STATES OF JERSEY

GOVERNMENT ACTUARY'S REPORT ON THE FINANCIAL CONDITION OF THE HEALTH INSURANCE FUND AS AT 31ST DECEMBER 2007

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GOVERNMENT ACTUARY'S DEPARTMENT

Report by the Government Actuary on the financial condition of the Health Insurance Fund as at 31 December 2007

Date: 08 November 2011

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HEALTH INSURANCE (JERSEY) LAW 1967

Report by the Government Actuary on the financial condition of the Health Insurance Fund as at 31 December 2007

To the Minister for Social Security of the States of Jersey

Article 22(1) of the Health Insurance (Jersey) Law 1967 requires the actuary appointed by the Minister to review the operation of the Law at intervals not exceeding five years and to report to the Minister on the financial condition of the Health Insurance Fund and on the adequacy or otherwise of the contributions payable under the Law to support the prescribed benefits. I have been appointed by the Minister to carry out the review as at 31 December 2007 and I submit the following report setting out my findings.

Trevor Llanwarne

Government Actuary

08 November 2011

Table of Contents

1 Executive summary

1.1 The Health Insurance Fund ("the Fund") is designed to provide financial assistance to Jersey residents who need to access general practitioner services and/or prescription drugs. The Fund is financed by social security contributions. Currently, employees and their employer pay a total of 2% of earnings up to the Earnings Ceiling. Similar contributions are paid by self-employed and non-employed persons unless they are exempt.

1.2 The financial position of the Fund is, like any social security scheme, subject to a wide range of factors, such as the structure of the population, economic conditions and medical price inflation. For this reason, Article 22 of the Health Insurance (Jersey) Law 1967 ("the Law") makes provision for an actuary to carry out reviews of the operation of the Law. In particular, paragraph (1) of that Article provides that:

> "An actuary, appointed for the purpose by the Minister, shall review the operation of this Law during the period ending with 31st December 1972 and thereafter during the period ending with 31st December in every fifth year and, on each such review, make a report to the Minister on the financial condition of the Health Insurance Fund and the adequacy or otherwise of the contributions payable under this Law to support the benefits thereunder having regard to its liabilities under this Law"

1.3 In order to meet this legislative requirement, this review:

- Considers the financial position of the Health Insurance Fund ("the Fund") taking into account changes in legislation and Fund experience since the previous review
- Projects possible future levels of expenditure from the Fund
- Projects the balance in the Fund, assuming no change in health insurance contribution rates

1.4 This is my report on the latest review of the Fund, which has been carried out as at 31 December 2007, and it includes projections over the period up to 2027. Although the effective date of the review is 31 December 2007, the review takes into account data for 2008. This has the advantage that it was possible to incorporate information on the impact of the introduction of the Income Support system from 28 January 2008.

1.5 The calculations for this review involve projecting contribution income, benefit expenditure and administration expenses over the 20 years from 2007 to 2027. Two main sets of results are presented in this report:

- The projected "break-even" contribution rate; this is the rate that would be required in order for contribution income to equal expenditure on benefits and administration costs
- The balance in the Fund, expressed as a number of months' expenditure, assuming that the current rates of contribution remain unchanged

1.6 The following table/charts show the estimates of the income and outgo from the Fund, the build up of the Fund balance and the break-even contribution rate over the period to 2027. Results are shown separately for two assumptions about future migration to the Island: net nil future migration or immigration of 150 heads of household (HoHs) each year.

Table 1.1: Summary of projections of the break-even contribution rate (as a % of earnings), income (based on the current contribution rate), outgo and Fund balance based on the principal assumptions (£million in 2010 earnings terms)

	2007	2012	2017	2022	2027
	Net nil migration				
Break-even rate[1]	1.5%	2.3%	2.1%	2.3%	2.5%
Income	29.9	27.4	26.4	25.6	24.6
Expenditure	19.3	26.8	27.9	29.5	31.3
Transfer from Fund	-	5.8[2]	-	-	-
Fund balance at end of year	63.4	70.7	67.2	52.51.1	24.9
Mean fund expressed as months of expenditure[3]	39	33	29	22	11
	+150 heads of household				
Break-even rate	1.5%	2.3%	2.0%	2.2%	2.4%
Income	29.9	27.9	27.8	27.7	27.4
Expenditure	19.3	27.1	28.7	30.7	32.9
Transfer from Fund	-	5.8	-	-	-
Fund balance at end of year	63.4	71.3	70.3	59.7	37.5
Mean fund expressed as months of expenditure	39	33	30	24	15

[1] The break-even contribution rate represents the rate that would be required in order for contribution income to equal expenditure on benefits and administration costs plus the cost of the transfers from the Fund in 2011 and 2012.
[2] The amount of £5.8 million shown in 2012 is the amount of the transfer in that year expressed in 2010 earnings terms.
[3] The mean fund is expressed as months of expenditure, excluding the expenditure on the transfers from the Fund in 2011 and 2012.

Figure 1.1: Projected break-even contribution rates (including the cost of the transfers from the Fund in 2011 and 2012) based on the principal assumptions

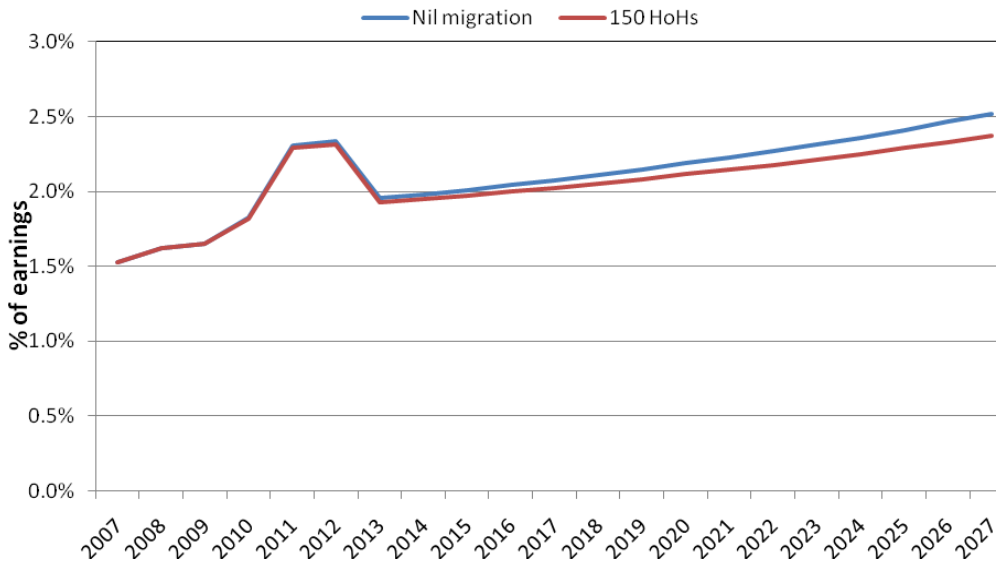
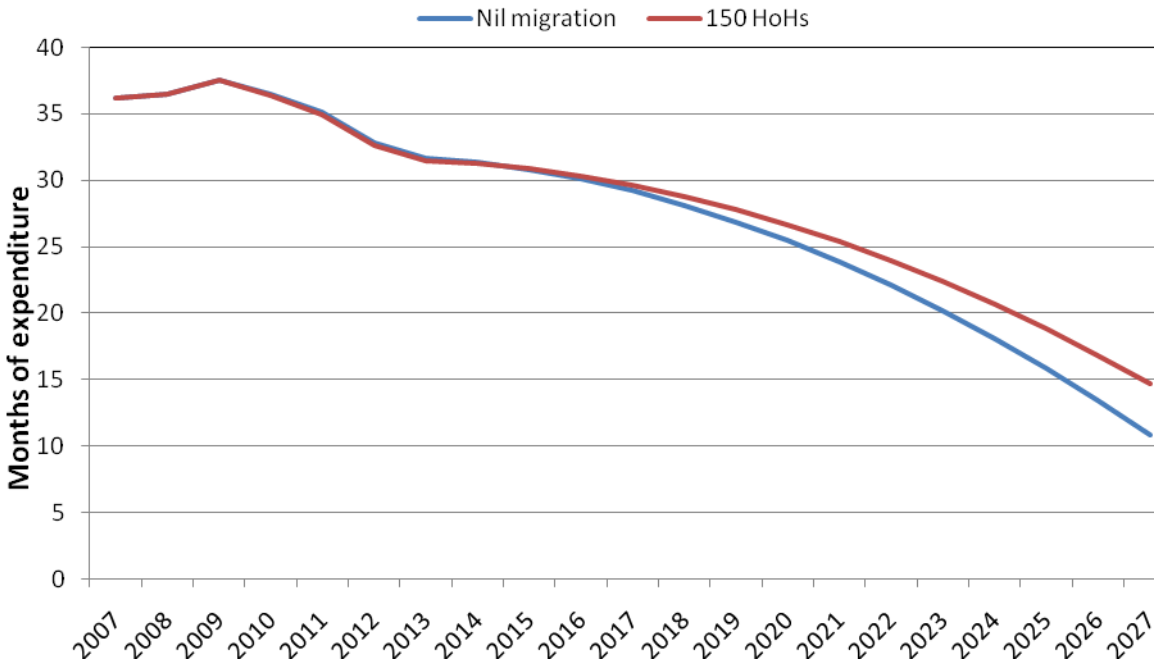


