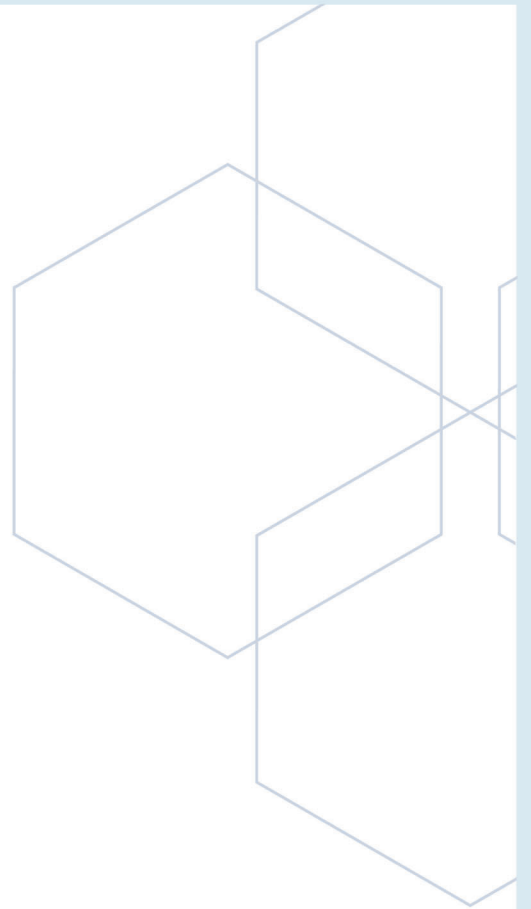




# National Health Accounts Report 2010

Bermuda health system finance and  
expenditure for fiscal year 2008-2009



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Bermuda health system finance and expenditure  
for fiscal year 2008 - 2009

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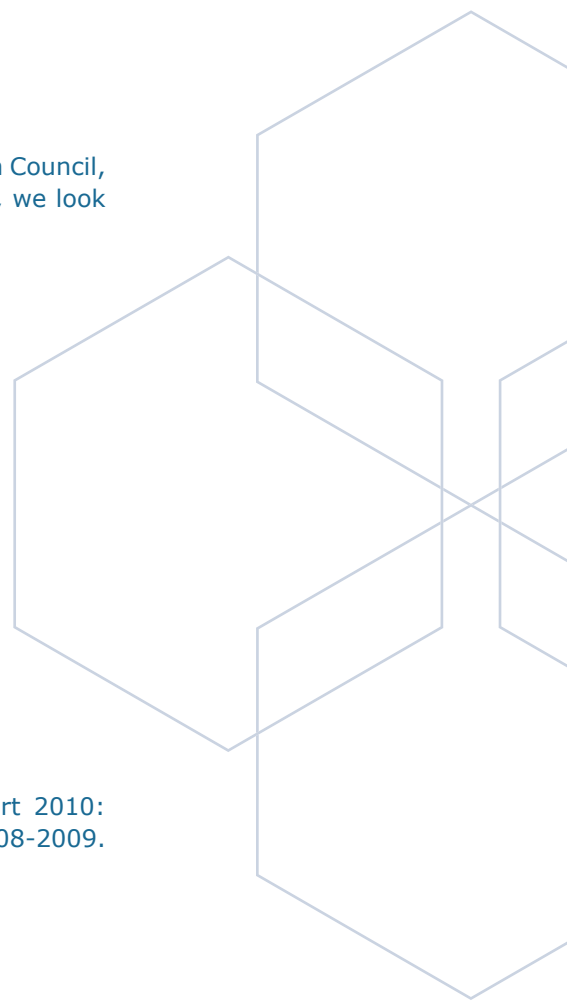
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# 1. Introduction

The Bermuda Health Council (BHeC) is pleased to present its first report on health system finance and expenditure for Bermuda. The report details the health system for the fiscal year ending 31<sup>st</sup> March 2009 and explains the estimated growth in the system since 2004.

National health accounts have been developed to allow countries to provide a “reliable, comprehensive, comparable, and policy relevant picture of how their health services are financed, produced, and utilized<sup>1</sup>.”

Data on health services fall under several economic categories in traditional GDP accounts, therefore utilizing these to isolate and assess the total size and value of health system activity is not an easy exercise. Formalized, comprehensive, stand-alone national health accounts are a recent development in health systems economics globally. The System of Health Accounts designed by the Organization of Economic Cooperation and Development (OECD) took 15 years to develop, and has only been in use since 2000<sup>2</sup>.

In Bermuda, national health accounts reporting similar to the OECD model was first done in the 2005 *Bermuda Health Systems and Services Profile*<sup>3</sup>. The current report builds on the 2005 findings and includes new detail on private financing and expenditure sourced directly from health insurance claims. Previous reports did not have access to this level of data on private finance and expenditure and estimated the amounts from secondary sources.

