



# 2009

## Actuarial Report for the Bermuda Health Council



February 2010  
(Abridged Version)

# 2009 Actuarial Report for the Bermuda Health Council

**Contact us:**

If you would like any further information about the Bermuda Health Council, or if you would like to bring a healthcare matter to our attention, we look forward to hearing from you.

**Mailing Address:**

PO Box HM 3381,  
Hamilton, HM PX, Bermuda

**Street Address:**

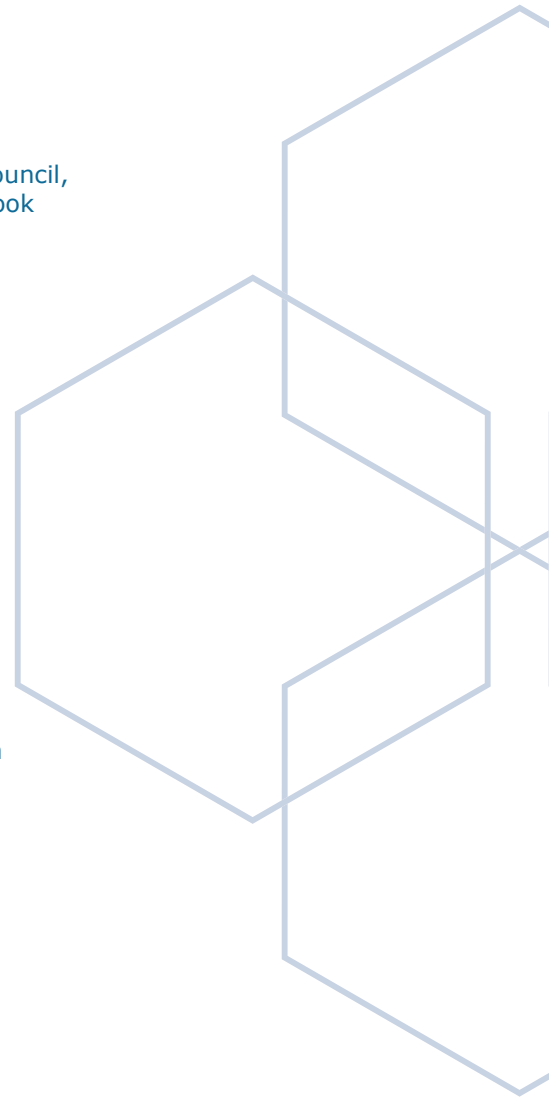
Sterling House, 3rd Floor, 16 Wesley Street,  
Hamilton, HM11, Bermuda  
Phone: 292-6420  
Fax: 292-8067  
Email: [bdahealthcouncil@bhec.bm](mailto:bdahealthcouncil@bhec.bm)

**Published by:**

The Bermuda Health Council (March, 2010)  
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**Reference as:**

Morneau Sobeco (2010) 2009 Actuarial Report for the Bermuda Health Council (Abridged Version). Bermuda Health Council: Bermuda.



# 2009 Actuarial Report for the Bermuda Health Council

- The Standard Hospital Benefit (SHB)
- The Mutual Reinsurance Fund (MRF)

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# Table of Contents

Introduction .....	1
Section A – Summary & Premium Recommendation .....	2
Section B – The Standard Hospital Benefit .....	4
Section C – Mutual Reinsurance Fund.....	8

## Introduction

Morneau Sobeco has been engaged by the Bermuda Health Council (the BHeC) and we are pleased to present our report on the 2009 review of the following programs:

- > the Standard Hospital Benefit (SHB), and
- > the Mutual Reinsurance Fund (MRF).

The purpose of this report is:

- > to review the statistical and claims information submitted by the insurance companies and approved schemes, as it relates to the SHB
- > to review the financial condition of the MRF
- > to comment on trends over the 2008 / 2009 period
- > to recommend the premium rates that are to take effect from April 1, 2010
- > to analyze any changes in the SHB and MRF benefit provisions that may be under consideration

In preparing this report we relied on the documentation and information provided to us by the BHeC.