Figure 1.2: Projected Fund balance expressed as months of expenditure (excluding transfers) based on the principal assumptions



1.7 In summary, the above results show that:

Break-even contribution rate

> There is a sharp rise in the break-even contribution rate in 2011 and 2012 which reflects the cost of the transfers in those years from the Fund to the Department of Health and Social Services.

- Assuming net nil future migration, and ignoring the short-term effect of the transfer from the Fund in 2011 and 2012, the break-even contribution rate is projected to increase steadily from about 1.5% of earnings in 2007 to 2.5% in 2027. The main drivers of this effect are:
  - the ageing of the population, resulting in a decrease in the number of contributors relative to the number of beneficiaries, and an increase in demand for healthcare from the elderly population
  - the assumption that the average cost of drugs will increase more quickly than general price rises and that the average number of drugs prescribed at each consultation will also increase over time
  - the above two effects are partially offset by the assumption that the rate of Medical Benefit will only increase in line with general price inflation.
- The break-even contribution rate is also projected to rise under the assumption of inward migration of 150 HoHs each year, but the increase is slightly less steep, with the rate projected to increase from the 2007 figure of 1.5% to 2.4% in 2027. The slower rate of increase in the break-even contribution rate reflects the fact that population ageing is slower where there is assumed to be migration to the Island.

Fund balance

- Under both migration scenarios, the current rate of contributions (2% of earnings) is sufficient to maintain the Fund balance of at least 12 months' expenditure over all, or nearly all, of the period of the projection.
- The Fund balance was equivalent to over three years' expenditure in 2007 and this is projected to fall to 11 months' expenditure in 2027 assuming net nil migration, or to 15 months' assuming immigration of 150 HoHs a year. It is also apparent that the rate of fall in the Fund balance relative to expenditure accelerates towards the end of the projection period.

1.8 Legislation is being introduced to increase pension age from 65 to 67 over the period from 2020 to 2031. However the above results reflect the currently-legislated pension age of 65.

1.9 The projections shown in this report are based on a large number of assumptions about future conditions. The main results summarised above are based on the "principal assumptions", notably:

- the population projections prepared by the Jersey Statistics Unit assuming either net nil future migration or immigration of 150 heads of household (HoHs) each year
- real earnings growth of 1.5% a year
- the average number of consultations per head for a given age and sex is stable and therefore changes in total numbers of consultations are driven entirely by changes in the age and sex distribution of the membership
- the rate of Medical Benefit will increase in line with general price rises
- the average cost of drugs (excluding dispensing costs) will increase in future at 1.5% a year in excess of general price rises
- that for future investment return purposes Fund assets are invested in cash deposits rather than a mixture of return-seeking and risk reducing assets (see paragraph 3.9).

1.10 In addition to calculating results using the principal assumptions, projections have also been made on "variant assumptions" to show how varying the assumptions can affect the projected financial development of the Fund. These variant assumptions consider,

for example, the effect of changing the assumed rate of increase in the cost of Fund benefits or the assumed rate of investment return on the Fund assets. The rates of increase in drug costs and the number of prescription items being financed by the Fund are two of the more important influences on the Fund's future financial position.

1.11 There is considerable uncertainty about the future financial progress of the Fund and therefore care is needed in interpreting the projections shown in this report. It is important that the main body of this report be read in order to gain an understanding of the uncertainty and limitations surrounding the projections.

2 Introduction and scope of the review

2.1 Article 22 of the Health Insurance (Jersey) Law 1967 ("the Law") makes provision for an actuary to carry out reviews of the operation of the Law. In particular, paragraph (1) of that Article provides that:

> "An actuary, appointed for the purpose by the Minister, shall review the operation of this Law during the period ending with 31st December 1972 and thereafter during the period ending with 31st December in every fifth year and, on each such review, make a report to the Minister on the financial condition of the Health Insurance Fund and the adequacy or otherwise of the contributions payable under this Law to support the benefits thereunder having regard to its liabilities under this Law"

2.2 This is my report on the latest review of the Fund, which has been carried out as at 31 December 2007, and it includes projections over the period from 2007 to 2027. In order to meet the legislative requirement, this review:

- considers the financial position of the Health Insurance Fund ("the Fund") taking into account changes in legislation and Fund experience since the previous review
- projects possible future levels of expenditure from the Fund
- projects the balance in the Fund, assuming no change in health insurance contribution rates[4]

The results of these calculations are set out in Section 4 of this report.

2.3 The projections in this report are dependent on the data, methodology and assumptions used for the review, which are described later in this report. Although the effective date of the review is 31 December 2007, it takes into account events after that date and, in particular, it makes allowance for membership and benefit data for 2008 and the Fund accounts for 2008 and 2009. This has the advantage that it was possible to incorporate information on the impact of the introduction of Jersey's new Income Support system from 28 January 2008.

2.4 This report has been prepared for the Minister for Social Security and it is anticipated that the results in the report will be used by the Department of Social Security for information purposes and for planning possible changes to the contribution rate. This report only covers an actuarial assessment of the Fund's financial condition. In making decisions about the Fund, it will also be appropriate to take into account non-actuarial matters such as legal, administrative and policy issues.

2.5 The previous report, prepared by my predecessor as Government Actuary, was based on the period to 31 December 2002 and showed that, as that date, a Fund balance had been built up which was equivalent to about 1½ times annual expenditure.

[4] These are the part of social security contributions that are allocated to the Health Insurance Fund. Currently the health insurance contribution rates are 1.2% from employers and 0.8% from employees.

2.6 The structure of the rest of this report is as follows:

Section 3	A discussion of how the Fund works and the main changes that have occurred since the previous review
Section 4	The results of the projections of the income, expenditure and Fund balance up to 2027, based on the principal assumptions for the review
Section 5	The results of the projections based on alternative assumptions
Section 6	A comparison of the results at this review with those at the previous review

2.7 The appendices provide further background details on the review.

2.8 Under legislation, the next review of the Fund is due to be carried out as at 31 December 2012, or earlier as the Minister may direct.

2.9 This report complies with the International Actuarial Association's Guidelines of Actuarial Practice for Social Security Programs effective from 1 January 2003. These guidelines set out standards for the information that should be included in actuarial reports on social security schemes.

2.10 The work underlying this report is not subject to, and does not therefore need to comply with, the Technical Standards issued by the Board for Actuarial Standards. Nevertheless, in producing this report, I have followed the principles of the Technical Standards to a sensible and practical extent.

Reliances and limitations

2.11 This report has been prepared for the Minister for Social Security and the Department for Social Security, although it is understood that the report will be made publicly available. However, I do not accept any liability to third parties in relation to this report.