The Health Insurance Act 1970, part V, section 40, establishes the BHeC as an advisor to the Minister of Health on matters pertaining to health insurers. Additionally, the Bermuda Health Council Act 2004, part II section 5g, accords to the BHeC the function of licensing health insurers. The combined legislation invests in the BHeC the authority to request and receive information on the financial and underwriting operations of all licensed health insurers. In January 2010 the BHeC requested and received claims information from all eight licensed health insurers for the 2009 fiscal year. The claims data provided allowed us to construct a more robust model of current private sector health system finance and expenditure than was heretofore possible. It also allowed us to look back and evaluate the accuracy of past estimations.

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<sup>1</sup> Orosz, Eva. (2005). Lessons from Implementation of the System of Health Accounts in OECD Countries. OECD. Regional Technical Consultation: Harmonization of the Accounts of Health and the System of National Accounts in Countries of the Americas. Presentation in Santo Domingo, July 21-22, 2005. Pg. 31.

<sup>2</sup> Organization of Economic Cooperation and Development. (2000). A System of Health Accounts. Version 1.0. OECD.: Paris, France.

<sup>3</sup> Ramella, M. (2005). Bermuda Health Systems and Services Profile. Report for the Ministry of Health and Family Services. Government of Bermuda.

The Bermuda Health Council Act 2004 also empowers the organization to request and receive information on the economic performance of other sub-sectors of the health system such as licensed private practitioners and providers. Thus, future versions of this report will be more detailed as we acquire more data on the economic performance of the various private sub-sectors of the Bermuda health system.

The Bermuda Health Council's approved 2009-2012 Strategic Plan contains a strategic goal of *Efficacy*. Included in this goal's objectives is the development and implementation of methods to monitor and report on health system financing and expenditure in Bermuda. The publication of this report represents the realization of that objective.

## 2. 2009 Health System Finance and Expenditure

As Table 1 details, total health system finance and expenditure for fiscal 2009 was BD\$ 557.7 million. This amount represents 9.2% of Bermuda's 2008 nominal gross domestic product (GDP)<sup>4</sup>, and an expenditure ratio of BD\$ 8,661 per capita, given Bermuda's estimated 2009 population of 64,395 (see Table 5).

**Table 1.** 2009 Bermuda Health System Finance and Expenditure

Health Finance	Amount (BD\$)	% of Total	Health Expenditure	Amount (BD\$)	% of Total
Consolidated Fund – Ministry of Health <sup>1</sup>	155,772,447	27.9	Ministry of Health – Administration <sup>1</sup>	8,505,980	1.5
			Department of Health <sup>1</sup>	28,023,696	5.0
			Bermuda Hospitals Board <sup>2</sup>	225,240,498	40.4
<b>Public sector sub-total</b>	<b>155,772,447</b>	<b>27.9</b>	<b>Public sector sub-total</b>	<b>261,770,174</b>	<b>46.9</b>
Health insurance <sup>4</sup>	297,935,836	53.4	Local practitioners – Physicians <sup>4</sup>	59,302,824	10.6
Household financing <sup>4</sup>	81,377,950	14.6	Local practitioners – Dentists <sup>4</sup>	27,081,374	4.9
Charitable non-govt. organizations <sup>3</sup>	22,653,212	4.1	Other providers, services & appliances <sup>4</sup>	41,363,841	7.4
			Prescription drugs <sup>4</sup>	37,426,296	6.7
			Overseas care <sup>4</sup>	86,518,906	15.5
			Health insurance administration <sup>4</sup>	44,276,030	7.9
<b>Private sector sub-total</b>	<b>401,966,998</b>	<b>72.1</b>	<b>Private sector sub-total</b>	<b>295,969,271</b>	<b>53.1</b>
<b>Total public &amp; private</b>	<b>557,739,445</b>	<b>100.0</b>	<b>Total public &amp; private</b>	<b>557,739,445</b>	<b>100.0</b>

**SOURCES:**

1. The Accountant General, Ministry of Finance, Financial Statements of the Consolidated Fund, March 31, 2009, pages 5 and 44.

2. The Bermuda Hospitals Board finance department.

3. Estimated from 2009 financial information provided directly by non-govt. charitable organizations (i.e. Lady Cubitt Compassionate Association, Bermuda Cancer & Health Centre, PALS, and the Bermuda Diabetes Association). Figures are net of government grants, which are accounted for under Ministry of Health consolidated fund.

4. BHeC 2009 health insurance claims returns and BMA 2009 statutory insurance financial returns.

<sup>4</sup> The GDP report for Bermuda is produced on a calendar year basis, while the health system, including the Ministry of Health, the Bermuda Hospitals Board, and several health insurance companies, operate on a April 1<sup>st</sup> to March 31<sup>st</sup> fiscal year. Thus, all comparisons of health system expenditure growth to GDP growth are comparing health system data for the 12 month period ended March 31<sup>st</sup> to GDP data that represents activity for the prior calendar year ended December 31<sup>st</sup>.