## Section A – Summary & Premium Recommendation

A summary of Fiscal 2009 and Fiscal 2008 insured headcount, claims and costs per-capita is tabled below:

### A.1. : Standard Hospital Benefit Insured Headcount

	Fiscal 2009	Fiscal 2008	% Change
Grand Total	53,837	51,980	3.6%

### A.2. : Standard Hospital Benefit Claims Data

Claims (in '000s)	Local		Overseas		Total
	Inpatient	Out-Patient	Inpatient	Out-Patient	
Fiscal 2008	18,860	56,533	8,926	11,327	95,646
Fiscal 2009	23,567	66,487	9,771	15,669	115,494
Increase	25%	18%	9%	38%	21%

### A.3. : Standard Hospital Benefit Cost per-capita and Loss Ratios

Fiscal 2009		Fiscal 2008		Cost Per-Capita Change
Cost Per-Capita	Loss Ratio	Cost Per-Capita	Loss Ratio	
179	109%	153	100%	17%

The Fiscal 2009 and Fiscal 2008 loss ratios are based on a Standard Premium Rate of \$164.37 and \$152.59 respectively. The total per-capita claim costs increased at a pace greater than the change in the Standard Premium Rate (17% for claims and 8% for the Standard Premium Rate). This has led to a deterioration in the loss ratio from 100% to 109%.

**A.4. : Standard Premium Rate Recommendation (including the MRF)**

	<b>Increase %</b>	<b>Standard Hospital Benefit</b>	<b>Mutual Reins. Fund</b>	<b>Total</b>
2009 – 2010 Premium		\$184.01	\$24.43	\$208.44
1. Increase in BHB Fees	2.50%	\$4.60	\$0.61	\$5.21
2. Allowance for Change in Utilization	6.00%	\$11.04	\$1.47	\$12.51
3. Future Changes in Benefit Provisions	None	\$0.00	\$0.00	\$0.00
4. Allowance for Claims Administration	5.00%	\$9.98	\$0.00	\$9.98
5. Provision for Reserves	None	\$0.00	\$0.00	\$0.00
6. Transfer to FutureCare	None	N/A	\$0.00	\$0.00
<b>Recommended 2010 – 2011 Premium</b>		\$209.63*	\$26.51	\$236.14
<b>% Change in Premium</b>		13.9%	8.5%	13.3%
<b>\$ Change in Premium</b>		\$25.62	\$2.08	\$27.70

\* The multiplier for those over age 65 and not eligible for the government subsidy is 4 times the Standard Premium Rate.

Notes on the recommendation are on page 7 and page 10 of the report.

Respectfully submitted,



Howard Cimring, FFA, FCIA

Morneau Sobeco

February 24, 2010

## Section B – The Standard Hospital Benefit

### B.1. : Introduction

The Standard Hospital Benefit (SHB) consists of inpatient and outpatient benefits and is defined by the Standard Hospital Benefits Regulations 1971. The SHB forms the basis of the minimum package of benefits which must be provided within each employer sponsored or health insurance provider's health plan. Further, it is compulsory for each employed (including self-employed) person to have health insurance.

A Standard Premium Rate (SPR) for the Standard Hospital Benefits is determined annually by the Bermuda Health Council. The SPR sets the ceiling rate for the Standard Hospital Benefits. The SPR is set with reference to the claims experience of all the insured participants. As such, the claims experience across all the health insurance providers is pooled together and a single premium rate reflective of the pooled experience is determined.

### B.2. : Fiscal 2009 Claims and Statistical Data

We have analyzed the Fiscal 2009 and Fiscal 2008 insurance company and approved scheme submissions to the BHeC. A summary of certain data elements and our analysis is tabled below:

	Average Headcount			
	2009	% Total	2008	% Total
Insurers	42,903	80%	42,453	82%
Approved Schemes	10,934	20%	9,527	18%
<b>Total</b>	<b>53,837</b>	<b>100%</b>	<b>51,980</b>	<b>100%</b>

The year-over-year increase in the average headcount is 3.6%.



The claims are summarized below:

Claims (in '000s)	Local		Overseas		Total
	Inpatient	Out-Patient	Inpatient	Out-Patient	
Fiscal 2008	18,860	56,533	8,926	11,327	95,646
Fiscal 2009	23,567	66,487	9,771	15,669	115,494
Increase	25%	18%	9%	38%	21%
Increase in utilization	12%	6%	-2%	24%	8%
Percentage 2009 Local Claims	78%				
Percentage 2009 Overseas Claims	22%				

The change in utilization represents the increase in the incidence of claims and the demand for services. It has been derived by adjusting the increase in claims by the change in the average headcount and an assumed increase in the cost of services (i.e. the change in the provider fees) of 7.5%. The Local in-patient and Overseas out-patient expenditure has increased significantly. Locally in 2009, the percentage of total expenditure directed towards in-patient services increased over 2008.

The cost per-capita and loss ratio (i.e. the cost per-capita divided by the Standard Premium Rate) for Fiscal 2009 and Fiscal 2008 is tabled below:

Fiscal 2009		Fiscal 2008		Cost Per-Capita Change
Cost Per-Capita	Loss Ratio	Cost Per-Capita	Loss Ratio	
179	109%	153	100%	17%

The Fiscal 2009 and Fiscal 2008 loss ratios are based on a Standard Premium Rate of \$164.37 and \$152.59 respectively. The total per-capita claim costs increased at a pace greater than the change in the Standard Premium Rate (17% for claims and 8% for the Standard Premium Rate). This has led to a deterioration in the loss ratio from 100% to 109%.

The history of the SPR is as follows:

	<b>Standard Premium Rate</b>	<b>% Change</b>	<b>Loss Ratio*</b>
2003 - 2004	91.90	5.0%	101%
2004 - 2005	102.95	12.0%	103%
2005 - 2006	119.49	16.1%	101%
2006 - 2007	140.92	17.9%	93%
2007 - 2008	152.59	8.3%	100%
2008 - 2009	164.37	7.7%	109%
2009 - 2010	184.01	11.9%	To be determined next year

\* based on a comparison of the SPR to the determined claims cost per-capita

### B.3. : The Standard Premium Rate Recommendation

Our recommendation for the 2010 – 2011 Standard Premium Rate is as follows:

	Increase %	
2009 – 2010 SPR		\$184.01
1. Increase in BHB Fees	2.50%	\$4.60
2. Allowance for Change in Utilization	6.00%	\$11.04
3. Future Changes in Benefit Provisions	None	\$0.00
4. Allowance for Claims Administration	5.00%	\$9.98
<b>Recommended 2010 - 2011 SPR</b>		<b>\$209.63</b>
<b>% Change in SPR</b>		<b>13.9%</b>
<b>\$ Change in SPR</b>		<b>\$25.62</b>

#### Notes

1. The increase in the Bermuda Hospital Board general fees has been provided by the Ministry of Finance.
2. The allowance for utilization reflects an expectation that per-capita claim costs will exceed the increase in the BHB general fees. Since Fiscal 2002, the utilization has increased by an average of 4% per annum and more recently at 8 - 9% per annum (in Fiscal 2008 it was 9.0% and in Fiscal 2009 it was 8%). We suggest a 6% increase in utilization be included in the 2010 – 2011 SPR. This increase reflects the higher recent changes in utilization.
3. We understand that for 2010 – 2011, no additional benefits are to be approved for inclusion in the Standard Hospital Benefit.
4. We have included an allowance for the cost of administering claims of 5% of claims paid. It is our belief that the SPR should include an allowance to cover the cost of the administration of claims.
5. We recommend maintaining the multiplier at 4 times the Standard Premium Rate for those over age 65 and not eligible for the government subsidy.

## Section C – Mutual Reinsurance Fund

### C.1. : Introduction

The Mutual Reinsurance Fund (MRF) is funded by a premium which is added onto each health insurance contract. The insurance providers collect a premium from each insured participant and deposit this premium with the MRF. The determination of the premium rate of the MRF rests with the Bermuda Health Council. The MRF currently serves the following purposes:

- a) it acts as a catastrophic fund to cover certain high dollar value claims which are included as benefits under the SHB,
- b) it allows the introduction and assessment of new and experimental treatments which have no prior established actuarial experience or pricing model,
- c) it transfers funds to FutureCare effective from April 1, 2009 (previously the transfer was directed to HIP).

The SHB procedures that are currently paid from the MRF are as follows:

- 1) Haemodialysis
- 2) Kidney Transplant (up to \$30,000)
- 3) Anti-rejection drugs
- 4) Long-term stay (in hospital)
- 5) Home Health care

As the name suggests the MRF acts as a reinsurance facility for all the insurance providers. The risks relating to the above mentioned items can be significant and could be too onerous for any one insurance provider (especially a small one) to bear. This is particularly relevant given that the SPR sets the ceiling price for the SHB. The MRF provides an element of stability to the financing of the SHB.

## C.2. : Claims and Financial Information

A history of claims (in '000s) under the MRF is as follows:

Fiscal Year	Claims Paid	% Change
2002	5,395	
2003	7,268	35%
2004	7,498	3%
2005	7,151	-5%
2006	8,069	13%
2007	8,805	9%
2008	10,195	16%
2009	11,577	14%

Based on draft financial statements, the MRF has a surplus of \$3.6 million as at March 31, 2009. This represents 31% of the claims incurred during Fiscal 2009 (i.e. 3.7 months worth of claims).

The history of the MRF Premium is as follows:

	MRF Premium Rate	% Change
2003 - 2004	16.40	
2004 - 2005	17.05	4.0%
2005 - 2006	16.75	-1.8%
2006 - 2007	19.77	18.0%
2007 - 2008	21.25	7.5%
2008 - 2009	22.84	7.5%
2009 - 2010	24.43	7.0%

### C.3. : MRF Premium Recommendation

Our recommendation for the 2010 – 2011 MRF Premium Rate is as follows:

	Increase %	
2009 – 2010 MRF Premium		\$24.43
1. Increase in BHB Fees	2.50%	\$0.61
2. Allowance for Change in Utilization	6.00%	\$1.47
3. Provision for Reserves	None	\$0.00
4. Future Changes in Benefit Provisions	None	\$0.00
5. Transfer to FutureCare	None	\$0.00
<b>Recommended 2010 - 2011 MRF Premium</b>		<b>\$26.51</b>
<b>% Change in MRF Premium</b>		<b>8.5%</b>
<b>\$ Change in MRF Premium</b>		<b>\$2.08</b>

#### Notes

1. We have applied the BHB general fees rate increase (as provided by the Ministry of Finance) as a proxy for the anticipated inflation in claims under the MRF.
2. The allowance for utilization is the same as that included under the SHB premium rate recommendation. It reflects an expectation that claim costs will exceed the increase in the BHB general fees (which has been the case over the last 4 fiscal periods).
3. The surplus as at the end of Fiscal 2009 is 31% of the claims incurred during Fiscal 2009 (i.e. 3.7 months worth of claims). At this point, we are not including a provision to bolster the surplus under the MRF.
4. We understand that for 2010 – 2011, no additional benefits are to be approved for inclusion in the MRF nor are any benefits being transferred to the Standard Hospital Benefit.
5. We recommend that the transfer to FutureCare remain at \$4.00 per month for each insured person.