2.12 I have relied on the accuracy of data and information provided by the Client (in this case the Minister and the Department for Social Security). I do not accept responsibility for advice based on wrong or incomplete data or information provided by the Client.

2.13 Clarification should be sought if the Client has any doubt about the intention or scope of advice provided in this report. I am not responsible for any decision taken by the Client, except to the extent that the decision has been made in accordance with specific advice I have provided.

2.14 The advice provided must be taken in context. Advice is intended to be read and used as a whole and not in parts. I do not accept responsibility for advice that is altered or used selectively.

3 How the Fund works

3.1 The Fund is designed to provide financial assistance to Jersey residents who need to access general practitioner (GP) services. In particular, where someone covered by the Fund needs to visit their GP, the Fund makes a payment ("the Medical Benefit") that is used to offset the doctor's consultation charge. Furthermore, the full cost of any drugs prescribed by the GP is borne by the Fund, provided those drugs are included on a "prescribed list" drawn up by the Minister.

3.2 The Fund is financed by social security contributions. Employees and their employer pay a total of 2% of earnings up to the Earnings Limit. Similar contributions are paid by self-employed and non-employed persons unless they are exempt. There are no contributions payable to the Fund by the States, and in particular the supplementation rules[5] that apply in the Social Security Fund do not apply to the Health Insurance Fund.

3.3 A summary of the benefits provided and the contributions payable to the Fund is given in Appendix A. A summary of the Fund accounts for the years 2002 to 2009 is set out in Appendix B. Appendix C provides a summary of the data used for the review.

3.4 There have been a number of changes affecting the operation of the Fund since the previous actuarial review, in particular:

- There was an expansion in the prescribed list of drugs that are subsidised by the Fund with effect from 1 October 2007. This was part of a move to "shared prescribing" whereby certain drugs initially prescribed by hospital consultants can continue to be prescribed by GPs under the supervision of the consultant. It is noted that the drugs included under shared prescribing tend to be more expensive on average than others financed by the Fund.

- Health Insurance Exception (HIE) status was abolished at the same time as the introduction of the Income Support system with effect from 28 January 2008. Prior to this date, those classified as HIEs received a more generous package of benefits from the Fund and the States made a contribution to the Fund in respect of these additional benefits. Following the abolition of the HIE status, all members of the Fund now receive the same scale of benefits and no contribution is received from the States.

- The prescription charge payable by patients was reduced to zero with effect from 1 February 2008 and therefore from this date the Fund has to meet the full cost of prescription drugs.

- An enhanced rate of Medical Benefit payable in certain circumstances where the patient may be suffering from a strain of pandemic influenza was temporarily introduced during 2009.

- A new benefit ("Pathology Benefit") from the Fund to meet the cost of certain pathology tests was introduced with effect from 1 January 2010.

[5] Broadly, under the Social Security Fund, if a member's earnings are below the Earnings Limit, the States contributes the difference between contributions based on actual earnings and contributions based on the Earnings Limit; this is known as supplementation.

3.5 The impact of these changes has been taken into account in the projections in this report.

3.6 In addition, the draft Health Insurance Fund (Miscellaneous Provisions) (Jersey) Law 201- was passed by the States' Assembly in November 2010. Once this legislation has received approval from the Privy Council, it will come into force, which is expected to be in 2011. This law provides for a transfer of £6.131 million from the Fund to the Department of Health and Social Services in 2011, with a further transfer in 2012 of an amount determined by the Minister for Social Security and approved by the States. The purpose of the transfer is primarily to help finance primary care services.

3.7 As agreed, the impact of the Health Insurance Fund (Miscellaneous Provisions) (Jersey) Law 201- has been taken into account in this review. For this purpose, it has been assumed that the transfer in 2012 will be £6.131 million increased in line with assumed price inflation from 2011 to 2012. It has also been assumed that, on average, the transfers take place half way through the calendar year.

3.8 Legislation is being introduced to increase pension age from 65 to 67 over the period from 2020 to 2031. However this report is based on the currently-legislated pension age of 65. The next review of the Health Insurance Fund, due as at 31 December 2012, will fully incorporate the details of the increase in pension age.

3.9 The assumption is made in this report that the Fund assets are invested in cash deposits, which was the situation as at the review date of 31 December 2007 (see Table 8.2). However, we also now understand that there is a more recently stated strategic aim to invest 40% of the Fund in return-seeking assets (equities) to produce long term returns, with the remaining 60% in risk reducing assets to provide some stability (and, in the case of corporate bonds, income returns); the Fund projections in this report have not taken this into account. At the time of the next review (due to take place as at 31 December 2012) consideration will be given as to whether to take explicit account of the investment strategy in place at that time. If the revised investment strategy leads to an increase in investment income this would lengthen the period until the Fund is extinguished.

3.10 The Fund has been financed in such a way that the bulk of contribution income in a year should be used to meet expenditure in that year. Therefore no substantial fund is built up out of which to meet future expenditure. However, it is the aim that there should be a small balance in the Fund in order to protect against unexpected fluctuations in income or expenditure and to give appropriate notice to employers and employees of any required changes to the contribution rate. The policy is currently that the Fund should hold a balance equal to at least 12 months' expenditure.

3.11 The average Fund balance over 2007 stood at a little over three times the annual Fund expenditure in that year, and the balance stayed at around that level in 2008 and 2009. However, it should be recognised that not all of the Fund assets would be available to help meet expenditure because they are not very liquid, such as debtors.

4 Results based on the principal assumptions

4.1 The calculations for this review involve projecting contribution income, benefit expenditure and administration expenses over the 20 years from 2007 to 2027. Two main sets of results are presented in this report:

- The projected "break-even" contribution rate
- The balance in the Health Insurance Fund, expressed as a number of months' expenditure, assuming that the current rates of contribution remain unchanged; for this purpose expenditure excludes the transfers from the Fund in 2011 and 2012

4.2 The break-even contribution rate is the rate that would be required in order for contribution income to equal expenditure on benefits and administration costs plus, in the case of 2011 and 2012, the transfer from the Fund to the Department of Health and Social Services. This is the contribution rate that would be required if the Fund were following the pay-as-you-go financing approach.

4.3 While projections of Fund balances are subject to a great deal of uncertainty, these results give an indication as to the extent to which the build-up of funds can be used as a buffer against poor experience and to delay increases to contribution rates which would otherwise be required. If no fund of assets had been built up, the contribution rate would need to follow the break-even rates.

4.4 Where results are given as monetary values, they are shown in constant 2010 earnings terms, except for the figures for 2007 which are the actual amounts taken from the accounts for that year.

4.5 The projections in this section are based on the principal assumptions, notably that:

- the population projections prepared by the Jersey Statistics Unit assuming either net nil future migration or immigration of 150 heads of household each year
- real earnings growth of 1.5% a year
- the average number of consultations per head for a given age and sex is stable and therefore changes in total consultation numbers are driven entirely by changes in the age and sex distribution of the membership
- the rate of Medical Benefit will increase in line with general price rises
- the average cost of drugs (excluding dispensing costs) will increase in future at 1.5% a year in excess of general price rises
- that for future investment return purposes Fund assets are invested in cash deposits rather an a mixture of return-seeking and risk reducing assets see paragraph 3.9).

More details of the principal assumptions can be found in Appendix D.

4.6 The following table shows the estimates of the income and outgo from the Fund, the build up of the Fund balance and the break-even contribution rate over the period to 2027. More detailed results are given in Appendix E.

