2016

NATIONAL HEALTH ACCOUNTS REPORT

Bermuda health system finance and expenditure for fiscal year 2014-2015

Bermuda Health Council

National Health Accounts Report 2016

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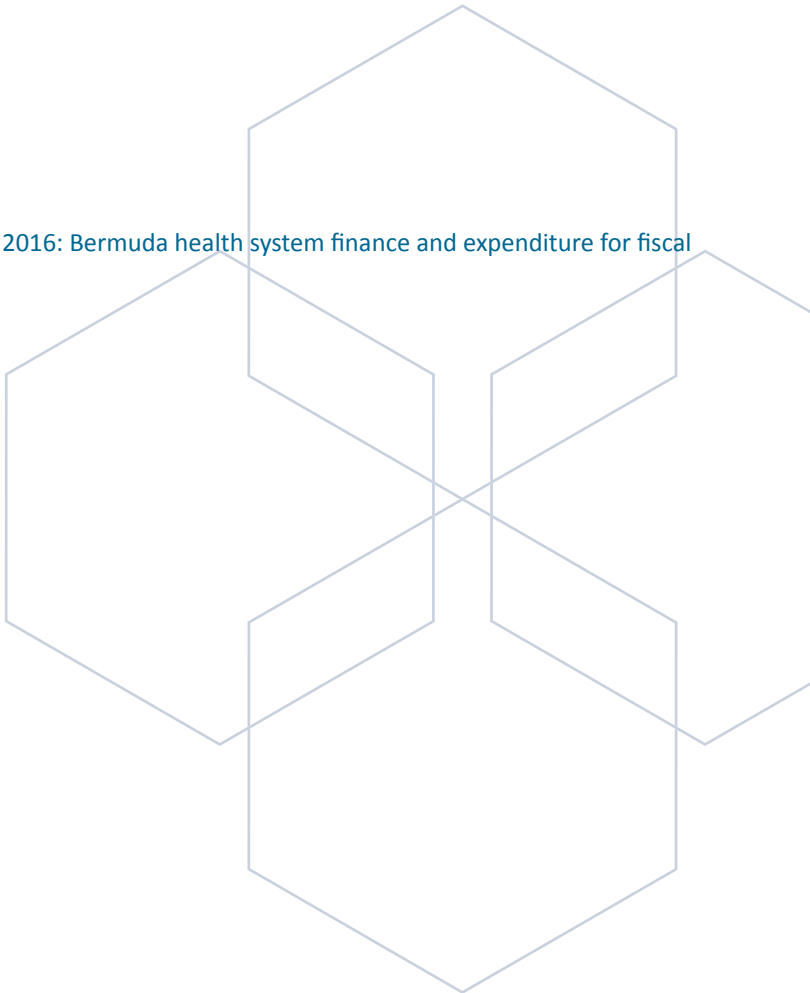
Published by:
Bermuda Health Council (February 2017)

Reference as:
Bermuda Health Council (2017) National Health Accounts Report 2016: Bermuda health system finance and expenditure for fiscal year 2014-2015. Bermuda Health Council: Bermuda.

Printed by:
Bermuda Health Council



Acknowledgements

The *2016 National Health Accounts Report* is the product of a collaboration between the Bermuda Health Council and various external stakeholders both local and international. This report would not have been completed without the contributions and support of the Accountant General's Department, Bank of N T Butterfield, Bermuda Cancer and Health Centre, Bermuda Diabetes Association, Bermuda Heart Foundation, Bermuda Hopsitals Board, Bermuda Life Insurance Company (Argus), BF&M Life Insurance Company, Colonial Medical Insurance Company, Department of Social Insurance, Department of Statistics, Government Employees Health Insurance Scheme, Health Insurance Department, HSBC Bermuda, Ministry of Health and Seniors, Lady Cubitt Compassionate Association (LCCA) and PALS. Additionally, appreciation is due to peer reviewers who provided scholarly advice and guidance: Collin Anderson, Jennifer Attride-Stirling, Laquita Burrows, Howard Cimring, Peter Heller, Stanley Lalta, Lorraine Lipschutz and Brian McLeod.

Bermuda Health Council

National Health Accounts Report 2016:

Bermuda health system finance and expenditure for fiscal year ending 31st March 2015

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HIGHLIGHTS: HEALTH SYSTEM FINANCE AND EXPENDITURE

The following is an overview of Bermuda's health system finance and expenditure for fiscal year ending 31st March 2015

PUBLIC SECTOR FINANCING
28.5%

PRIVATE SECTOR FINANCING
71.5%

Per Capita Health System Expenditure
$11,102
▼0.8%

Total Health System Expenditure
$685,829,000
▼1.1%

PUBLIC SECTOR EXPENDITURE

- **43.9%** PATIENT SUBSIDIES & HOSPITAL GRANTS
- **3.8%** DEPARTMENT OF HEALTH
- **2.1%** MINISTRY OF HEALTH AND SENIORS

PRIVATE SECTOR EXPENDITURE

- **6.4%** PRESCRIPTIONS
- **9.5%** HEALTH INSURANCE ADMINISTRATION
- **10.2%** LOCAL PRACTITIONERS
- **13%** OVERSEAS CARE
- **11%** OTHER CARE & APPLIANCES

HIGHLIGHTS: **HEALTH IN CONTEXT**

The following provides a snapshot of the health systems and access to care in Canada, Bermuda, Jamaica, USA, Switzerland and Portugal.

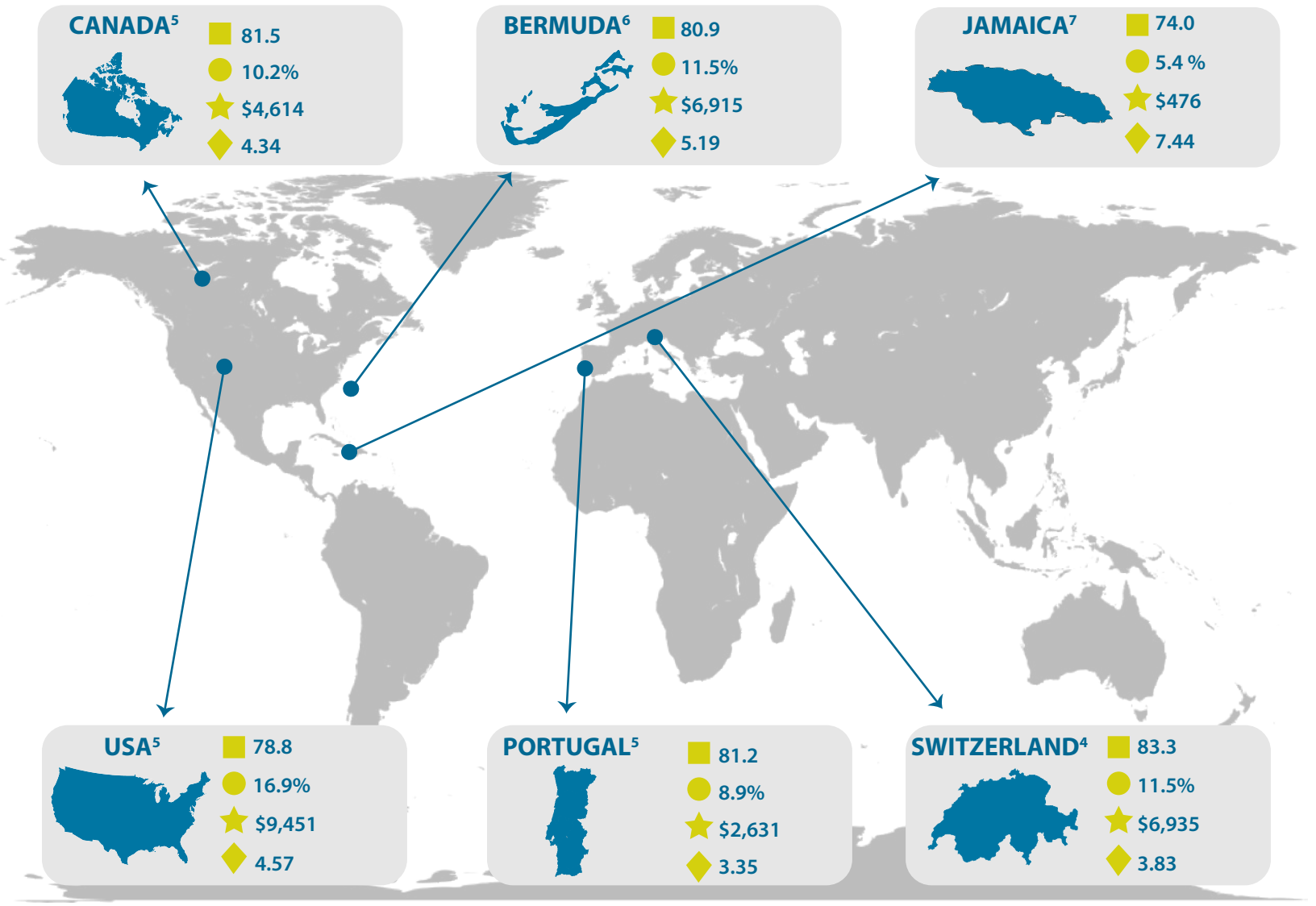
Canada: Universal coverage is available to all documented residents through their province and territory, however, about 2/3 of all residents opt to have private insurance coverage for additional supplemental benefits. through a group policy. In 2013, approximately 90% of private insurance premiums were paid through group policies.[1]

Jamaica: Until 2008, public health facilities had user fees which acted as a deterrent for over utilisation. Abolotion of user fees meant improved access to care which was shown by a 10% increase in use of public facilities by the lower income 20% of the population.[2]

USA: Implementation of Affordable Care Act has helped to increase access to health coverage. 17..6 million uninsured working adults now have health coverage and this figure is projected to increase to 24 million by 2018.[1]

Portugal: The National Health System offers coverage to all residents without a copayment for the majority of health care services within a national network. Residents can expect to pay a copayment for care provided outside of the nationally covered network of providers.[4]

Switzerland: Public sector funding is provided through taxation, social insurance contributions and mandatory statutory health insurance (SHI) premiums. SHI coverage is universal and residents are legally required to purchase it within three months of arrival in Switzerland. Coverage applies to the individual, is not provided through employers and dependents require their own policy.[1]



[1] 2015 International Profiles of Health Care Systems. Elias Mossialos, Martin Ward, Robin Osborn and Dana Sarnak
[2] Health Financing Profile - Jamaica. Dr Deena Class, Eleonora Cavagnero, Sunil Rajkumar, Katharina Ferl
[3] OECD (2015), OECD Reviews of Health Care Quality: Portugal 2015: Raising Standards, OECD
[4] stats.OECD.org
[5] 2010 Bermuda Census Report: Population and Housing
[6] World Databank

SECTION 1 - INTRODUCTION

National Health Accounts are an internationally accepted tool for collecting, cataloguing and estimating financial flows through the health system. These reports provide a snapshot of the current financial position of a healthcare system and are designed to serve as a policy development tool for improving the capacity of countries to manage their public and private health systems.