## **2.1. 2009 Health System Finance**

### **Public Sector Health System Finance**

Total public sector health finance for fiscal 2009 was BD\$ 155.7 million. This represents direct financing of health promotion and prevention, and primary health care provided by the Department of Health, secondary care provided by the island's hospitals, and health administration by the island's health authority, the Ministry of Health. The 2009 level of public financing of the health system represented 27.9% of total Health finance for the fiscal year. Public financing of the health system represented 14% of total government outlays of BD\$ 1.1 billion in fiscal 2009.

### **Private Sector Health System Finance**

Private sector financing<sup>5</sup> of the health system totaled BD\$ 401.9 million, or 72.1% of total health system finance in fiscal 2009. Health insurance represented 74% of all private health finance, and 53.4% of total health system finance. Health insurance includes health claims paid by Bermuda's eight licensed health insurers (the four private health insurance companies, the three approved employer-financed health schemes, and the Health Insurance Plan (HIP) and Mutual Re-insurance Fund (MRF) managed by the Department of Health's Health Insurance Department (HID)).

Household health finance totaled BD\$ 81.3 million in fiscal 2009, which represented 14.6% of total health finance. Household health finance includes health insurance-linked co-payments and full out of pocket payments to practitioners and providers and to other health-related service providers.

Charitable non-government organizations (NGOs) provided financing of BD\$ 22.6 million to the health system, net of any government grants that they received. NGOs represented 4.1% of total health system financing in 2009.

## **2.2. 2009 Health System Expenditure**

### **FY 2009 Public Sector Health System Expenditure**

As Table 1 indicates, public sector health expenditure totaled BD\$ 261.7 million in fiscal 2009, or BD\$ 4,065 per capita. The largest portion of public health system expenditure for 2009, 86%, represented the Bermuda Hospitals Board (BHB) expenditures for the operation of the island's hospital system. The BHB spent BD\$ 225.2 million, or 40.4% of

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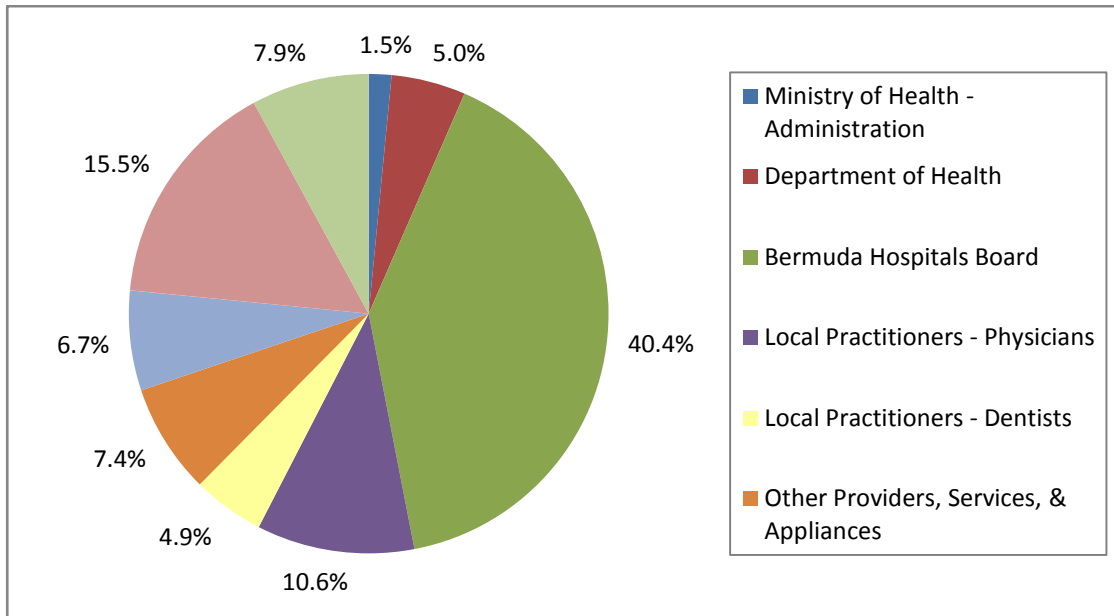
<sup>5</sup> For the purposes of this report, private sector includes the Government Employees' Health Insurance scheme and the government's Health Insurance Plan because, like private plans, both are funded from premiums paid by policy holders. Operational expenses are accounted for in the same manner as other insurers' administrative costs.

all health system expenditure in fiscal 2009. Fifty two percent of BHB expenditure is financed by the government.

The Ministry of Health headquarters spent BD\$ 8.5 million or 1.5% of total 2009 health system expenditure. This expenditure is mainly managerial and administrative in nature and involves services such as health strategy and planning, budget management, human resource management, the management of health system related legislative processes, and grants to charitable, non-governmental organizations.

The Department of Health spent BD\$ 28.0 million in fiscal 2009. This represented 10.7% of public sector health expenditure and 5.0% of total health system expenditure. The activities covered under this expenditure include environmental health, epidemiology, health promotion, preventative care, and curative care.

**Figure 1.** Health systems expenditure 2009



### **FY 2009 Private Sector Health System Expenditure**

Private sector health expenditure totaled BD\$ 295.9 million in fiscal 2009. Combined expenditure on the services of local physicians and dentists totaled BD\$ 86.3 million (BD\$ 59.3 million for physician services, and BD\$ 27.0 million for dental services), representing 29.1% of all private health expenditure, and 15.4% of total health system expenditure.

As Table 1 shows, overseas health care was nearly equal to the combined expenditure on local physicians and dentists at BD\$ 86.5 million, or 15.5

percent of total health system expenditure. Overseas hospitalization charges represented 54.6% of total overseas health expenditure in 2009; the balance comprises fees paid for services such as overseas physicians, dentists and other categories of healthcare providers, overseas prescription drugs costs, overseas diagnostic imaging and laboratory costs, hotel costs, and transportation.

The "Other Providers, Services, and Appliances" category of private expenditure featured in the Table 1 includes the professional services of a wide range of local health care and health care service providers such as chiropodists, chiropractors, dietitians, specialized disease management counselors, physiotherapists, optometrists, podiatrists, psychologists, and psychiatrists. Also included in this category of expenditure would be expenditure on local diagnostic imaging services, laboratory services, immunizations, and home care. At BD\$ 41.3 million, this category of expenditure represented 7.4% of total 2009 health system expenditure. Future reports will seek to obtain further breakdown of this category of expenditure.

Bermuda's residents spent BD\$ 37.4 million on prescription drugs in fiscal 2009. This represented 12.6% of 2009 private sector expenditure and 6.7% of total health system expenditure.

Finally, health insurance administration expenditure was valued at BD\$ 44.27 million in fiscal 2009. This expenditure category represented 7.9% of total 2009 health system expenditure. The category includes the selling, general, and administrative (SG&A) expenses of all eight licensed health insurers (which include executive salaries, advertising costs, sales expenses, information technology costs, and payroll expenses).

### **3. Analysis of Health System Finance and Expenditure 2004-2009**

Tables 2 through 5 highlight the trends in health system finance and expenditure in Bermuda from fiscal 2004 through fiscal 2009.

The source of the data for public sector health finance and expenditure during the period was the Ministry of Finance's publication *The Financial Statements of the Related Organizations and Funds (the Public Accounts) of the Government of Bermuda*, for the fiscal years 2004 through 2008, and the Accountant General's reports entitled *Financial Statements of the Consolidated Fund* dated March 31, 2004 through March 31, 2009.

Also utilized were the published annual reports of the Bermuda Hospitals Board for the years 2004 through 2008. The 2009 BHB annual report had not been published by the time this report was prepared, however we were

provided with the BHB's fiscal 2009 figures for total expenditure and the value of the Bermuda Government hospitalization subsidies and operating grants received by the board.

The 2009 figures for private sector expenditure were modeled from health insurance claims data provided by all eight licensed health insurers. We also modeled health insurance co-payments based on insights from health insurance claims professionals and office managers at medical and dental practices.

Claims information for the years 2004 through 2008 was not available. However Ramella's 2004 estimate of total private sector health system finance and expenditure mentioned earlier, and Department of Statistics estimates of the same, for the years 2004 through 2008 were used to estimate total private health system expenditure for the period 2004 to 2008.

### 3.1. Health System Finance 2004 to 2009

Data presented in Table 2 shows that total Health system finance grew by 47.5% over the five year period, or an average annual growth rate of 9.5% per annum. The total value of health system finance is estimated to have grown by 12.4% from 2008 to 2009.

