2019

NATIONAL HEALTH ACCOUNTS REPORT

Bermuda health system finance and expenditure for fiscal year 2017-2018

Bermuda Health Council

2019 National Health Accounts Report

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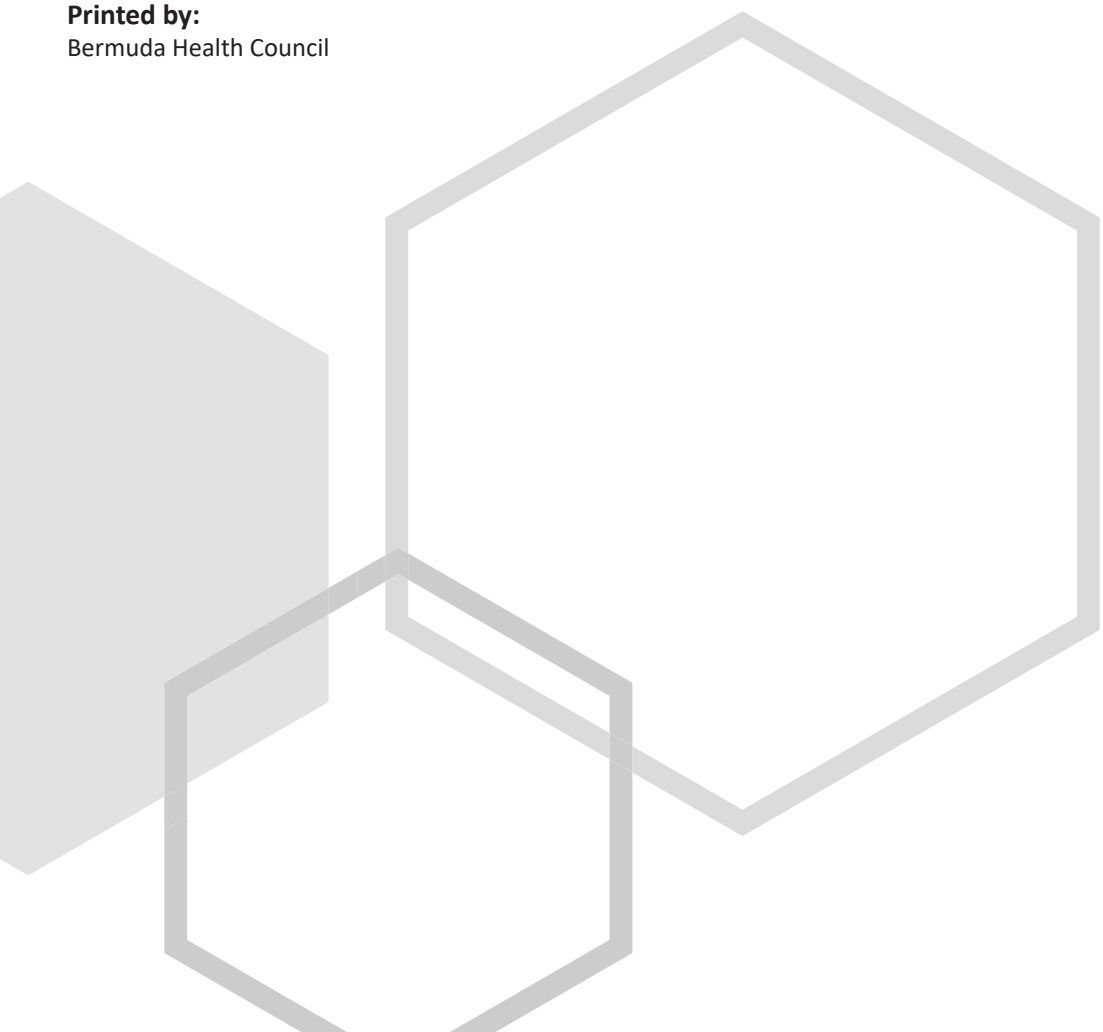

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Bermuda Health Council

NATIONAL HEALTH ACCOUNTS REPORT 2019:

Bermuda health system finance and expenditure for fiscal year ending 31st March 2018

TABLE OF CONTENTS

A. INTRODUCTION 4

Data Collection & Analysis 4

Report Structure 5

B. HEALTH SYSTEM OVERVIEW 6

Sources of Financing 7

Sources of Expenditure 8

C. HEALTH SYSTEM FINANCE 9

Public Sector Financing 9

Private Sector Financing 10

D. HEALTH SYSTEM EXPENDITURE 13

Public Sector Expenditure 14

Private Sector Expenditure 15

E. HEALTH IN CONTEXT 16

F. DISCUSSION 21

G. APPENDIX 26

Appendix 1: Health System Financing 26

Appendix 2: Bermuda Government Hospital Subsidies 27

Appendix 3: Mutual Reinsurance Fund Transfers (data tracking started in 2017) 27

Appendix 4: Health System Expenditure 28

Appendix 5: Analysis of Expenditure 29

A. INTRODUCTION

The National Health Accounts Report (NHA) is an annual publication that reviews Bermuda's health finance and expenditure. The review is conducted based on a combination of OECD[1], World Health Organization (WHO) and European Commission guidelines for developing Health Accounts. These reports include not only an analysis of finance and expenditure, but also provide context to the sources and allocation of health system funds and any impactful events during the period being reviewed. This 2019 Report reviews the fiscal year ending 31st March 2018 (FYE2018[2]) and as we are currently undergoing planning for health system and finance reform, this report will also provide more context to the existing and proposed movement of funds into and around the health system.

Each year we aim to improve our data collection and analysis processes as we seek to fully align our reporting with international standards and enable more accurate comparison to other jurisdictions. This transition relies heavily on the availability of data and willingness or requirement of system stakeholders to provide that data. The data collection and analysis processes are outlined below.

Data Collection & Analysis

Data is gathered one of two ways: (1) via an annual request specifically for this report (i.e. charities' audited financials) or (2) through regular mandated functions of the Health Council (i.e. claims data through health insurance relicensing and health insurance scheme approval).

Once collected, data is reviewed for accuracy and logic, and any clarification is requested of the original source prior to plugging the data into a comprehensive, formula-based spreadsheet by sector-specific categories related to:

- Finance, which identifies the sources of funds entering the system to be used to cover the cost of health service delivery and administration, and
- Expenditure, which includes those categories, organizations and professionals receiving funding (in whole or in part) from those sources identified under finance.

As we continue to work toward achieving full alignment with international standards, there remain some gaps in data collection, and limitations to the data collected, thus, the analysis relies on a number of assumptions. The table below identifies some of the key assumptions; more details on the data and the context of these assumptions is provided throughout the report.

Figure 1. *Data Assumptions and Limitations*

Category	Source	Assumption (A)/Limitation (L)
Ministry of Health financing	Consolidated Fund Financial Statements	- A: All funds are used within the health system - A: Does not account for any net surplus at year end - L: Financial statements are not specific to the Ministry
Financing for war vets	DOSI	- L: Expenditure is provided based on specifically requested categories only
Government grants (for health related programmes)	Consolidated Fund Financial Statements	- A: All funds are used within the health system - L: Does not account for any net surplus at year end

[1]OECD stands for Organization for Economic Co-operation and Development, an international economic organization of 35 countries.
[2]FYE2018 is fiscal year ending 2018 which represents the period between 1st April 2017 and 31st March 2018

Health insurance financing	Transaction-level data and health insurance claims summaries	- A: All premium collected is used to pay for health system services (ie does not account for net surplus at year end)
Out of pocket financing	Balancing figure for the difference between the known financing and known expenditure	- L: Products and services not covered by insurance or charitable donations are not reported
Charitable donations	Charities providing health services	- A: All donations received and reported are used to cover the cost of providing health services - L: Not all financial statements are audited in time for publication - L: Due to a gap in knowledge of classifications of all existing charities, data is not collected from all local charities providing health related services/care
Expenditure on the Department of Health	Consolidated Fund Financial Statements	- A: All funds are used within the health system - A: Does not account for any net surplus at year end - L: Financial statements are not specific to the Department
Expenditure on Bermuda Hospitals Board	Senior Officer for BHB	- L: Financials are unaudited by the date of publication of this report. Note: Upon receiving audited financials, adjustments are made in subsequent reports
Expenditure on local and overseas goods and services[3]	Local health insurer claims summaries	- L: Unaudited breakdown of expenditure categories - L: Based on health insurer claims data so limited to what services are submitted for reimbursement only - A: Uninsured services or portions of services are estimated based on total claims value reimbursed as a portion of total value of claims submitted
Health insurance administration costs	Local health insurer audited financials	- L: Audited figures are not for health only, represent administrative costs for full health-included book of business - A: The portion of total claims paid for health is equivalent to the portion of total administration costs associated with health insurance

Report Structure

Given the data available, and the context within which that data is analyzed, the report is structured as follows:

- ***Section 1: Health System Overview*** – general observations about the distribution of sources of financing and categories of expenditure for fiscal year ending 31st March 2018

[3] Includes expenditure: physicians, dentists, all other health service providers, prescription drugs and appliances.

- ***Section 2: Health System Finance*** – a more detailed look at the sources of financing and year-over-year changes
- ***Section 3: Health System Expenditure*** – a more detailed look at categories of expenditure, year-over-year changes and the actual or perceived basis for any significant changes in the trends
- ***Section 4: Health In Context*** – compares Bermuda's health system data across years and against other jurisdictions
- ***Section 5***: ***Discussion*** – provides more context and analysis of Bermuda's health system including consideration of actual and proposed system changes

B. HEALTH SYSTEM OVERVIEW

Funds enter Bermuda's health system from both public and private sector sources to support the provision of both public and private sector health services, purchase of healthcare-related goods and equipment, and administration of the health system and various health programmes. Figure 2 provides an overview of this movement of funds which is in line with prior years, that is, increasing private sector financing, decreasing public sector financing and an increasing total health expenditure.

Specifically, total health expenditure for FYE2018 was $736.6 million, an increase of 1.88% from $723 million in FYE 2017. This translates to a per capita health expenditure of $11,529 (per 2017 projected population of 63,892) for FYE 2018, compared to per capita expenditure of $11,326 (per 2016 census determined population of 63,779) for FYE 2017.

Figure 2. *Overview of Health System Finance and Expenditure for FYE2018*

Health Finance	**Amount ($000s)**	**% of Total**
Public Sub-Sector		
Ministry of Health	161,080	21.9%
DOSI	3,235	0.4%
Grants for provision of health services	2,363	0.3%
Public Sector Sub-Total	**166,678**	**22.6%**
Private Sub-Sector		
Health Insurance	453,260	61.5%
Out-of-Pocket Expenditure	109,992	14.9%
Donations	6,696	0.9%
Private Sector Sub-Total	**569,947**	**77.4%**
Total Public & Private	**736,625**	**100.0%**

Health Expenditure	**Amount ($000s)**	**% of Total**
Public Sub-Sector		
Health system administration[4]	11,479	1.6%
Department of Health	25,689	3.5%
Bermuda Hospitals Board	307,514	41.7%
Public Sector Sub-Total	**344,432**	**46.8%**
Private Sub-Sector		
Local Practitioners – Physicians	57,656	7.8%
Local Practitioners – Dentists	31,820	4.3%
Other Health Providers, Services & Appliances	92,385	12.5%
Prescription drugs	44,597	6.1%

[4] Formerly reported as Ministry of Health HQ

Health Expenditure	Amount ($000s)	% of Total
Overseas care	93,114	12.6%
Health Insurance and Programme Administration	72,374	9.8%
Private Sector Sub-Total	**391,945**	**53.2%**
Total Public & Private	**736,625**	**100.0%**

Sources of Financing

Public sector sources of financing include:

- **Taxes** paid by employers, self-employed individuals and employees in accordance with the Payroll Tax Act 1995 and Payroll Tax Rates Act 1995.
- **Duties** paid by individuals and businesses on all imported goods at their point of collection, ie airport, shipping docks and post offices.
- **Fees** charged for licenses and permits granted by the Bermuda Government ministries and departments.