Each year, since 2010, the Bermuda Health Council1 reviews the features of Bermuda's health system to identify services and programs that are operating well and conversely, opportunities for improvement. During that process, the Council considers system components that can improve health outcomes related to efficient use of health resources, understanding of health system trends, and dynamics of financial flows that accompany the delivery and consumption of healthcare goods and services.

Based on observations of health system changes over time, a number of initiatives for health system improvement have been conceptualized, developed or implemented. Recent initiatives include:

- Developing the *Bermuda Health Strategy*[2] and *Health Action Plan*[3] which describe health system priorities and details the plan for improving the quality, equity and sustainability of our health system.
- Creating health system reform working groups which encompass a number of initiatives aimed at improving access to healthcare and improving health outcomes through expansion of mandated health insurance coverage and case management programmes for the un-insured and under-insured population with non-communicable chronic conditions.
- Identifying health conditions that require greater collaboration of public health entities. The need for multi-disciplinary approaches to care is demonstrated through currently siloed expenditures of health and insufficient progress in enhancing population health outcomes.

To justify programs and drive priorities for the future, the 2016 version of the *National Health Accounts Report* reviews health system finance and expenditure for the fiscal year ending 2015 (FYE 2015)[4]. The process of review is forged through input from multiple healthcare databases, financial statements, public feedback, and economic information. The ultimate goal of publication is to support a healthier Bermuda and a system that will meet the increasing health demands of patients. With distribution of this report, system analysts, policy makers and health managers can better collaborate for a progressive path forward to achieve the short and long-term health system goals.

Although this report primarily analyses high quality data provided by local sources, it leverages international sources and builds on OECD[5], World Health Organization (WHO), and European Commission guidelines for

[1] www.bhec.bm
[2] Ministry of Health and Seniors (2016) Bermuda Health Strategy 2014-2019. Government of Bermuda.
[3] Ministry of Health and Seniors (2016) Bermuda Health Action Plan 2014-2019. Government of Bermuda.
[4] Fiscal year 2015 is the period between 1st April 2014 and 31st March 2015.
[5] OECD stands for Organisation for Economic Co-operation and Development, an international economic organization of 34 countries.

developing Health Accounts. This use of the global framework for producing health accounts better allows for regional comparisons and cross-country knowledge transfer.

The 2016 Health Accounts is structured as follows:

- Section 1 – **Introduction:** contextually describes the goals of the National Health Accounts and how it helps to guide the health system
- Section 2 - **Health System Finance and Expenditure in FYE 2015**: provides an analysis of health finance and expenditure in Bermuda for the period 1st April 2014 to 31st March 2015
- Section 3 - **Health Costs in Context**: provides observations that place Bermuda's health system finance and expenditure into context with OECD countries
- Section 4 – **Discussion**: concludes the report with a summary of the key findings and identification of common concerns with the health system

SECTION 2 – HEALTH SYSTEM FINANCE AND EXPENDITURE

2.1 Health System Overview

Bermuda's health system finance and expenditure is characterised by financial flows to and from public and private sectors. The public sector is funded by mandated government taxes and duties, while the private sector is funded by mandatory and voluntary health insurance, out-of-pocket payments and non-profit sources. For a health system, it is important that both public and private funding mechanisms are sustainable and align with health sector objectives.

2.2 Health System Finance: Public and Private Sector

Healthcare financing, allocated from taxes and duties, is a leading spend for Bermuda's public sector, almost equal to servicing the country's fiscal debt. As future initiatives are developed, it is important to understand how healthcare fits within the larger economic profile of Bermuda's budgets. The current trend of allocating more than $190M in government funds annually to healthcare within a small jurisdiction, is an area that must be tracked and reviewed as a potential economic risk. Additionally, while Bermuda's private sector is primarily insurance-based, it is not solely commercial as the government administers health insurance plans and carries the cost-thereof, often for high-risk individuals.

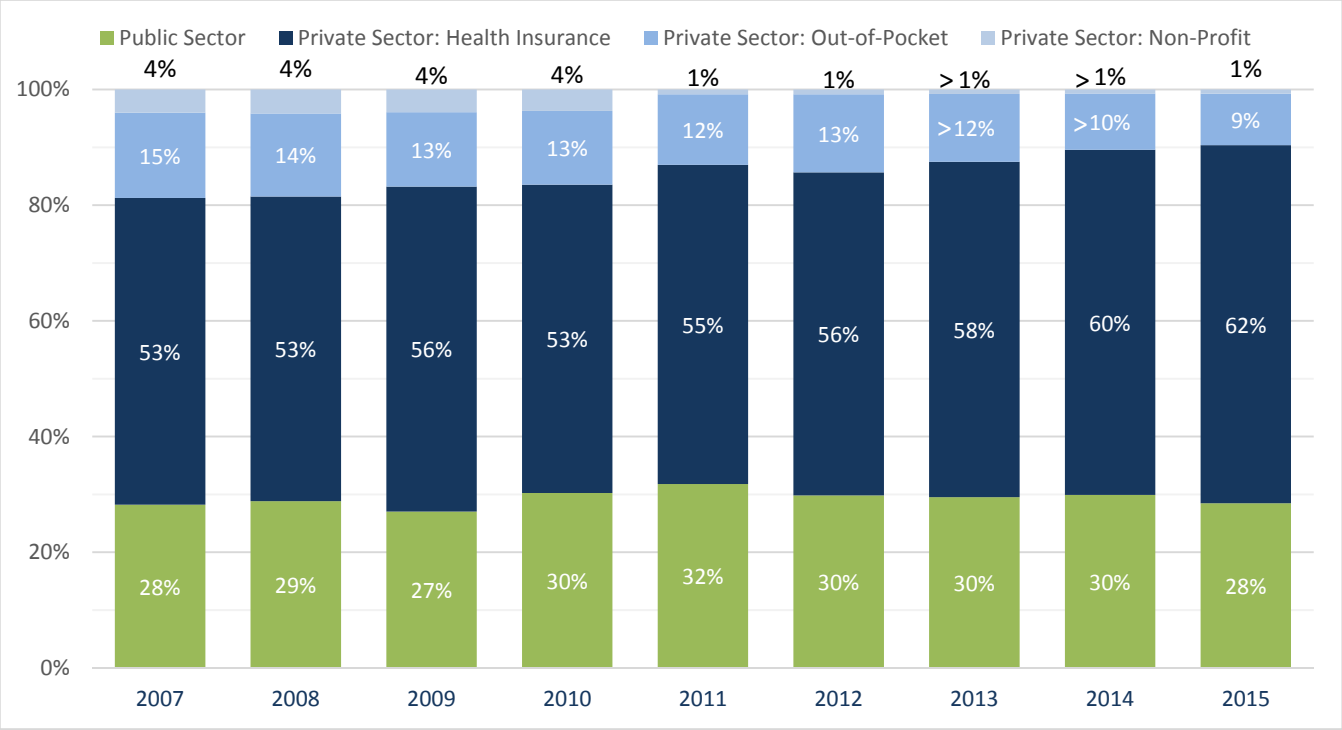
In most developed and middle-income countries government-funding of healthcare has become central to social policy and health care with approximately 75% of healthcare financing met by public sources in nearly all OECD countries[6.] In Bermuda, this trend is reversed with the private sector accounting for 72% of the financing (Figure 2.2.1). Between 2007 and 2015, the sources of financing for the health system trended towards higher levels of health insurance coverage and relative reductions in out-of-pocket spending, both of which are primarily private sector based. As a government becomes less engaged in the financing of healthcare, there is the risk of reductions in the theoretical and practical grounds of improvements in health equity and efficiency. In many jurisdictions, the significant financing role of government allows for greater protection of its public from avoidable disease, promotes a cost-effective health care system, supports the provision of efficient health services and creates greater access to healthcare for the lower income and vulnerable populations.

Local statistics on the broad scope of healthcare coverage (an estimated 90% of the Bermudian population is insured[7]) demonstrate progress toward universal health coverage. According to the World Health Organization, "Universal health coverage means that all people receive the health services they need without suffering financial hardship when paying for them. The full spectrum of essential, quality health services should be covered including health promotion, prevention and treatment, rehabilitation and palliative care."[8] During the reporting period, there were increases in payments for health insurance, greater use of health services within the acute care setting, and a decline in out-of-pocket payments. These factors may indicate that care is diverted or utilized within the

[6] OECD (2015), Health at a Glance 2015: OECD Indicators, OECD Publishing, Paris.
[7] Department of Statistics: 2010 Census Population and Housing Report.
[8] http://www.who.int/universal_health_coverage/en/

higher cost acute care setting in lieu of having services delivered in facilities where out-of-pocket contributions were required.

Figure 2.2.1 – Sources of Health Financing: Public and Private Sector



COMPONENTS OF PUBLIC SECTOR FINANCING

During FYE 2015, public sector financing represented all funds provided by the Government to public health services such as:

- Health Insurance Department for the public health insurance plans[9] and administration of patient subsidies;
- Public health promotion and disease prevention;
- Public health services and primary care provided through the Department of Health;
- Various grants to non-profit organizations[10] for health-related purposes; and
- Health administration.