**Table 2.** Health system financing 2004-2009 (BD\$ '000)

Health Finance Sector	2004	2005	2006	2007	2008	2009	08 vs. 09 (%)	2004 -2009 (%)	AAGR (%)
<b>Total Public Expenditure</b>	<b>675,699</b>	<b>755,276</b>	<b>867,399</b>	<b>952,606</b>	<b>1,022,899</b>	<b>1,112,193</b>	<b>8.7</b>	<b>64.6</b>	<b>12.9</b>
Ministry of Health <sup>1</sup>	5,093	5,340	6,464	4,993	3,396	8,505	150.4	67.0	13.4
Department of Health <sup>1</sup>	19,445	20,241	22,406	24,540	29,463	28,023	-4.9	44.1	8.8
Hospitalization subsidies & MWI grant <sup>1</sup>	79,936	85,736	92,369	100,202	111,197	119,242	7.2	49.2	9.8
<b>Public sector sub-total</b>	<b>104,475</b>	<b>111,317</b>	<b>121,240</b>	<b>129,735</b>	<b>144,057</b>	<b>155,772</b>	<b>8.1</b>	<b>49.1</b>	<b>9.8</b>
Health insurance <sup>2, 3</sup>	204,348	212,926	226,625	243,755	259,877	297,395	14.4	45.5	9.1
Household financing <sup>2, 3</sup>	56,358	57,497	62,163	67,707	71,633	81,377	13.6	44.4	8.9
Charitable non-govt. organizations <sup>4</sup>	12,956	14,576	16,397	18,447	20,753	22,653	9.2	74.8	15.0
<b>Private sector sub-total</b>	<b>273,662</b>	<b>284,999</b>	<b>305,185</b>	<b>329,909</b>	<b>352,263</b>	<b>401,966</b>	<b>14.1</b>	<b>46.9</b>	<b>9.4</b>
<b>Total Health System Financing</b>	<b>378,137</b>	<b>396,316</b>	<b>426,425</b>	<b>459,644</b>	<b>496,320</b>	<b>557,739</b>	<b>12.4</b>	<b>47.5</b>	<b>9.5</b>
<b>Analysis</b>	<b>(%)</b>								
Public health finance % of total national budget	15.5	14.7	14.0	13.6	14.1	14.0	-	-	14.3
Health insurance % of total health system financing	54.0	53.7	53.1	53.0	52.4	53.4	-	-	53.3
Household financing % of total health system financing	14.9	14.5	14.6	14.7	14.4	14.6	-	-	14.6
Annual growth in hospitalization subsidies & MWI grant	-	7.3	7.7	8.5	11.0	5.6	-	-	8.0

**SOURCES:**

1 Ministry of Finance - The Financial Statements of the Related Organizations and Funds (The Public Accounts) of the Government of Bermuda 2005 through 2009, and The Accountant General - Financial Statements of the Consolidated Fund, March 31, 2004, through 2009.

2 BHeC 2009 health insurance claims returns and BMA 2009 statutory insurance financial returns.

3 Bermuda Health Systems and Services Profile 2005 & 2009.

4 Estimated from 2004 and 2009 data supplied by charitable non-governmental organizations (LCCA, BDA Cancer and Health Center, PALS, and the Bermuda Diabetes Association.)

## Public Sector Health System Finance 2004-2009

Public health system finance grew by 49.1%, or an average 9.8% per annum, from 2004 to 2009. Public sector health system finance averaged 14.3% of total government outlays during the period. The growth rate from fiscal 2008 to fiscal 2009 was 8.1%. This is despite reductions in 2009 outlays relative to 2008 at the Department of Health (-4.9%) which was offset by increases at the Ministry of Health (+150%), and in the hospital subsidies and grants.

As Table 2 details, the combined government hospitalization subsidies and the grant for the operations of the Mid Atlantic Wellness Institute (MWI) increased by 49.2% from 2004 to 2009, or an average of 9.8% per year. The actual 2008 - 2009 increase was 7.2%.

The value of and growth in the hospitalization subsidies are broken out and detailed in Table 3. Subsidies totaled BD\$ 82.7 million in 2009, an increase of 7.7% over 2008. From 2004 to 2009 hospitalization subsidies increased by 42.2%, or 8.4% per annum on average. Table 3 also shows that the largest category of subsidy is the Aged Subsidy which totaled BD\$ 46.8 million in 2009, and grew by 53.8% from 2004 to 2009, or 11.8% per year on average. The clinical drug subsidy was one of the fastest growing subsidies from 2004 to 2009 with a 102.7% increase in value, equivalent to 20.5% per annum growth.

**Table 3.** Bermuda Government Hospitalization Subsidies 2004-2009 (BD\$ '000)

Subsidy Category	2004	2005	2006	2007	2008	2009	08 vs. 09 (%)	2004 -2009 (%)	AAGR (%)
Aged subsidy	29,520	30,576	34,702	35,462	41,358	46,877	13.3	58.8	11.8
Geriatric subsidy	9,546	10,416	11,112	11,602	12,673	13,728	8.3	43.8	8.8
Youth subsidy	7,499	7,858	8,072	8,708	9,631	10,176	5.7	35.7	7.1
Indigent subsidy	5,399	6,132	6,191	7,476	5,176	2,917	-43.7	-46.0	-9.2
Clinical drugs subsidy	1,093	2,193	2,193	2,522	2,549	2,215	-13.1	102.7	20.5
Other subsidies	3,146	3,456	3,630	4,537	5,447	6,830	25.4	117.1	23.4
<b>Total</b>	<b>58,207</b>	<b>60,630</b>	<b>65,899</b>	<b>70,307</b>	<b>76,833</b>	<b>82,742</b>	<b>7.7</b>	<b>42.2</b>	<b>8.4</b>

SOURCE: Bermuda Hospitals Board Annual Reports 2004 to 2009

NOTE: Includes only BHB figures. Government subsidies to NGOs are reflected in Table 1 as Ministry of Health consolidated fund.

