716
Prescriptions	276,968	288,845	285,808	355,000	383,169
Laboratory work	683,000	663,000	695,000	698,000	733,000
Radiology films & ultrasound	35,407	45,300	32,715	33,769	33,924

ACUTE CARE AT HSA	2011	2012	2013	2014	2015
Ambulance calls	3,817	4,168	3,883	4,354	5,266
A&E Casualty patients	29,029	31,418	32,119	33,360	31,352
Admitted to Cayman Islands (GT) hospital	5,200	5,301	4,722	4,927	4,955
GT Bed occupancy (%) (incl. newborns)	67	68	64	66	69
DISCHARGES	5,562	5,595	4,987	5,189	5,220
Grand Cayman	5,186	5,269	4,724	4,886	4,914
Cayman Brac	376	326	263	303	306
BEDS AVAILABLE*	120	120	120	121	119
Grand Cayman	103	103	103	104	104
Cayman Brac	17	17	17	17	15
MAJOR OPERATIONS	1,634	1,750	1,680	1,657	1,656
Grand Cayman	1,604	1,711	1,667	1,630	1,641
Cayman Brac	30	39	13	27	15
MINOR OPERATIONS	1,812	1,427	1,770	1,951	1,988
Grand Cayman	1,677	1,335	1,664	1,843	1,874
Cayman Brac	135	92	106	108	114

^{*}Bed availability fluctuates with staffing, infrastructure and operational changes year over year.

POST-ACUTE CARE AT HSA	2011	2012	2013	2014	2015
HOME VISITS	8,186	7,690	7,300	6,620	6,500
Grand Cayman	5,562	5,322	5,298	5,200	5,354
Cayman Brac	2,624	2,368	2,002	1,420	1,146
Physio and Occupational Therapy (OT)	12,075	15,700	16,616	18,609	16,750

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ACRONYMS

Acronym	Full Name
CAYS	Children and Youth Services Foundation
CHC	Cayman Hospice Care
CIG	Cayman Islands Government
CIMA	Cayman Islands Monetary Authority
CINICO	Cayman Islands National Insurance Company Limited
СТМН	Chrissie Tomlinson Memorial Hospital
D&T	Drug and Therapeutics
DHRS	Department of Health Regulatory Services
DI	Diagnostic Imaging
ESO	Economics and Statistics Office
GDP	Gross Domestic Product
HBS	Household Budget Survey
HCCI	Health City Cayman Islands
HIC	Health Insurance Commission
HIV / AIDS	Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome
HPC	Health Practice Commission
HSA	Health Services Authority
INCB	International Narcotics Control Board
JCI	Joint Commission International
NGO	Non-Governmental Organization
NHPP	National Health Policy and Strategic Plan
OAG	Office of the Auditor General
OECD	Organisation for Economic Co-operation and Development
ООР	Out-of-Pocket
PAHO	Pan-American Health Organization
SHIC	Standard Health Insurance Contract
SHIF	Standard Health Insurance Fees
SIDS	Small Island Developing States
WHO	World Health Organization
WHO AIMS	World Health Organization – Assessment Instrument for Mental Health Systems
WHO STEPS	World Health Organization – STEPwise Approach to Surveillance

Contact us

Physical Address:

3rd Floor Anderson Square 64 Shedden Road, George Town Grand Cayman

Business hours:

8:30am - 4:30pm

Mailing Address:

Office of the Auditor General
P. O. Box 2583 Grand Cayman KY1–1103
CAYMAN ISLANDS

Email: auditorgeneral@oag.gov.ky T: (345) 244 3211 Fax: (345) 945 7738

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