Patient subsidies in Bermuda are funded primarily through taxes. These funds are collected into the Government's Consolidated Fund and used to reduce monthly health insurance premiums and out-of-pocket costs for eligible individuals. For example, patient subsidies are used in the support of health claim costs for services delivered at the local hospital for individuals aged 65 years and older. These funds are also used in an effort to ensure comprehensive care and access to a set of local hospital-provided services for the youth and low-income persons

[9] FutureCare and the Health Insurance Plan (HIP) are Bermuda's two affordable, open enrolment health insurance plans provided by the Health Insurance Department of the MoH. FutureCare is available only to persons aged 65 and over. HIP is available to any adult.
[10] Prior to 2011, the financing of government grants were included in private sector financing.

– particularly those without access to coverage through an employer. During FYE 2015, patient subsidies accounted for 56.8%[11] of public sector financing which represented a 4.3% decrease in subsidies from FYE 2014 ($115.5 million to $110.5 million). The reduction in patient subsidies did not indicate a decrease in need for services, but rather a redetermination of how subsidy funds will be allocated and under what conditions. In Bermuda, discussions on the equitable use of broad patient subsidies continue as alternative models such as premium subsidies, or means testing for subsidization, have been implemented in various jurisdictions globally. With changing profiles and aging of Bermuda's resident population, revenue generated for the health system through taxation should be reconsidered as the primary means of subsidy contribution.

COMPONENTS OF PRIVATE SECTOR FINANCING

During FYE 2015, private sector financing accounted for $491 million compared to $195 million in the public sector. While the change in private sector financing between FYE 2014 and FYE 2015 was minimal (1.1%), the public sector financing decreased by 6.2%, likely a result of a 28.4% decrease in Ministry of Health and Seniors' financing (Appendix A.2).

During FYE 2015, private sector financing represented all funds provided by the private sector to fund health services such as:

- Health insurance premiums
- Out-of-pocket payments to providers
- Charitable donations

Health Insurance Premiums

Health insurance is the primary payor of healthcare on the island and overseas. For every dollar spent through public funds, there are more than two-and-a-half dollars being locally financed through voluntary or compulsory health insurance purchase[12]. Figure 2.2.2 shows the relative size of Bermuda's health system's public and private sectors as sources of funding over time. As noted, the private sector financing has increased and is currently 2.5 times larger than public financing of health services.

Health insurance includes financing of healthcare using insurance premiums through:

- Three private health insurance companies
- Two public insurance plans
- Three Approved Schemes
- Mutual Re-insurance Fund (MRF)

A significant portion of the premiums paid are compulsory from employees (including self-employed persons) and employers[13]. This compulsory portion of health insurance is called the Standard Health Benefit (SHB) which is the

[11] $110.5 million in MoH subsidies as a percentage of the $194.6 million in total public sector financing.
[12] The majority of health insurance premiums are paid through compulsory health insurance purchase. Based on the *OECD, Eurostat, WHO (2011), A System of Health Accounts, OECD Publishing.*, it should therefore be classified as private sector financing.
[13] The *Health Insurance Act 1970* mandates employers to provide at least the Standard Health Benefit (SHB) insurance for employees and their non-employed spouses and to pay 50% of its premium (FYE 2015 Full SHB Premium = $301.85).

minimum package of benefits included in all local health insurance policies. This package covers the majority of local hospital services, and some diagnostic imaging and home medical services provided outside of the hospital. The specific services included in this package and the businesses approved to provide these services are defined by Government regulation and approved by the Bermuda Health Council on an annual basis.

Adjustments in SHB services are based on introducing cost effective interventions into the system that will improve population health and improve short and long term affordability of healthcare. The monthly cost of this package is referred to as the Standard Premium Rate (SPR). In FYE 2015, the SPR was $301.85, a decrease of 7.4% from FYE 2014's SPR of $325.84. As services provided within the SHB are covered by insurance without an associated out-of-pocket payment, it is important to continuously monitor the utilization of these services and their impact on premium costs. At the end of each fiscal year, an actuarial report is published that describes the spend on SHB services during the prior year.

Financing through health insurance in FYE 2015 was $425 million which was 26% higher than $414.6 million in FYE 2014.

Individual out-of-pocket and Non-Profit (Charitable) financing components

Between FYE 2014 and FYE 2015, there was a 9.3% decrease in the out-of-pocket payments from $66.4 million to $60.8 million, which factored critically into the 1% decrease private sector total health system financing.

Individual out-of-pocket financing includes any funds paid by the individual for goods and services not otherwise covered, including:

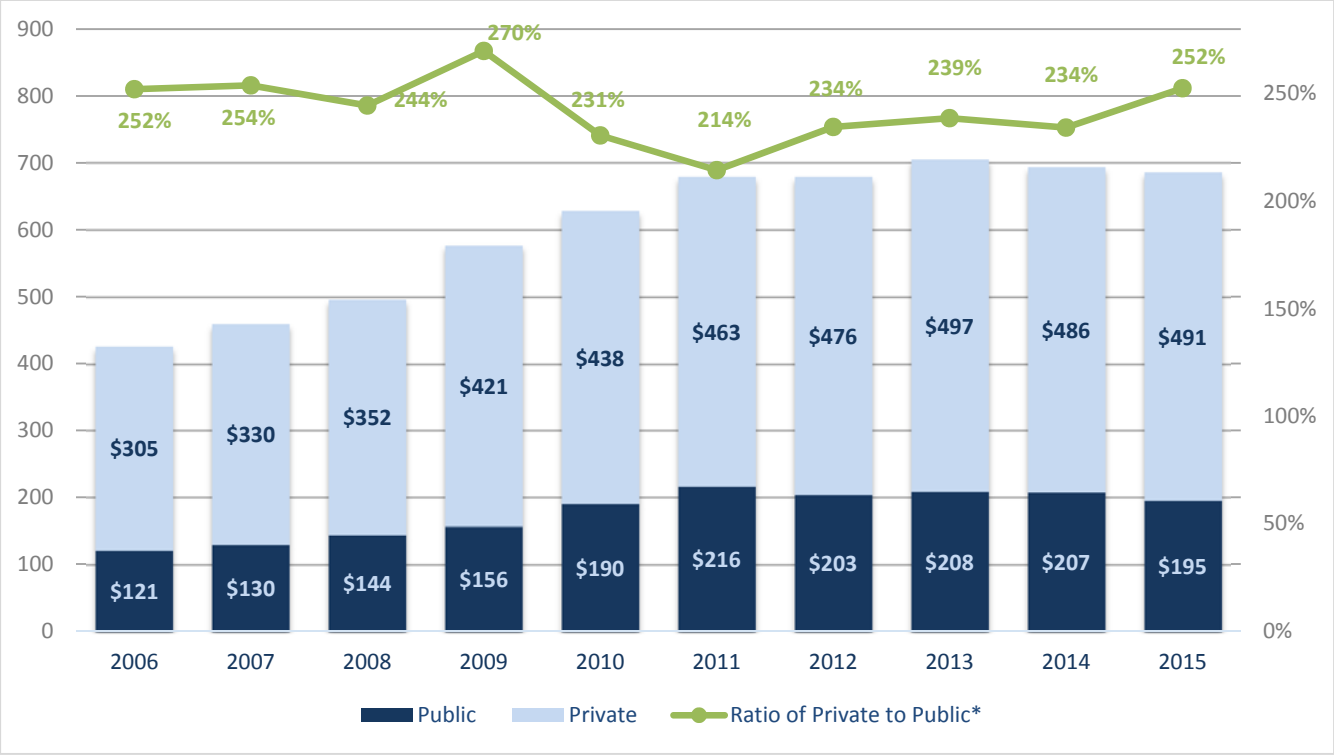
- co-payments (un-insured portion of health-related bill)
- self-financing amounts for un-insured individuals
- full out-of-pocket payments to practitioners and providers for non-covered health-related services

As out-of-pocket financing decreased, donations to the health system increased. In FYE 2015, funding through non-profits increased by 5.3% to $5.0 million from $4.7 million in FYE 2014, however their portion of total funding remained at 1%.

Non-profit financing includes donations received by non-profit health-related organizations which are then used to cover healthcare-associated costs for eligible individuals[14].

[14] A change in methodology for this item, together with a reclassification of financing received by non-profits from the public sector, has led to a more modest non-profit proportion since FYE 2011.

Figure 2.2.2 - Public and Private Health Financing (in $m)



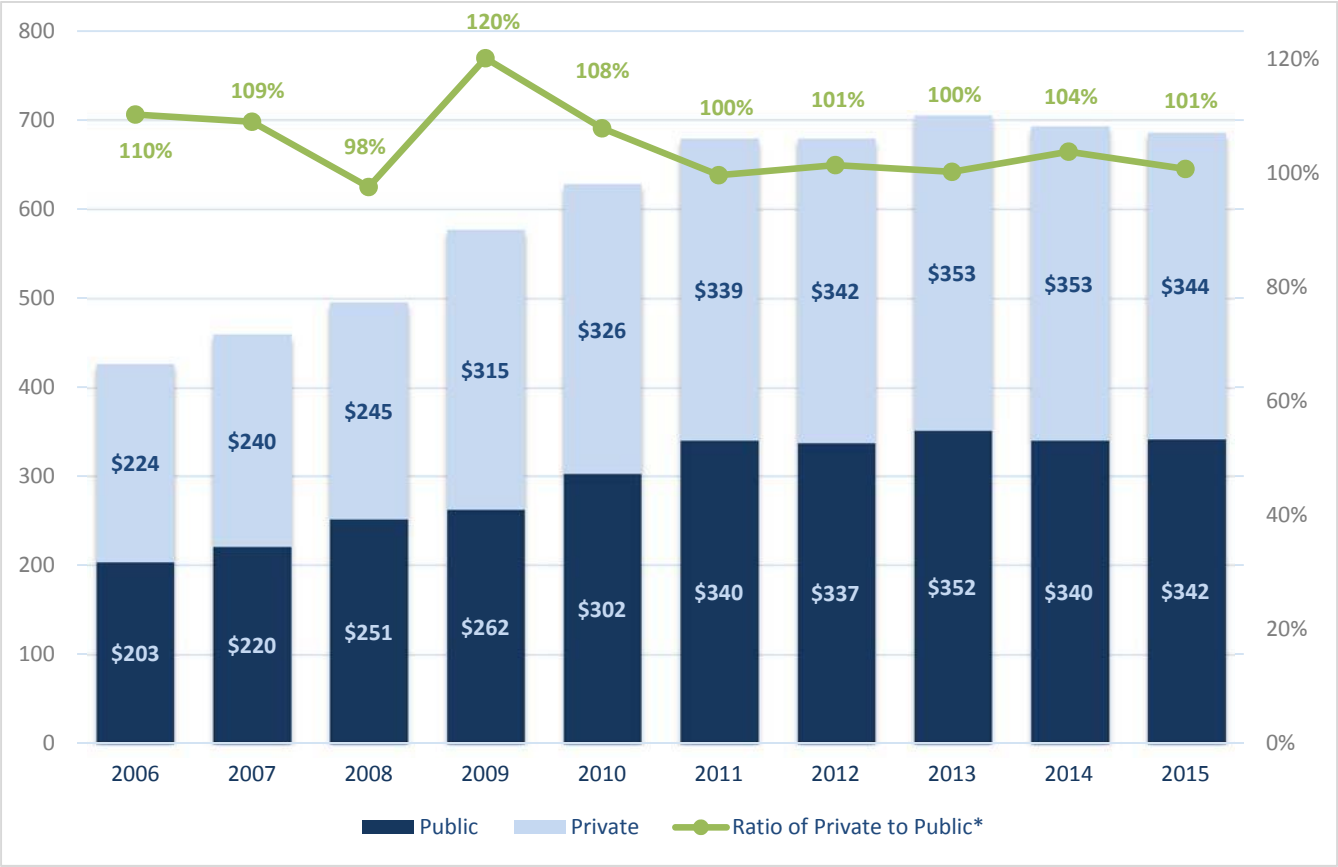
2.3 Health System Expenditure: Public and Private Sectors