## Private Sector Health System Finance 2004-2009

Private sector health finance grew by 14.1% from 2008 to 2009 and by 46.9%, or 9.4% per annum, from 2004 to 2009. Health insurance represented 53.4% of total health system finance in 2009, and averaged 53.3% of total health system finance for the period 2004 – 2009.

Data presented in Table 2 indicates that household financing of the health system represented 13.6% of total health system finance in 2009, and

has averaged 14.6% of total financing since 2004. Household financing has grown 8.9% per year, on average, since 2004.

### **3.2. Health System Expenditure 2004 to 2009**

Data presented in Table 4 shows that total health system expenditure grew by 47.5% over the five year period, or an average annual growth rate of 9.5% per annum. Total health system expenditure is estimated to have grown by 12.4% from 2008 to 2009.

Data presented in Table 5 indicates that Bermuda's total health system expenditure averaged 8.8% of nominal GDP for the period 2004-2009. Total health system expenditure from 2004 to 2009 experienced an average year over year growth rate of 8.1%. This rate of growth slightly outpaced the 7.9% year over year growth rate of nominal GDP for the 2003 to 2008 period.

Inflation in health care service pricing has contributed to the strong rate of growth in health system expenditure since 2004; the Department of Statistics reported that during the period 2004-2009 the health and personal care price index, a component of Bermuda's consumer price index (CPI), experienced an average year over year growth rate of 5.6%<sup>6</sup>. That is versus a 3.3% year over year rate of growth for the CPI All Items<sup>7</sup>.

#### **Public Sector Health System Expenditure 2004 – 2009**

Table 4 shows that total public sector health expenditure grew by 4.2% from 2008 to 2009, and by 57.9%, or 11.6% per year on average, from 2004 to 2009. Public health system expenditure as a percentage of total health system expenditure averaged 47.2% from 2004 to 2009 (see Table 5) and averaged 4.2% of nominal GDP. Per capita public health system expenditure rose from BD\$ 2,619 in 2004, to BD\$ 3,432 in 2007, to BD\$ 4,065 in 2009.

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<sup>6</sup> Taking this into account, real growth in health system expenditure, i.e. expenditure growth attributable solely to increases in utilization and productivity, could be interpreted as 2.5% over the period. However, utilizing a real growth analysis would exclude the role of inflation in the growth of Bermuda's health system expenditure.

<sup>7</sup> Department of Statistics. (2010). Consumer Price Index Report March 2010. Government of Bermuda: Bermuda.

**Table 4.** Health System Expenditure 2004-2009 (BD\$ '000)

Health Expenditure	2004	2005	2006	2007	2008	2009	08 vs. 09 (%)	2004 -2009 (%)	AAGR (%)
<b>Total Public Expenditure</b>	<b>675,699</b>	<b>755,276</b>	<b>867,399</b>	<b>952,606</b>	<b>1,022,899</b>	<b>1,112,193</b>	<b>8.7</b>	<b>64.6</b>	<b>12.9</b>
Ministry of Health <sup>1</sup>	24,538	25,581	28,870	29,533	32,859	36,528	11.2	48.9	9.8
<i>Promotion/prevention/curative care</i>	19,445	20,241	22,406	24,540	29,463	28,023	-4.9	44.1	8.8
<i>Administration</i>	5,093	5,340	6,464	4,993	3,396	8,505	150.4	67.0	13.4
DOSI HIP administration <sup>1</sup>	-	3,000	3,000	3,000	3,000	-	-	-	-
Bermuda Hospitals Board <sup>2</sup>	141,267	155,027	171,012	187,134	215,458	225,240	4.5	59.4	11.9
<i>Curative care</i>	81,662	87,429	91,887	102,711	119,927	N/A	-	-	-
<i>Medical &amp; general supplies</i>	27,057	30,776	36,164	39,722	44,368	N/A	-	-	-
<i>Administration</i>	18,067	19,821	23,474	24,895	27,736	N/A	-	-	-
<i>Physical plant &amp; equipment</i>	14,327	11,586	13,673	13,825	16,581	N/A	-	-	-
<i>Other</i>	154	5,415	5,814	5,981	6,846	N/A	-	-	-
<b>Public sector sub-total</b>	<b>165,805</b>	<b>183,608</b>	<b>202,882</b>	<b>219,667</b>	<b>251,317</b>	<b>261,770</b>	<b>4.2</b>	<b>57.9</b>	<b>11.6</b>
Local practitioners <sup>3,4</sup>	72,605	73,149	74,016	77,122	76,206	86,384	13.4	19.0	3.8
<i>Physicians</i>	49,792	50,030	51,126	53,110	53,526	59,303	10.8	19.1	3.8
<i>Dentists</i>	22,813	23,119	22,890	24,012	22,680	27,081	19.4	18.7	3.7
Other providers, services & appliances <sup>3,4</sup>	34,983	34,320	34,650	35,795	37,113	41,363	11.5	18.2	3.6
Prescription drugs <sup>3,4</sup>	36,389	36,570	36,551	36,935	37,121	37,426	0.8	2.8	0.6
Overseas care <sup>3,4</sup>	41,967	42,172	50,037	59,074	62,267	86,518	38.9	106.2	21.2
Health insurance administration <sup>3,4</sup>	26,388	26,497	28,289	31,051	32,296	44,276	37.1	67.8	13.6
<b>Private sector sub-total</b>	<b>212,332</b>	<b>212,708</b>	<b>223,543</b>	<b>239,977</b>	<b>245,003</b>	<b>295,969</b>	<b>20.8</b>	<b>39.4</b>	<b>7.9</b>
<b>Total Health System Expenditure</b>	<b>378,137</b>	<b>396,316</b>	<b>426,425</b>	<b>459,644</b>	<b>496,320</b>	<b>557,739</b>	<b>12.4</b>	<b>47.5</b>	<b>9.5</b>

SOURCE:

1. Ministry of Finance - The Financial Statements of the Related Organizations and Funds (The Public Accounts) of the Government of Bermuda 2005 through 2009, and The Accountant General - Financial Statements of the Consolidated Fund, March 31, 2004, through 2009.
  2. Bermuda Hospitals Board Annual Reports 2004 through 2008.
  3. BHeC 2009 health insurance claims returns and BMA 2009 statutory insurance financial returns.
  4. Bermuda Health Systems and Services Profile 2005 & 2009.
- N/A: Data Not Available

Expenditure by the Ministry of Health, via the Department of Health's health promotion, prevention, and curative care programs rose by 44.1% from 2004 to 2009, or 8.8% per year on average. However, as Table 4 shows, these combined programs saw expenditure fall by 4.9% from 2008 to 2009. Administration costs in the Ministry of Health rose by 67.0% from 2004 to 2009 or an average 13.4% per year.

The Bermuda Hospitals Board's expenditures grew by 59.4% from 2004 to 2009, or 11.9% per year on average. The BHB's 2009 expenditure represented a 4.5% increase over the 2008 level. BHB's annual expenditure averaged 40.2% of total health system expenditure for the five year period 2004 to 2009 (see Table 5).

### Private Sector Health System Expenditure 2004 – 2009

Table 4 shows that total private sector health system expenditure grew by 39.4% from 2004 to 2009, and rose by 20.8% from 2008 to 2009. The fastest growth in private sector health system expenditure during the period was experienced in the overseas care category of expenditure, which rose by 106.2%, or 21.2% per year on average. Overseas care expenditure rose by 38.9% in 2009 from 2008.

**Table 5.** Analysis of Health System Expenditure 2004-2009

Analysis	2004	2005	2006	2007	2008	2009	08 vs. 09 (%)	Avg. (%)
Estimated population	63,320	63,571	63,797	64,009	64,209	64,395	0.3	-
Total health system exp. (BD\$ '000)	378,137	396,316	426,425	459,644	496,320	557,739	12.4	-
Per capita health exp. (BD\$)	6,080	6,390	6,817	7,372	7,885	8,661	12.1	-
Total public health exp. (BD\$ '000)	165,805	183,608	202,882	219,667	251,317	261,770	4.2	-
Total public health exp. per capita (BD\$)	2,619	2,888	3,180	3,432	3,914	4,065	3.9	-
Public health exp. as % of total health exp.	43.7%	45.2%	46.6%	46.6%	49.6%	46.9%	-	47.2
BHB exp. as % of total health exp.	36.7%	38.2%	39.3%	39.7%	42.6%	40.4%	-	40.2
Prescription drug exp. as % of total health exp.	9.5%	8.7%	8.0%	7.5%	6.6%	6.7%	-	8.3
Overseas care exp. % of total health system exp.	11.1%	10.6%	11.7%	12.9%	12.5%	15.5%	-	12.4
Nominal GDP 2003-2008 (BD\$ '000,000)*	4,169	4,465	4,846	5,356	5,828	6,093	4.6	-
Total health exp. share of GDP 2003-2008 (%)*	9.1%	8.9%	8.8%	8.6%	8.5%	9.2%	-	8.8
Public health exp % of GDP.	4.0%	4.1%	4.2%	4.1%	4.3%	4.3%	-	4.2%
Nominal GDP 2003-2008 YoY growth rate (%)*	-	7.1%	8.5%	10.5%	8.8%	4.6%	-	7.9
Health system exp. YoY growth rate (%)	-	4.8%	7.6%	7.8%	8.0%	12.4%	-	8.1
Health & Personal Care Price Index (%)	-	2.4%	5.7%	6.8%	6.6%	6.7%	-	5.6

SOURCE: Ministry of Finance, Department of Statistics, Bermuda Hospitals Board.

\* The GDP data figures presented are for 2003 to 2008. GDP figures are reported on a calendar year basis. The Bermuda health system's fiscal year is April 1<sup>st</sup> to March 31<sup>st</sup>.

Health insurance administration shows the next largest increase in expenditure rising by 67.8% from 2004 to 2009, or 13.6% per year on average. Health insurance administration is estimated to have increased by 37.1% from 2008 to 2009.

Physician fees are estimated to have increased by 19.1% between 2004 and 2009, or 3.8% per year. Dentist fees rose by 18.7% over the same period, or an average 3.7% per year on average. Fees paid under the category of "other providers, services and appliances" rose by 18.2% from 2004 to 2009, or an average 3.6% per year.

Finally, prescription drug expenditure rose by 2.8% from 2004 to 2009, or 0.6% per year. Expenditure for prescription drugs averaged 8.3% of total health system expenditure from 2004 to 2009 (see Table 5).

## 4. Conclusions

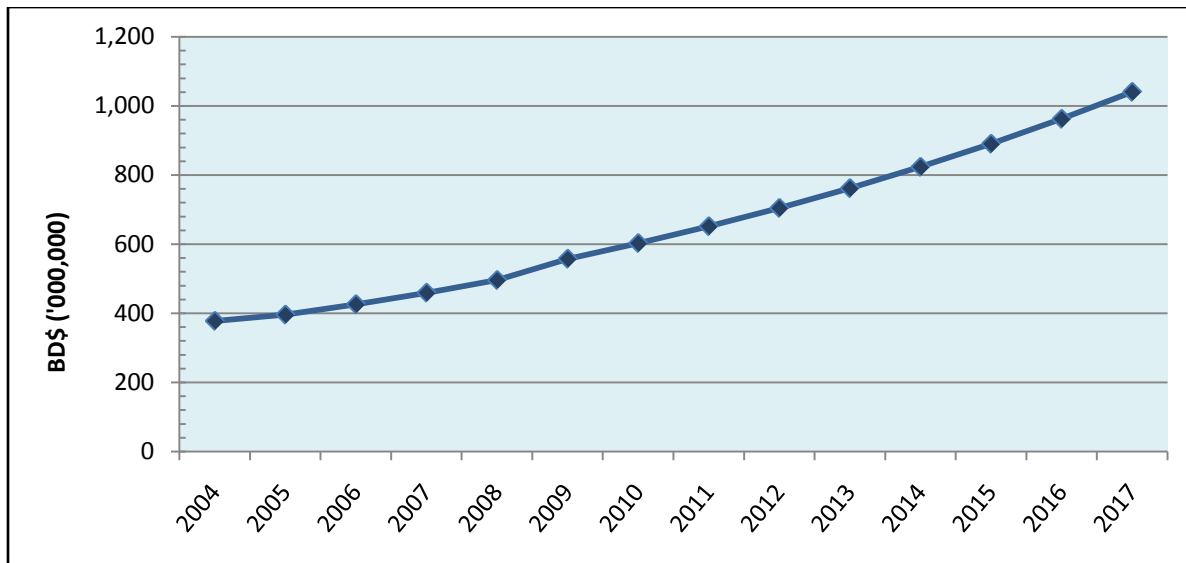
Health system finance and expenditure grew at a compounded average annual growth rate of 8.1% during the period 2004 to 2009. The average year over year growth of total health system expenditure for the period exceeded growth in Bermuda's nominal GDP, but by only 0.2 percentage points. Rapidly rising expenditure on overseas care has been leading the rise in overall health care costs and this is being borne by the insured public via rising health insurance premiums. The growth in the cost of health insurance administration is also a cause for concern.

Total health system expenditure reached BD\$ 8,661 per capita in 2009. This is significant in that this figure represents 9.2% of Bermuda's 2008 per

capita income of BD\$ 92,818. The Department of Statistics estimated in 2008 that 11% of the island's households live on incomes below BD\$ 36,605<sup>8</sup>. Thus, for Bermuda's low income population cohort, the cost of health care may be a significant financial challenge.

This clearly brings into focus the question of the sustainability of the current trajectory of Bermuda's health system expenditure. As Figure 2 indicates, continuation of the 8.1% average compounded rate of growth will see Bermuda's total health system expenditure grow to just over BD\$ 1 billion by 2017. With this in mind, Bermuda's health system policy-makers and planners will need to ascertain whether the island's economy will be able to keep pace to support this trajectory of health system expenditure, and, if needed, implement strategies to prevent an unsustainable level of increase relative to GDP growth.

**Figure 2.** Projected Health System Expenditure



<sup>8</sup> Department of Statistics. 2008. Low Income Thresholds, A Study of Bermuda's Households in Need. Government of Bermuda: Bermuda.

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