Table 4.1: Summary of projections of the break-even contribution rate (as a % of earnings up to the Earnings Limit), income (based on the current contribution rate), expenditure and Fund balance based on the principal assumptions (£million in 2010 earnings terms)

	2007	2012	2017	2022	2027
	Net nil migration				
Break-even rate[6]	1.5%	2.3%	2.1%	2.3%	2.5%
Income	29.9	27.4	26.4	25.6	24.6
Expenditure	19.3	26.8	287.9	29.5	31.3
Transfer from Fund	-	5.8	-	-	-
Fund balance at end of year	63.4	70.7	67.2	52.5	24.9
Mean fund expressed as months of expenditure[7]	39	33	29	21	9
	+150 heads of household				
Break-even rate	1.5%	2.3%	2.0%	2.2%	2.4%
Income	29.9	27.9	27.8	27.7	27.4
Expenditure	19.3	27.1	28.7	30.7	32.9
Transfer from Fund	-	5.8	-	-	-
Fund balance at end of year	63.4	71.3	70.3	59.7	37.5
Mean fund expressed as months of expenditure	39	33	30	24	15

4.7 The break-even rate and Fund balance expressed as months of outgo are illustrated in the following charts for each migration assumption.

[6] The break-even contribution rate represents the rate that would be required in order for contribution income to equal expenditure on benefits and administration costs plus the cost of the transfers from the Fund in 2011 and 2012.

[7] The mean fund is expressed as months of expenditure, excluding expenditure on the transfers from the Fund in 2011 and 2012.

Figure 4.1: Projected break-even contribution rates (including the cost of the transfers from the Fund in 2011 and 2012) based on the principal assumptions

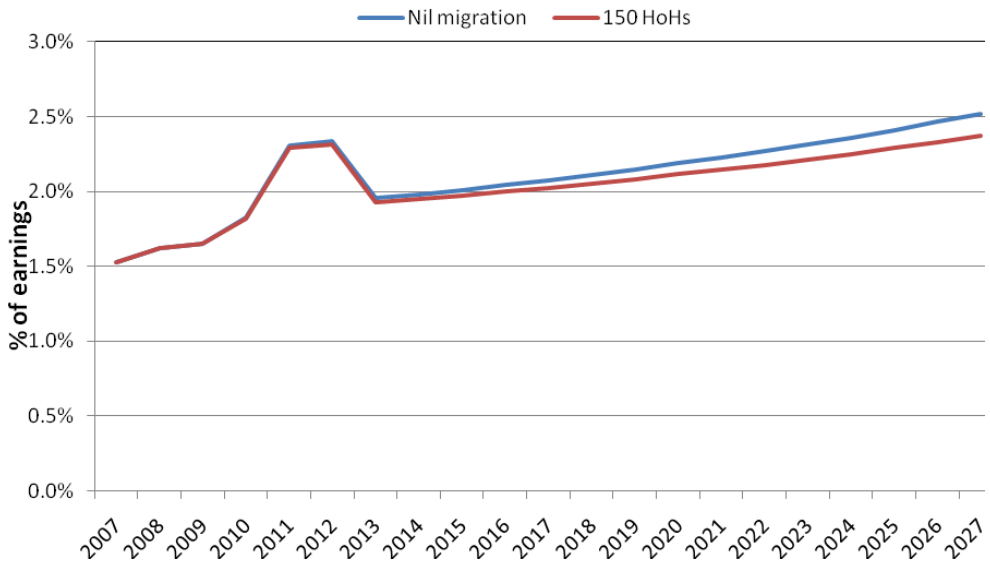
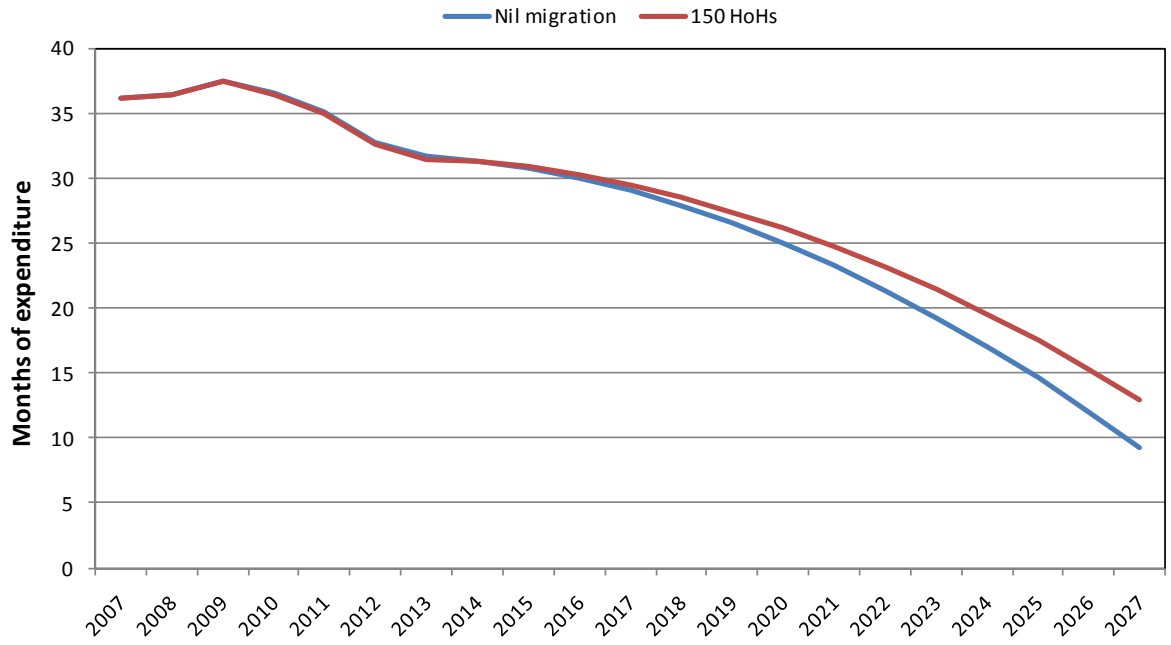


Figure 4.2: Projected Fund balance expressed as months of expenditure (excluding transfers) based on the principal assumptions



4.8 In summary, the results show that based on the principal assumptions:

Break-even contribution rate

> There is a sharp rise in the break-even contribution rate in 2011 and 2012 which reflects the cost of the transfers in those years from the Fund to the Department of Health and Social Services.

> Assuming net nil future migration, and ignoring the short-term effect of the transfers from the Fund in 2011 and 2012, the break-even contribution rate is projected to increase steadily from about 1.5% of earnings in 2007 to 2.5% in 2027. The main drivers of this effect are:
  - the ageing of the population, resulting in a decrease in the number of contributors relative to the number of beneficiaries, and an increase in demand for healthcare from the elderly population
  - the assumption that the average cost of drugs will increase at 1.5% a year more than general price rises and that the number of drugs prescribed per consultation will increase by 1.5% a year
  - the above two effects are partially offset by the assumption that the rate of Medical Benefit will only increase in line with general price inflation.

> The break-even contribution rate is also projected to rise under the assumption of inward migration of 150 HoHs each year, but the increase is slightly less steep, with the rate projected to increase from 1.5% in 2007 to 2.4% in 2027. The slower rate of increase in the break-even contribution rate reflects the fact that population ageing is slower where there is assumed to be migration to the Island.

Fund balance

> Under both migration scenarios, the current rate of contributions (2% of earnings) is sufficient to maintain the Fund balance at at least 12 months' expenditure over all, or nearly all, of the period of the projection.

> The Fund balance was equivalent to over three years' expenditure in 2007 and this is projected to fall to 11 months' expenditure in 2027 assuming net nil migration, or to 15 months' assuming immigration of 150 HoHs a year. It is also apparent that the rate of fall in the Fund balance relative to expenditure accelerates towards the end of the projection period.

4.9 Legislation is being introduced to increase pension age from 65 to 67 over the period from 2020 to 2031. However the above results reflect the currently-legislated pension age of 65.

5 Illustrative effects on the principal results of variations in the assumptions

5.1 The projections of this review are sensitive to a number of the assumptions made, for example:

- membership assumptions, in particular the migration assumption and the proportion of the population that is contributing
- economic assumptions (for example, the return on the Fund and real earnings growth)
- benefit assumptions (for example, the number of consultations, the rate of Medical Benefit and the cost of drugs for Pharmaceutical Benefit)

5.2 The projections are also sensitive to other possible future events which are not the subject of explicit assumptions, for example climate change, pandemic disease or a change to the benefit or contribution structure.