Taxes, duties and fees collected by Government ministries and departments are ultimately paid into the Bermuda Government Consolidated Fund which acts like an operating account for the Government of Bermuda. These collected funds are then allocated based on a multi-step approval process, whereby individual departments submit budget requests to their respective Ministry for review. The Ministry reviews the request and provides feedback based on Ministerial and Governmental priorities. The Ministry then develops its budget based on individual departmental requests and submits to the Ministry of Finance for consolidation. The Ministry of Finance then submits the collection of budget 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 as shown in Figure 2.

Private sector sources of financing include:

- Premiums paid for **mandatory health insurance** coverage provided to employees working more than 15 hours per week for more than 2 months per year. Premium for this mandatory coverage is set by the Government annually. In 2018, the premium for this mandatory package of benefits was $334.00[5] and it includes two components: a Mutual Reinsurance Fund (MRF) premium and a Standard Health Benefit (SHB) premium. Together they are defined in legislation as the Standard Premium Rate. In 2018, the MRF premium was $91.57[6] and the SHB premium was $242.43[7].
- Premiums paid for **supplemental health insurance** coverage provided to employee groups and individuals for coverage in addition to the mandated package of benefits. Premium for supplemental coverage is set by the health insurance provider based on the types of benefits covered, the level at which they are covered and the risk profile of the individuals or groups covered.

Although health insurance premiums are comprised of three components[8], they are actually billed and collected by our health insurance provider as one premium. Once the insurance provider receives the premium from us each month, the MRF premium is transferred to the MRF administrator and used to cover MRF benefits and transfers, the SHB premium is retained by the insurer and used to cover the legislated benefits and the supplemental premium is also retained by the insurer and used to cover select benefits outside of SHB and MRF[9].

[5] The mandated monthly premium was $338.07 for the period 1st April 2017 – 30th June 2017 and $334 for the period 1st July 2017 – 31st March 2018.
[6] The MRF premium was $70.72 for the period 1st April 2017 – 30th June 2017 and $91.57 for the period 1st July 2017 – 31st March 2018
[7] The SHB premium was $267.35 for the period 1st April 2017 – 30th June 2017 and $242.43 for the period 1st July 2017 – 31st March 2018
[8] Mandated MRF premium, mandated SHB premium and insurance provider determined supplemental premium
[9] More information about the allocation of the mandated health insurance premium can be found on the Health Council website: http://www.bhec.bm/fact-sheets/

- **Out-of-pocket payments** collected for uninsured portions of care. In general, the term 'out-of-pocket payments' is representative of the portion of charges for care that is not covered by insurance. That is, for insured persons, it is the portion that insurance does not cover. For uninsured persons, it is the total charge for care. As this information is not currently provided consistently, the figure used in the report is instead calculated as the difference between the known expenditure and known financing figures. As such, it includes the sum of (1) the difference between the provider's fee and the insurer's reimbursement rate, for insured services, and (2) the total charged by the provider for uninsured services. This calculation is used in the absence of readily available health system data to directly report out-of-pocket payments, however, we are in the process of strengthening the enforcement of the legislated requirement[10] for providers to report total charges, which would validate a portion of this source of financing.
- **Charitable donations** collected by non-government non-profit organizations used to assist with payments for care for eligible patients[11].

Sources of Expenditure

Public sector categories of expenditure include:

- **Health system administration** which includes Ministry of Health Headquarters' oversight of the health system including policy research and development; the system oversight, research and administrative support provided to the Ministry by the Bermuda Health Council; and administration costs of the Health Insurance Department's management of the Enhanced Care Programme and the Mutual Reinsurance Fund.
- **Department of Health** as a health service provider under the Ministry of health, which provides services such as long-term care, home care, health education, community health nursing, maternity health and community rehabilitation programmes.
- **Bermuda Hospitals Board** which includes all inpatient and outpatient services provided at King Edward VII Memorial Hospital, Mid-Atlantic Wellness Institute (MWI) and Lamb-Foggo Urgent Care Centre. BHB is a QUANGO[12] that benefits from both public and private sector sources of funding. In FYE2018, BHB financing included subsidy payments through the Health Insurance Department (HID), public and private health insurance claims payments for the insured, unsubsidized portion of care and out-of-pocket payments for the remaining uninsured unsubsidized charges. Additionally, in FYE2018, an MRF transfer of $7.9 million ($13.16 per month per insured person) was given to BHB to supplement the cost of providing care.

Figure 3. *Mutual Reinsurance Fund Transfers for FYE2018*

	Monthly Per Insured ($BD)	Annually ($BD)
Health Insurance Department		
➢ **FutureCare**	16.50	9.3 million
➢ **Health Insurance Plan**	31.53	17.5 million
➢ **MRF Administration**	0.51	293,447
Bermuda Health Council	1.09	627,171
Enhanced Care Pilot (formerly the Primary Care Pilot Program)	3.37	2.2 million
Bermuda Hospitals Board	13.16	7.9 million
Dialysis and Transplants	25.41	12.2 million
Total	91.57	49.9 million[13]

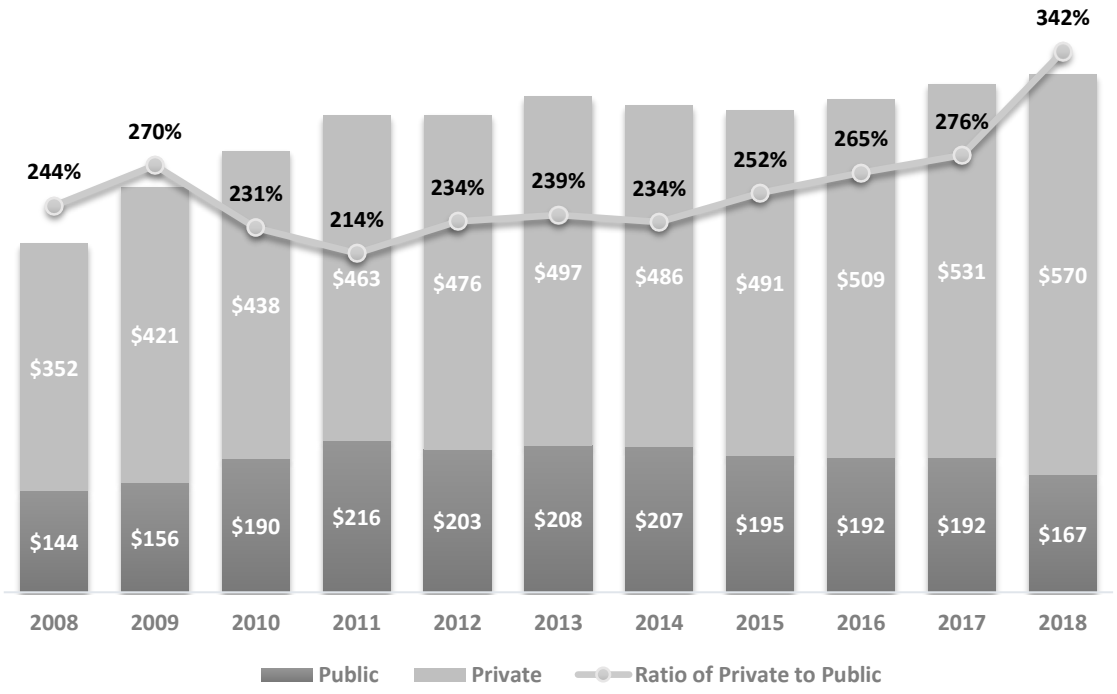
[10] Schedule 1 of the Health Insurance (Health Service Providers and Insurers) (Claims) Regulations 2012 requires providers submit "total fee amount charged" on health insurance claims.
[11] Eligible patients are typically those who are uninsured or underinsured.
[12] Quasi-Autonomous Non-Government Organization
[13] Due to the difference between the review period of this report and the effective dates for the MRF premiums, the total MRF premium collected in the period ending 31st March 2018 was actually $50.7 million. The difference of $728,592 is for a transfer made to the Consolidated Fund in June 2017 for patient subsidies which was applicable to the prior MRF period; the total transfer to the Consolidated Fund for the prior MRF period (1st April 2016 – 30th June 2017) was $5 million. The MRF transfers listed are those active transfers for the FYE2018.

Private sector categories of expenditure includes:

- **Overseas care** and associated costs such as travel and accommodation.
- Prescription medications purchased in Bermuda.
- Local medical and dental care.
- Operational costs associated with the **administration of health insurance policies** through three private insurers, one public insurer and three employer-approved schemes.
- All **other local health care services** not included under medical and dental care. This includes, but is not limited to, services such as diagnostic imaging, laboratory services, optometry, allied health services, psychologist visits, immunizations and home healthcare.

C. HEALTH SYSTEM FINANCE

Figure 4. *Public and Private Sector Financing for FYE2018*



Public Sector Financing

In FYE2018 public sector financing was $166,678 which represents a 13.2% decrease from $192,059 in FYE2017 and a drop from 26.6% of total financing in FYE2017 to 22.6% of total financing in FYE2018. (Appendix 1)

During FYE2018, financing through subsidies was reduced by 20.3% to $84.7 million[14] from $106.3 million in FYE2017 (Figure 5). This decrease in financing is not reflective of a decrease in actual use of, or need for subsidized services as $109 million was received in subsidy claims for the same period and $117.5 million in the prior fiscal period.

Figure 5. *Bermuda Government Patient Subsidies and Other Subsidies for FYE2017 and FYE2018*

	2017	2018
Aged Subsidy	$71,903,844	$56,137,391
Clinical Drugs Subsidy	$2,528,943	$1,974,418
Indigent Subsidy	$10,000,000	$7,648,489
Long Term Care/Geriatric Subsidy	$6,395,435	$4,993,099
Youth Subsidy	$15,502,140	$12,102,966
Other		$1,863,306
Total	**$106,330,362**	**$84,719,669**

As noted in the 2018 NHA Report, the decrease in public financing via patient subsidies is a reflection of Government's efforts to reduce spending across ministries and a reflection of continued budget constraints. Additionally, the difference between the cost of the services provided and payment for those services ($109 million and $82.9 million respectively) is a reflection of the need for greater access to necessary care and thus, support for changing the way we create that access and ultimately how that access is paid. One of the steps taken to address this need and redirect funding to support better health outcomes, was the development of the Health Insurance Department's Enhanced Care Programme (ECP)[15] which provides eligible populations with greater access to the necessary care and resources to better manage their chronic disease(s).

Although less than 1% of total financing, funds entering the system from the Department of Social Insurance (DOSI) and via Government grants are important as they provide additional support for access to health services for select vulnerable populations.