As a balance to the financing of health, total health system expenditure for FYE 2015 was $685.8 million (Appendix A.1). Health system expenditure, like health system financing, is grouped into public and private sectors (Figure 2.3.1). Public sector expenditure captures the spend in Government-funded and/or operated entities, namely the Ministry of Health and Seniors and the Bermuda Hospitals Board (BHB)[15].

Private sector expenditure captures the spend in non-Government related categories: prescription drugs, health insurance administration expenses, local health providers, overseas care and medical appliances.

[15] Although expenditure to BHB comes from both public and private sector, the majority of public. funding is paid to the BHB therefore it has been classified as a public expenditure.

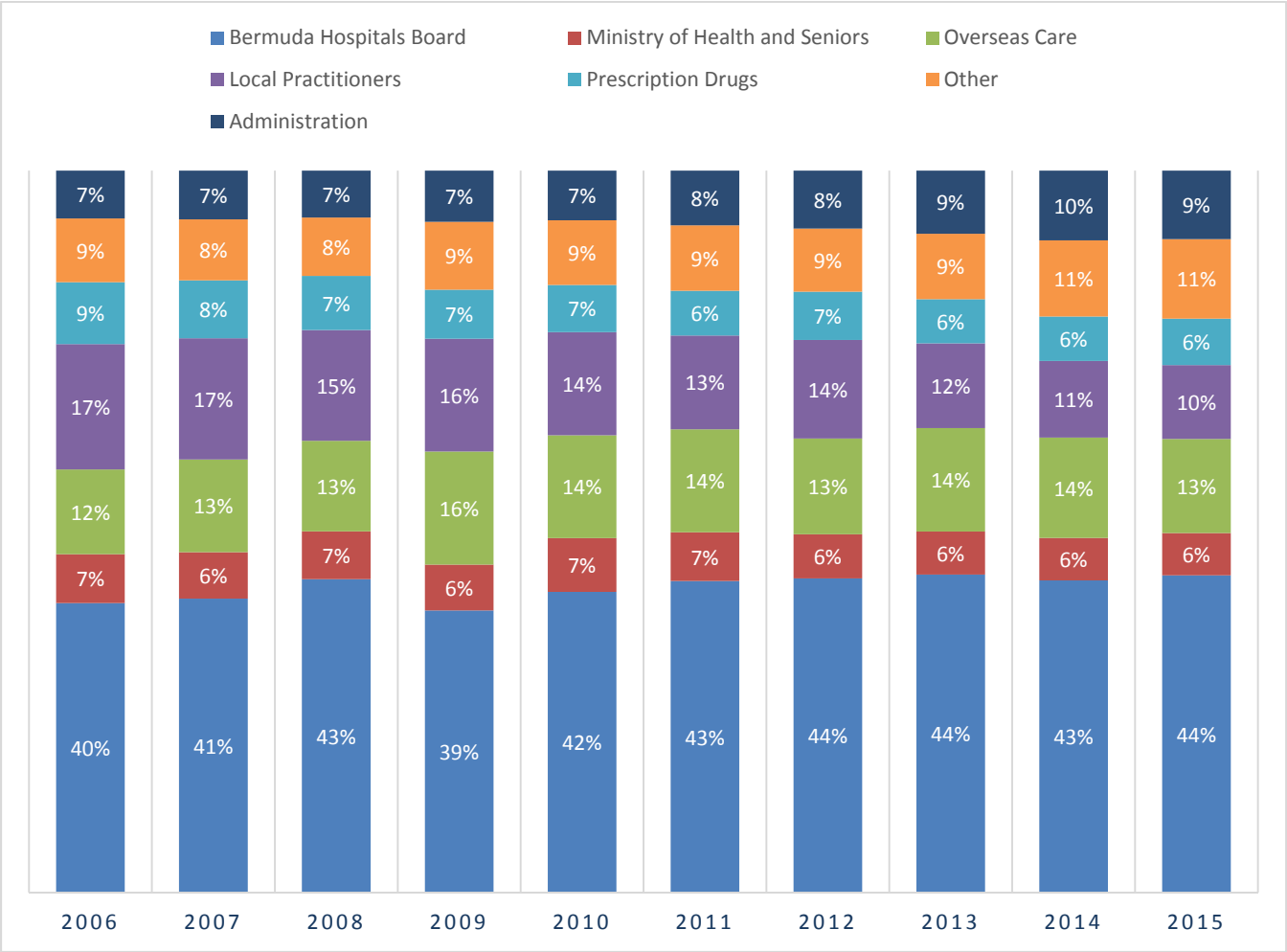
Figure 2.3.1 - Public and Private Health Expenditure (in $m)



In FYE 2015, public and private sector expenditure occupied nearly equal portions of total health expenditure at $342 million and $344 million respectively. This represents a 0.3% increase in public sector expenditure and 2.4% decrease in private, when compared to FYE 2014.

Figure 2.3.2 shows a detailed breakdown of public and private sector expenditure with an explanation of what is included in each category of expenditure.

Figure 2.3.2 - Components of Health Expenditure



COMPONENTS OF PUBLIC SECTOR EXPENDITURE

Bermuda Hospitals Board (BHB): expenditure for all inpatient and outpatient services provided at the King Edward VII Memorial Hospital, Mid-Atlantic Wellness Institute (MWI) and Lamb-Foggo Urgent Care Centre.

This expenditure represents 43.9% of total expenditure ($301.4 million of $685.8 million) and 88.2% of total public expenditure ($301.4 million of $341.6 million) (Appendix A.4). In FYE 2015, of the BHB's $301.4 million in revenue, 49.1% was received through patient subsidies and operating grants (including a $37.5 million grant to MWI).

Ministry of Health and Seniors: expenditure for all government-funded clinics and Department of Health community services.

In FYE 2015, $40.2 million of expenditure was for the delivery of public health services through the Ministry of Health and Seniors, a decrease of 1.3% from the previous year's $40.7 million.

This category represents expenditure for diagnosing and investigating health problems and health hazards in the larger community. Ministry of Health and Seniors expenditures are also used to inform, educate, and empower

people about health issues, especially amongst the most vulnerable populations. This decrease in expenditure, in isolation and when considered with the decrease in patient subsidies, can indicate a decrease in services provided by these entities or a decrease in utilization of these services.

COMPONENTS OF PRIVATE SECTOR EXPENDITURE

Overseas care: expenditure for health services and procedures provided to Bermuda's residents, outside of Bermuda.

Overseas care expenditure decreased by 7.2% from $96.3 million in FYE 2014 to $89.4 million in FYE 2015, representing 26% of private expenditure ($89.4 million of $344.3 million) and 13% of total expenditure ($89.4 million of $685.8 million).

Hospital care accounted for 52.3% of the total overseas health expenditure in FYE 2015 ($46.8 million of $89.4 million). The remainder of overseas care spending was for services such as non-hospital health providers, prescription drugs, diagnostic imaging and laboratory, and hotel and transportation costs.

In FYE 2015 SHB portability ceased which left a portion of the population with no coverage for overseas care. The decrease in overseas expenditure may be a reflection of this legislative change. Additionally, efforts have been made to provide more specialist care locally and to increase confidence in our health system; the decrease in overseas expenditure may also be a result of those initiatives.

Local practitioners: expenditure for all local physicians and dentists.

This is the second largest category of private expenditure at 10.2% of total expenditure and 20.4% of private health expenditures during FYE 2015. Specifically, the expenditure on local physicians declined by 9.5% while expenditure for dental practitioners increased by 2.2% (Appendix A.4). Expenditures attributed to local physicians peaked in FYE 2012 and have decreased annually through FYE 2015.

The decrease may be the result of residents using hospital facilities (expenditure at BHB increased in FYE 2015) rather than primary and secondary care options or forgoing care altogether. Additionally, with the increase in health insurance premiums and decrease in out-of-pocket financing, there are ongoing reviews of co-payments to determine the extent to which they influence individuals' decisions in seeking primary and secondary care.

Prescription drugs: expenditure for locally purchased prescription drugs.

During FYE 2015 this increased by 3.3% from $42.7 million to $44.1 million although the portion of total expenditure remained at 6%.

In the United States, increases in prescription drug expenditure in FYE 2015 were attributed to newer more expensive brand drugs, higher prices for existing drugs and fewer expiring patents[16]. As local wholesalers source the majority of their drugs from the United States, factors affecting drug prices and utilization trends in that jurisdiction will inevitably be reflected in local drug pricing and procurement. Sourcing drugs from alternate

[16] Centers for Medicare and Medicaid Services.

jurisdictions or in concert with other countries through bulk purchases may provide opportunities for greater selection when identifying the most cost-effective drug options.

Health insurance administration: expenditure related to the selling, general and administrative expenses of all licensed health insurance providers (insurers and approved schemes) including claims processing, payroll and advertising costs, sales expenses, and information technology costs.

In FYE 2015, administration saw a decrease of 2.8% for the first time in more than ten years (Appendix A.4) from $67 million in FYE 2014 to $65.1 million in FYE 2015.

Other Providers, Services, Appliances and Products: expenditure on local diagnostic imaging, laboratory services, professional services of a wide range of local health providers (including but not limited to specialised disease management counsellors, optometrists, allied health professionals and psychologists), immunizations, and home healthcare.

This expenditure increased by 3.3%. Of all the categories of expenditure, demand for and use of these services has increased significantly every year since FYE 2007 (Appendix A.4).

SECTION 3 - HEALTH COSTS IN CONTEXT

According to the OECD SBO-Health Joint Network[17], over the next 20 years health system expenditure is predicted to continue to rise faster than the Gross Domestic Product (GDP) and will occupy an increasing share of GDP if we do not improve existing health policies and utilization of resources—this goal is best driven by collaboration between Ministries of Health and Ministries of Finance. While the Ministries of Finance are typically focused on ensuring budgetary discipline, Ministries of Health are tasked with ensuring good population health and health system efficiency.

The Joint Network also reports that despite concerns with increasing expenditure, praise should be given for the associated increases in positive health outcomes, particularly the 10-year increase (on average) in life expectancy at birth since 1970. While this trend is also true for Bermuda, the *rate* of increase in life expectency has been lower than the OECD average with a higher rate of increase in health system share of GDP and health expenditure per capita.

In FYE 2007, per capita health system expenditure was $7,181. By FYE 2013 this had increased by 57.3% to $11,297 after which it declined by 1.7% to $11,102 in FYE 2015[18] (Appendix A.5). Although we have seen decreases in total health expenditure in FYE 2014 and FYE 2015, it is noteworthy the long-term impact that our declining population of working-age adults and increasing population of non-working, un-insured and under-insured individuals could have on health system costs.

Additionally, despite this recent trend of decrease, Bermuda's latest per capita health expenditure is still nearly double the OECD average ($6,915 vs $3,740 Purchasing Power Parity (PPP)[19] adjusted). There are also similar significant differences reported in health expenditure when comparing Bermuda to other island nations[20]. Figure 3.1 shows trends in per capita health expenditure, in PPP$, for Bermuda against the OECD average for FYE 2007 to FYE 2015.

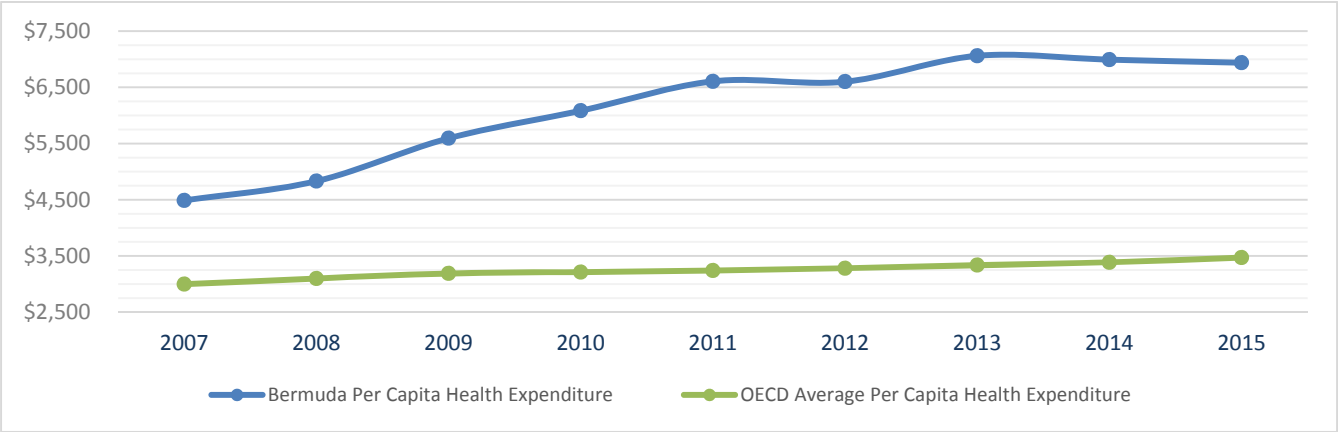
[17] In 2011, the OECD Senior Budget and Health Officials Joint Network was developed with representatives from Ministries of Health and Finance, World Health Organization, World Bank and other international organzations, universities and think tanks. *OECD (2015) Fiscal Sustainability of Health Systems: Bridging Health and Finance Perspective, OECD Publishing, Paris* was developed as a result of their collaboration to give their views and recommendations on fiscal sustainability, political economy's role in budgeting for health, aging, decentralization, cost containinment and views on recent financial crisis.

[18] Per capita health expenditure decreased by 1.0% from FYE 2013 to FYE 2014. It decreased by 0.8% from FYE 2014 to FYE 2015.

[19] PPP means Purchasing Power Parity. PPP adjustment is a technique to determine the relative value (purchasing power) of currencies.

[20] KPMG Report. (2015). Key Issues in Healthcare – An Island Healthcare Perspective.

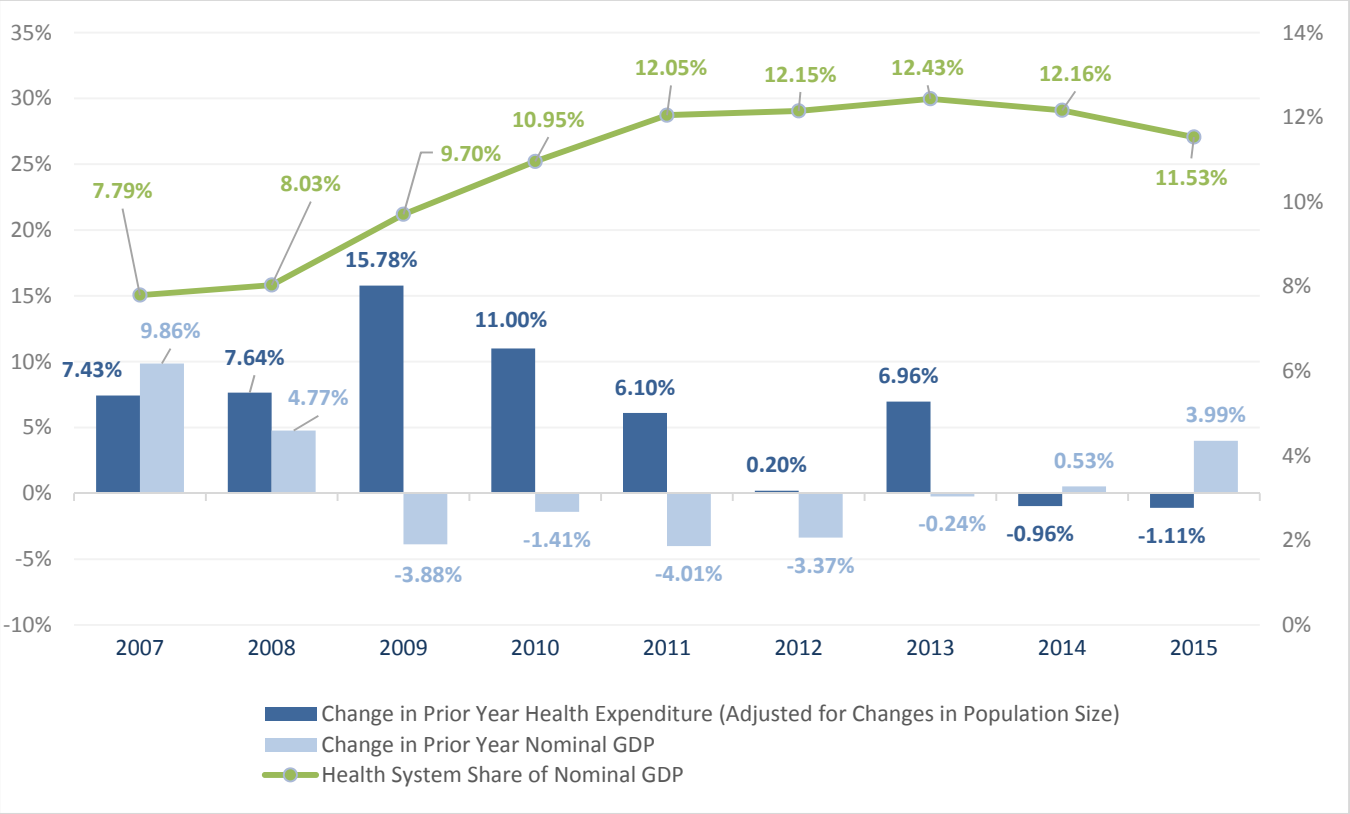
Figure 3.1 - Per capita health expenditure



An additional measure of health system impact is through consideration of its share of GDP. GDP represents the total cost of goods and services produced by the country, which therefore gives us an idea of how the economy is doing overall. In other words, if the GDP is increasing, the economy is improving. The health system share of GDP tells us how much we are spending on health as a portion of what we have spent overall which, when compared to other countries, gives us an idea of how financially efficient our health system is.

Figure 3.2 indicates the year-over-year change in the total system expenditure (adjusted for Bermuda's population), the change in Bermuda's nominal GDP, and the health system's share of GDP.

Figure 3.2 - Change in Health Expenditure and Nominal GDP

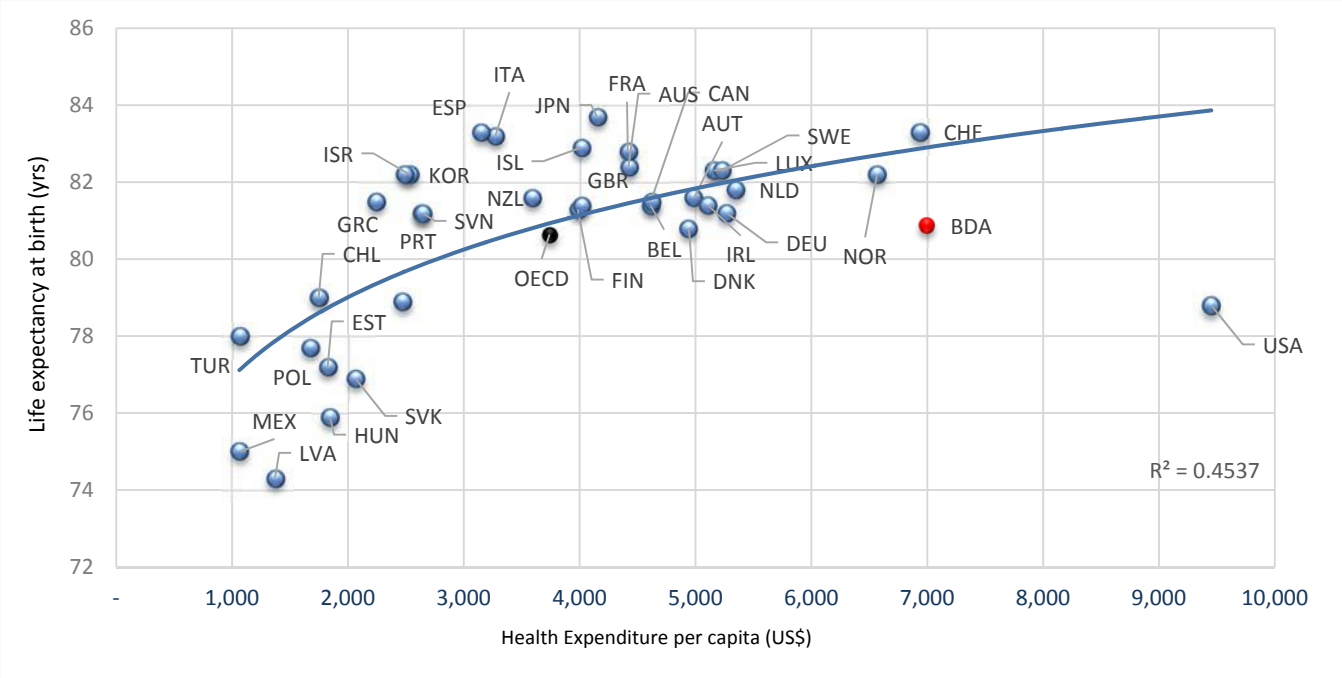


Between 2009 and 2013 there was a steady trend of decline in the nominal GDP, however it has improved over the last two years with an increase of 3.99% in 2015[21]. This GDP growth translates to a per capita GDP of $96,018 in 2015[22], [23].

The Pan American Health Organization (PAHO) recommends that public sector expenditure on healthcare reach a target rate of 6% of GDP. During 2013, Bermuda's aggegrate public and private health system expenditure share of GDP peaked at 12.43%, but has since declined to 11.53% in 2015[24]. Despite the recent decline, Bermuda's spending on health still exceeds the OECD average of 8.9% of GDP. Although spending exceeds that of other jurisdictions; as Figure 3.3 shows, Bermuda's life expectancy from birth trails many of these same countries.

[21] Bermuda's GDP calculation spans calendar years instead of fiscal years therefore the health expenditure for the fiscal year is compared with the GDP of calendar year 2015.
[22] Government of Bermuda, Department of Statistics. Gross Domestic Product 2015 Highlights.
[23] In April 2015, general inflation rate was 1.8% while the inflation rate for Health and Personal Care sector was 8.5% (Department of Statistics Consumer Price Index April 2015)
[24] Bermuda's health expenditure proporationality is approximately equal between the public and private sector.

Figure 3.3 - Life expectancy at birth (Y axis) and health expenditure per capita (X axis), 2013 (or latest year available)



***Source**: OECD Health Data 2015*

Countries such as Canada (CAN), United Kingdom (GBR) and Portugal (PRT) have higher life expectancy despite spending less per capita in healthcare dollars than Bermuda (PPP adjusted[25]; Figure 3.3).

While countries tend to spend more on health when per capita GDP is higher (Figure 3.4), with the exception of the United States, Bermuda spends more on health than similarly affluent countries (Figure 3.4 and 3.5), such as Switzerland (CHE), Sweden (SWE), Netherlands (NLD) and France (FRA); and life expectancy is lower in Bermuda than in all four countries.

[25] In Figures 3.2 and 3.3, Health expenditures and GDP are PPP adjusted to enable comparison between countries. PPP was obtained from the University of Pennsylvania's Center of International Comparisons of Production, Income and Prices.

Figure 3.4 – Health system share of GDP

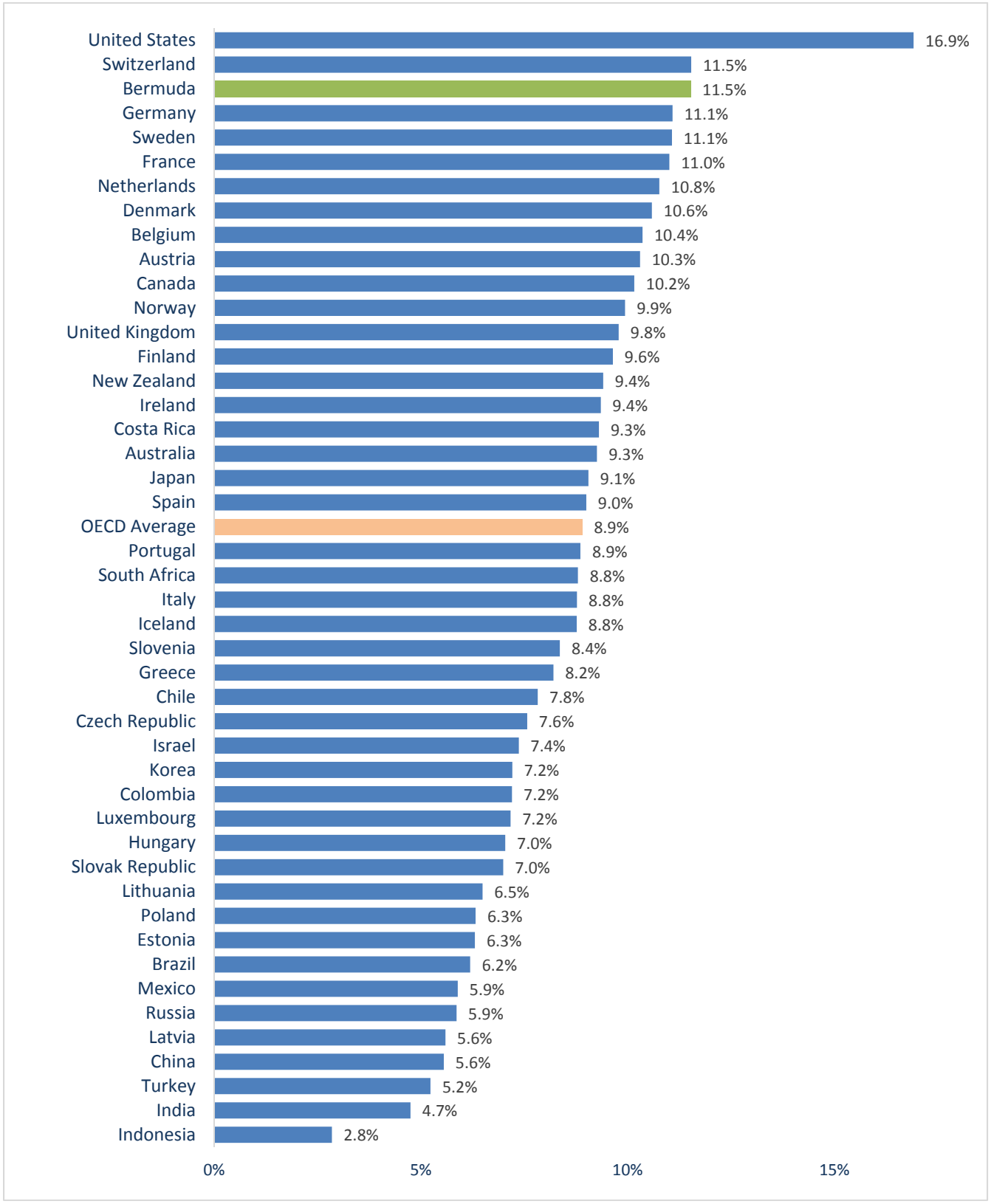
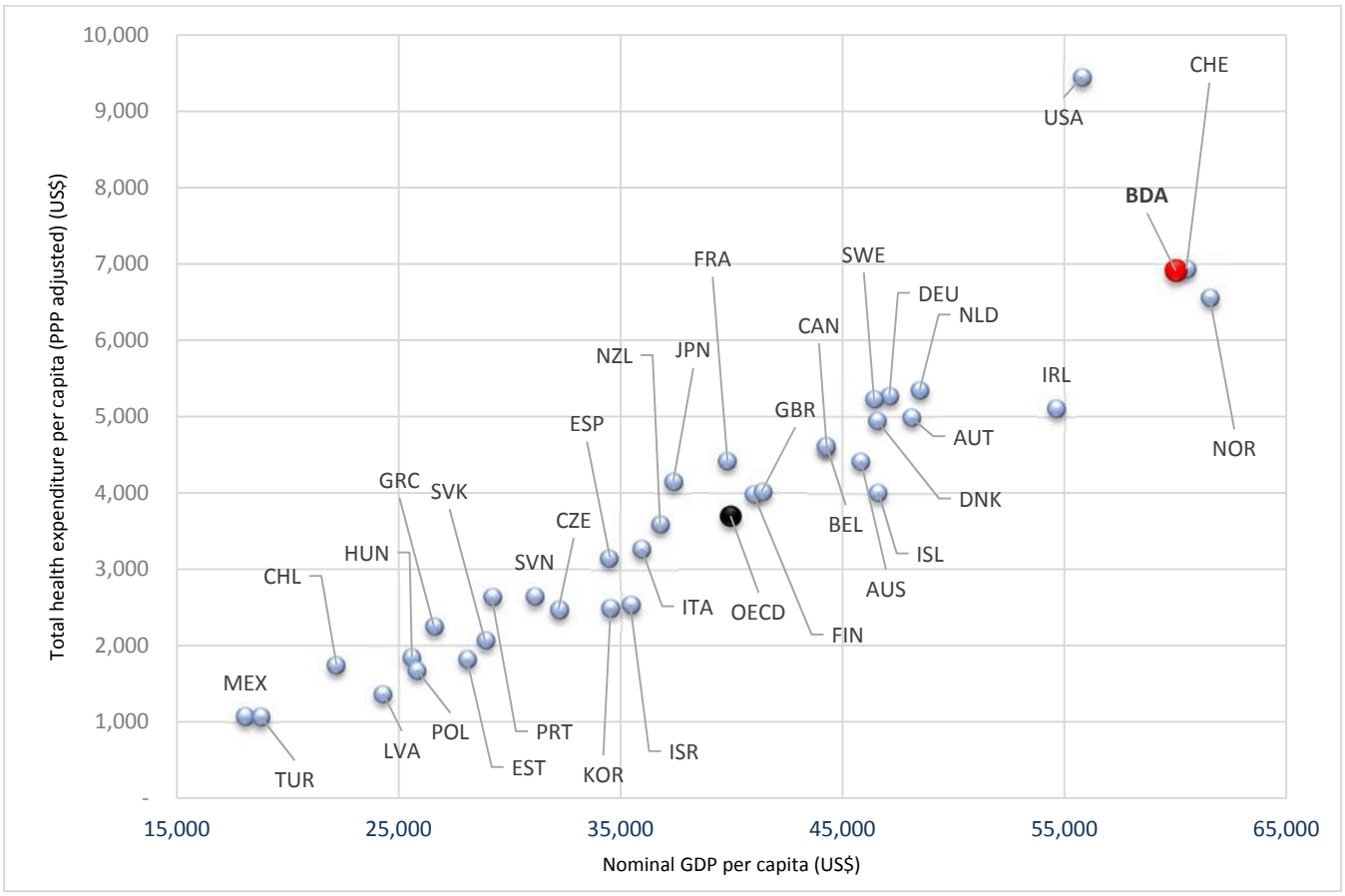


Figure 3.5 - Total health expenditure per capita (Y axis) and nominal GDP per capita (X axis), 2014 (or latest year available)



***Source**: OECD Health Data 2015; GDP per capita, PPP (current international $)*

SECTION 4 - DISCUSSION

During FYE 2015 total health financing and expenditure decreased by 1.1%. On a per capita basis, a 0.8% decrease was seen in expenditure after adjusting for the decrease in the size of Bermuda's population. However, even with consideration of the change in population demographics, the health system experienced lower expenditures for the delivery of health-related services.

Public health programme budget adjustments and policy changes in patient subsidy appropriations resulted in a 6.2% reduction in public sector financing ($207.4 million to $194.6 million). Although these reductions allow for a more financially sustainable and affordable health system, this should be aligned with commitments to disease prevention driven by these public investments and our long-term goal of increased access to care[26]. Subsidies were designed to assist with health care coverage for those who are otherwise unable to afford it; low-income, under-insureds and un-insureds. Similarly, public health programmes are available to provide residents with lower cost options for care. Reductions in this sector of financing runs the risk of decreasing access to care which could be counterproductive[27].

Decreases were also seen in private sector financing. There was a decrease in out-of-pocket payments by 10% which may have been counter-balanced by the increases in health insurance financing (+2.3%) and charitable donations (non-profit financing) (+5.6%). As with decreases in public sector financing, there is support for, although also concerns with, decreases in private sector financing. Lower out-of-pocket costs allow some participants of the health system to have greater financial flexibility to better manage their health. However, lower out-of-pocket costs could also be the result of individuals delaying treatment or limiting the purchase of needed pharmaceutical therapies.

As drugs have become more of a critical component of curative care, prescription drug expenditure will continue to be reviewed in order to increase our understanding of population access and use of available treatment interventions. Contextually, pricing pressures and unstable economic conditions have led to a slowdown in the pharmaceutical segment globally[28], as have tightening government healthcare budgets and/or reductions in out-of-pocket expenditures. Despite this slowdown in prescription drug expenditure growth, it is expected that the main factors driving health care demand — among them, aging populations, the rise of chronic diseases, and the advent of innovative and frequently expensive treatments (e.g., for cancer and Hepatitis C) — may lead to increased drug spending in future years.

The overall decrease in health expenditure is largely due to the 2.4% decrease in private sector health expenditure as public sector health expenditure remained relatively constant (+0.3%). Despite marginal declines in finance and expenditures on health during FYE 2015, there remains a persistently high per capita allocation of resources appropriated towards health compared to OECD countries, without relative gains in life expectancy. The potential

[26] Ministry of Health and Seniors (2016) Bermuda Health Strategy 2014-2019 and Health Action Plan. Government of Bermuda.

[27] Subsidies provide assistance to the most vulnerable populations, however children and seniors' care is subsidized regardless of their financial status. An indicator of how reductions in subsidy funding effect individuals unable to afford care is best reflected in the change in indigent and clinical drug subsidies as these subsisides are provided as last option subsidies for those considered in need at the point of care or service.

[28] Deloitte: 2016 Global life sciences outlook.

and evidence-based impact of such changes on the health status and life expectancy of the population should be further explored through broader stakeholder discussions.

The relatively high expenditure can be attributed to a combination of factors. The operational costs associated with running any business in Bermuda are relatively high. This directly influences health businesses when they set fees to maintain their business. This standard is reflected in high levels of health insurance coverage and subsequently high health insurance premiums. High premiums ultimately affect affordability and can create disparities in the access to care.

Whilst tying health insurance premiums to employment benefits the employed, it makes it difficult for the un-employed to get coverage or in some cases, employers who are unable to pay typical health insurance premiums, may opt for smaller, less expensive health insurance coverage thereby creating three segments of the population – insured, the under-insured and the un-insured. With such high costs of healthcare, the un-insured and under-insured have limited access to the care they require. This disparity combined with the aging population and increasing prevalence of chronic diseases, has created a greater demand for quality and effective healthcare at a cost that is affordable for all.

When comparing health system expenditure to outcomes, Bermuda has room for improvement. In light of this, initiatives were introduced in 2011 to create greater cost transparency and quality of care such as provider-based feedback in the form of utilization reports, discussion on best approaches to reducing non-critical procedures, exposure to global clinical guidelines, and generally greater collaboration and consultation between system stakeholders. These actions were in alignment with broader priorities of the Bermuda government for greater long-term health system sustainability. Further improvements in health system planning were made during 2014 as understanding of the health system needs continued to improve, contributing to the development of the *Bermuda Health Strategy 2014-2019* and *Health Action Plan*. With clearly identified goals and initiatives, we can use the information in this report to monitor health system improvements and ensure health system changes are not at the expense of residents' health.

It will be a continued challenge for Bermuda to identify opportunities to improve access, quality, and outcomes of care delivery while reducing the comparably high resource expectations and requirements of its system's participants.

APPENDIX[29]

Appendix A.1 - FYE 2015 Bermuda Health System Finance and Expenditure

Health Finance	In BD $'000	% of Total	Health Expenditure	In BD $'000	% of Total
Consolidated Fund – Ministry of Health and Seniors ♦	188,807	27.5%	Ministry of Health and Seniors	14,475	2.1%
Consolidated Fund – Department of Social Insurance (DOSI)*	4,855	0.7%	Department of Health (DoH)	25,726	3.8%
Grants from Ministry of Youth, Families & Sports	901	0.1%	Bermuda Hospitals Board (BHB)†	301,359	43.9%
Public Sector Sub-Total	194,563	28.4%	Public Sector Sub-Total	341,560	49.8%
Health Insurance	425,516	62.0%	Local Practitioners – Physicians	39,733	5.8%
Individual Out-of-Pocket	60,761	8.9%	Local Practitioners – Dentists	30,411	4.4%
Donations to Non-Profit Organizations	4,989	0.7%	Other Health Providers, Services & Appliances	75,460	11.0%
			Prescription Drugs	44,094	6.4%
			Overseas Care	89,418	13.0%
			Health Insurance Administration	65,153	9.5%
Private Sector Sub-Total	491,266	71.6%	Private Sector Sub-Total	344,269	50.2%
Grand Total	**685,829**	**100%**	**Grand Total**	**685,829**	**100%**

Sources: Bermuda's Ministry of Finance, BHB, Bermuda Health Council, FYE 2015 health insurance claims returns, Bermuda Monetary Authority (BMA), 2015 statutory insurance financial returns, and the financial statements of approved schemes and leading health sector non-profit entities.

♦ The Ministry of Health and Seniors funding includes $4.4 million capital injection for FutureCare to support its operating expenses
* The DOSI funding is for the War Veterans Association.
† This is from the unaudited BHB financial statements and is inclusive of $37.5 million for the operation of the Mid-Atlantic Wellness Institute (MWI).

[29] For additional data from FYE 2004 – FYE 2006 please visit the Bermuda Health Council's website (www.bhec.bm).

Appendix A.2 - Health System Financing FYE 2007 – FYE 2015 (BD$, '000)

Health Finance Sector	2007	2008	2009	2010	2011	[R]2012	2013	2014	2015	15 vs 14	'07-'15	AAGR[30]
Public Health Financing	129,735	144,056	155,772	190,111	215,886	202,641	208,224	207,409	194,563	-6.2%	50.0%	6.2%
Ministry of Health and Seniors	4,993	3,396	8,505	28,737	35,194	30,250	28,896	29,285	20,975	-28.4%	320.1%	40.0%
Department of Health	24,540	29,463	28,023	29,135	30,508	29,693	30,513	25,298	25,726	1.7%	4.8%	0.6%
Patient subsidies & Operating Grants	100,202	111,197	119,244	132,239	150,184	142,699	148,815	152,826	147,862	-3.2%	47.6%	5.9%
Private Health Financing	329,909	352,263	420,532	438,343	463,076	475,801	496,804	485,738	488,933	0.7%	48.2%	6.0%
Health Insurance	243,755	259,877	323,778	334,893	374,686	379,160	408,602	414,589	423,183	2.0%	73.6%	9.2%
Individual Out-of-Pocket Financing	67,707	71,633	74,101	80,103	82,748	90,985	82,736	66,423	60,761	-9.3%	-10.3%	-1.3%
Charitable Non-Govt. Organizations	18,447	20,753	22,653	23,347	5,642	5,655	5,466	4,726	4,989	5.3%	-73.0%	-9.1%
Total Health Financing	**459,644**	**496,319**	**576,304**	**628,454**	**678,962**	**678,442**	**705,028**	**693,147**	**685,829**	**-1.1%**	**49.2%**	**6.2%**

Sources: Bermuda's Ministry of Finance, BHB, Bermuda Health Council, FYE 2015 health insurance claims returns, Bermuda Monetary Authority (BMA), 2015 statutory insurance financial returns, and the financial statements of approved schemes and leading health sector non-profit entities.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	Avg '07-'15
Public Health Financing % of Total Govt. Expenditure	13.6%	14.1%	14.0%	16.2%	17.0%	16.3%	16.6%	19.7%	17.6%	16.1%
Health Insurance % of Total Health System Financing	53.0%	52.4%	56.2%	53.3%	55.2%	55.9%	58.0%	59.8%	62.0%	56.2%
Individual Out-of-Pocket Financing % of Total Health System Financing	14.7%	14.4%	12.9%	12.7%	12.2%	13.4%	11.7%	9.6%	8.9%	12.3%
Annual Growth in Patient Subsidies & Operating Grants	8.5%	11.0%	7.2%	10.9%	13.6%	-5.0%	4.3%	2.7%	-3.2%	5.5%

[30] AAGR means Average Annual Growth Rate.

Appendix A.3 – Bermuda Government Subsidies (FYE 2007 – FYE 2015 in BD$, '000)

Bermuda Government Patient and Other Subsidies	2007	2008	2009	2010	2011	2012	2013*	2014	2015	15 vs 14	2007 - 2015	AAGR
Patient Subsidies (Legislated)												
• Aged Subsidy	35,462	41,358	46,877	46,165	55,802	59,798	71,409	70,002	75,251	7.5%	112.2%	14.0%
• Youth Subsidy	8,708	9,631	10,176	14,719	16,433	14,638	16,270	18,213	15,990	-12.2%	83.6%	10.5%
• Indigent Subsidy	7,476	5,176	2,917	5,026	5,894	8,951	4,310	6,265	8,247	31.6%	10.3%	1.3%
Total Patient Subsidies	51,646	56,165	59,970	65,910	78,129	83,387	91,989	94,480	99,488	5.3%	92.6%	11.6%
Other Subsidies (Non-Legislated)												
• CCU/Geriatric Subsidy	11,602	12,673	13,728	13,473	15,188	16,583	10,412	10,000	10,000	0.0%	-13.8	-1.7%
• Clinical Drugs Subsidy[31]	2,522	2,549	2,215	2,368	2,368	-	2,368	2,368	2,392	1.0%	-5.1	-0.6%
• Other Subsidies	4,537	5,447	6,830	6,986	6,847	7,391	9,231	8,634	0[32]	-100%	-100%	-12.5%
Total Other Subsidies	18,661	20,668	22,772	22,828	24,403	23,974	22,011	21,002	12,392	-41.0%	-33.6%	-4.2%
Grand Total	**70,307**	**76,833**	**82,742**	**88,738**	**102,532**	**107,360**	**114,000**	**115,482**	**111,880**	**-3.1%**	**59.1%**	**7.4%**

* 2013 figures based on revised BHB subsidy figures from $109,768.

[31] There was no Clinical Drugs Subsidy for FYE 2012.

[32] Dialysis provided in the hospital was previously captured under 'Other subsidy'. In FYE 2015, dialysis was covered by supplemental health insurance therefore eliminating the 'Other Subsidy' and any subsidised individuals who required dialysis treatment were covered under the Indigent Subsidy. In FYE 2015, $1.4 million (17.1%) of total Indigent Subsidy ($8.2 million) was spent on dialysis.

Appendix A.4 - Health System Expenditure FYE 2007 – FYE 2015 (BD$, '000)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	15 vs 14	2007 - 2015	AAGR
Public Sector Health Expenditure	219,667	251,317	261,770	314,938	*337,924	336,766	352,287	340,454	341,560	0.3%	55.5%	6.9%
Ministry of Health and Seniors	32,533	35,859	36,528	47,872	45,800	41,601	42,082	40,718	40,201	-1.3%	23.6%	2.9%
• Promotion/ Prevention/ Curative Care	24,540	29,463	28,023	29,135	30,508	29,693	30,513	27,370	25,726	-6.0%	4.8%	0.6%
• Grants and Administration†	7,993	6,396	8,505	18,737	15,292	11,908	11,569	13,348	14,475	8.4%	81.1%	10.1%
Bermuda Hospitals Board (BHB) ♦	187,134	215,458	225,242	267,066	292,124	295,165	310,838	299,736	301,359	0.5%	61.0%	7.6%
Private Sector Health Expenditure	239,977	245,003	314,534	326,464	339,152	341,676	352,741	352,693	344,269	-2.4%	43.5%	5.4%
Local Practitioners	77,122	76,206	90,123	91,516	87,998	92,648	82,739	73,645	70,144	-4.8%	-9.0%	-1.1%
• Physicians	53,110	53,526	61,870	60,826	58,217	59,912	50,621	43,888	39,733	-9.5%	-25.2%	-3.1%
• Dentists	24,012	22,680	28,253	30,690	29,781	32,736	32,118	29,757	30,411	2.2%	26.6%	3.3%
Other Providers, Services, Appliances & Products	35,795	37,113	54,239	57,422	61,449	59,334	63,878	73,041	75,460	3.3%	110.8%	13.9%
Prescription Drugs	36,935	37,121	39,046	41,969	41,847	45,334	43,229	42,694	44,094	3.3%	19.4%	2.4%
Overseas Care	59,074	62,267	90,264	91,384	96,556	89,933	101,151	96,311	89,418	-7.2%	51.4%	6.4%
Health Insurance Administration	31,051	32,296	40,863	44,173	51,302	54,427	61,744	67,002	62,820	-2.8%	109.8%	13.7%
Total Health Expenditure	**459,644**	**496,320**	**576,304**	**641,402**	***677,076**	**§678,442**	**705,028**	**693,147**	**685,829**	-1.4%	48.7%	6.1%

Source: The Accountant General, The Ministry of Finance, The Bermuda Hospitals Board, and Health Council annual health insurance claims returns

♦These revenues remain unaudited at the time of writing the reports for the relevant year. That is, the 2014/15 figures were not audited in time for completion of this *National Health Accounts Report*. Updated figures are typically provided by BHB once available; only the originally reported figures are reflected here.

†This item includes additional funding for Future Care medical claims (since FYE 2010); delivery of Ministry of Health and Seniors related services and functions, and grants to charitable, non-governmental organizations. It also includes the Health Insurance Plan Administration (for the subsidy programmes, the MRF, FutureCare and HIP), which was reported in earlier National Health Accounts Reports as a separate item. The DOSI Health Insurance Plan Administration was transferred from DOSI to Ministry of Health and Seniors in FYE 2009.

§The revised FYE 2012 health system expenditure is $664.8 million (a 2.1% decline over FYE 2011).

Appendix A.5 - Analysis of Health System Expenditure FYE 2007 – FYE 2015 (BD$, '000)

Analysis of Expenditure	2007	2008	2009	2010	2011	2012	2013	2014	2015	15 vs 14	Avg '07-'15
National Government Current Expenses	952,606	1,022,899	1,112,193	1,176,834	1,272,651	1,245,741	1,253,712	1,052,497	1,107,031	5.2%	16.2%
Total Health Expenditure (THE) (BD$)	459,644	496,320	576,304	641,402	677,076	678,442	705,028	693,147	685,829	-1.1%	-
Estimated Population	64,009	64,209	64,395	64,566	64,237	64,237	[α]62,408	61,954	61,177	-0.3%	-
Per Capita Health Expenditure (BD$)	7,181	7,730	8,950	9,934	10,540	10,562	11,297	11,188	11,102	-0.8%	-
Public Health Expenditure (BD$)	219,667	251,317	261,770	314,938	337,924	336,766	352,287	340,454	341,560	0.3%	-
Public Health Exp % of Natnl. Govt. Exp	23.1%	24.6%	23.5%	26.8%	26.6%	27.0%	28.1%	32.3%	30.9%	-	33.8%
Public Health Exp % of GDP	4.1%	4.3%	4.3%	5.4%	5.9%	6.1%	6.4%	6.1%	5.8%	-	54.7%
Public Health Exp Per Cap.(BD$)	3,432	3,914	4,065	4,878	5,261	5,243	5,645	5,495	5,529	0.6%	-
Public Health Expenditure as % of THE	47.8%	50.6%	45.4%	49.1%	49.9%	49.6%	50.0%	49.1%	49.8%	-	4.2%
BHB Expenditure as % of THE	40.7%	43.4%	39.1%	41.6%	43.1%	43.5%	44.0%	43.2%	43.9%	-	7.9%
Prescription Drug Exp % of THE	8.0%	7.5%	6.8%	6.5%	6.2%	6.7%	6.1%	6.2%	6.4%	-	--19.7%
Nominal GDP (BD$) ♦	5,897,374	6,178,691	5,938,934	5,855,331	5,620,380	5,585,410	5,670,093	5,699,992	5,927,652	4.0%	-
Total Health Exp share of GDP (%)♦	7.8%	8.0%	9.7%	11.0%	12.0%	12.2%	12.7%	12.2%	11.6%	-	48.4%
Nominal GDP YoY Growth Rate (%)♦	21.1%	4.8%	-3.9%	-1.4%	-4.0%	-3.4%	-0.2%	0.5%	4.0%	-	--%
THE YoY Growth Rate (%)	7.8%	8.0%	16.1%	11.3%	5.6%	-0.1%	3.9%	-1.7%	-1.1%		-113.6%
Health & Personal Care Price Index (%)	6.8%	6.6%	6.7%	8.1%	7.5%	6.6%	8.3%	6.7%	7.8%	-	14.7%
Overseas Care % of THE	12.9%	12.5%	15.7%	14.2%	14.3%	13.3%	14.3%	13.9%	13.0%	-	1.4%

Source: Department of Statistics.

[α] The population figure was determined from "Bermuda's Population Projections 2010-2020" prepared by the Department of Statistics. For 2011 and 2012, the population figure was kept the same due to the projection of stability in the population and the lack of consistent estimates during the time the report was prepared. Prior to the publication of the results of the 2010 census, the population figures are from the Department of Statistics' 2006 projection "Mid-Year Population Projections July 1, 2000 to July 1, 2030".

♦The GDP is reported on calendar year basis.