5.3 For these reasons, there is considerable uncertainty about the future progress of the Fund. While the assumptions adopted form a reasonable basis for the review, in practice the Fund's experience, and hence its financial progress, will be different. These differences will be analysed and taken into account in subsequent reports. It is important for readers of this report not to place undue emphasis on a single set of projection results. Instead, it is appropriate to consider the effect on the Fund if actual experience differs from the principal assumptions.

5.4 I have therefore also prepared results on the basis of variant, but still plausible, assumptions. The variant assumptions that have been considered are in the following table.

Table 5.1: Variant assumptions considered

	Principal assumption	Variant assumption
Reduction in contribution income	Based on projections underlying actuarial review of the Social Security Fund as at 31 December 2006	5% reduction in contribution income, for example as a result of increased levels of unemployment
Earnings increases	1.5% a year more than general price inflation	1% a year over prices 2% a year over prices It is assumed that these variants do not affect the assumed growth in the cost of Pharmaceutical Benefit
Rate of increase in Medical Benefit	In line with general price inflation	2.5% a year over prices 1.5% a year over prices 1.5% a year less than prices
Rate of increase in net ingredient cost of drugs	1.5% a year more than general price inflation	In line with prices 3% a year over prices
Increase in prescription items per consultation	1.5% a year	No increase 3% a year
One-off increase in consultations[8]	Average number of consultations per head by age and sex is fixed	Additional 200,000 consultations[9] in 2012 only
Rate of investment return	0.75% a year more than general price inflation	In line with prices 1.5% a year over prices

5.5 In addition to these variants, the principal assumptions already incorporate two assumptions about future migration to Jersey.

5.6 The variant assumptions are intended to provide a reasonable indication of the uncertainty in the Fund's future finances. However, they do not represent the limits of the range of possible future experience, which could be more or less favourable than shown by these assumptions.

5.7 The assumptions made in this review are interdependent. Therefore, when considering the effect of varying more than one assumption, it may not be appropriate simply to combine the different variant projection results shown in this report.

[8] This is intended to illustrate the potential effect of a one-off short-term health crisis, such as an epidemic.
[9] This is accompanied by a corresponding increase in the number of prescription items.

5.8 The following two tables show the estimates of the break-even contribution rate and the Fund balance expressed as months of outgo, based on the variant assumptions. For simplicity, these results have all been shown only on the assumption that future immigration to Jersey averages 150 heads of household each year.

Table 5.2: Summary of projections of the break-even contribution rate (as a % of earnings) based on the variant assumptions[10] (and assuming immigration of 150 heads of household each year)

	2007	2017	2027
Results on principal assumptions	1.5%	2.0%	2.4%
5% fall in contribution income in all years from 2010	1.5%	2.1%	2.5%
Earnings growth:			
1% a year over prices	1.5%	2.1%	2.6%
2% a year over prices	1.5%	2.0%	2.2%
Rate of increase in Medical Benefit:			
2.5% a year over prices	1.5%	2.1%	2.6%
1.5% a year over prices	1.5%	2.1%	2.5%
1.5% a year below prices	1.5%	2.0%	2.3%
Rate of increase in net ingredient cost of drugs			
In line with prices	1.5%	1.9%	2.1%
3% a year over prices	1.5%	2.2%	2.8%
Increase in prescription items per consultation			
No increase	1.5%	1.9%	2.0%
3% a year	1.5%	2.2%	2.9%
Additional 200,000 consultations in 2012 only	1.5%	2.0%	2.4%
Rate of investment return[11]			
In line with prices	1.5%	2.0%	2.4%
1.5% a year over prices	1.5%	2.0%	2.4%

[10] The variant assumptions apply over every year of the projection, starting from the latest year for which we have data.
[11] Changes in the assumed rate of investment return will not affect the projected break-even contribution rate.

Table 5.3: Summary of projections of the Fund balance expressed as months of expenditure based on the variant assumptions (and assuming immigration of 150 heads of household each year)

	2007	2017	2027
Results on principal assumptions	39	30	15
5% fall in contribution income in all years from 2010	39	25	6
Earnings growth:			
1% a year over prices	39	28	8
2% a year over prices	39	31	21
Rate of increase in Medical Benefit:			
2.5% a year over prices	39	27	5
1.5% a year over prices	39	28	9
1.5% a year below prices	39	31	20
Rate of increase in net ingredient cost of drugs			
In line with prices	39	34	32
3% a year over prices	39	25	1
Increase in prescription items per consultation			
No increase	39	36	38
3% a year	39	24	0
Additional 200,000 consultations in 2012 only	39	24	11
Rate of investment return			
In line with prices	39	28	12
1.5% a year over prices	39	31	18

5.9 These results illustrate that changes to the assumptions can have a significant effect on the Fund's projected financial progress. In particular, in some cases the Fund balance is projected to fall well below 12 months' expenditure by 2027. It is therefore important that the sensitivity of the results to the assumptions is taken into account when considering the findings of this report. It should be noted that the possible variation in the future experience of the Fund is not limited to the range shown in the tables above.

6 Comparison of results in this report with those from the report on the previous actuarial review

6.1 In order to understand more fully the factors affecting the Fund's financial position, it is useful to compare the results obtained at this review with those from the previous review as at 31 December 2002. The key factors that will have led to changes in the projections are as follows:

- Actual Fund experience since 2002 compared that projected at the 2002 review
- Changes to the population projection from that adopted for the actuarial review of the Social Security Fund as at 31 December 2003 to that made for the social security review as at 31 December 2006
- Abolition of HIE status and reducing the prescription charge to zero
- Introduction of the Pathology Benefit (see paragraph 3.4)
- Changes to the assumptions about Medical Benefit and Pharmaceutical Benefit
- Introduction of "shared prescribing" (see paragraph 3.4)
- Allowance for the transfers in 2011 and 2012 from the Fund to the Department of Health and Social Services

6.2 Table 6.1 compares the results described in Section 4 of this report with the projections from the report on the previous actuarial review of the Fund as at 31 December 2002. The comparison is based on the assumption of net nil migration at both reviews, since this was the assumption underlying the principal results of the previous review.

Table 6.1: Comparison of results in this report with those from the report on the previous actuarial review – break-even contribution rates (%)

	2007	2012	2017	2022	2027
Previous review	**1.8**	**1.9**	**2.1**	**2.3**	**2.6**
Abolition of HIEs and reducing prescription charge to zero[12]	-	0.1	0.1	0.1	0.1
Actual experience to 2009[13]	-0.3	-0.3	-0.3	-0.3	-0.4
Population projection	-	-	-	-	0.1
Changes to Medical Benefit and Pharmaceutical Benefit assumptions	-	0.1	-	-	-0.1
Introduction of Pathology Benefit	-	0.1	0.1	0.1	0.1
Other changes, including the transfers from the Fund in 2011 and 2012	-	0.4	0.1	0.1	0.1
This review	**1.5**	**2.3**	**2.1**	**2.3**	**2.5**

[12] The main effect relates to the suspension of the prescription charge; the abolition of HIE status has a smaller impact since it involves a reduction in the Fund benefits together with a broadly corresponding reduction in the contributions from the States.
[13] This will include allowance for the introduction of shared prescribing in 2007.

6.3 This table demonstrates that the main factor has been the actual experience of the Fund since the previous review. In particular, the reductions in the average drug cost will have significantly reduced the cost of the Pharmaceutical Benefit (see Appendix D).

7 Appendix A: Summary of contributions and benefits

This appendix summarises the principal provisions regarding the contributions and benefits set out in the Health Insurance (Jersey) Law 1967 as at 1 August 2010 on which the estimates in this review have been based. This summary concentrates on those aspects of the benefit entitlement and contributions payable that are significant in financial terms.

Benefits

Eligibility	To be eligible for the benefits, the individual must have been resident in Jersey and paid the appropriate social security contributions (unless exempt) for at least six months.
Medical benefit	The scheme provides a grant towards the cost of consultations with a general practitioner. This benefit was £13 per consultation from 1 October 2002, rising to £15 from 1 October 2004 and then to £19 from 17 May 2010. The patient is required to meet the difference between the doctor's actual charge and the rate of medical benefit. The Medical Benefit is also payable for an "item of service", which is a letter of referral from the GP to a consultant. During 2009, a higher rate of Medical Benefit was introduced in certain circumstances where a patient was suffering symptoms consistent with pandemic influenza. This benefit was only paid during 2009 and was formally withdrawn on 8 September 2010.
Pathology benefit	With effect from 1 January 2010, a new benefit is being introduced at the rate of £10 in respect of the charges made for tests relating to haematology and clinical chemistry.
Pharmaceutical benefit	The scheme pays the cost of drugs prescribed by the patient's general practitioner or dentist. The prescription charge (the part of the drug cost met by the patient) was set to zero in February 2008. Drugs must be on the "prescribed list" designated by the Minister for Social Security in order to qualify for support from the Fund.
Gluten-free vouchers	Vouchers are provided for individuals who cannot take gluten in their diet.
Low income benefits	Prior to 28 January 2008, certain individuals on a low income were designated health insurance exceptions (HIEs). HIE members qualified for a more generous scale of benefits, in particular, the whole of the cost of a consultation with a general practitioner was met by the Fund and they also did not have to pay the prescription charge. 40% of the cost of benefits for HIEs was met by a special payment to the Fund from the States HIE status was abolished with effect from 28 January 2008. Alternative measures have been put in place to help protect poorer individuals but from the perspective of the Fund all members are now treated identically.

Contributions

Earnings limit (EL)	£3,242 per month for 2007 and has risen to £3,646 per month in 2010
Class 1 contributions	Class 1 contributions are required from everyone in the island between school leaving age and pension age who works for an employer for more than eight hours a week, with some exceptions. Employees and employers both pay Class 1 contributions, based on the employee's earnings. 2% of earnings up to the EL, split 1.2% from the employer and 0.8% from the employee. There is no State contribution. The employee does not need to pay contributions if they are over pension age, or meet certain other conditions.
Class 2 contributions	Those who do not pay Class1 contributions pay Class 2 contributions, unless they are exempt. 2% of the EL, or 2% of actual earnings up to the EL where the individual is eligible to pay earnings-related contributions. There is no States contribution. The self-employed person does not pay contributions if they are over pension age, or meet certain other criteria.
States of Jersey vote	Following the abolition of Health Insurance Exception status, the States no longer makes a payment to the Fund.

As mentioned in paragraph 1.8, legislation is being introduced to increase pension age from 65 to 67 over the period from 2020 to 2031.

8 Appendix B: Fund accounts since 1 January 2003

8.1 A summary of the transactions of the Health Insurance Fund in the period under review and in the immediately preceding year are summarized in Table 8.1. These figures are taken from the Fund's audited accounts.

Table 8.1: Income and outgo of the Health Insurance Fund in the period from 1 January 2003 to 31 December 2009 (£ thousands)

	2003	2004	2005	2006	2007	2008	2009
Fund at year start	27,358	32,261	37,404	44,295	52,778	63,435	72,098
Contributions	20,653	21,013	22,312	23,610	25,507	27,549	28,912
States of Jersey Vote	1,073	1,181	1,171	1,218	1,276	125	-
Interest Income	909	1,454	1,751	1,997	2,986	3138	341
Pharmaceutical Discounts	63	64	59	121	149	158	38
Total Income	**22,698**	**23,712**	**25,293**	**26,946**	**29,918**	**30,970**	**29,291**
			Outgo financed from contributions				
Medical benefit	4,654	4,661	5,058	5,206	5,216	5,321	5,785
Pharmaceutical benefit (net of prescription charges)	9,530	9,916	9,229	9,171	9,681	15,379	16,485
Gluten-free food vouchers	94	99	103	113	124	142	154
Medical benefit (HIEs)	604	648	649	675	681	50	-
Pharmaceutical benefit (HIEs)	1,004	1,123	1,107	1,151	1,232	137	-
Administration	836	941	1085	929	1,051	1,153	1,489
Total outgo financed by contributions	16,723	17,388	17,231	17,245	17,985	22,182	23,913
			Outgo financed by States Vote				
Medical benefit	403	432	433	450	454	33	-
Pharmaceutical benefit	670	749	738	768	822	92	-
Total outgo financed by States	1,073	1,181	1,171	1,218	1,276	125	-
Total outgo	**17,795**	**18,569**	**18,402**	**18,463**	**19,261**	**22,307**	**23,913**
Excess of income over outgo	4,903	5,143	6,891	8,483	10,657	8,663	5,378
Fund at year end	32,261	37,404	44,295	52,778	63,435	72,098	77,476
Ratio of mean fund/outgo in terms of months[14]	21	24	28	34	39	37	38

8.2 Contribution income exceeded expenditure in each of the years from 2003 to 2009. The average Fund increased from about 1.75 times annual expenditure in 2003 to nearly 3.25 times annual expenditure in 2009.

[14] This is based on outgo that is financed by contributions only.

8.3 A summary of the assets held of the Health Insurance Fund as at 31 December 2007 is given in Table 8.2.

Table 8.2: Summary of the market value of the assets of the Health Insurance Fund as at 31 December 2007

	£million	%
Cash	53.0	84
Net debtors	10.4	16
Total	**63.4**	**100**

9 Appendix C: Summary of data

9.1 The accuracy of the numerical results of the review is dependent on the data on which they are based. If the data contain material inaccuracies or omissions, this could have a significant effect on the results of the review. Data are used in three main areas:

- as the starting point of the projections
- to help select appropriate assumptions about the future, although it will also be necessary to take account of expected future trends
- as a validation of the projection methodology; in particular the results for 2009 are compared with the out-turn figures in the accounts for that year

9.2 The main sources of data were as follows:

- Data on the benefits were provided by the Social Security Department; this included details of the Pharmaceutical Benefit for the years 2003 to 2008. Expenditure on Medical Benefit was available split by age and sex for years from 2005. Data for 2008 were split according to whether it was before or after 28 January (the date when HIE status was abolished)
- The audited Fund accounts for the years from 2003 to 2009.
- Projections of the population for Jersey were obtained from the States' Statistics Unit; these were the same projections as underlay the actuarial review of the Social Security Fund as at 31 December 2006.

9.3 I have not verified the data, but I have made some simple checks for reasonableness. The data appear to be adequate for the purposes of the review.

9.4 The projections of the balance in the Funds have been based on the market value of the assets as at 31 December 2009 shown in the 2009 report and accounts.

9.5 A summary of the data provided for the review is shown in the following table.

Table 9.1: Summary of the benefit data for the years 2003 to 2008 that were used in the review

	2003	2004	2005	2006	2007	2008	
						To 27 Jan	From 28 Jan
Number of consultations:							
Ordinary members			288,310	302,549	300,883	21,808	321,645
HIE members			43,633	43,916	44,762	3,327	-
Number of items of service:							
Ordinary members			30,407	32,168	34,015	2,582	37,897
HIE members			10,183	10,449	10,693	869	-
Number of prescription items:							
Ordinary members	958,231	993,307	1,044,211	1,067,496	1,127,489	N/A	1,385,060
HIE members	153,031	170,730	175,152	184,120	196,846	N/A	-

10 Appendix D: Summary of methods and assumptions adopted

10.1 This appendix summarises the principal assumptions used in deriving the estimates of income and expenditure shown in Section 4 of this report. There are three main categories of assumptions:

- Membership assumptions used for projecting the members who are eligible to receive benefits from the Fund and those who pay contributions to the Fund
- Economic assumptions, covering matters such as the rate of earnings growth and the investment return on the Fund assets
- Benefit assumptions covering the projection of the individual benefits from the Fund.

10.2 The principal assumptions have been chosen so that they represent a reasonable estimate of the likely future experience of the Fund. A summary of the principal assumptions is set out in the table below, with the corresponding assumptions made at the previous review as at 31 December 2002 shown in square brackets.

Table 10.1: Summary of the principal assumptions

Membership	
Membership numbers	Equal to projected population of the Island, based on the projections prepared by the States' Statistics Unit, assuming: > annual net nil migration, and > annual net migration of +150 heads of household [Based on net nil migration only]
Contributor numbers	Based on the actuarial review of the Social Security Fund as at 31 December 2006 [Based on actuarial review of the Social Security Fund as at 31 December 2000]
Economic	
Real earnings growth	1.5% [1.5%] a year
Increase in earnings limits for contributions	1.5% [1.5%] a year above prices
Investment return on Fund assets	0.75% [0.75%] a year above prices (see paragraph 3.9)
Benefit	
Increase in rate of medical benefit	In line with prices [1.5% a year above prices]
Number of consultations per head	In line with scale based on age and sex; this scale is assumed to remain constant over time and therefore changes in the number of consultations are entirely driven by changes in the age and sex distribution of the population [Same approach but scale based was based on information available at that time]
Increase in number of prescription items per consultation	1.5% [1.5%] a year
Increase in average net ingredient costs of drugs	1.5% [1.5%] a year above prices
Increase in average dispensing cost of drugs (that is, the remuneration of the pharmacist)	In line with prices

10.3 The remainder of this appendix explains how the assumptions were derived and also notes where these assumptions differ from those used for the previous actuarial review of the Fund as at 31 December 2002.

Membership assumptions

10.4 The Fund covers all those who have been resident on the Island for at least six months. It has therefore been assumed that the entire population is eligible for benefits, except very short-term migrants.

10.5 The projection of the population has been taken from the demographic projections prepared by the States' Statistics Unit. These are the same population projections as were used for the actuarial review of the Social Security Fund as at 31 December 2006, the results of which were set out in my report dated 25 September 2009. In particular, the projections were based on two assumptions about future migration to the Island:

> Zero net migration

> Net inward migration of 150 "heads of household"[15] a year

10.6 However, the population projections show a population for the end of 2008 that is lower than the estimated actual population as at that date. In view of this, I have assumed that the population will be in line with the projections from 2013 and for years between 2008 and 2013 there will be a uniform transition from the actual 2008 and projected 2013 populations.

10.7 A summary of the projected population over the period to 2027 is shown in the following two tables. Further details of the projections are given in my report on the review of the Social Security Fund.

Table 10.2: Summary of the population projection based on zero net migration

	2007	2012	2017	2022	2027
Children (0-15)	15,916	14,960	14,068	13,222	12,571
Working age (16-64)	61,143	59,264	57,829	55,150	52,551
Pension age (65[16] and over)	13,840	15,734	18,308	20,799	23,721
Total	90,899	89,958	89,204	89,171	88,842
Working age as % of total population	67%	66%	64%	62%	59%

Table 10.3: Summary of the population projection based on net inward migration of 150 heads of household each year

	2007	2012	2017	2022	2027
Children (0-15)	15,916	15,094	14,480	14,025	13,936
Working age (16-64)	61,143	60,050	59,087	58,785	57,551
Pension age (65 and over)	13,840	15,725	18,292	20,765	23,675
Total	90,899	90,713	91,859	93,575	95,162
Working age as % of total population	67%	66%	64%	63%	61%

10.8 This table also shows the number at working ages expressed as a percentage of the whole population. Over the period from 2007 to 2027, this percentage is projected to decline from 67% to 59% assuming net nil migration, or from 67% to 61% assuming immigration of 150 HoHs a year. This decline is largely as a result of the increased

[15] A head of household (HoH) refers to the head of each family group that enters or leaves Jersey. 150 HoHs correspond to a total of 324 migrants each year.
[16] See paragraph 3.8.

numbers of the elderly and a decline in the working population. This is an important measure for the Fund since benefits are provided to nearly all residents but contributions are only received from those of working age. Therefore, the decline in the percentage will, other things being equal, lead to an increase in expenditure relative to contribution income and this effect will be accentuated by the higher demand for healthcare from the elderly.

10.9 The assumptions about contributors and their earnings distribution have been based on those underlying the actuarial review of the Social Security Fund as at 31 December 2006, except that this has been updated to take into account the actual estimated population in 2008. Further details of these assumptions are given in my report on that review dated 25 September 2009.

10.10 At the previous review as at 31 December 2002, the calculations were based on the latest population projections available at that time, although for simplicity the main results were only shown based on net nil future migration. The contribution projections were based on the projections made for the review of the Social Security Fund as at 31 December 2000.

Economic assumptions

10.11 These assumptions comprise the real rate of earnings growth relative to price inflation, the real rate of investment return earned by the Fund and the increase in the Earnings Ceiling for contribution purposes. No assumption about future price inflation is needed for this review. This is because the results are presented in constant price terms and all contributions and benefit amounts are assumed to rise at least in line with retail prices.

10.12 Data published by Jersey's Statistics Unit suggest that earnings growth has averaged about 1% a year more than price inflation over the period from 1990 to 2009[17]. This is broadly similar to the rate of earnings growth experienced in the UK over the same period. However, over longer periods, earnings growth in the UK has been higher, for example averaging about 1.7% a year in excess of price inflation over the years 1970 to 2009. There is considerable uncertainty over the future level of earnings growth in the UK, but typically it might at present be assumed to average 1.5% a year in excess of price inflation. Over the medium to long-term, it would be expected that earnings growth in the UK and Jersey would be similar. Therefore, I have assumed for this review that future earnings growth would be 1.5% a year more than prices.

10.13 As mentioned in paragraph 3.9, the assumption is made in this report that the Fund assets are invested in cash deposits, which was the situation as at the review date of 31 December 2007 (see Table 8.2). However, we also now understand that there exists a subsequently-stated strategic aim to partially invest in return-seeking assets; the Fund projections in this report have not taken this into account. At the time of the next review (due to take place as at 31 December 2012) consideration will be given as to whether to take explicit account of the investment strategy in place at that time. If the revised investment strategy leads to an increase in investment income this would lengthen the period until the Fund is extinguished.

10.14 At present the returns available on cash are very low, and in particular are likely to be less than the rate of price inflation. However, over the period covered by this review, it is more reasonable to assume that cash returns will recover. I have therefore assumed that the future rate of investment return would average 0.75% a year in excess of price inflation.

[17] 1990 was the first year for which the Jersey earnings index was calculated.

10.15 Having regard to the provisions of Article 5(2)[18] of the Social Security (Jersey) Law 1974, it has been assumed that the Earnings Ceiling applied in calculating social security contributions will in future increase in line with average earnings increases.

Benefit assumptions

10.16 A summary of the rate of Medical Benefit and average actual consultation charge for ordinary members over the period from 2002 to 2008 is given in the following table. For comparison, the rate of price inflation over the period from June 2001 to June 2007 averaged 4.0% a year, and the rate of earnings increases was 4.2% a year.

Table 10.4: Medical benefits and doctors' actual consultation charges for ordinary members in the period from 2002 to 2008 (£)

	Average charge for consultation	Medical benefit (from 1 October of preceding year)
2002	29.50	12
2003	31.77	13
2004	34.44	13
2005	34.36	15
2006	34.98	15
2007	36.46	15
2008	39.72	15
Annual Increase 2002 to 2008	5.1%	3.8%

10.17 Over the six years to 2008, the rate of medical benefit therefore did not quite keep pace with inflation. Over the same period, the average consultation charges made by doctors increased by over 1% a year faster than the rate of Medical Benefit. As a result, the medical benefit represented 44% of the average charge for a consultation in 2002, but this had fallen to 38% of the average consultation charge in 2008.

10.18 The rate of Medical Benefit was subsequently increased to £19 from 17 May 2010. This increase was considerably in excess of price inflation, but it was largely intended to help finance improvements in the standard of primary care, including allowing doctors to satisfy new General Medical Council requirements and introducing performance-monitoring and quality information.

10.19 Following discussion with the Department of Social Security, it was agreed that I should assume for the review that Medical Benefit will in future increase in line with prices. Bearing in mind the general practice of increasing benefit rates on 1 October, I have assumed that the next increase, after that to £19, will take effect from 1 October 2011.

[18] This states that the Earnings Ceiling "… shall be reviewed annually by the Minister and in so reviewing the Minister shall have regard to the general level of earnings".

10.20 Given medical consultations are labour intensive, it seems likely that the charges made by doctors will tend to rise in line with earnings levels (although this may be partially offset by efficiency savings). This means that if the Medical Benefit were to rise only in line with prices, it will tend to fall as a proportion of the doctors' actual charges. For example, if the cost of a consultation were to rise by 1.5% a year more than prices, the value of the Medical Benefit would fall by a third over 25 years relative to the actual consultation charge.

10.21 At the previous review, it was assumed that the rate of Medical Benefit would increase in line with earnings increases (that is, 1.5% a year more than price inflation). However, that review considered alternative approaches, including the effect of increasing Medical Benefit only in line with price inflation, as part of the variant assumptions.

10.22 The following table shows the number of GP consultations plus items of service (the number of referral letters prepared) resulting in a claim on the Fund, together with the corresponding averages per person covered by the Fund. Figures are given separately for ordinary members[19] and for HIE members. The figures cover the period from 2005 to 2008, and those for 2008 have been split according to the period before and after 28 January 2008, since this is the date on which HIE status was abolished.

Table 10.5: Number of consultations and items of service in the period from 2005 to 2008

	Ordinary members		HIEs	
	Number of consultations and items of service	Number per member	Number of consultations and items of service	Number per member
2005[20]	318,717	3.78	53,816	14.61
2006	334,717	3.95	54,365	14.08
2007	334,898	3.89	55,455	13.54
2008 to 27 Jan	24,350	3.80	4,196	13.34
2008 from 28 Jan	359,541	4.33	-	-

10.23 Prior to the increase in the number of consultations per ordinary member from 28 January 2008, this figure was fairly stable from year to year. However, as part of the previous actuarial review, it was found that the number of consultations per member stood at 4.4 in 2002. It is not clear whether this number is entirely consistent with the figures in the above table since the data sources are different. Nevertheless, it does suggest that between 2002 and 2008, there has been a fall in the numbers of consultations per head (excluding the effect of the abolition of HIE status from 28 January 2008).

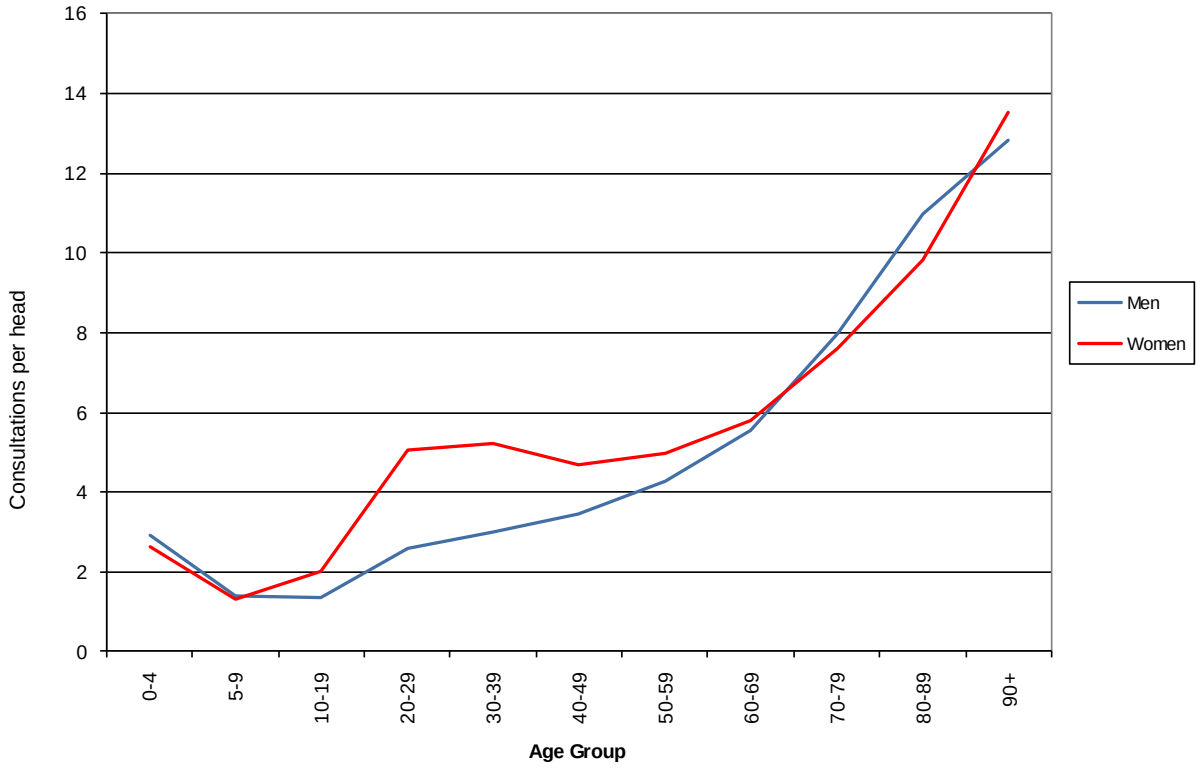
[19] Ordinary members are those who are not designated as Health Insurance Exceptions (HIEs). All members are ordinary members from 28 January 2008 when HIE status was abolished.
[20] It was not clear that the data for earlier years were consistent with those for 2005 and later and therefore they have been excluded from this analysis.

10.24 The much higher number of consultations and items of service per head for HIEs than for Ordinary members is likely to reflect the fact that HIEs were much more likely to seek a consultation for minor medical ailments, since it involved them in no cost. It will also reflect the fact that HIEs were eligible for a wider range of items of service (such as injections) than ordinary members. HIEs may also be more likely to see their doctor because they may tend to be from lower socio-economic groups with poorer health records and they also have a higher average age than Ordinary members.

10.25 It is apparent that when HIE status was abolished on 28 January 2008, there was a significant increase in the average number of consultations per ordinary member. This was expected because those who were previously HIE members will have been classified as ordinary members from that date and this will have tended to increase the average number of consultations per head.

10.26 In setting an assumption about the number of consultations per head for future years, it will be important to have to have regard to the impact of the abolition of HIE status. It is therefore most appropriate to consider the number of consultations per head in the period from 28 January 2008 to 31 December 2008. This is illustrated in the following chart which shows how the average (annualised) consultations per head varies by age group and sex[21].

Figure 10.1: Average annualised consultations (including items of service) per head in the period from 28 January 2008 to 31 December 2008



10.27 Based on this, I have adopted the following scale of consultations per head in future years. This scale has been applied in each future year which means I am assuming that the average number of consultations per head is stable (by age and sex).

[21] I understand that in some cases consultations for children are shown against the parent's record. This may mean that consultations for children are understated while consultations for younger adults are overstated. In practice, it is not expected that this will have a significant impact on the projections shown in this report.

Table 10.6: Scale of annual number of consultations (including items of service) per head by age and sex

Age group	Men	Women
0-4	3.00	2.50
5-9	1.50	1.25
10-19	1.25	2.00
20-29	2.50	5.00
30-39	3.00	5.25
40-49	3.50	4.75
50-59	4.25	5.00
60-69	5.50	5.75
70-79	8.00	7.50
80-89	11.00	9.75
90 +	12.75	13.50

10.28 At the previous review, no information was available on how consultations numbers varied by age and sex. The assumptions about future consultations were therefore based on data for the membership of the Fund as a whole, supplemented by information on how healthcare costs vary by age and sex in other countries.

Pharmaceutical benefit

10.29 The table below shows the total number of items prescribed in the years from 2005 to 2008. