Bermuda Health Council

2017

NATIONAL HEALTH ACCOUNTS REPORT

Bermuda health system finance and expenditure for fiscal year 2015-2016

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BERMUDA HEALTH COUNCIL

National Health Accounts Report 2017

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TABLE OF CONTENTS

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 2016

PUBLIC SECTOR FINANCING
27.4%

PRIVATE SECTOR FINANCING
72.6%

Per Capita Health System Expenditure
$11,362
▲2%

Total Health System Expenditure
$701,409,000
▲1.9%

PUBLIC SECTOR EXPENDITURE

- 46.1% BERMUDA HOSPITALS BOARD
- 3.5% DEPARTMENT OF HEALTH
- 1.8% MINISTRY OF HEALTH

PRIVATE SECTOR EXPENDITURE

- 6.3% PRESCRIPTIONS
- 8.7% HEALTH INSURANCE ADMINISTRATION
- 8.8% LOCAL PRACTITIONERS
- 12.1% OVERSEAS CARE
- 12.7% OTHER CARE & APPLIANCES

EXECUTIVE SUMMARY

The 2017 National Health Accounts Report analyses health system finance and expenditure data from both public and private entities for the period 1st April 2015 to 31st March 2016.

Public sources of financing include Ministry of Health grants and subsidies, Department of Social Insurance funding for care for War Veterans, and grants provided to health organisations by the Ministry of Social Development and Sports. Private sources of financing include health insurance premiums, out-of-pocket payments for uninsured portions of care, and donations received by non-profit organisations to cover the cost of providing health services to the community.

During the fiscal year ending 31st March 2016, public financing continued to decrease, falling to less than a third of total health system financing (27.4%) and private financing continued to increase up to 72.6%. On the contrary, more than half (51.4%) of health expenditure was paid to public health entities and 48.6% was paid to private health entities. Public entities include Ministry of Health for administrative and operational management of the Department of Health, Department of Health's public health centres and community heath services, and Bermuda Hospitals Board which manages care provided at King Edward VIII Memorial Hosptial and Mid-Atlantic Wellness Institute. The hospital continues to be the largest category of expenditure, at 46.1% of total expenditure and 89.7% of public health expenditure, an increase of 7.3% from the previous reporting period. This increase is largely due to the initiation of a $10.2 million Mutual Re-insurance Fund transfer to the hospital to cover operating expenses related to inpatient services.

An increase was also observed in expenditure on 'other providers' (including but not limited to allied health, complementary medicine, diagnostic imaging, laboratory services and vision care). The increase in 'other providers' aligns with the shift in the healthcare marketplace towards more diversification of services provided in community health facilities (primary care practices partnering with laboratories, pharmacies, diagnostics and other health services).

Health insurance premiums continue to be the primary source of financing at 62.6% of total financing and 85.7% of private financing. As health insurance premiums are linked to employment status and the largest category of expenditure is on services provided at the hospital, this essentially means the working population is supporting the use of services and cost of care at the hospital. As the working population continues to decline, multi-stakeholder collaboration will be key in addressing the concerns with the effect of this trend on the system future finance and expenditure.

Based on the trend in distribution of public and private finance and expenditure, the forecasted changes in population demographics, and Bermuda's health system performance compared to OECD countries, there is room for improvement in our health policies as we work toward achieving universal health coverage.

SECTION 1: INTRODUCTION

The *2017 National Health Accounts* reviews health system finance and expenditure for the fiscal year ending 31st March 2016 (FYE 2016)[1] and analyzes it based on a combination of OECD[2], World Health Organization (WHO) and European Commission guidelines for developing Health Accounts. Since the inaugural report in 2011, a number of improvements have been made as we seek to fully align our reporting process with international standards and enable more accurate comparison with other jurisdictions.

Audited financial data is requested of health system stakeholders for the analysis; however, this is not always available in time for completion of the report which highlights a need for enhanced resources in some sectors of the health system. As a result of the delay, figures may be adjusted after reports have been published although this does not typically have a significant effect on the trend for that period. In this report, reclassification of health claims paid and recalculation of health insurance administration figures for FYE 2015 resulted in minor adjustments to the analysis. The individual changes are noted in the appendices and the analysis provided throughout the report considers the current figures for FYE 2016 and any updated figures for the prior years.

Based on data provided, this report tracks the flow of both public and private sector funds, as they migrate through the health system. Health financing analysis is used to monitor the effects of policy changes, including the development of wellness programmes, reallocation of public funds and restructuring of benefit packages.

Notable policy changes for FYE 2016 were the development of the Primary Care Pilot Programme[3] and expansion of Standard Health Benefit (SHB). The Primary Care Pilot provides case management for uninsured and underinsured individuals with non-communicable chronic conditions and SHB coverage expanded to include the following:

- Select hospital services that were not previously included,
- An increase in Bermuda Hospitals Board (BHB) emergency ambulance service fees,
- An increase in lifetime maximum for artificial limb coverage from $15,000 to $30,000, and
- Ability to transfer funding for long-stay BHB patients to more appropriate settings outside of the hospital.

As noted by the Minister of Health in a 2017 statement[4], Bermuda is facing an increasing burden of chronic conditions and accurate national health information is key to effectively tackling this issue. Such public health initiatives are part of the larger health financing reform process, which aims to provide universal coverage and increased access to needed services such as mental health and primary care.[5]

This report considers the current state of the health system, the resources available within the system and provides direction on what will help or hinder progress in achieving the ultimate goal of universal coverage.

The 2017 National Health Accounts Report is structured as follows:

- Section 1**:** Introduction contextually describes the development and purpose of the National Health Accounts as well as it's role in guiding the health system.

[1] Fiscal year 2016 is the period between 1st April 2015 and 31st March 2016.
[2] OECD stands for Organization for Economic Co-operation and Development, an international economic organisation of 35 countries.
[3] This programme is provided by the Health Insurance Department to eligible indivuduals currently uninsured or insured with HIP or FutureCare.
[4] Ministerial Statement by the Minister of Health, the Hon Kim Wilson JP, MP – 20th October 2017 in the House of Assembly.
[5] Ministry of Health (2016) Bermuda Health Action Plan 2014-2019. Government of Bermuda.

- Section 2**:** Health System Overview provides a summary of the structure of the health system and the relationship between public and private sector finance and expenditure for FYE 2016.
- Section 3: Health System Finance describes the sources and values of health system finance for FYE 2016.
- Section 4: Health System Expenditure describes the categories and costs of public and private expenditure for FYE 2016.
- Section 5: Health Costs in Context reviews how Bermuda's health finance, expenditure and policy direction compares to that of other jurisdictions.
- Section 6: Discussion considers the report analysis and provides input on solutions for more robust system sustainability.

[UPDATE]

As the National Health Accounts Report is published annually and the Population and Housing Census Reports are typically published every 5 years, per capita health expenditure and per capita GDP calculations have been based on projected annual populations, as reported in the *Bermuda's Population Projections 2010-2020* prepared by the Department of Statistics in 2014.

Prior to release of this report, the 2016 Census was published reflecting a population of 63,779 which is significantly greater than the projected population of 61,735. The effect of this difference on the health system expenditure analysis will be addressed in the 2018 National Health Accounts Report which will look at the fiscal year 1st April 2016 to 31st March 2017. For this 2017 report, the population used is that which was modelled for 2015 by the Department of Statistics.

SECTION 2: HEALTH SYSTEM OVERVIEW

Bermuda's health system finance is characterised by financial flows from public and private sectors sources (Figure 2.1). The public sector is funded by mandated government taxes, duties and fees while the private sector is funded by mandatory and voluntary health insurance premiums, out-of-pocket payments and non-profit sources.

Health system expenditure, like health system financing, is grouped into public and private sectors (Figure 4.2). Public sector expenditure includes any Government-funded and/or operated entities, namely the Ministry of Health, Department of Health and BHB. Private sector expenditure captures the spend in non-Government related categories such as prescription drugs6, health insurance administration expenses, overseas care and local health providers.

In FYE 2016, total health system expenditure was $701.4 million (Figure 2.1), an increase of 1.9% from $688.4 million in FYE 2015. This translates to a per capita health expenditure of $11,362 (per 2015 population of 61,735) for FYE 2016 compared to $11,144 (per 2014 population of 61,777) in FYE 2015.

Figure 2.1: FYE 2016 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	186,279	26.6%	Ministry of Health	12,877	1.8%
Consolidated Fund – Dept of Social Insurance (War Veterans)	4,855	0.7%	Department of Health (DoH)	24,365	3.5%
Grants from Ministry of Community, Culture & Sports	830	0.1%	Bermuda Hospitals Board (BHB)†	323,311	46.1%
Public Sector Sub-Total	**191,964**	**27.4%**	**Public Sector Sub-Total**	**360,553**	**51.4%**
Health Insurance	436,692	62.3%	Local Practitioners – Physicians	31,148	4.4%
Individual Out-of-Pocket Contributions	68,034	9.7%	Local Practitioners – Dentists	30,812	4.4%
Donations to Non-Profit Organisations	4,720	0.7%	Other Health Providers, Services & Appliances	89,015	12.7%
			Prescription Drugs	44,182	6.3%
			Overseas Care	84,675	12.1%
			Health Insurance Administration	61,025	8.7%
Private Sector Sub-Total	**509,444**	**72.6%**	**Private Sector Sub-Total**	**340,856**	**48.6%**
Grand Total	**$701,409**	**100.0%**	**Grand Total**	**$701,409**	**100.0%**

Sources: Bermuda's Ministry of Finance, BHB, FYE 2016 health insurance claims returns, 2016 financial statements of health insurers, approved schemes and health sector non-profit entities.

† This is from the unaudited 2015/16 BHB financial statements and is inclusive of $37.3 million for the operation of the Mid-Atlantic Wellness Institute (MWI), a Mutual Reinsurance Fund (MRF) transfer of $10.2 million and a Minor Works Grant of $120,000

[6] During this period, a marginal subset of drugs were dispensed through the hospital's outpatient operations.

PUBLIC SECTOR FINANCING

Public sector sources of financing include:

- Taxes paid by employers, self-employed individuals and employees working at least 16 hours per week. Rates are mandated by the Payroll Tax Rates Act 1995 and are based on the value of one's business up to a maximum of $900,000 per year[7].
- Duties paid by individuals and businesses on all imported goods at their point of collection, i.e., airport, shipping docks and post offices.
- Fees charged for licences and permits granted by Government departments and collected with taxes and duties, into the Government's Consolidated Fund. The Consolidated Fund is generally used as Government's operating account, acting as the main source for grants, subsidies and public health financing. Funds are allocated based on a multi-step approval process, whereby individual departments submit budget requests to their respective Ministry for review. The Ministry reviews the requests and provides feedback based on Ministerial priorities and general Government priorities. The Ministry develops its budget based on the individual departmental requests and submits it to the Ministry of Finance for consolidation. The Ministry of Finance submits the collection of budgets requests to Cabinet for review. The Ministry budget request is then tabled and debated in the House of Assembly before being approved by the Legislature. The resulting financing decision creates the health financing available from the public sector.

PRIVATE SECTOR FINANCING

Private sector sources of financing include:

- Premiums paid for mandatory health insurance coverage provided to employees working more than 15 hours per week and more than 2 months per year. As there are no legislated maximums on health insurance premiums, total monthly premiums typically range between $430 and $1,500 which would be paid in two parts by the employer and employee. Premiums for voluntary health insurance[8] coverage are the responsibility of the insured individual. In cases where a group or individual has a high risk profile, the premiums charged can be higher than the typical range. Higher premiums may also be charged for smaller employer groups. The larger the employer group, the greater the ability to spread the risk which may decrease the premium. Although this method of pricing insurance policies is common practice in the insurance industry, the Health Council is considering the feasibility and implications of policy changes to allow small groups to join to form larger insured groups.
- The portion of health insurance premiums paid into the Mutual Reinsurance Fund (MRF). In FYE 2016, this transfer was $63.74 per month per insured person. The MRF was initially established to cover high cost health procedures (i.e. kidney transplants and kidney dialysis) included under Standard Health Benefit (SHB) and to fund new and experimental treatments and health system improvement programmes which were not modelled to be included in the pricing for SHB. The per capita cost of SHB services combined with the MRF transfer is collectively known as the Standard Premium Rate (SPR). In FYE 2016, individual patient

[7] Payroll Tax Amendment Act 2017
[8] Unemployed individuals or those working less than 15hrs per week may opt to enroll onto a health insurance package as an individual.

claims were no longer paid by the MRF but funds continued to be collected to pay for health-related programs with the outlook to reinitiate MRF claim payments in future fiscal cycles. During this period, the benefits initially covered by the MRF were reclassified under SHB and covered by local health insurance providers at approved facilities. In the case of the youth, aged and indigent populations, Government subsidy covered these services when provided by BHB.

- Out-of-pocket payments collected for uninsured portions of care. The difference between a provider's fee for a service and the insurer's reimbursement rate is the portion that patients are expected to pay out-of-pocket. Information currently provided on health insurance claims does not typically include the full cost for services but rather the portion to be reimbursed by the insurer. This gap in data means we are unable to accurately capture the out-of-pocket costs. Instead, the figure is calculated as a balancing figure for the difference between the total of all known sources of health system financing and categories of expenditure.
- Charitable donations collected by non-government non-profit organisations used to assist with payments for non-covered care and associated costs for eligible individuals.

PUBLIC SECTOR EXPENDITURE

Public sector categories of expenditure include:

- The Department of Health, with the administrative support of the Ministry of Health, which provides services such as[9]:
  - long-term care in Lefroy House and Sylvia Richardson Care Facility[10]
  - home care to new mothers and seniors
  - health education and counselling to clients, caregivers and the general public
  - community health nursing
  - primary care nursing in the home
  - assessment of motor skills in children and babies
  - maternal health, sexual health, dental health, child health and travel health clinics
  - community rehabilitation programmes
- Bermuda Hosptials Board which includes all inpatient and outpatient services provided at the King Edward VII Memorial Hospital, Mid-Atlantic Wellness Institute (MWI) and Lamb-Foggo Urgent Care Centre. BHB is a QUANGO[11] that benefits from both private and public sector sources of financing. In FYE 2016, BHB received subsidy payments through the Health Insurance Department (HID), health insurance claims payments from both public and private insurers for insured unsubsidised portions of care and out-of-pocket payments for the remaining uninsured unsubsidised charges. Additionally, in FYE 2016, a MRF transfer of $10.2 million ($23.64 per month per insured) (Figure 2.2) was given to BHB to supplement the cost of

[9] www.gov.bm
[10] As per the Department of Health, over half of the Department's budget is dedicated to providing care at these two senior care facilities.
[11] Quasi-Autonomous Non-Government Organisation

providing inpatient care. This added to the existing transfers to the Health Council and the Health Insurance Department.

Figure 2.2: Mutual Reinsurance Fund Transfers for FYE 2016

	Monthly Transfer ($BD)	*Annual Transfer ($BD)*
Transfers to the Health Insurance Department		
▪ *Health Insurance Plan ($18.40 per month per insured, $9.9 million total)*	*$18.40*	*$9.9 million*
▪ *FutureCare Plan ($14.00 per month per insured, $8.0 million total)*	*$14.00*	*$8 million*
▪ *MRF Administration ($0.51 per month per insured, $288,760)*	*$0.51*	*$288,760*
Transfers to the Health Insurance Department	$32.91	$18.2 million
Initation of transfer to the Bermuda Hosptials Board	$23.64	$10.2 million
Initiation of transfer to the Primary Care Pilot Program	$6.19	$2.7 million
Transfer to the Bermuda Health Council	$1.00	$526,693
Total	**$63.74**	**$31.6 million**

PRIVATE SECTOR EXPENDITURE

Private sector categories of expenditure include:

- Care provided to Bermuda's residents outside of Bermuda and the associated costs such as travel and accommodation. This category is reported as overseas care
- Prescription drugs purchased in Bermuda
- Local medical and dental care
- The operational costs associated with administration of health insurance coverage through three private insurers, one public insurer and three employer-approved schemes. Public health insurers and approved schemes offer coverage for health care only; the administrative figure reported in financial statements of these entities is used in the total calculation. The private insurers however, offer more than just health as part of their business and therefore health claims as a portion of total claims is used to extrapolate the relevant portion of total administrative expense reported[12].
- All other local health care services not included under medical and dental care such as local diagnostic imaging, laboratory services, professional services of a wide range of local health providers (including but not limited to optometrists, allied health professionals and psychologists), immunizations, and home healthcare.

[12] Insurers offered different suggestions for determining the health portion of the total administration expense. However for comparison, the same method as previous years has been applied. In the future we will explore options for capturing the administrative expense for health only.

SECTION 3: HEALTH SYSTEM FINANCE

PUBLIC SECTOR FINANCING

In FYE 2016, public sector financing was $192 million which represents 27.4% of total health system financing (Figure 2.1). This is a 1.3% decrease from FYE 2015 (Appendix A.1).

During FYE 2016, patient subsidies decreased as well, by 0.9%, from $110.5 million in FYE 2015 to $109.5 million (Figure 3.1), a trend that has continued since FYE 2013 (Appendix A.2). This reduction is part of Government's efforts to reduce spending across all Ministries and is a reflection of subsidy budget constraints, rather than a decrease in the need for subsidised care or a reduction in use of services by subsidised individuals. To continue to meet the needs of the subsidised population, the Health Insurance Department (HID) in collaboration with the Bermuda Health Council and the Ministry of Health developed the Primary Care Pilot and refined benefits available to their insured populations. The goal of the Primary Care Pilot is to provide care to vulnerable populations with chronic conditions. Overall programme coordination and individual patient case management is provided by HID, and care is provided by BHB and four community physicians or physician groups. HID is the Government department responsible for administration of the following publicly-financed, low-cost and subsidised coverage mechanisms: (i) Health Insurance Plan (HIP) which is a health insurance plan available to all ages, (ii) FutureCare Plan which is an insurance plan for individuals over the age of 65, (iii) Patient Subsidies which cover a portion of care provided to youth, aged and indigent populations, and (iv) the MRF.

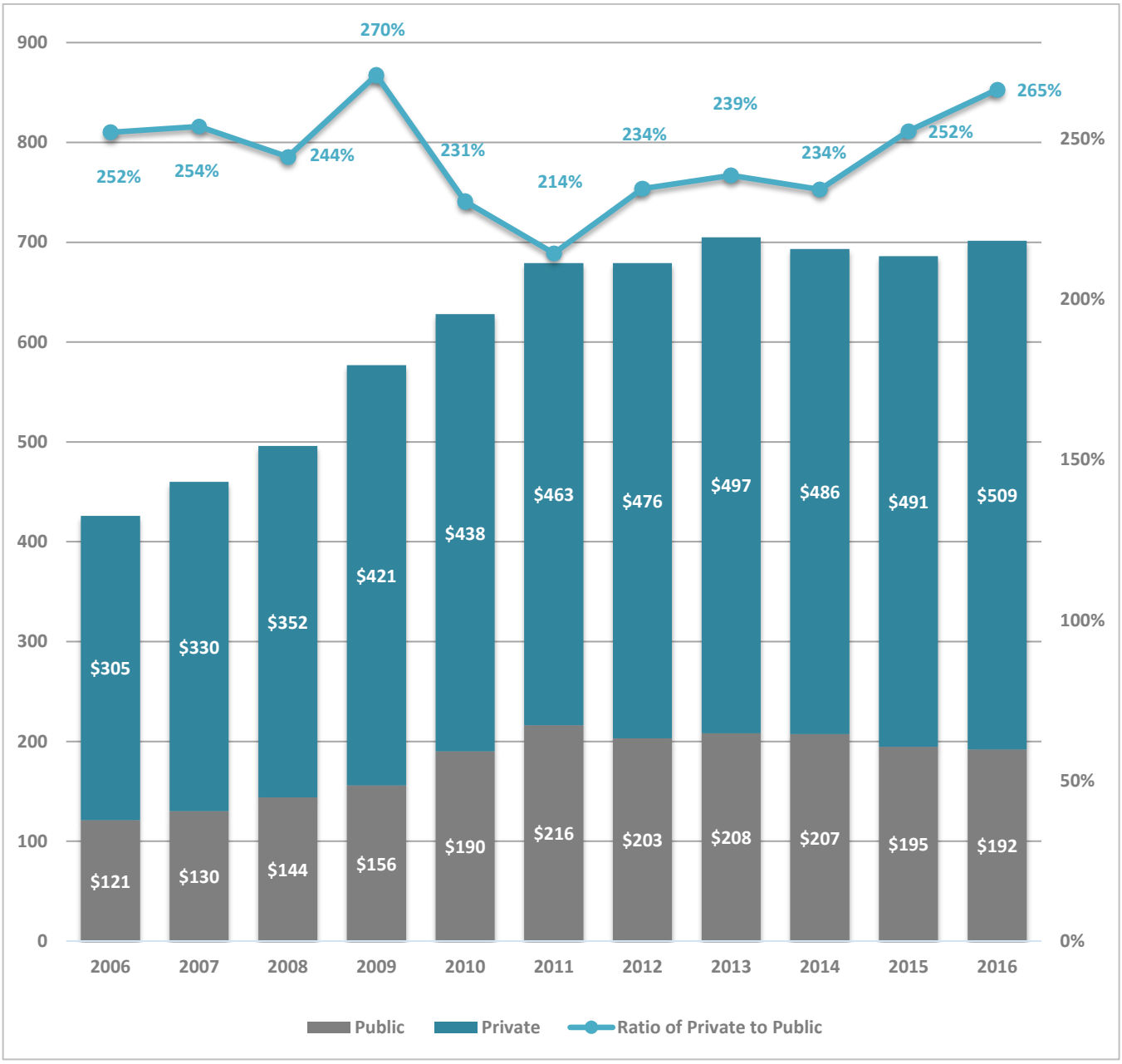
While these low cost insurance plans, patient subsidies and health programmes have been established to ensure access to care, the decreasing portion of public financing poses a risk to the sustainability of the public health programmes, de-emphasizes preventative care and delays innovations required to achieve universal coverage. These risks are common problems for the majority of privately funded health systems[13].

Figure 3.1: Bermuda Government Patient Subsidies and Other Subsidies for FYE 2015 and FYE 2016 ($M)

	2015	2016	% Change
Patient Subsidies			
▪ Aged Subsidy	$75,251	$74,500	-1.0%
▪ Youth Subsidy	$15,990	$16,108	0.7%
▪ Indigent Subsidy	$6,886	$7,979	15.9%
Total Patient Subsidies	**$98,127**	**$98,586**	**0.5%**
Other Subsidies			
▪ CCU/Geriatric Subsidy	$2,392	$2,598	8.6%
▪ Clinical Drugs Subsidy	$10,000	$8,318	-16.8%
Total Other Subsidies	**$12,392**	**$10,916**	**-11.9%**
Grand Total	**$110,519**	**$109,502**	**-0.9%**

[13] Lycourgos, L and Goranitis, I. Health care financing and the sustainability of health systems. Int J Equity Health. 2015. 14;80

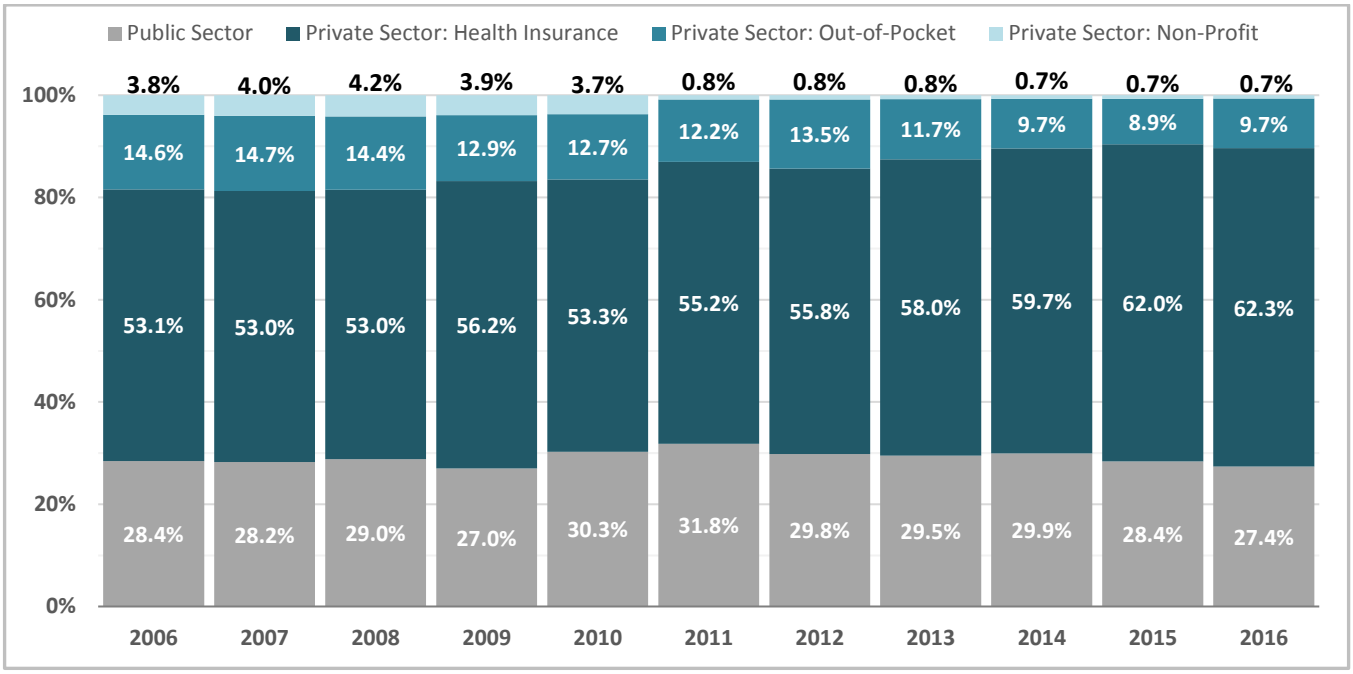
Figure 3.2: Public and Private Health Financing (in $M)



PRIVATE SECTOR FINANCING

During FYE 2016, private sector financing accounted for 72.6% ($509.4 million) of total health financing (Figure 3.3). This represents a 3.2% increase in private sector financing from $493.9 million in FYE 2015. However, during the same period, public sector financing *decreased* by 1.3%. Figure 3.3 provides the trend in distribution of public and private sector expenditure since FYE 2006.

Figure 3.3: Public and Private Sector Sources of Health Financing



Individual out-of-pocket payments

Between FYE 2015 and FYE 2016, there was a 12.1% increase in the out-of-pocket payments from $61 million to $68 million, which represents an increase in its share of private sector financing from 8.8% in FYE 2015 to 9.7% in FYE 2016. The increase is likely related to an increase in use of services that insurance does not cover at 100% and increased total costs of services exceeding the portion covered by insurance.

Non-Profit (charitable) financing components

Non-profit financing includes donations received by non-profit health organisations via tag days, charitable appeals, general donations, etc, which are then used to cover health-related costs for eligible individuals. Between FYE 2015 and FYE 2016, funding through non-profits decreased by 6.2% from $5 million to $4.7 million. In previous years, donations were reported as general donations only and did not consider other donated income. The FYE 2015 figure has been amended to reflect this change in the calculation (Appendix A.1).

Health Insurance Premiums

Health insurance is the primary payor of healthcare on the island and overseas, at 62.3% of total health financing ($436.7 million of $701.4 million). This represents a 2% increase from $428.1 million in FYE 2015.

In FYE 2016, the ratio of total claims paid to total premium collected for private insurers was 76%[14]. Current policy allows insurers to deny coverage to individuals with pre-existing conditions. This gives the sector selective control over their risk portfolio and thus their forecasted claims expenditure. Public insurers are unable to deny coverage

[14] Estimated private sector loss ratio

based on pre-existing conditions. The imbalance in risk portfolios due to policy, legislation and subsidized pricepoint is reflected in their claims paid with ratio of claims to premiums averaging 175%[15,16].

Approved schemes and employer-financed health insurance schemes also have a high average ratio of total claims paid to total premium collected of 147%. However, this ratio is based on the principle of managing employee contributions instead of matching true health cost to individual demand. The difference in how these approved schemes operate, relative to the private insurance providers, resulted in amending the Health Insurance (Approved Schemes) Regulations 1971 to abolish approval of new schemes. Their loss ratios reflected that expansion of this model in Bermuda, where individual employer groups may not be large enough to collect enough premium to cover their claims expenditures, would not be sustainable. Although the public insurance plans have the highest ratios, they currently provide coverage to the high risk population who could otherwise be uninsured based on pre-existing conditions, income level or employment status.

Local health insurance premiums are comprised of two parts, (i) Standard Premium Rate (SPR) which covers the cost of SHB and MRF benefits and (ii) supplemental premium which covers the cost of any additional benefits that one's insurer may provide for their specific policy. SHB and MRF benefits form the compulsory portion of all health insurance packages and during FYE 2016 included most hospital inpatient and outpatient procedures, diagnostic imaging services at select facilities in the community, home medical services, select artificial limbs and appliances, and dialysis. Supplemental premium can vary greatly depending on one's policy or health insurance provider, and essentially covers a selection of benefits not covered by the SPR including, but not limited to, physician office visits, eye care, dental care and allied health services.

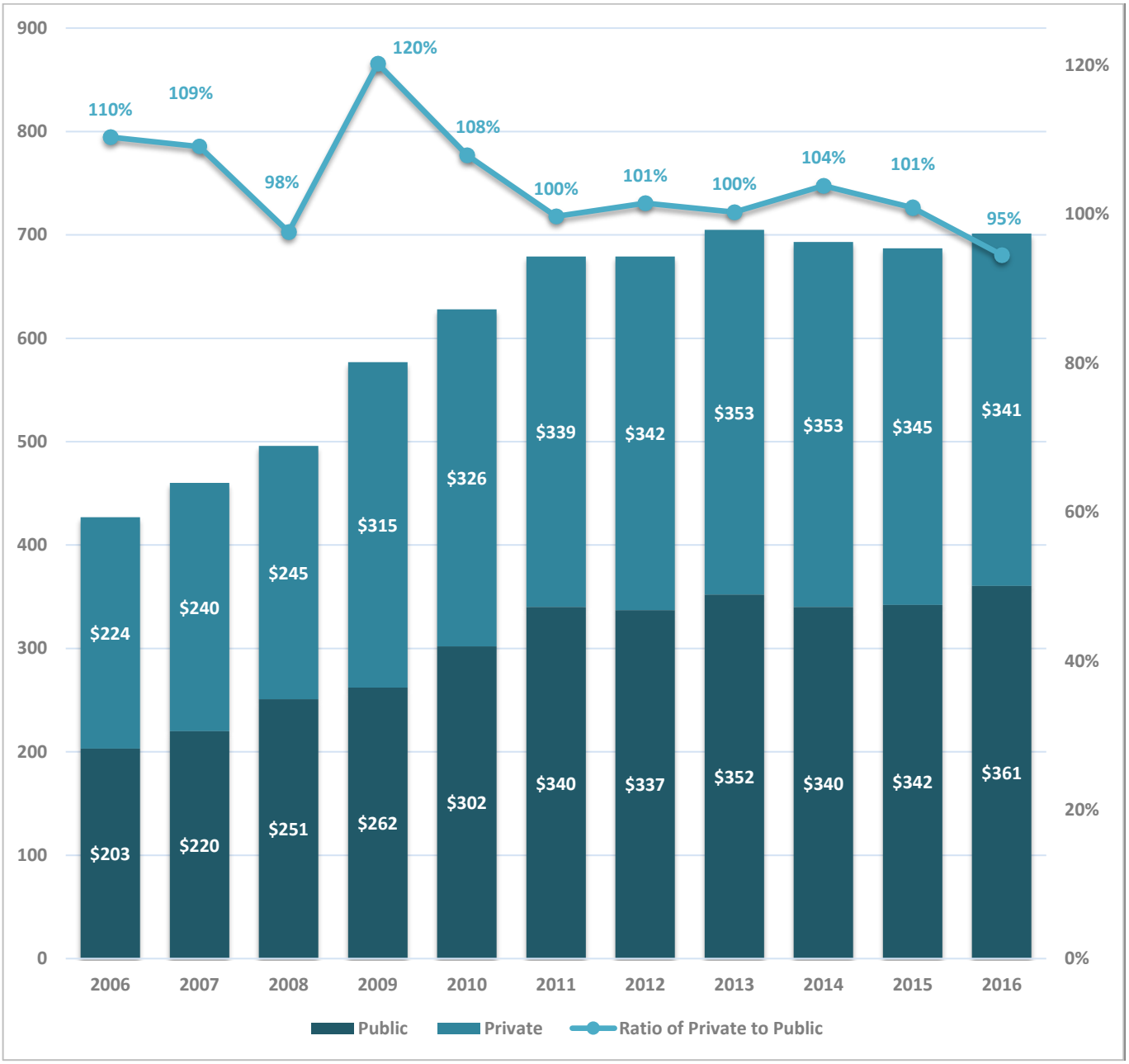
An annual actuarial review[17] provides details of the SPR determination process, taking into consideration any proposed changes in reimbursement rates for services included in SHB and MRF, and any changes to levels of subsidisation for care. In FYE 2016, the SPR was $338.07, which is an increase of 10.7% from $301.85 in FYE 2015. This increase was largely due to initiation of a MRF transfer of $10.2 million to BHB. By including this funding as part of MRF, the cost was passed on to the insured population as an increase in health insurance premium. The alternative option would have been to approve an increase in hospital inpatient fees, which would have also resulted in an increase in Government subsidy payments for care provided to subsidised individuals. This decision to initiate an MRF transfer is consistent with the 5-year trend of decreasing public financing and increasing private financing.

Reliance on private sector sources of funding, particularly through health insurance premiums which are funded through employer-based health insurance plans, will be subject to any changes in employment levels on island. With an aging population, this could translate into financial strain being placed on Government funds in the form of pension payments and subsidy for care. Additionally, if the working population relative to the aging population continues to decline, the increasing costs of care for the aging population will be disproportionately distributed[18].

[15] Estimated public sector loss ratio.
[16] Ratio is based on data from year ending 31st March 2015.
[17] Published Actuarial Reports can be found at www.bhec.bm
[18] Knickman, James and Emily Snell. The 2030 Problem: Caring for Aging Baby Boomers. Health Service Research. 2002. 37(4): 849-884.

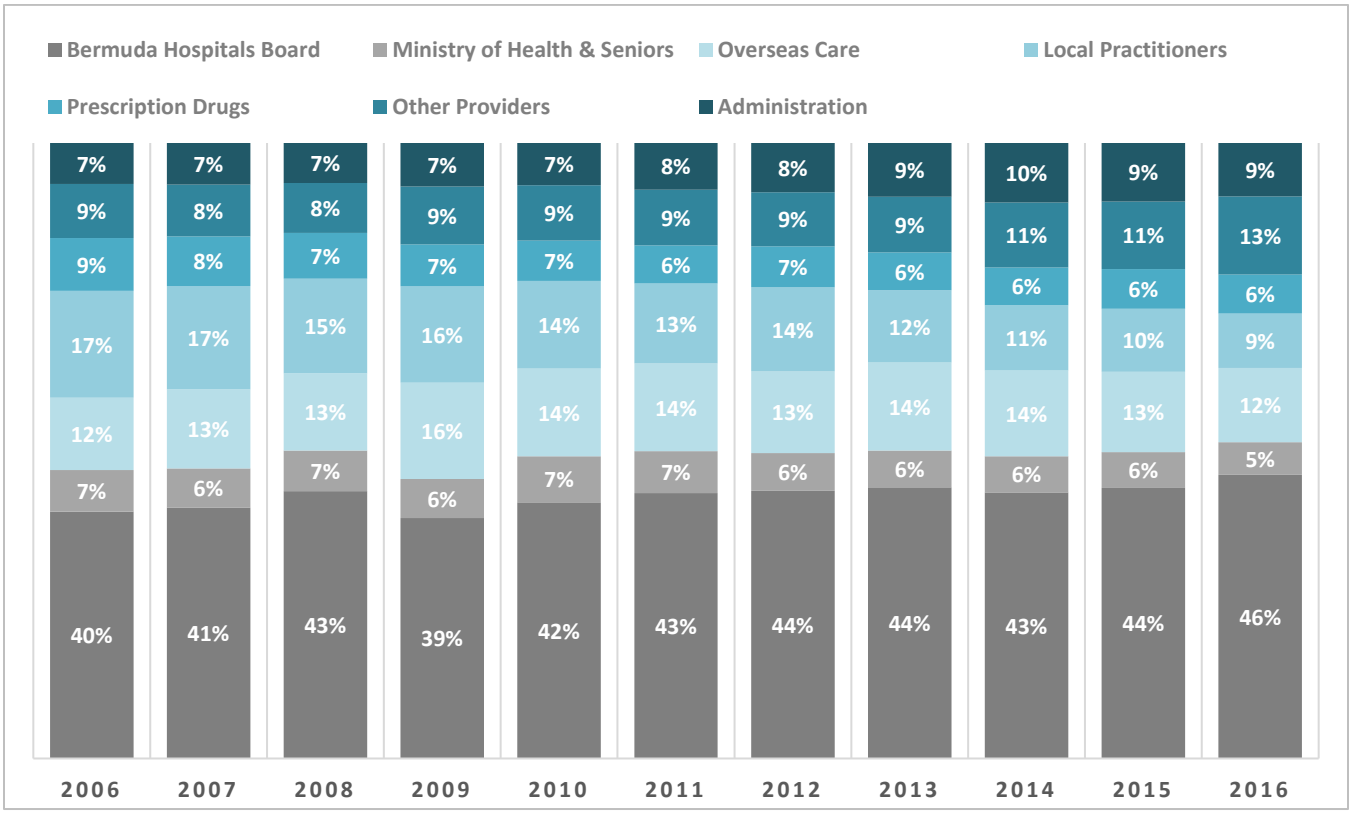
SECTION 4: HEALTH SYSTEM EXPENDITURE

Figure 4.1: Public and Private Health Expenditure (in $M)



In FYE 2016, total health expenditure and public sector expenditure increased while private sector expenditure decreased, resulting in a decreased ratio of private to public from 101% in FYE 2015 to 95% in FYE 2016 (Figure 4.1). Figure 4.2 provides the breakdown of public and private sector categories of expenditure. Public expenditure includes BHB and Ministry of Health (grey). Private expenditure includes local and overseas providers, health insurance administration and prescription drugs (blue).

Figure 4.2: Components of Health Expenditure



PUBLIC SECTOR EXPENDITURE

Bermuda Hospitals Board (BHB)

Expenditure on BHB represents 46.1% of total health system expenditure which is a 7.3% increase from FYE 2015. It also represents 89.7% of total public sector health expenditure (Appendix A.4). In FYE 2016, of BHB's $323.3 million in revenue, 33.9% ($109.5 million) was received through patient subsidies, 11.6% ($37.3 million) was received through an operating grant and 3.2% ($10.2 million) was provided as an MRF transfer. Of the total expenditure, $157.1 million was received from public sources of financing. This is equivalent to 48.7% of total revenue for BHB[19] and 82% of total public sources of financing[20]. As the majority of public sector funds entering the health system are paid directly to BHB, BHB has been classified as a beneficiary of public sector expenditure in this report.

Ministry of Health

In FYE 2016, $37.2 million of expenditure was for the delivery of public health services through the Ministry of Health, a decrease of 7.4% from the $40.2 million in FYE 2015. Clinic and community services are provided at low or no direct cost to the users to ensure affordability. Being solely funded through public sector sources means these services are subject to fluctuations in Government spending which has been observed as steady decreases in the funds allocated to these services over time (Appendix A.3). This adversely affects those who are unable to

[19] The remaining 51.3% is received from health insurance claims payments
[20] $157.1 million public funds paid directly to BHB out of $191.7 million public funds paid into the health system in total.

afford private sector health services, forcing the most vulnerable populations to seek care exclusively in the hospital or decide to forego care entirely. It might be beneficial to consider additional sources of funding to ensure the provision of public services.

PRIVATE SECTOR EXPENDITURE

Overseas care

In FYE 2016, this overseas care expenditure decreased by 5.3% from $89.4 million in FYE 2015 to $84.7 million, representing 24.8% of private expenditure and 12.1% of total expenditure in FYE 2016.

Expenditure on care provided in overseas hospitals was $43.4 million which is 53.3% of total overseas health expenditure in FYE 2016. The remainder of overseas care spending, $41.2 million, was for services such as non-hospital providers (i.e. dermatology, ophthalmology, orthopaedic medicine[21]), prescription drugs, diagnostic imaging, laboratory services, and accommodation and transportation costs (Appendix A.3).

Overseas care expenditure steadily increased until FYE 2014 when portability of SHB ceased. As a result of this policy change, efforts have been made to repatriate health services to Bermuda and enable residents continued access to necessary specialist care.

Local dentists and physicians

In FYE 2016, local practitioners accounted for 8.8% of total expenditure ($62 million of $701.4 million) and 18.2% of private health expenditure ($62 million of $340.9 million). Expenditure on local physicians declined by 21.6% ($39.7 million to $31.1 million) while expenditure for dental practitioners increased by 1.3% ($30.4 million to $30.8 million)(Appendix A.3). Between FYE 2006 and FYE 2012, expenditure on local practitioners was relatively stable with physicians occupying an average of 15.1% of total expenditure and 29.4% of private sector expenditure.

Since FYE 2012 the proportions of medical and dental care have decreased and increased, respectively, resulting in nearly equal portions in FYE 2016 (50.3% for physicians and 49.7% for dentists). This change corresponds with the increase in expenditure for 'other local providers' described below. In practice, local offices are diversifying and providing integrated services such as laboratories, diagnostic imaging, infusion services and pharmacies which were traditionally separate entities or delivered by the hospital. Due to this diversification, the spend within each entity may become diluted, although Bermuda's spend continues to fluctuate.

Other local providers

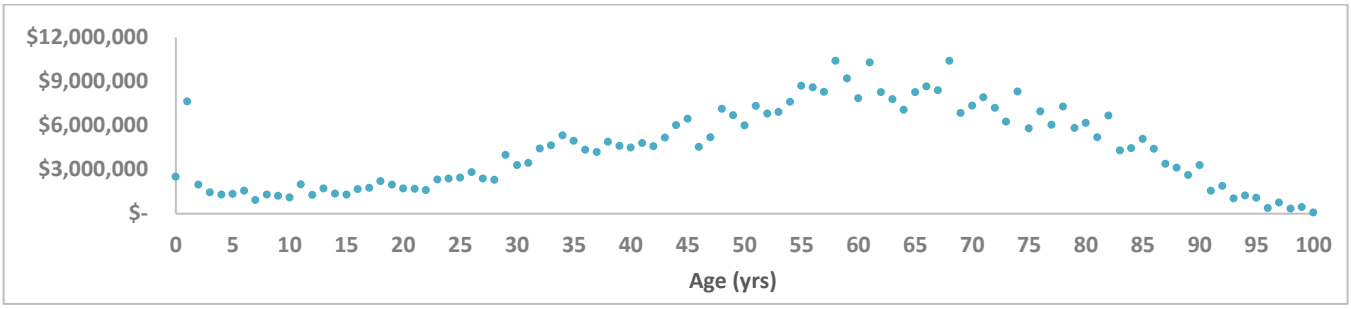
In FYE 2016, this expenditure increased by 18% from $75.5 million to $89 million. Of all the categories of expenditure, demand for and use of these services has increased significantly every year since FYE 2007 (Appendix A.4).

Additionally, the aging population has increased the demand for health resources as individuals are presenting with chronic and complex conditions which require detailed and specialised care plans. (Figure 4.3) This change in patients' needs paired with the increase in patient involvement in their care has encouraged a shift from

[21] Overseas Care: A Synopsis of Trends for the Islands of Bermuda. Bermuda Health Council: Bermuda (2017).

predominantly physician-driven care to inclusion of other types of health providers such as allied health professionals and nurses[22].

Figure 4.3: Association Between Age and Claims Experience for FYE 2016



Prescription drugs

During FYE 2016 this expenditure increased by 0.2% from $44.1 million to $44.2 million and the portion of total expenditure was 6.3%.

Prescription drug coverage, and therefore one's choice to purchase prescription drugs, is largely associated with their health insurance coverage. Private insurers and employer sponsored health insurance schemes typically provide 80% coverage for prescription drugs[23]. The public health insurance plans provided by HID have greater restrictions. FutureCare which is available to seniors aged 65 and over, covers 80% for brand and 100% for generic drugs, up to $2000, after which policy holders are required to pay out-of-pocket for the cost of prescription drugs. The Health Insurance Plan (HIP) is a Government subsidised plan, offered to individuals at a low rate and it does not offer prescription drug coverage.

This expenditure figure does not include the following information:

- Prescription drugs provided under the Primary Care Pilot which is managed by HID; that expenditure will be captured in the 2018 report as provision of services under the Primary Care Pilot commenced in FYE 2017
- Drugs provided to hospital inpatients as drugs are billed as part of bundled services for up to 15 days for inpatient care
- Drugs purchased with out-of-pocket payments
- Drugs purchased by the Department of Financial Assistance for its clients, which are provided via a voucher payment system between pharmacies and the Department of Financial Assistance.

Health insurance administration

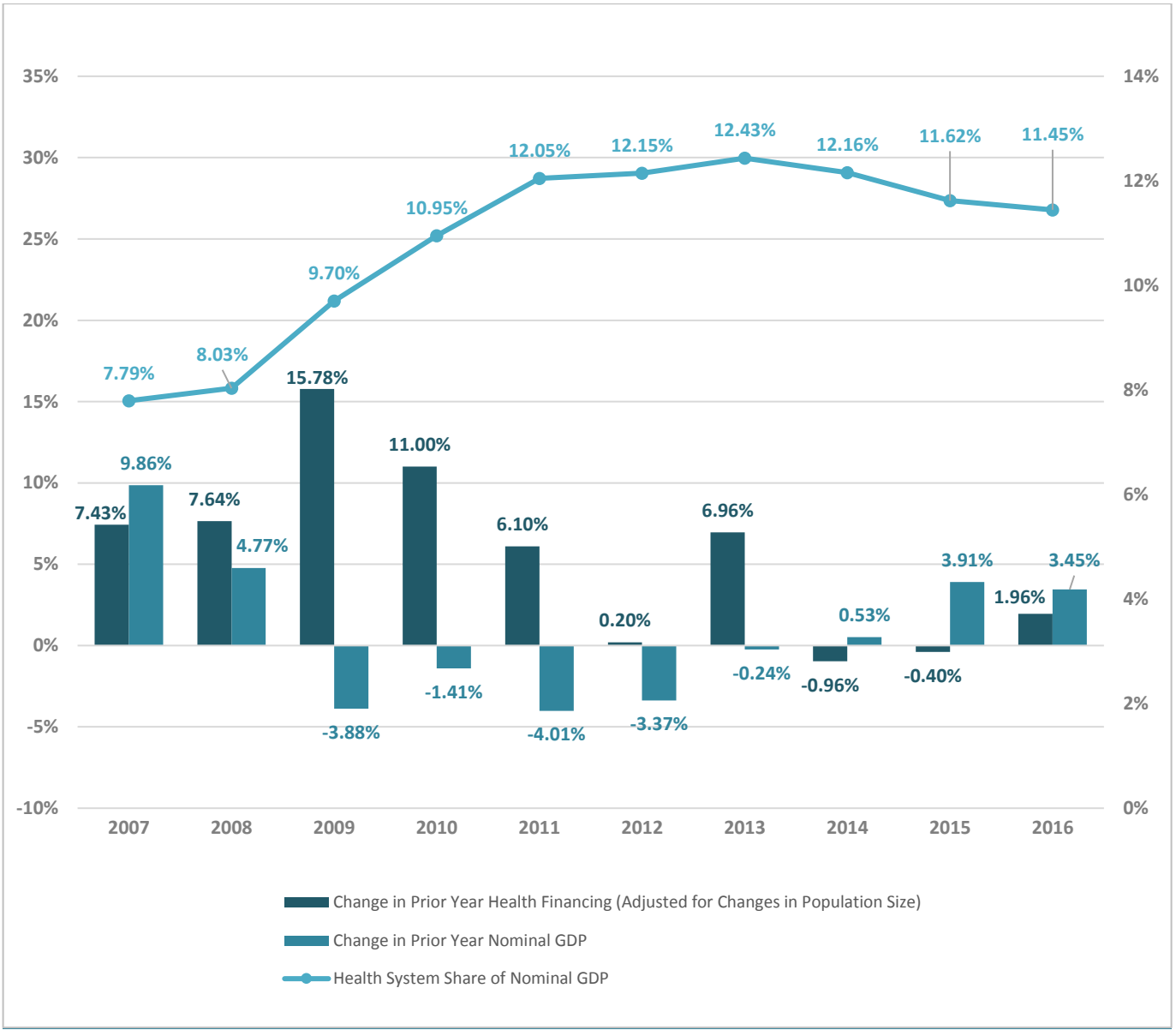
In FYE 2016, health insurance administration was $61 million which represents 8.7% of total health expenditure. This also represents a 9.9% decrease from $67.7 million in FYE 2015, which may be attributable to system wide efforts to implement full use of electronic claims processing[24].

[22] Lizarondo, L et al. Allied health assistants and what they do: A systematic review of the literature. J Multidiscip Healthc. 2010. 3: 143-153.
[23] Some insurance plans offer 100% coverage for generic drugs and 80% for brand drugs.
[24] Bermuda Health Council Claims Regulations Summary Report 2015-16.

SECTION 5: HEALTH COSTS IN CONTEXT

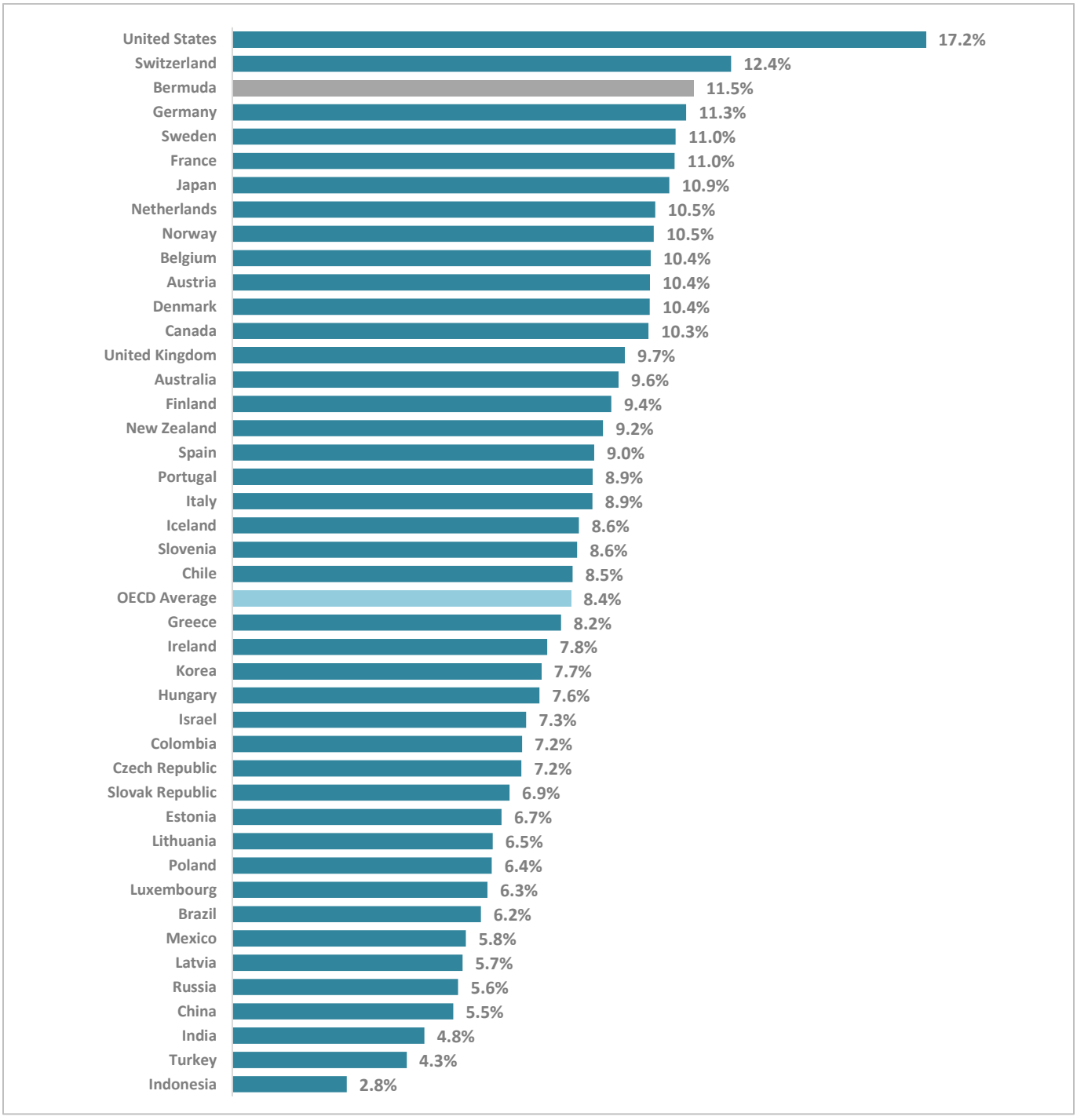
Bermuda's Gross Domestic Product (GDP) increased from $5.9 billion in 2015[25] to $6.1 billion in 2016, the second year of economic growth since the recession between 2009 and 2013 (Figure 5.1). Health expenditure, during the economic downturn continued to increase. There was a two year period of decrease in 2014 and 2015 followed by an increase of 2.04% in 2016. With an aging population, and the growing burden of chronic conditions, increasing health costs over time is to be expected[26]. Bermuda must continue to develop policies that proactively improve the health of an aging population, by encouraging more cost-effective care, productivity of the population and positive economic growth.

Figure 5.1 - Change in Health Expenditure and Nominal GDP



[25] The Department of Statistics calculates the GDP for calendar years.
[26] Grootjans-van Kampen I, Engelfriet PM, van Baal PHM (2014) Disease Prevention: Saving Lives or Reducing Health Care Costs? PLoS ONE 9(8): e104469. doi:10.1371/journal.pone.0104469.

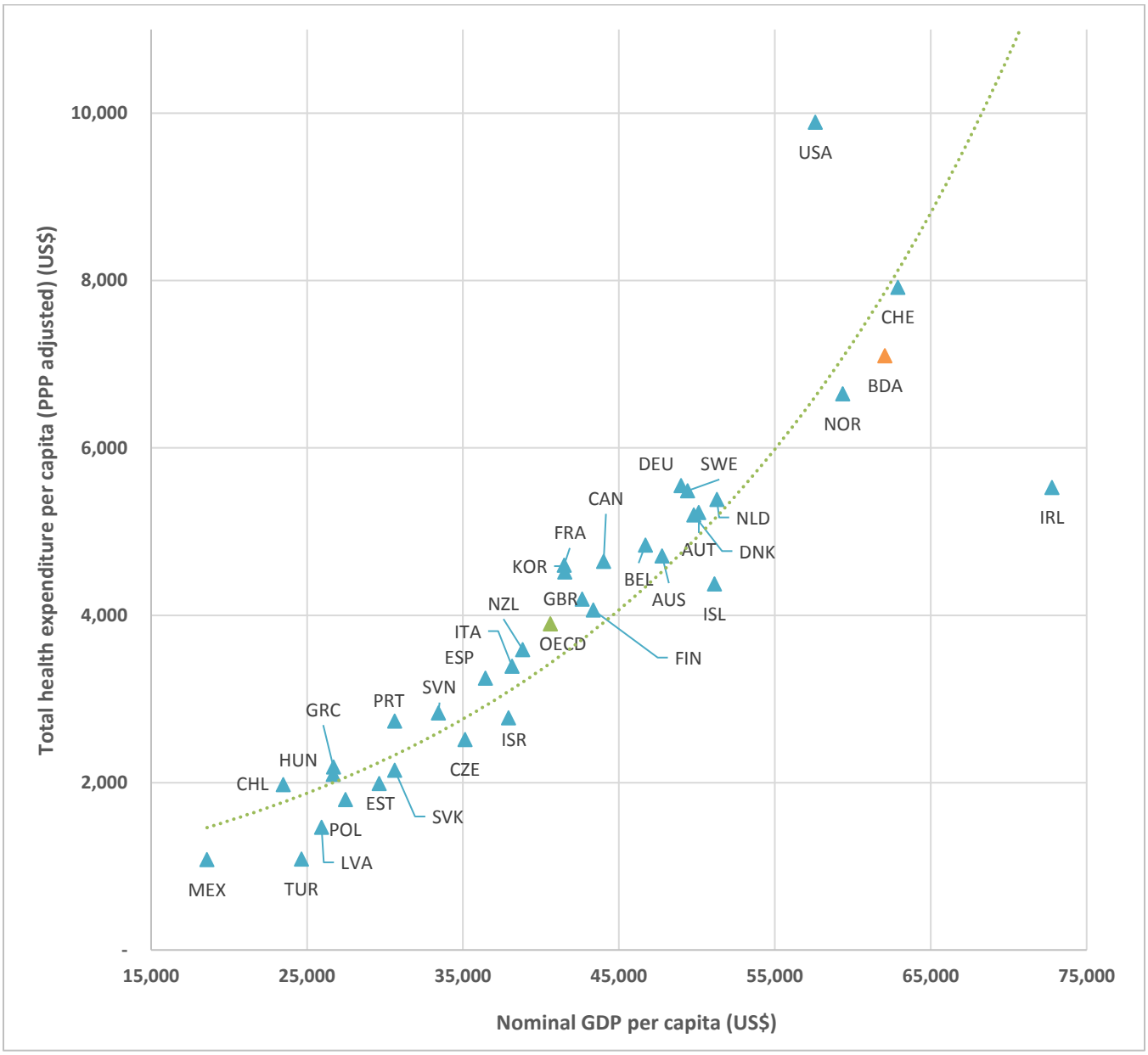
Figure 5.2 – Health System Share of GDP



Bermuda continues to rank high when comparing health share of GDP (Figure 5.2), under only Switzerland (12.4%) and the USA (17.2%). Although this may reflect prioritisation of health in an economy, it can also highlight the need for improvement in health system efficiency[27], particularly when we consider the per capita health expenditure (Figure 5.3) and health outcomes (Figure 5.4).

[27] U.S. Center for Medicare & Medicaid Services. National Health Expenditure Fact Sheet. 2015

Figure 5.3 - Total Health Expenditure Per Capita (Y axis) and Nominal GDP Per Capita (X axis), 2016 (or latest year available)

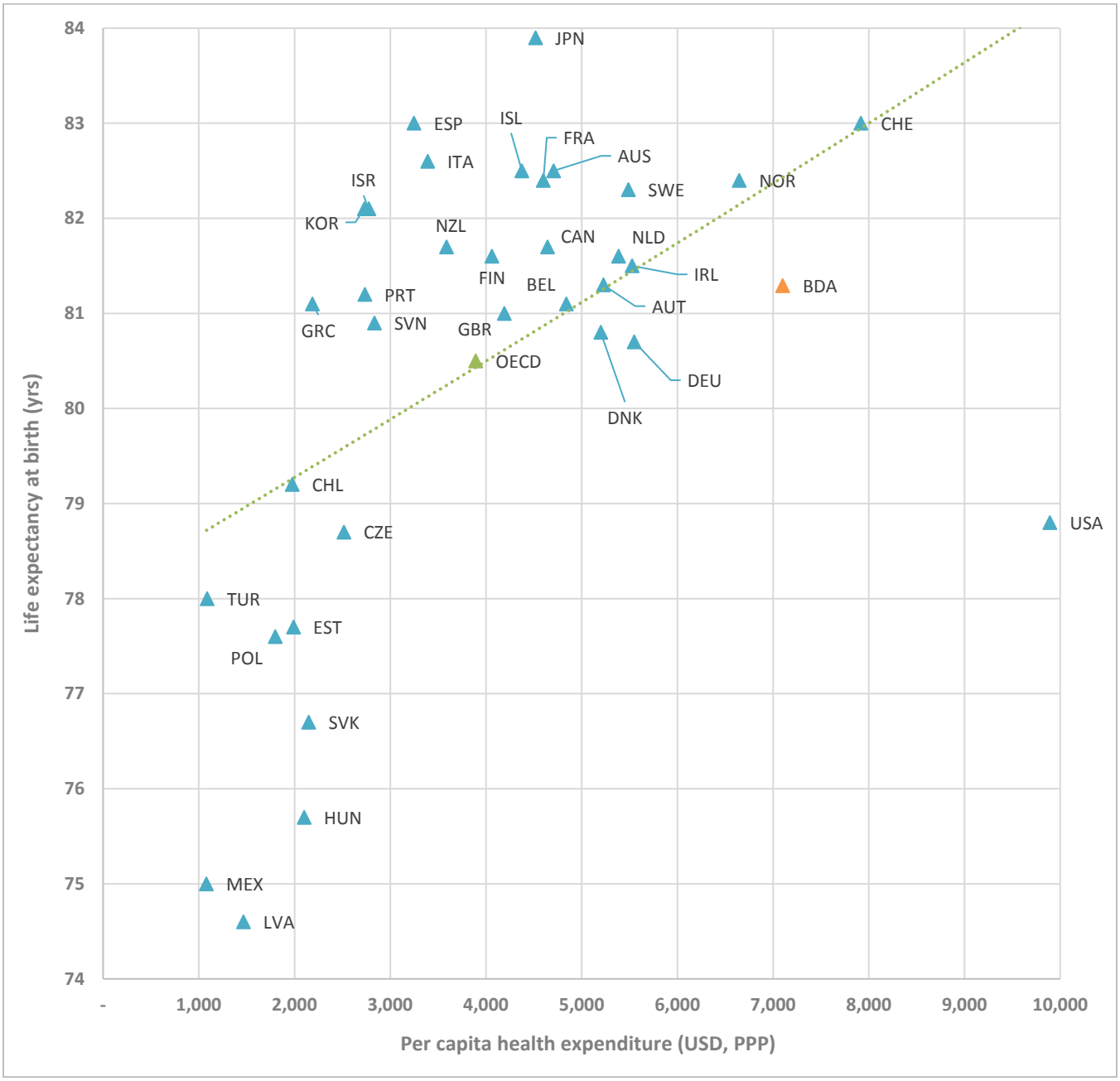


***Source**: OECD Health Data 2016; GDP per capita, PPP (current international $)*

With different demographics, economic industries and national priorities, it is difficult to make direct comparisons between national spending behaviours[28]. However, by looking at health expenditure against economic growth (Figure 5.3) and health outcomes (Figure 5.4) we can use the progress in other countries as a basis for identifying areas of improvement related to policy prioritisation and fund allocation.

[28] Savedoff, Williams. How much should countries spend on health?. World Health Organization Discussion Paper Number 2 - 2003

Figure 5.4 - Life Expectancy at Birth (Y axis) and Health Expenditure Per Capita (X axis), 2016 (or latest year available)



***Source**: OECD Health Data 2016*

With an adjusted per capita nominal GDP of $62,073, and a purchasing power adjusted total health expenditure of $7,107, Bermuda continues to rank amongst the more affluent countries such as Norway and Switzerland (Figure 5.3). Based on the trend of spend and life expectancy, residents of Switerland spend more and live proportionately longer than residents of Bermuda, while residents of Norway spend less but live longer (Figure 5.4).

SECTION 6: DISCUSSION

Bermuda's health system resembles that of the USA with primarily private funding and Government-subsidised health coverage for vulnerable populations such as the youth, low-income and persons aged 65 and older[29]. Subsidised individuals have access to services in the hospital with no co-payment or balance billing, and the majority of hospital services are covered under SHB for the insured population[30,31]. Although the use of hospital services may not have a direct cost to the individual at the point of care, the increase in use of these services (Figure 4.2) leads to an increase in funds needed by the hospital to provide services which essentially falls on the insured population in the form of increased health insurance premiums (Figure 3.2). This was reflected in FYE 2016 when the Ministry of Health approved the initiation of a transfer of $10.2 million to the hospital to support the increased costs associated with providing inpatient care (Appendix A.1). While the current model guarantees access to health services, it does not encourage the allocation of resources necessary to adequately support healthy, productive lifestyle habits and decisions[32], resulting in long term increased burden of chronic conditions and greater costs to the health system[33]. While the current subsidy and SHB models guarantee access to hospital services, discussions are ongoing for these programmes to include care that extends beyond the hospital.

In the USA, the National Association of Public Hospitals and Health Systems (NAPH)[34], a safety net consortium of institutions, in conjunction with the Partnerships for Patients[35], provides care to vulnerable populations regardless of their ability to pay. These providers have shifted their focus toward more innovative approaches and strengthened their ability to do more with less such as better case management, encouraging patients to take a more active role in their healthcare and encouraging transitions from hospital care to community-based care[36].

In Bermuda, the steadily decreasing public sector financing and increasing private sector financing means the employed population is expected to contribute more each year to balance the costs of care incurred by the unemployed and vulnerable populations. A health system finance reform committee has been established to look at how we can restructure health system funding mechanisms. The country should also look at the levels and distributions of expenditure and explore more cost-effective care options.

Bermuda currently has a fee-for-service model which has been known to contribute to increased health care costs in other jurisdictions as providers are paid based on quantity and not quality[37]. Additionally, with insurers reimbursing providers directly, patients tend to be unaware of the portion that insurance has paid and therefore do not always know the full financial impact of the care they receive[38]. This is a type of moral hazard and can result in increased use of services similarly to the effects of guaranteed access to hospital services mentioned previously.

Finance models where patients are not sharing in the cost of healthcare services at the point of care leads to a greater increase in patient-initiated utilisation in persons aged 65 and older compared to fee-for-service reimbursement which led to a higher increase in physician-initiated utilisation[39]. While the lack of cost-sharing

[29] Centers for Medicare and Medicaid Services
[30] Health Insurance Act 1970
[31] Health Insurance (Standard Health Benefit) Regulations 1971
[32] The Impact of Government Spending on Economic Growth. Daniel Mitchell PhD. 2004. Executive Summary Backgrounder No 1831.
[33] Vulnerable Populations: Who Are They?. American Journal of Managed Care. Supplements. 2006.
[34] Association that represents more than 100 metropolitan area safety net hospitals and health systems.
[35] Network of patients, providers and decisions makers who partitipate in making care safer and improving care transitions.
[36] Siegel, B. 2013. Improving Quality and Patient Safety for Vulnerable Populations. Commentary, Institute of Medicine, Washington, DC.
[37] Schroeder, Steven et al. Phasing Out Fee-for-Service Payment. N Engl J Med. 2013. 2029-2032.
[38] Ginsburg, Paul B and Richard Amerling. Should the U.S. move away from fee-for-service medicine? Wall Street Journal. Journal Reports: Health Care. 2015.
[39] Dijk et al. Moral Hazard and Supplier-Induced Demand: Empirical Evidence in General Practice. Health Economics. 2012. 22(3):340-352.

reflects the cost of that service to the patient as minimal or zero, the actual financial impact to the insurer of providing that service is high, which results in increased insurance premiums to pay for the additional use of those services[40].

In the USA, deductibles and co-insurance payments were imposed as a way to reduce health insurance premiums, and to encourage patients to seek care only when necessary and in low-cost, high-quality settings, and to make healthier lifestyle choices[41]. While this has lead to decreased use in some cases, the level of deductibles may have a negative effect and hinder access to care.

Educating patients on their role in the cost of care will provide them with critical information to make more informed decisions. Strengthening the enforcement of the Claims Regulations[42] particularly regarding electronic claims processing and accurate use of procedure and diagnostic codes would ensure providers are paid in a timely manner for the care they deliver and enable more efficient monitoring of private sector expenditure. It would also expedite movement towards a reimbursement structure that is based on adherence to standards and positive health outcomes.

Adherence to prescription drug treatment plans is a key component to achieving positive health outcomes. The prohibitive cost of some medications creates barriers to access for the underinsured and uninsured populations. The Health Council, in collaboration with health system stakeholders, is currently developing a drug formulary which will ensure necessary drugs are provided at more affordable costs. In addition, a review of the supply chain is recommended to determine if there are efficiencies that can be gained through more progressive procurement.

Governments of Bermuda, via Speeches from the Throne[43,44,45,46,47], the Bermuda Health Action Plan 2014-2019[48], the National Health Plan[49] and the Bermuda Health Strategy 2014-2019[50] have committed to improving health access by reducing the cost of care and moving toward a system of universal coverage. The health financing reform process is looking at what changes can be made to support these commitments such as, exploring options for reducing the Standard Premium Rate[51]; further development of the Primary Care Pilot; and repatriation of specialist care services to Bermuda.

Bermuda has the ability and resources to adopt similar initiatives to the NAPH and the Partnerships for Patients, and such changes will require more indepth discusions about the concerns with the current system and potential solutions such as:

- a shift in financing allowing funding to follow patients rather than be directed to specific providers (i.e. structure of Government subsidies for vulnerable populations), and

[40] Nyman, John. Is 'Moral Hazard' Inefficient? The Policy Implications of a New Theory. Health Affairs. 2004. Vol 23, No 5
[41] Shenken Budd. High-Deductible Health Plans. Pediatrics. 2014. 133:5.
[42] Health Insurance (Health Service Providers and Insurers)(Claims) Regulations 1971
[43] Let Us Build One Another Together. Speech from the Throne. 2 November 2012
[44] Speech from the Throne. 8 February 2013
[45] 'The challenge of our time is the opportunity of our time. Speech from the Throne. 7 November 2014
[46] Speech from the Throne. 7 November 2016
[47] Speech from the Throne. 8 September 2017
[48] Ministry of Health, Seniors and Environment (2016) Bermuda Health Action Plan 2014-2019. Government of Bermuda.
[49] National Health Plan: Bermuda Health System Reform Strategy. Published November 2011
[50] Ministry of Health, Seniors and Environment (2016) *Bermuda Health Strategy 2014-2019*. Government of Bermuda.
[51] Actuarial Reports for the Bermuda Health Council (www.bhec.bm)

- greater enforcement of existing legislation (i.e. Claims Regulations[52]) and updating outdated legislation (i.e. statutory boards' legislation[53]).

The aim of such changes is to encourage greater provider accountability, ensure focus on quality care, enhance informed patient choice, enable better case management particularly for individuals with chronic conditions and allow health system resources to be more appropriately allocated[54].

[52] Health Insurance (Health Service Providers and Insurers)(Claims) Regulations 1971
[53] Select health professionals are regulated in accordance with professional legislation such as Medical Practitioners Act and Allied Health Professions Act. These legislative documents authorise the registration and discipline of health professionals.
[54] Towards actionable international comarisons of health system performance: expert revision of the OECD framework and quality indicators. International Journal for Quality in Health Care. 27:2 (2015) 137-146

APPENDIX

Appendix A.1 - Health System Financing FYE 2007 – FYE 2016 (BD$, '000)

Health Finance Sector	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	'16 vs '15	'07-'16	AAGR[55]
Public Health Financing	129,735	144,056	155,772	190,111	215,886	202,642	208,224	207,409	194,563	191,964	-1.4%	47.8%	5.3%
Ministry of Health	4,993	3,396	8,505	28,737	35,194	30,250	28,896	29,285	20,975	19,604	-7.6%	288.2%	32.0%
Department of Health	24,540	29,463	28,023	29,135	30,508	29,693	30,513	25,298	25,704[¥]	24,365	-5.2%	-0.7%	-0.1%
Patient Subsidies & Operating Grants	100,202	111,197	119,244	132,239	150,184	142,699	148,815	152,826	147,862	147,995	0.1%	47.7%	5.3%
Private Health Financing	329,909	352,263	420,532	438,343	463,076	475,801	496,804	485,738	493,854[¥]	509,445	3.2%	54.5%	6.1%
Health Insurance	243,755	259,877	323,778	334,893	374,686	379,161	408,602	414,589	428,104[¥]	436,692[α]	2.0%	79.2%	8.8%
Individual Out-of-Pocket Financing	67,707	71,633	74,101	80,103	82,748	90,985	82,736	66,423	60,716[¥]	68,034	12.1%	0.5%	0.1%
Charitable Non-Profit Organisations	18,447	20,753	22,653	23,347	5,642	5,655	5,466	4,726	5,034[¥]	4,720	-6.2%	-74.4%	-8.3%
Total Health Financing	**459,644**	**496,319**	**576,304**	**628,454**	**678,962**	**678,443**	**705,028**	**693,147**	**688,417[¥]**	**701,409**	**1.9%**	**52.6%**	**5.8%**

Sources: Bermuda's Ministry of Finance, BHB, 2016 health insurance claims returns, and the financial statements of health insurers, approved schemes and health sector non-profit entities.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Avg '07-'16
Public Health Financing as a % of Total Govt. Expenditure	13.6%	14.1%	14.0%	16.2%	17.0%	16.3%	16.6%	19.7%	16.1%[¥]	16.6%	16.0%
Health Insurance as a % of Total Health System Financing	53.0%	52.4%	56.2%	53.3%	55.2%	55.9%	58.0%	59.8%	62.2%[¥]	62.3%	56.7%
Individual Out-of-Pocket Financing as a % of Total Health System Financing	14.7%	14.4%	12.9%	12.7%	12.2%	13.4%	11.7%	9.6%	8.8%	9.7%	12.2%
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%	0.1%	5.0%

[¥] The figures reported for FYE 2015 in the 2016 National Health Accounts Report have been adjusted based on reclassification of health insurance claims data, recalculation of health insurance administrative expenses and use of actuals or revised estimates in place of original estimates used previously.

[α] Health insurance includes the portion of MRF premium collected specifically for provision of health services.

[55] AAGR means Average Annual Growth Rate.

Appendix A.2 – Bermuda Government Subsidies FYE 2007 – FYE 2016 (BD$, '000)

Bermuda Government Patient and Other Subsidies	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	'16 vs '15	'07-'16	AAGR
Patient Subsidies (Legislated)													
▪ Aged Subsidy	$35,462	$41,358	$46,877	$46,165	$55,802	$59,798	$71,409	$70,002	$75,251	$74,500	-1.0%	110.1%	12.2%
▪ Youth Subsidy	$8,708	$9,631	$10,176	$14,719	$16,433	$14,638	$16,270	$18,213	$15,990	$16,108	0.7%	85.0%	9.4%
▪ Indigent Subsidy	$7,476	$5,176	$2,917	$5,026	$5,894	$8,951	$4,310	$6,265	$6,886	$7,979	15.9%	6.7%	0.7%
Total Patient Subsidies	$51,646	$56,165	$59,970	$65,911	$78,129	$83,387	$91,989	$94,480	$98,127	$98,586	0.5%	90.9%	10.1%
Other Subsidies (Non-Legislated)													
▪ CCU/Geriatric Subsidy	$2,522	$2,549	$2,215	$2,368	$2,368	$0	$2,368	$2,368	$2,392	$2,598	8.6%	3.0%	0.3%
▪ Clinical Drugs Subsidy	$11,602	$12,673	$13,728	$13,473	$15,188	$16,583	$10,412	$10,000	$10,000	$8,318	-16.8%	-28.3%	-3.1%
▪ Other Subsidies	$4,537	$5,447	$6,830	$6,986	$6,847	$7,391	$9,231	$8,634	$0	$0	$0	-100.0%	-11.1%
Total Other Subsidies	$18,660	$20,668	$22,772	$22,828	$24,403	$23,974	$22,011	$21,002	$12,392	$10,916	-11.9%	-41.5%	-4.6%
Grand Total	**$70,307**	**$76,833**	**$82,742**	**$88,738**	**$102,532**	**$107,360**	**$114,000**	**$115,482**	**$110,519**	**$109,502**	**-0.9%**	**55.7%**	**6.2%**

Appendix A.3 - Health System Expenditure FYE 2007 – FYE 2016 (BD$, '000)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	'16 vs '15	'07 – '16	AAGR
Public Sector Health Expenditure	219,667	251,317	261,770	314,938	*337,924	336,766	352,287	340,454	341,560	360,553	5.6%	64.1%	7.1%
Ministry of Health	32,533	35,859	36,528	47,872	45,800	41,601	42,082	40,718	40,201	37,242	-7.4%	14.5%	1.6%
▪ Promotion/ Prevention/ Curative Care	24,540	29,463	28,023	29,135	30,508	29,693	30,513	27,370	25,726	24,365	-5.3%	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	12,877	11.0%	61.1%	6.8%
▪ Bermuda Hospitals Board (BHB) ♦	187,134	215,458	225,242	267,066	292,124	295,165	310,838	299,736	301,359	323,311	7.3%	72.8%	8.1%
Private Sector Health Expenditure	239,977	245,003	314,534	326,464	339,152	341,676	352,741	352,693	346,857¥	340,856	-1.7%	42.0%	4.7%
Local Practitioners	77,122	76,206	90,123	91,516	87,998	92,648	82,739	73,645	70,144	61,960	-11.7%	-19.7%	-2.2%
▪ Physicians	53,110	53,526	61,870	60,826	58,217	59,912	50,621	43,888	39,733	31,148	-21.6%	-41.4%	-4.6%
▪ Dentists	24,012	22,680	28,253	30,690	29,781	32,736	32,118	29,757	30,411	30,812	1.3%	28.3%	3.2%
Other Providers	35,795	37,113	54,239	57,422	61,449	59,334	63,878	73,041	75,460	89,015	18.0%	148.7%	16.5%
Prescription Drugs	36,935	37,121	39,046	41,969	41,847	45,334	43,229	42,694	44,094	44,182	0.2%	19.6%	2.2%
Overseas Care	59,074	62,267	90,264	91,384	96,556	89,933	101,151	96,311	89,418	84,675	-5.3%	43.3%	4.8%
Health Insurance Administration	31,051	32,296	40,863	44,173	51,302	54,427	61,744	67,002	67,741¥	61,025	-9.9%	96.5%	10.7%
Total Health Expenditure	**459,644**	**496,320**	**576,304**	**641,402**	***677,076**	**§678,442**	**705,028**	**693,147**	**688,417¥**	**701,409**	**1.9%**	**52.6%**	**5.8%**

Sources: BHB, Bermuda Health Council FYE 2016 health insurance claims returns, and 2016 financial statements of health insurers, approved schemes and health sector non-profit entities.

♦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 related services and functions, and grants to charitable, non-profit organisations. 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 Health Insurance Department in FYE 2009.

¥ The figures reported for FYE 2015 in the 2016 National Health Accounts Report have been adjusted based on reclassification of health insurance claims data, recalculation of health insurance administrative expenses and use of actuals or revised estimates in place is original estimates used previously.

Appendix A.4 - Analysis of Health System Expenditure FYE 2007 – FYE 2016 (BD$, '000)

Analysis of Expenditure	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	'16 vs '15	'07-'16
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	1,211,299¥	1,153,571	-4.8%	21.1%
Total Health Expenditure (THE) (BD$)	459,644	496,320	576,304	641,402	677,076	678,442	705,028	693,147	688,417	701,409	1.9%	52.6%
Estimated Population	64,009	64,209	64,395	64,566	64,237	64,237	62,408 α	61,954α	61,177α	61,735α	-0.1%	-3.6%
Per Capita Health Expenditure (BD$)	7,181	7,730	8,950	9,934	10,540	10,562	11,297	11,188	11,144¥	11,362	2.0%	58.2%
Public Health Expenditure (BD$)	219,667	251,317	261,770	314,938	337,924	336,766	352,287	340,454	341,560	360,553	5.6%	64.1%
Public Health Exp as a % of Natnl. Govt. Exp	23.1%	24.6%	23.5%	26.8%	26.6%	27.0%	28.1%	32.3%	28.2%	31.3%	-	-
Public Health Exp as a % of GDP	4.1%	4.3%	4.3%	5.4%	5.9%	6.1%	6.4%	6.1%	5.8%	5.9%	-	-
Public Health Exp Per Cap.(BD$)	3,432	3,914	4,065	4,878	5,261	5,243	5,645	5,495	5,529	5,840	5.6%	70.2%
Public Health Expenditure as a % of THE	47.8%	50.6%	45.4%	49.1%	49.9%	49.6%	50.0%	49.1%	49.6%¥	51.4%	-	-
BHB Expenditure as a % of THE	40.7%	43.4%	39.1%	41.6%	43.1%	43.5%	44.0%	43.2%	43.8%	46.1%	-	-
Prescription Drug Exp as a % of THE	8.0%	7.5%	6.8%	6.5%	6.2%	6.7%	6.1%	6.2%	6.4%	6.3%	-	-
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	5,923,036¥	6,127,341	3.4%	3.9%
Total Health Exp share of GDP (%)	7.8%	8.0%	9.7%	11.0%	12.0%	12.2%	12.7%	12.2%	11.6%	11.4%	-	-
Nominal GDP YoY Growth Rate (%)	21.1%	4.8%	-3.9%	-1.4%	-4.0%	-3.4%	-0.2%	0.5%	3.9%¥	3.4%	-	-
THE YoY Growth Rate (%)	7.8%	8.0%	16.1%	11.3%	5.6%	-0.1%	3.9%	-1.7%	-0.7%¥	1.9%	-	-
Health & Personal Care Price Index (%)	6.8%	6.6%	6.7%	8.1%	7.5%	6.6%	8.3%	6.7%	7.8%	4.5%	-	-
Overseas Care % of THE	12.9%	12.5%	15.7%	14.2%	14.3%	13.3%	14.3%	13.9%	13.0%	12.1%	-	-

Source: Department of Statistics.

α The population figure was determined from "Bermuda's Population Projections 2010-2020" prepared by the Department of Statistics for the start of the fiscal year. (ie. the population reported for 2014 applies to the fiscal year ending 31st march 2014, therefore the population projection for 2013 was used). 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 figures reported for FYE 2015 in the 2016 National Health Accounts Report have been adjusted based on reclassification of health insurance claims data, recalculation of health insurance administrative expenses and use of actuals or revised estimates in place of original estimates used.