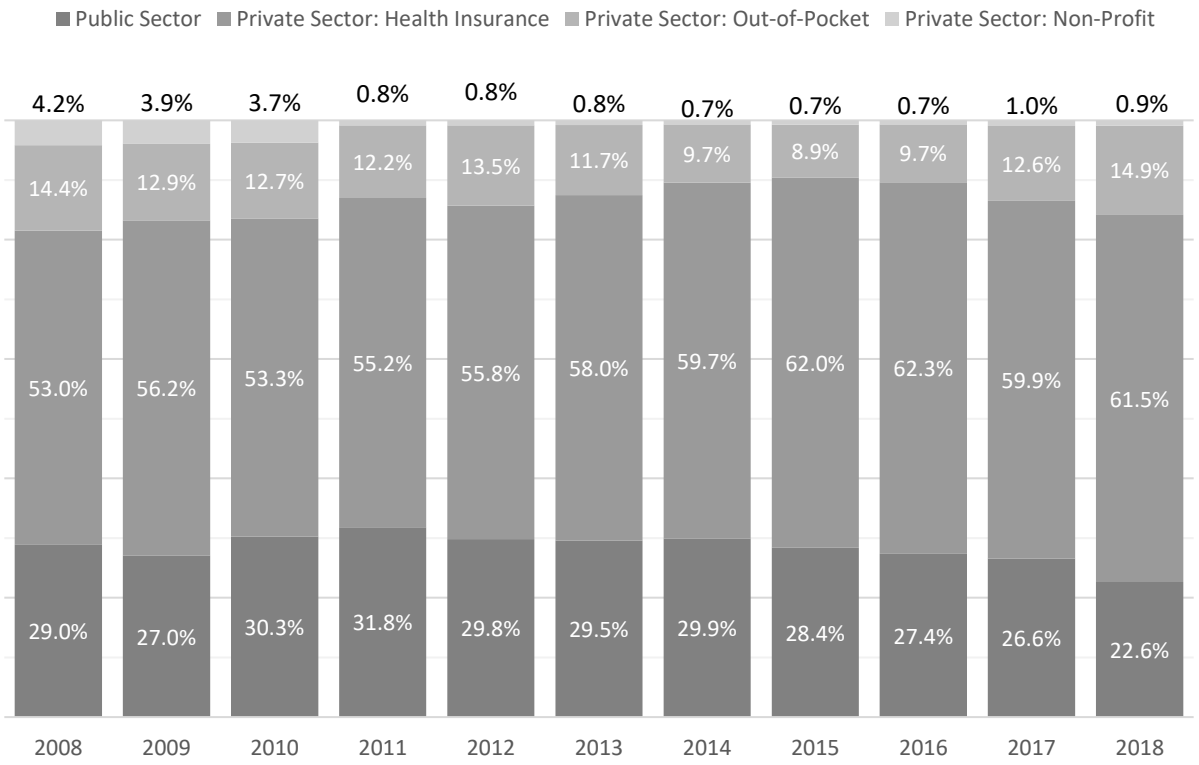
- DOSI provides support for war veterans and their spouses for homecare, hospital services, prescription medications, health insurance premiums, funeral expenses, rest home care and some specialists care. In FYE2018, financing through DOSI decreased (to $3.2 million) which is expected given the changes in the eligible population.
- Government grants are provided to various non-government organizations to supplement the cost of health services provided to populations such as the aged, or physically and/or intellectually challenged. These grants are requested on an annual basis and in line with the Government budget process, they are approved based on Ministerial and Governmental priorities. In FYE2018, grants were approved and provided to Care of the Blind, Summerhaven Residential Home, Packwood Home, Matilda Smith Williams Home and Lorraine Rest Home for a total of $1.6 million. Also included in this category for FYE2018, was an operational "Grant to External Body" for $780,000 which reflects funds paid to two diagnostic imaging providers in the community to supplement the provision of MRI and CT services[16]. Total financing through Government grants is reported as a total of $2.4 million.

Private Sector Financing

Private sector financing increased to $570 million in FY2018 (77.4% of total health financing) from $530.9 million (73.4% of total health financing) in FYE2017 (Figure 2) (Appendix 1).

[14] This total reflects a combination of $82.9 million provided to the hospital specifically to cover eligible care for the youth, aged, indigent and long stay patients, and select medications and $1.9 million provided to the hospital as compensation for the drop in diagnostic imaging fees and to offset the amount owed by BHB for nurses' superannuation.
[15] HID began developing the Primary Care Pilot in FY2016; this programme transitioned into the Enhanced Care Programme in FYE2018.
[16] An additional $100,000 is estimated to have been given to these two providers during FYE2019.

Figure 6. *Sources of Health Financing for FYE2018*



The non-governmental non-profit entities continue to account for the smallest portion of health financing (0.9%) at $6.7 million. Similar to DOSI and Government grants under public health financing, although a small portion of private financing, funding through donations provides an avenue for vulnerable populations to receive necessary care that they may otherwise not have had access to, such as overseas treatment, mammograms, cancer care and chronic disease management[17].

FYE2018 saw a 21.2% increase in out-of-pocket payments which may correlate with the increase in expenditure on 'other health providers, services and appliances' as these are typically subject to smaller levels of health insurance financing and thus larger out-of-pocket financing. In addition to these cases of partial insurance coverage, there are also cases where care is not covered at all by one's existing insurance policy or where an individual is uninsured. While we are aware of many scenarios impacting out-of-pocket financing of the system, current data collection is limited in that these cases are not specifically reported as such, and are therefore calculated based on (1) assumptions about typical levels of health insurance coverage for different categories of care[18] and (2) the difference between known sources of financing and known categories of expenditure. As a result of this reliance on health system data that is known, adjustments to other sources of finance and categories of expenditure would ultimately impact the calculated out-of-pocket financing.

Health insurance continues to account for the largest portion of health system financing at 61.5% of total financing (79.5% of private sector financing) or $453.3 million in FYE2018, an increase of 4.6% from $433.2 million reported in FYE2017. This health insurance financing figure is calculated as the sum of claims reported as *paid* by local health insurers for both local and overseas care and administrative costs associated with providing health insurance to the population. As claims payment is funded via payment of health insurance premiums, the source of financing for the payment of claims is reflected here. It is, however, recognized that health insurance premiums are not solely collected for the payment of claims and operational and administrative costs and are impacted by other components such as reinsurance and adjustments due to projected risk.

[17] This is not an exhaustive list of health services provided by these non-profit organizations.

[18] For example, if we assume all prescription medications are covered at 80% by insurance, we would assume the other 20% is covered by out-of-pocket financing. This method also assumes that everyone receiving care/goods/services is charged for the uninsured portion.

Therefore, by using claims paid to reflect health insurance financing, these additional components are excluded. This is in part due to the business structure of private health insurance providers. That is, not all local health insurers, provide just health coverage; within the health book of business there may also be coverage for life, accident and/or annuity. Given the diverse business structures, and the current licensing requirements[19], audited figures for premiums paid for health insurance coverage only, are not available[20] hence use of claims paid and estimated operational and administration costs[21] as a reflection of health insurance financing. Inclusion of health insurance premium paid for these other components of health insurance premium would increase the reported level of health insurance financing and would decrease the portion of out-of-pocket financing.

[19] The Health Insurance (Licensing of Insurers) Regulations 1971 prescribes submission requirements for application for a licensing to operate health insurance business.
[20] Known gaps in data collection are constantly being identified and work is being done to address these where possible. Where not possible or not timely, they are noted.
[21] Given the business structure of local health insurers, reported operational and administrative costs are not solely for health and thus are estimated based on the reported value of health claims as a portion of total claims paid for the book of business including health.

D. HEALTH SYSTEM EXPENDITURE

Total health expenditure for FYE2018 was $736.6 million, an increase of 1.9% from $723 million in FYE2017. In this, public expenditure decreased while private expenditure increased. However, within public sector expenditure, all but expenditure on BHB increased from FYE2017 to FYE2018. Figure 7 shows the total public and private sector spending and the ratio of the two.

Figure 7. *Public and Private Expenditure for FYE2018*

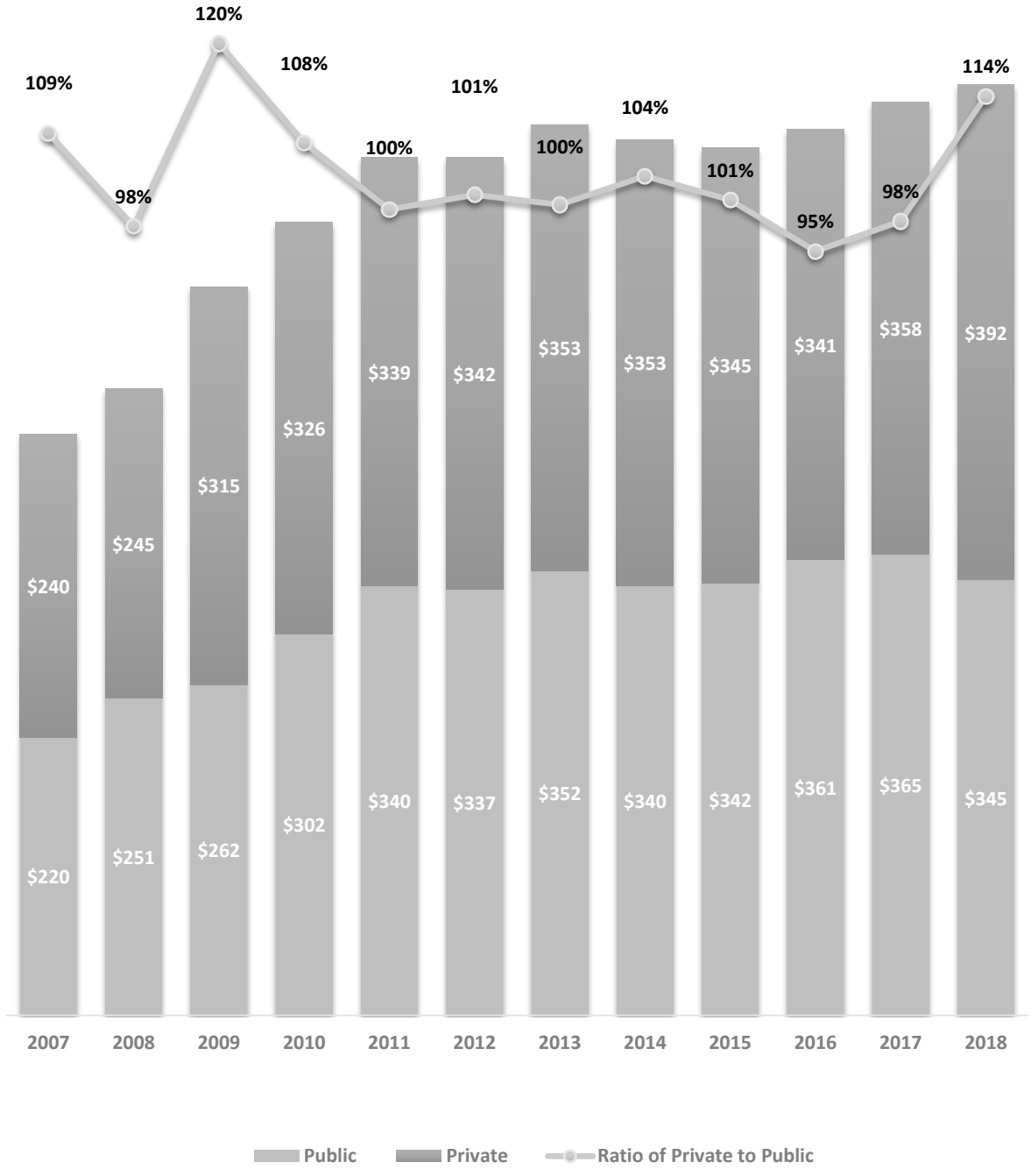
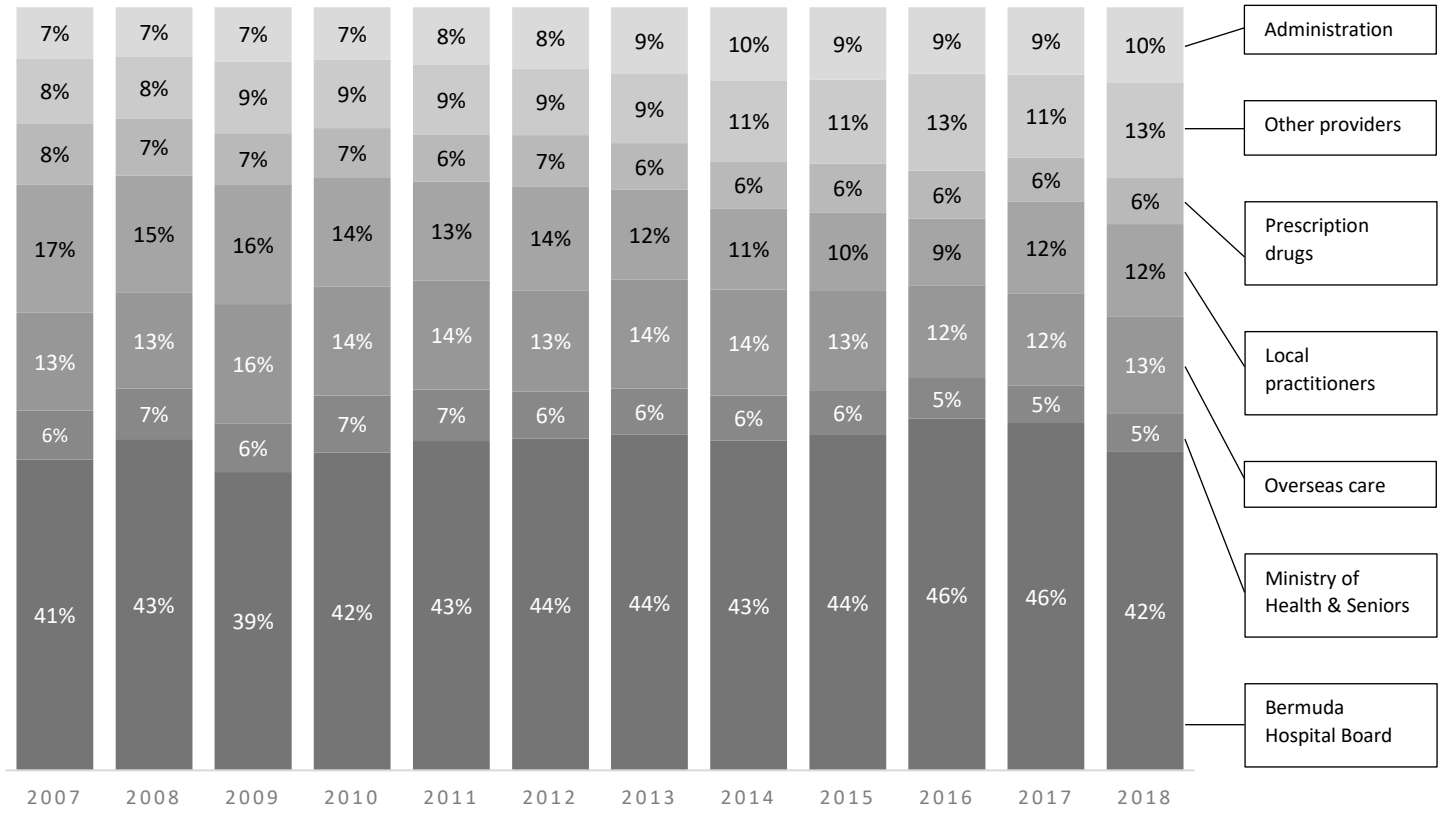


Figure 8. *Public and Private Sector Categories of Expenditure for FYE2018*



Public Sector Expenditure

In FYE2018, there was a reduction in expenditure on BHB facilities, namely, King Edward VIII Memorial Hospital (KEMH) which provides both inpatient and outpatient services, Mid-Atlantic Wellness Institute which provides both inpatient and outpatient mental health services, and Lamb-Foggo Urgent Care Centre which provides emergency after-hours services. During this period, expenditure was reported as $307.5 million inclusive of a grant to Mid-Atlantic Wellness Institute (MWI) for $37.4 million – the level of which has not changed for the past 3 fiscal periods. The reduction in expenditure at BHB between FYE2017 and FYE2018 was spread over a number of areas: outpatient and inpatient services decreased by $33.8 million likely due significantly to a reduction in diagnostic imaging fees[22], subsidy decreased by $23.5 million due to adjustments in allocation of Government funds, and expenditure on pharmacy decreased by $2.7 million which reflects the final stages of the transition of the outpatient pharmacy from BHB to People's Acute Care Wing (People's ACW). BHB's extended care unit and non-medical expenditure saw increases in revenue of $16.8 million[23] (from $9.6 million in FYE2017 to $26.4 million in FYE2018) and $5.6 million (from $7 million in FYE2017 to $12.6 million in FYE2018) respectively. Overall these changes contributed to a 7% reduction in expenditure on BHB from $329.9 million in FYE017 to $307.5 million in FYE2018. These changes in funding however do not reflect a change in service utilization.

Expenditure on health system administration includes all operational and administrative costs associated with (1) managing and regulating the public health system and programmes and (2) providing policy direction for the health system. In FYE2018,

[22] The reduction in fees was the result of the standardization of hospital fees as a step toward greater cost control at BHB facilities.
[23] Increase is a result of additional funding provided for long-term care patients.

expenditure here increased to $11.5 million (or 1.6% of total health expenditure) from $10 million (or 1.4% of total health expenditure) in FYE2017. This figure includes the MRF transfer to Bermuda Health Council for its increasing role in researching and developing health programmes and health policy, and its mandate to regulate, coordinate and enhance the delivery of health services. In FYE2018, the transfer to the Health Council was $627,170.50 compared to $623,112.91 in FYE2017 – an increase of 0.7%. This administration figure also includes costs associated with HID role in managing the ECP and MRF. In FYE2018, the administration expenditure for HID was $541,947 compared to $427,038 in FYE2017 – an increase of 21.2%[24].

Expenditure on the Department of Health, which falls under the Ministry of Health, also increased. There was a reported expenditure of $25.7 million in FYE2018 compared to $24.8 million reported in FYE2017. Expenditure on the Department, which includes all operational and administrative expenses associated with providing public healthcare services to the population, has fluctuated over the past 10 years with an average annual decline of 0.8%. This decline is reflective of a change in strategy for government-led management of public healthcare services and reorganization of the associated public sector financing.

Private Sector Expenditure

Expenditure on local community providers[25] increased by 9% in total from $166.3 million to $181.9 million. More specifically:

- expenditure on local dentists increased by 5.88% from $30.1 million in FYE2017 to $31.8 million in FYE2018;
- expenditure on local physicians increased by 0.12% from $57.6 million in FYE2017 to $57.7 million in FYE2018;
- expenditure on other local providers, services and appliances increased by 17.5% from $78.7 million in FYE2017 to $92.4 million in FYE2018; and
- expenditure on prescription medications increased from $41.4 million in FYE2017 to $44.6 million in FYE2018, an increase of 7.64%.

Of this expenditure on local providers, $249,397 was through the ECP. This programme ensures its participants have access to key health service providers such as primary care and specialist physicians and allied health professionals ($75,494 in FYE2018), prescription medications to help with managing their chronic disease(s) and laboratory tests to monitor their disease management ($173,904 in FYE2018)[26]. The programme also allows for participants to receive assistance with transportation ($1,470) as part of the assurance of access to necessary care. The operational and administrative costs of running the ECP were $245,833.61[27] giving a total expenditure through ECP for FYE2018 of $496,701. In FYE2017 and FYE2016 the programme was still in its developmental stages with expenditure recorded for operations and administration only; $135,489.52 in FYE2017 and $39,418.11 in FYE2016.

Expenditure on overseas care has fluctuated for more than 10 years, however, the growth rate of expenditure on its own has been positive while the growth rate of its portion of total health expenditure has been negative. Efforts are constantly made to ensure necessary services are available on island however given the size of our population and low demand for some specialist services, it is not always possible to offer certain care on island which inevitably drives a portion of care off island. Additionally, overseas care is not included under the regulated portion of local health insurance packages, therefore any insurance coverage for overseas care would be provided under a supplemental package only. As there is no regulated coverage, there is also no nationally regulated process by which overseas referrals are received and processed for monitoring of eligibility and appropriateness of overseas care referrals – this decision rests with the health insurance provider financing the care.

[24] In FYE2017, ECP was still in its development phase hence lower administrative costs associated with managing it. In FYE2018 the case load increased thus administrative costs increased.
[25] Includes the sum of local providers, services, appliances and prescription medications.
[26] Participating health services providers must apply and be approved to provide care and care products under the ECP. This process is managed by HID.
[27] Administration ECP is provided by staff employed at HID, therefore this portion of ECP expenditure is captured under public sector expenditure.

Figure 9. *Expenditure on Overseas Care for FYE2006 – FYE2018*

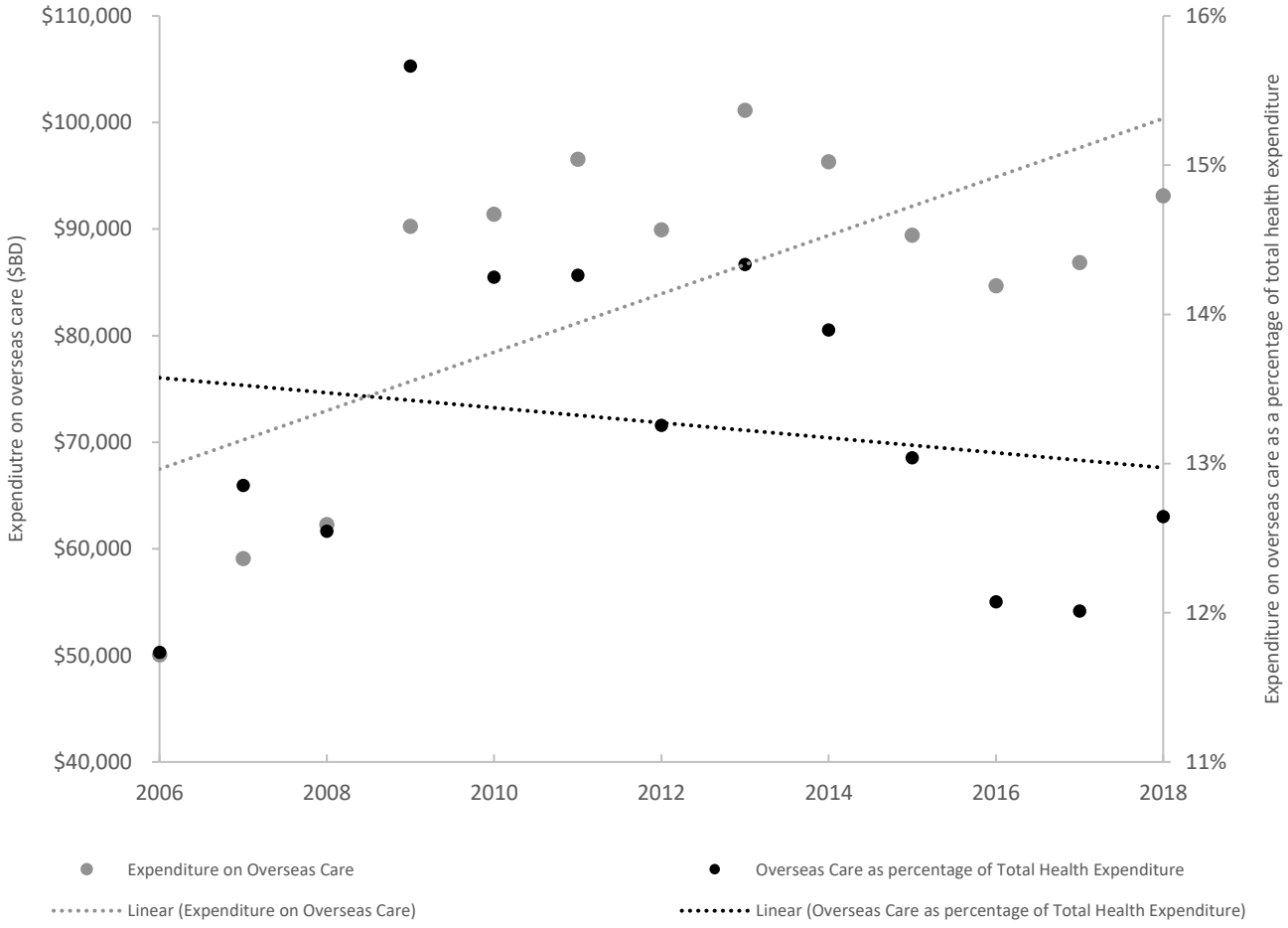


Figure 9 shows the trend of annual expenditure on overseas care increased between FYE2006 and FYE2018 (grey dotted line) which may be reflective of an increase in use of services and/or an increase in the cost of services. It also shows the trend in overseas expenditure as a portion of total health expenditure as decreasing (black dotted line) which is reflective of a greater increase in total health expenditure than the increase in expenditure on overseas care.

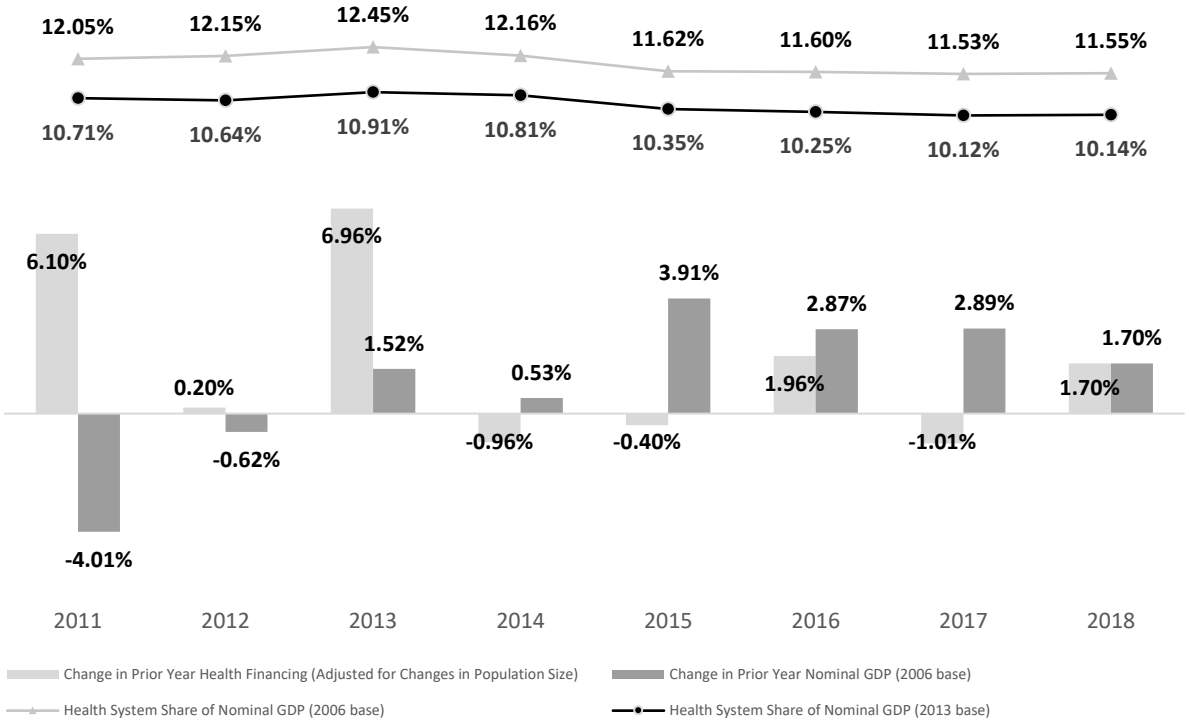
E. HEALTH IN CONTEXT

While monitoring health system trends in Bermuda is helpful to understand the impact of changes year-over-year, it does not tell us what the trends mean. That is, Bermuda's data on its own does not speak to efficiencies or whether we are appropriately prioritizing the health system compared to other sectors impacting the population. To address this, we compare Bermuda's health expenditure (per capita and total) to other jurisdictions based on economic productivity (Gross Domestic Product (GDP)[28]) and health outcomes (life expectancy at birth). This is not an exact science and the comparisons are subject to jurisdictional differences in calculations, but by considering Bermuda's data in context, we get a better sense of what it all means overall.

[28] In the Department of Statistics' 2018 GDP Report, the GDP was rebased from 2006 to 2013. For this NHA Report, where possible, both the 2006 and 2013 based data has been included. It should also be noted that as a result of the rebasing, the 2018 GDP was only calculated using 2013 as a base, therefore reference to the 2006 based 2018 GDP actually reflects a 1.7% inflation of the 2017 GDP. This is based on the Department of Statistics' report of inflation between 2017 and 2018.

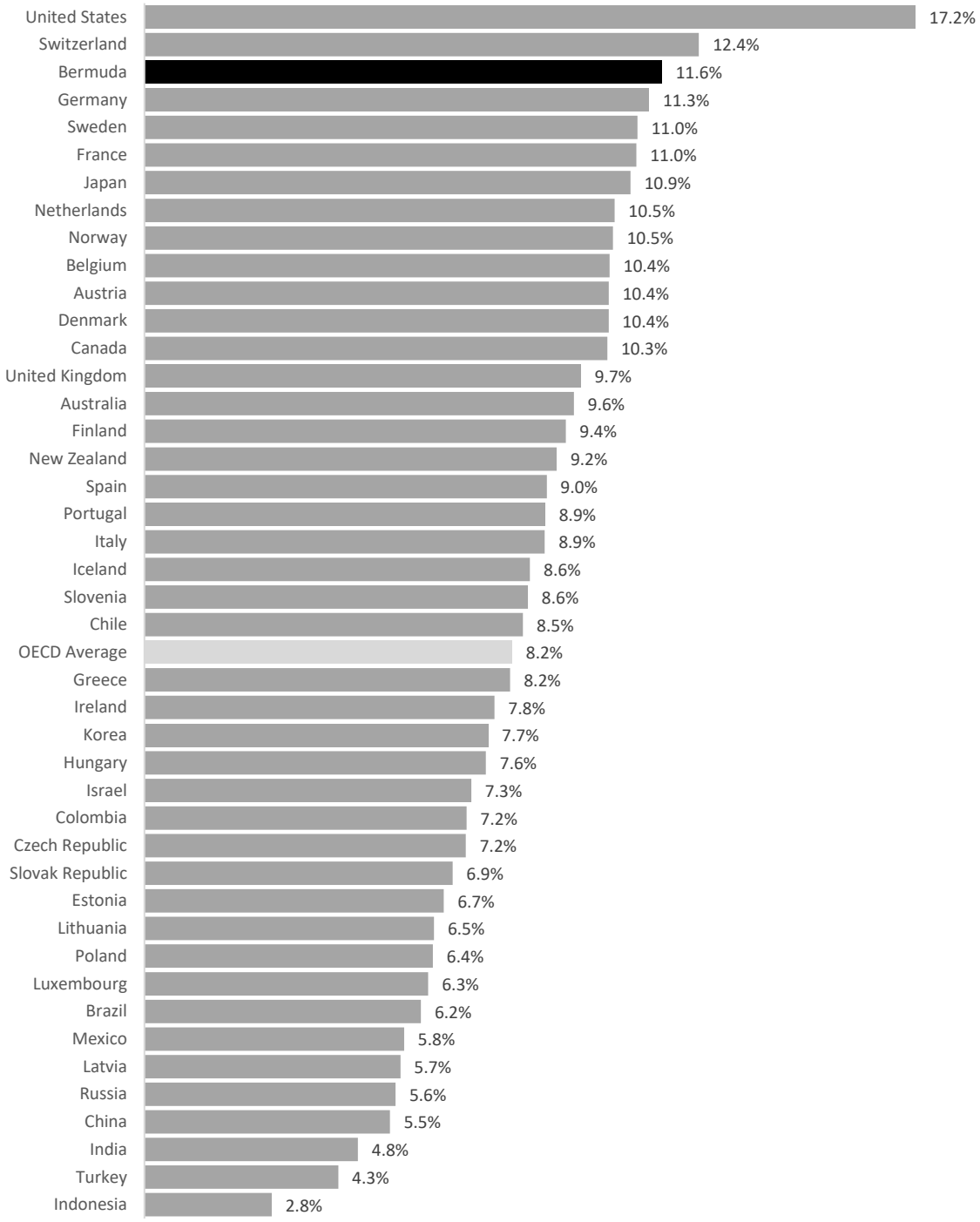
The base year used to calculate GDP was adjusted from 2006 to 2013 in the 2018 GDP report which adjusted the GDP figures for 2011 onwards. With the change in the base year, Bermuda's GDP increased from $7.1 billion in 2017 to $7.3 billion in 2018 which, given the heath expenditure for FYE2017 and FYE2018 (Figure 1), equates to 10.14% health share of GDP in 2018 compared to 10.12% health share of GDP in 2017. Using the original base year of 2006, Bermuda GDP increased from $6.1 billion in 2017 to $6.3 billion in 2018 which equates to 11.55% health share of GDP for 2018 compared to 11.53% health share of GDP for 2018 (Figure 10). Despite the change in calculation of GDP, the findings reflect a lower rate of increase in productivity for the island than the increase in health expenditure resulting in a greater health share of GDP. Figure 11 displays how Bermuda's health share of GDP compares to OECD countries.

Figure 10. *Change in Health Expenditure and Gross Domestic Product (2006 base) for FYE2018*



Using the 2006 base, Bermuda's health share of GDP ranks 3rd against OECD countries in FYE2018. When adjusting for the 2013 base, health share of GDP is 10.14% which would place Bermuda as 13th highest amongst OECD countries.

Figure 11. *Health System Share of GDP (2006 base year)*



Health share of GDP represents spending on health as a portion of spending on the economy as a whole. Given the limitations of this observation on its own, to gain a greater understanding of how a health system is performing, we also look at per capita health spending[29] and health outcomes.

[29] OECD/European Union (2018), "Health expenditure in relation to GDP", in Health at a Glance: Europe 2018: State of Health in the EU Cycle, OECD Publishing, Paris/European Union, Brussels.

Figure 12. *Per Capita Health Expenditure and Per Capita Nominal GDP (2006 and 2013 base years)*

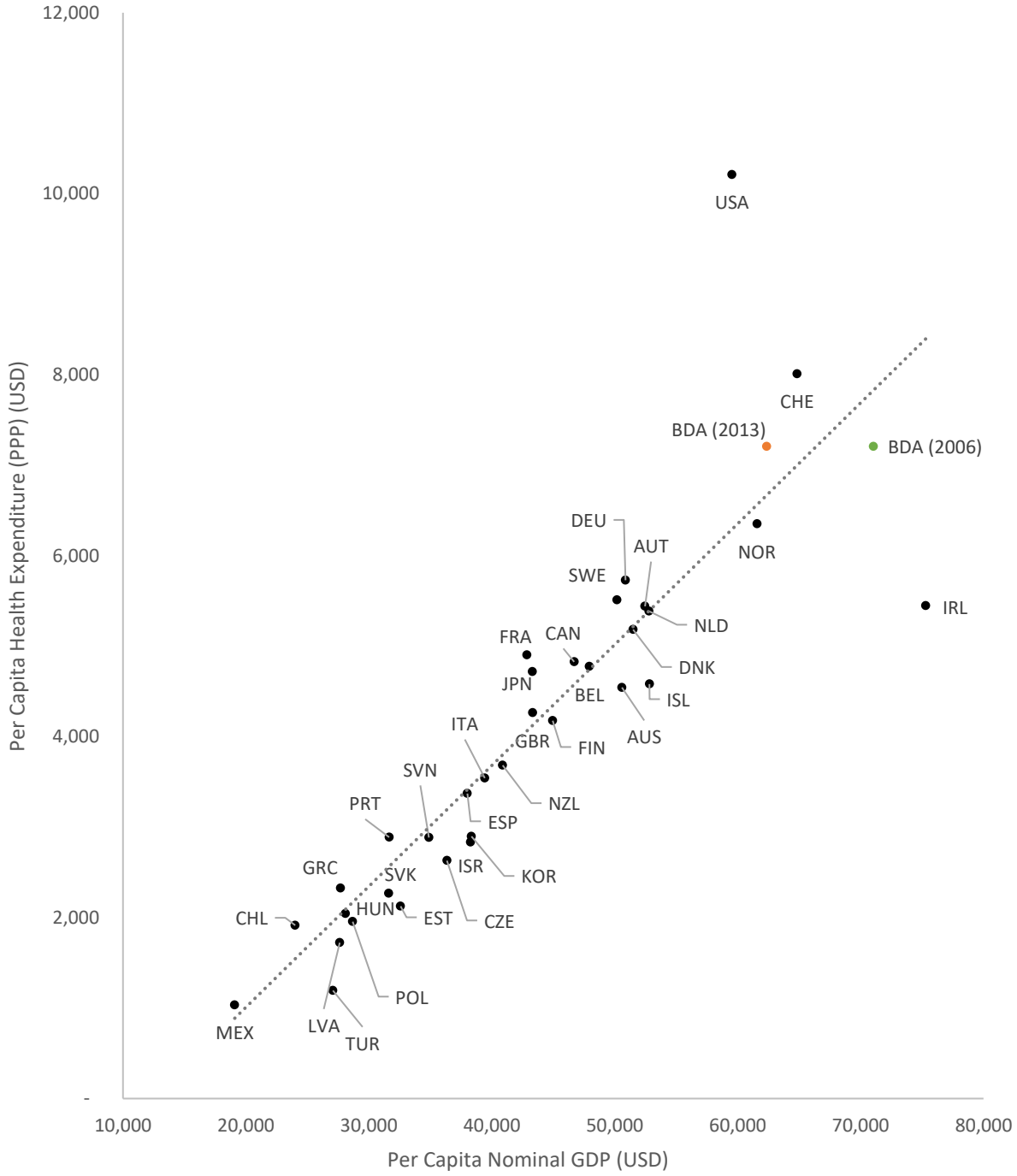
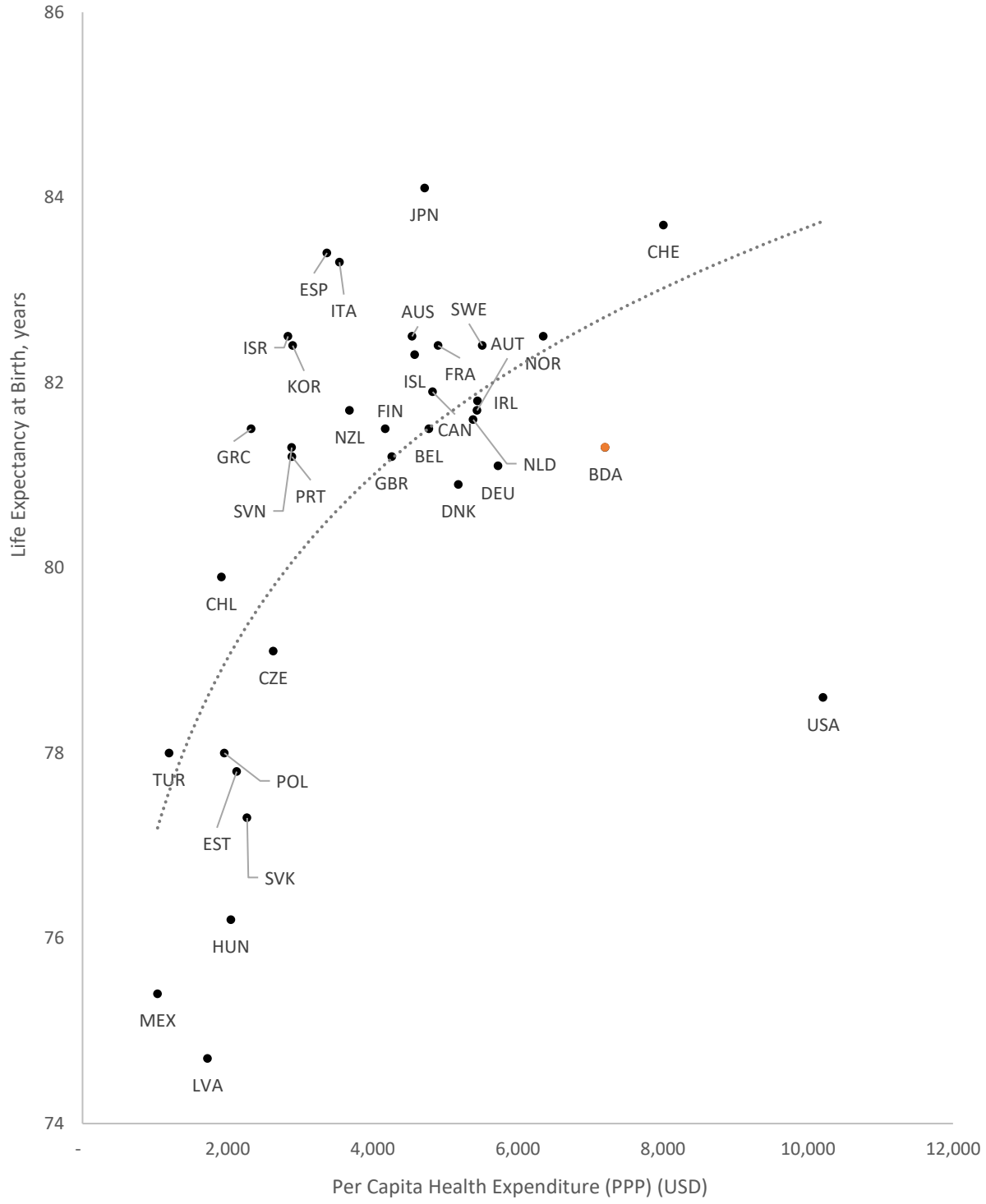


Figure 13. *Life Expectancy at Birth and Per Capita Health Expenditure (PPP) for FYE2018 (or most recent year available)*



Based on the trend for per capita expenditure against life expectancy, Bermuda's per capita expenditure is higher than that of countries with similar life expectancy such as Netherlands, Canada, Finland Portugal and Greece which spend far less per person.

F. DISCUSSION

HEALTH FINANCING

Health financing relies on support from various sources such as government, health insurance plans/schemes, donations, non-governmental organizations, the community and households, and the proportion and allocation of each of these to different categories of health expenditure will ultimately impact the population's access to certain health services.[30,31]

For example, nationalized health systems are usually funded through taxation structures[32] and expenditure on care is typically provided in publically funded care centres to the whole population at no cost at the point of care, with the exception of prescription medications which may require an out-of-pocket payment. These nationalized health systems ensure access and coverage for access for all residents but rely on heavy taxation which means as health expenditure increases, governments may be forced to either raise taxes or take from other areas of public funds.[33]

Private health systems are funded through health insurance premiums and expenditure on care is dependent on the level and type of health insurance coverage that an individual has. The type of coverage can also impact whether one has to pay an out-of-pocket payment for care and how high or low that payment is which again will impact the access one has to different types of care. Access to, and coverage for care is essentially based on one's ability to pay a certain health insurance premium or out-of-pocket costs for uninsured care, or is based on the level of coverage offered through one's employer.

Systems may also contain a mixture of public and private health financing and thus mixed levels and types of access to care for the population.

BERMUDA'S HEALTH FINANCING AND THE IMPACT ON ACCESS

Health financing in Bermuda is largely through health insurance premiums (Figure 2) which are mandated as a benefit of employment and thus access to health services tends to be based on employment status which can disadvantage the unemployed population. Unemployed individuals do have the option to purchase a health insurance policy, the cost of which ranges between $430 per month to $1,500+ per month – costs which are prohibitive to many.

Health financing is largely through health insurance premiums which are tied to employment thereby disadvantaging the unemployed population.

Bermuda has three employer-sponsored health insurance schemes, three private health insurers and one public health insurer. The employer schemes provide coverage to their employees and non-employed spouses[34]. Coverage and associated premiums with the three private health insurers are based on the level of risk that an individual or employee group poses to that insurance provider. That is, premiums for someone with expensive or complex health needs are likely to be higher than someone who has low, less complex needs; or in terms of employee group dynamics, a group with more members with complex needs are likely to have higher premium than a group with more members with less complex needs. Depending on the level of risk, private health insurers may also opt not to provide certain types of coverage to certain at risk individuals/groups.[35] While this is standard practice of medical underwriting, this discretion creates another barrier in access to care, for those who are sicker and in need of that care[36,37]. The remainder of the insured population are covered by a public health insurer, HID, where premium is the same per person no matter the risk profile of the individual or group[38]. This set premium is made possible with a risk balancing transfer from the MRF (Figure 3). In FYE2018, the transfer to HID was $26.8 million which

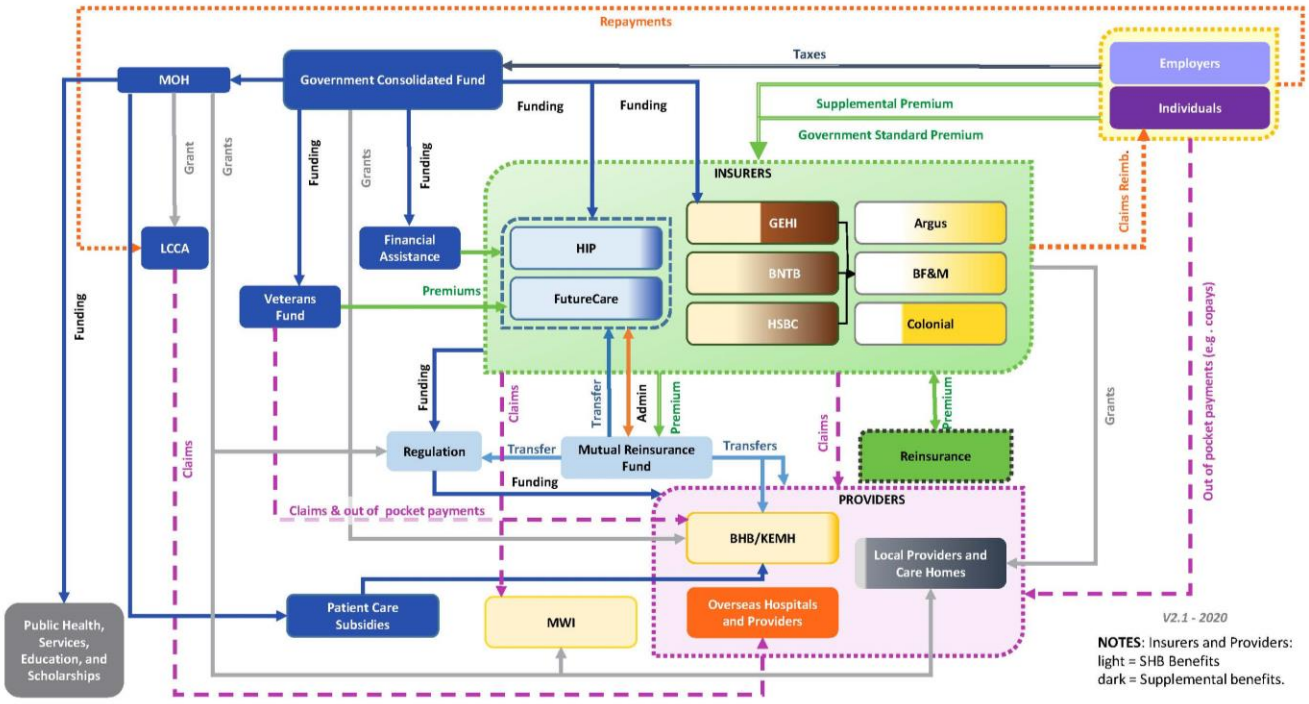
Providing coverage based on risk creates a barrier to care for those who are sicker and most in need of that care.

[30] Lagarde, Mylene and Natasha Palmer (2018). *The impact of health financing strategies on access to health services in low and middle income countries*. Cochrane Database of Systemic Reviews.
[31] Tulchinsky, Theodore and Elena Varavikova (2014). *Measuring costs.* The New Public Health.
[32] National Insurance contributions enable access to pension, employment/unemployment support allowances, maternity allowance and bereavement support.
[33] The Kinds Fund (2017). How health care is funded.
[34] Schemes may also provide coverage to other categories of dependents, however they are not required to.
[35] https://www.investopedia.com/terms/m/medical-underwriting.asp
[36] Claxton, Gary et al (2016). *Pre-existing conditions and medical underwriting in the individual insurance market prior to ACA.* Kaiser Family Foundation
[37] https://www.actuary.org/content/risk-pooling-how-health-insurance-individual-market-works-0
[38] HID offers the Health Insurance Plan which is $430 per person per month, and FutureCare (for aged 65+) which is $504 per person per month

originated as $40.83 paid by every insured person in Bermuda per month. Given the structure and options for health insurance coverage, what this means is that the 49,027[39] insured residents of Bermuda, not including insured children, are divided into smaller unequal (in numbers and risk) pools, one pool carries the majority of the risk (HID[40]) and the 49,027 insured people on island make monthly contributions to balance the cost of the risk for approximately 7,200 in the public insurance pool.

Unemployed individuals may apply to the Department of Financial Assistance for support with paying health insurance premiums for one of the public health insurance plans under the Health Insurance Department (HIP or FutureCare). This option is not open to everyone and individuals must meet a certain criteria to be considered.

Current financing of Bermuda's health system



For the unemployed individuals who do not qualify for Financial Assistance and who are unable to enroll onto a health insurance plan, they have the option to pay out of pocket for care. However, experience has shown that these individuals are more likely not to seek care in general[41] and/or seek care in the hospital emergency room where they are not turned away and are not required to pay at the point of care. While this is a form of access to services, it is not the appropriate way to access services and is not the most cost effective way either. The existence of barriers such as employment status and existing health status, and the resulting care-seeking habits form a basis for the argument for governments being involved in health financing and providing oversight of aspects of healthcare, even if only for the vulnerable populations.[29]

The uninsured are more likely not to seek care or to go to the emergency room.

Bermuda's Government funded or publicly funded services and programmes target very specific populations - the youth, aged and indigent - for specific purposes[42]. Generally speaking, services are geared toward child health and development, maternal health and family planning, preventive care for children and seniors, and controlling the spread of, and reducing the risk of developing communicable diseases such as sexually transmitted infections, HIV and

[39] Bermuda Health Council (2019). 2018 Actuarial Report for the Bermuda Health Council. (Page 3 reported SHB Insured Headcount)
[40] Technically HID is comprised of two pools – Health Insurance Plan and FutureCare Plan, however the disproportionate risk applies to both, hence reference to HID as a whole.
[41] Garfield, Rachel et al (2019). *The Uninsured and the ACA: A Primer – Key Facts about Health Insurance and the Uninsured amidst Changes to the Affordable Care Act*. *Kaiser Family Foundation.*
[42] There are some exceptions to the rule in terms of who can receive what services and in what setting but generally speaking, the different clinics and services are intended for very specific populations or specific care and education needs.

tuberculosis. Select public health services are available at four government clinics, at all local schools[43] and at a number of mobile clinics run at various times during the year.[44] While these services are well managed and effective for service users, they are limited in their ability to meet the needs of the entire population, even within their general care services. For example, the oral health clinic only provides care to those who are under 18 or over 65, although exceptions may be made in emergency cases for unemployed individuals who fall outside of these age groups.

Our old-age dependency ratio is forecasted to increase from 24.7 calculated in 2016 to 39.7 by 2026.

These publicly funded health services are typically provided at no or very low direct cost to the individual at the point of care and regardless of health insurance coverage. While this removes the cost-barriers that one may otherwise face in privately funded care settings, it can increase demand for these services which could ultimately put strain on the shrinking work force who carries the financial burden of these services through employment-linked deductions and taxation[45]. For context, our old-age dependency ratio[46] is forecasted to increase from 24.7 calculated in year 2016 to 39.9 by 2026[34] which correlates with growing health and social needs of the population[47], greater need for more affordable and effective services, and thus greater demand for resources.

In addition to there being services funded only by government[48], there are also services of which government has regulatory oversight and/or are partially funded by government or via a government mandated mechanism for the purpose of ensuring a level of access to care for certain populations in certain circumstances. The hospital receives a government subsidy payment for care provided to the youth, aged and indigent populations and also receives a portion of mandated health insurance premiums[49] to ensure access to certain services for the insured population[50].

Government mandates all local health insurers provide full coverage of benefits included under SHB.

There are also community services for which government has mandated full insurance coverage to ensure access for the insured population; these benefits are referred to as Standard Health Benefit (SHB) and include select diagnostic imaging, home medical services, palliative/end-of-life care, dietetic services, select artificial limbs and appliances, dialysis, and kidney transplantation and anti-rejection medications. The role of government (via the Ministry of Health) and the intention of SHB is to ensure the population has access to necessary services, hence the mandate[51] for health insurance products to include at least SHB. This set of benefits was originally designed to ensure access to hospital care but with global shifts toward inclusion of more prevention in public health[52], came a shift to include more community services in SHB and enable the hospital to focus more on their role as a tertiary care centre.

Access to care is not consistent across all segments of the population and is not always appropriate or cost-effective.

While the system generally ensures a level of access to care for the entire population, that access is not consistent across all segments of the population and is not always the most appropriate or cost-effective care for the needs of the population. Additionally, the financing of this inequitable access is largely though employment-linked payments made by the shrinking working population. This includes health insurance premiums paid by the employed population for their own care and monthly contributions to the cost of coverage provided by the public health insurance plans. This trend of increasing health

[43] Includes both public and private primary, middle and secondary schools.
[44] For example "Flu Express" which provides flu shots at various locations around the island around flu season
[45] Liaropoulos Lycourgos and Ilias Goranitis (2015). *Health care financing and the sustainability of health systems*. International Journal for Equity in Health. 14;80
[46] Old age dependency ratio is calculated by the Department of Statics as the population 65 years and older as a percentage of the population aged 15 to 64 years
[47] World Health Organization (2018): *Ageing and health*
[48] For certain dental procedures and dental prosthetics, the government clinics may submit a claim on behalf of insured individuals but otherwise, goods and services are funded by government.
[49] All local insurers, both public and private must provide no less than the Standard Health Benefit (SHB) to their insured population; the premium for which is set by the Ministry responsible for health. Within this SHB package and its associated premium are (1) services which all insureds have access to, (2) a collection of funds used to provide support for operational costs associated with health system oversight and administration, and (3) a collection of funds used to assist with the cost of claims incurred by HID's insured population
[50] Until June 2019, the hospital was funded by public sector, health insurance (private sector) and out of pocket payments (private sector). Since June 2019, the hospital receives a block grant provided funded by a portion of mandated health insurance premiums.
[51] Health Insurance Act 1970
[52] European Observatory on Health Systems and Policies (2015). *Promoting Health, Preventing Disease: The Economic Case*

expenditure and a shrinking population to support it, is unsustainable and has formed the basis of many discussions on system reform and redesign over the years.

Reform has the ultimate goal of creating a sustainable platform for patient-centred care.

As far back as the late 1990s, reports have been published which identify and recommend necessary changes to improve sustainability of the health system[53], most notably, the National Health Plan (2011) and the Bermuda Health Plan 2020[54], which contribute to the basis of current proposed health system and financing reform, and outline steps to achieve the ultimate goal of creating a sustainable platform for patient-centred care. Such reform is not possible overnight but our existing health system data and public health statistics[55,56,57] highlight a need to make intentional and significant changes to improve the system. Identification of this need for change is not new and there have been some intentional shifts in the system in recent years toward reform goals of increasing access to basic health insurance by:

1. encouraging and expanding the use of community-based care,
2. increasing access to interventions to prevent and manage non-communicable diseases and their risk factors
3. encouraging healthy lifestyles with the involvement of health professionals and organizations, and
4. enhancing the mandated pack of benefits[58].

STEPS TOWARD IMPROVING HEALTH FINANCING AND THE ANTICIPATED IMPACT ON ACCESS

1. Expand the use of community-based care.

In 2016, hospital fees were standardized which resulted in a reduction in diagnostic imaging fees and overall projected expenditure at the hospital. This was followed by the institution of block grant funding to the hospital in 2019 to encourage more efficient and appropriate use of hospital services[59]. As this is a recent change, we anticipate there being an adjustment period; however, coupled with the other phases of reform to improve access to more community services through changing the way we pay for care, the anticipated net effect is improved access to necessary care and more effective service provision.

2. Increase access to interventions to prevent and manage non-communicable diseases and their risk factors.

The Enhanced Care Programme is provided through HID and was established to provide all of the necessary care, prescription medications and case management for eligible individuals with one or more non-communicable chronic diseases who are insured under the HID's Health Insurance Plan or FutureCare Plan. This programme is still relatively new and thus is consistently under review, however the intention is to have a full roll out of the programme to provide care and case management for a larger group of participants[60].

3. Encourage healthy lifestyles with the involvement of health professionals and organizations.

Many will agree that Bermuda has a range of options for care and various ways of accessing that care. However, the financing of these options is more aligned with a curative approach than a preventative one, which can be costly and is not necessarily in favour of healthy lifestyles[61]. Given the expertise of Bermuda's health professionals and the growing health and social needs of the population, there is opportunity to shift this approach to address the growing burden of chronic disease and encourage better,

[53] List of reports available in Appendix I of the National Health Plan 2011
[54] As per a statement made by the Minister of Health on 27th September 2019, the National Health Plan's Financing and Reimbursement Task Group identified options for financing the health system which form part of the financing goals under the Bermuda Health Plan 2020 and the overarching goal to create a sustainable platform for a patient centred care model to improve health outcomes.
[55] Ministry of Health, Seniors and Environment (2016) *Steps to a Well Bermuda: Health Survey of Adults in Bermuda 2014*. Government of Bermuda
[56] Ministry of Health (2017) *Health in Review 2017: An International Comparative Analysis of Bermuda Health System Indicators, 2nd Edition*. Ministry of Health: Bermuda
[57] Bermuda Health Council (2019). *2018 National Health Accounts Report*
[58] The mandated package is currently called SHB but this name is subject to change
[59] The impact of this on health expenditure will be reviewed in the 2021 National Health Accounts Report which will analyze finance and expenditure for fiscal year 1st April 2019 to 31st March 2020.
[60] As per HID, in 2017, the ECP had 88 participants.
[61] Wendimagegn, NF and Bezuidenhout, MC (2019). *Integrating promotive, preventive, and curative health care services at hospitals and health centers in Addis Ababa, Ethiopia*. Journal of Multidisciplinary Healthcare. 2019:12, 243-255

healthier lifestyle choices. This can be made possible by supporting health professionals to provide evidence-based care in programmes that address the needs of the population.

As access to local and overseas care is funded mostly through health insurance premiums, a significant focus on improved access has always been around the contents of local health insurance packages, as such, the mandated portion of these packages (SHB) is reviewed each year and adjustments are made to align it with system goals and priorities[62]. While this is important and relevant, we must not forget about the population who report being uninsured and underinsured[63] and we must make sure there are programmes in place and financing available to ensure they receive the care they need as well. While there are currently some services available to these vulnerable populations, access can be restricted, span of services limited and public funding has generally decreased over time. Each year the mandated package of benefits is reviewed for appropriateness and cost-effectiveness and each year small changes are made. Greater efforts must be made to ensure that the entire population has access to services that encourage our people to live healthy productive lives. Proposed changes to the mandated package of benefits (SHB) and the way it is paid for aim to provide more robust, appropriate and cost-effective coverage to Bermuda's residents.

4. Enhance the mandated package of benefits.

CLOSING

Initial changes are not guaranteed to be perfect but we cannot continue paying for care and providing care as we have been doing. We need to maximize on the current oversight of select health programmes and services which ensure residents' access to a set of essential care and services. Annual review of the mandated package of benefits is the existing mechanism through which this access is possible, the goal of which is to provide a safety net of coverage for the population. However, with the growing burden of chronic disease and the aging population, it too has been ineffective at achieving this goal. This must change. There will always be segments of the population that cannot afford care but if we allocate existing health funds appropriately and effectively, we can provide access to essential services for everyone.

[62] The basis and findings of this annual review is published in the Actuarial Reports.

[63] Underinsured population are those individuals who have health insurance coverage but it is inadequate for their health needs. This typically refers to those individuals with complex health needs who are insured under the HID's Health Insurance Plan.

G. APPENDIX

Appendix 1: Health System Financing

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total - National Govt. Expenditure	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	1,226,397	1,154,772
Total - Public Sector Financing	**144,056**	**155,772**	**190,111**	**215,886**	**202,642**	**208,224**	**207,409**	**194,541**	**191,964**	**192,059**	**166,678**
>Ministry of Health/DOSI	3,396	8,505	28,737	35,194	30,250	28,896	29,285	20,975	19,604	22,272	20,789
>Department of Health	29,463	28,023	29,135	30,508	29,693	30,513	25,298	25,704	24,365	24,787	25,689
>Patient subsidies and Operating Grants	111,197	119,244	132,239	150,184	142,699	148,815	152,826	147,862	147,995	145,001	120,200
	245%	270%	231%	215%	235%	239%	234%	254%	268%	276%	342%
Total Private Sector Financing	**352,263**	**420,532**	**438,343**	**463,076**	**475,801**	**496,804**	**485,738**	**493,854**	**515,028**	**530,940**	**569,947**
>Health Insurance	259,877	323,778	334,893	374,686	379,161	408,602	414,589	428,104	436,692	433,241	453,260
>Individual Out-of-Pocket Financing	71,633	74,101	80,103	82,748	90,985	82,736	66,423	60,716	73,618	90,742	109,992
>Charitable Non-Govt. Organizations *	20,753	22,653	23,347	5,642	5,655	5,466	4,726	5,034	4,718	6,957	6,696
Total Health System Financing	**496,319**	**576,304**	**628,454**	**678,962**	**678,443**	**705,028**	**693,147**	**688,395**	**706,992**	**722,999**	**736,625**
Public Health Finance % of Total Govt Expenditure.	14.1%	14.0%	16.2%	17.0%	16.3%	16.6%	19.7%	16.1%	16.6%	15.7%	14.4%
Health Insurance % of Total Health System Financing	52.4%	56.2%	53.3%	55.2%	55.9%	58.0%	59.8%	62.2%	61.8%	59.9%	61.5%
Individual Out-of-Pocket Financing % of Total Health System Financing	14.4%	12.9%	12.7%	12.2%	13.4%	11.7%	9.6%	8.8%	10.4%	12.6%	14.9%
Annual Growth in Govt Hospitalization Subsidies and Grants	11.0%	7.2%	10.9%	13.6%	-5.0%	4.3%	2.7%	-3.2%	0.1%	-2.0%	-17.1%
Public Finance % of Total Finance	29.0%	27.0%	30.3%	31.8%	29.9%	29.5%	29.9%	28.3%	27.2%	26.6%	22.6%
Private Finance % of Total Finance	71.0%	73.0%	69.7%	68.2%	70.1%	70.5%	70.1%	71.7%	72.8%	73.4%	77.4%

Appendix 2: Bermuda Government Hospital Subsidies

	2008	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*
Aged subsidy	41,358	46,877	46,165	55,802	59,798	71,409	70,002	75,251	74,500	71,904	56,137
Clinical drugs	2,549	2,215	2,368	2,368	0	2,368	2,368	2,392	2,598	2,529	1,974
Geriatric subsidy	12,673	13,728	13,473	15,188	16,583	10,412	10,000	10,000	8,318	10,000	7,648
Indigent subsidy	,176	2,917	5,026	5,894	8,951	4,310	6,265	6,886	7,979	6,395	4,993
Youth subsidy	9,631	10,176	14,719	16,433	14,638	16,270	18,213	15,990	16,108	15,502	12,103
Other subsidy	5,447	6,830	6,986	6,847	7,391	9,231	8,634	0	0	0	1,863
Totals	**76,833**	**82,742**	**88,738**	**102,532**	**107,360**	**114,000**	**115,482**	**110,519**	**109,502**	**106,330**	**84,720**

Appendix 3: Mutual Reinsurance Fund Transfers (data tracking started in 2017)

Mutual Reinsurance Fund	***2017***	***2018***
Total MRF Premium Paid from MRF Transfers	**37,025**	**48,955**
Health Insurance Plan	14,292	17,510
Future Care Plan	8,003	9,252
Bermuda Health Council	623	627
Bermuda Hospitals Board	9,375	7,886
Enhanced Care Pilot	135	497
Consolidated Fund	4,305	729
Dialysis	-	12,162
MRF Administration	292	293

Appendix 4: Health System Expenditure

	2008	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*
Total Public Sector Health Sys. Expenditure	**251,317**	**261,770**	**314,938**	**337,924**	**336,766**	**352,920**	**340,454**	**341,560**	**351,553**	**364,705**	**344,681**
Ministry of Health	35,859	36,528	47,872	45,800	41,601	42,082	40,718	40,201	37,242	34,832	37,167
Promotion/Prevention/Curative Care	29,463	28,023	29,135	30,508	29,693	30,513	27,370	25,726	24,365	24,787	25,689
Administration	6,396	8,505	18,737	15,292	11,908	11,569	13,348	14,475	12,877	10,045	11,479
Bermuda Hospitals Board	215,458	225,242	267,066	292,124	295,165	310,838	299,736	301,359	314,311	329,873	307,514
Total Private Sector Health Sys. Expenditure	**245,003**	**314,534**	**326,464**	**339,152**	**341,676**	**352,741**	**352,693**	**346,857**	**355,439**	**358,294**	**391,945**
Local practitioners - Physicians	53,526	61,870	60,826	58,217	59,912	50,621	43,888	39,733	31,122	57,589	57,656
Local practitioners - Dentists	22,680	28,253	30,690	29,781	32,736	32,118	29,757	30,411	30,790	30,055	31,820
Other Providers, Services, Appliances & Products	37,113	54,239	57,422	61,449	59,334	63,878	73,041	75,460	103,677	78,657	92,385
Prescription Drugs	37,121	39,046	41,969	41,847	45,334	43,229	42,694	44,094	44,150	41,432	44,597
Overseas Care	62,267	90,264	91,384	96,556	89,933	101,151	96,311	89,418	84,675	86,842	93,114
Health Insurance and Programme Administration	32,296	40,863	44,173	51,302	54,427	61,744	67,002	67,741	61,025	63,719	72,374
Total Health System Expenditure	**496,320**	**576,304**	**641,402**	**677,076**	**678,442**	**705,661**	**693,147**	**688,417**	**706,992**	**722,999**	**736,625**

Appendix 5: Analysis of Expenditure

	2008	*2009*	*2010*	*2011*	*2012*	*2013*	*2014*	*2015*	*2016*	*2017*	*2018*
Total - National Govt. Expenditure	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	1,226,397	1,154,772
Total Health System Expenditure (BD$)('000)	496,320	576,304	641,402	677,076	678,442	705,661	693,147	688,417	706,992	722,999	736,625
Estimated Population	64,209	64,395	64,566	64,237	64,237	62,408	61,954	61,777	61,735	63,779	63,892
Per Capita Health Sys. Expenditure (BD$)	7,730	8,950	9,934	10,540	10,562	11,307	11,188	11,144	11,452	11,336	11,529
Change in per capita health system expenditure	7.64%	15.78%	11.00%	6.10%	0.20%	7.06%	-1.05%	-0.40%	2.77%	-1.01%	1.70%
Total Public Health Sys. Expenditure (BD$)('000)	251,317	261,770	314,938	337,924	336,766	352,920	340,454	341,560	351,553	364,705	344,681
Total public health exp % of national gov exp	24.6%	23.5%	26.8%	26.6%	27.0%	28.2%	32.3%	28.2%	30.5%	29.7%	29.8%
Total Public Health Sys. Exp % of GDP	4.1%	4.4%	5.4%	6.0%	6.0%	6.2%	6.0%	5.8%	5.8%	5.8%	
Total Public Health Sys. Expend. Per Cap.(BD$)	3,914	4,065	4,878	5,261	5,243	5,655	5,495	5,529	5,695	5,718	5,395
Public Health Sys. Expenditure as % of Total Health Sys. Expenditure	50.6%	45.4%	49.1%	49.9%	49.6%	50.0%	49.1%	49.6%	49.7%	50.4%	46.8%
BHB Expenditure as % of Total Health Expenditure	43.4%	39.1%	41.6%	43.1%	43.5%	44.0%	43.2%	43.8%	44.5%	45.6%	41.7%
Prescription Drug Expenditure % of Total Health System Expenditure	7.5%	6.8%	6.5%	6.2%	6.7%	6.1%	6.2%	6.4%	6.2%	5.7%	6.1%
Overseas Care as % of Private Sector Expenditure	25.4%	28.7%	28.0%	28.5%	26.3%	28.7%	27.3%	25.8%	23.8%	24.2%	23.8%

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Overseas Care as % of Total System Expenditure	12.5%	15.7%	14.2%	14.3%	13.3%	14.3%	13.9%	13.0%	12.0%	12.0%	12.6%
Local practitioners % of THE	15.4%	15.6%	14.3%	13.0%	13.7%	11.7%	10.6%	10.2%	8.8%	12.1%	12.1%
Local practitioners % of Private H Expenditure	31.1%	28.7%	28.0%	25.9%	27.1%	23.5%	20.9%	20.2%	17.4%	24.5%	22.8%
Nominal GDP (BD$) ('000) for calendar year) 2006 base	6,178,691	5,938,934	5,855,331	5,620,380	5,585,410	5,670,093	5,699,992	5,923,036	6,093,129	6,269,384	6,375,964*
Nominal GDP (BD$) ('000) for calendar year) 2013 base			6,634,526	6,321,691	6,378,188	6,465,756	6,413,988	6,654,541	6,899,911	7,142,316	7,263,476
Health Sys. Expenditure share of GDP (%)(2006 base)	8.0%	9.7%	11.0%	12.0%	12.1%	12.4%	12.2%	11.6%	11.6%	11.5%	11.6%
Health Sys. Expenditure share of GDP (%)(2013 base)			9.7%	10.7%	10.6%	10.9%	10.8%	10.3%	10.2%	10.1%	10.1%
Nominal GDP YoY Growth Rate (%) (2006 base)	4.8%	-3.9%	-1.4%	-4.0%	-0.6%	1.5%	0.5%	3.9%	2.9%	2.9%	1.7%
Nominal GDP YoY Growth Rate (%) (2013 base)				-4.7%	0.9%	1.4%	-0.8%	3.8%	3.7%	3.5%	1.7%
Health Sys. Expenditure YoY Growth Rate (%)	8.0%	16.1%	11.3%	5.6%	0.2%	4.0%	-1.8%	-0.7%	2.7%	2.3%	1.9%
Health and Personal Care Price Index (%)	6.6%	6.7%	8.1%	7.5%	6.6%	8.3%	6.7%	7.8%	4.5%	1.3%	3.1%
Overseas Care % of Total Health System Expenditure	12.5%	15.7%	14.2%	14.3%	13.3%	14.3%	13.9%	13.0%	12.0%	12.0%	12.6%

* GDP not calculated with 2006 base rate therefore the 2017 GDP was used and 1.7% inflation was applied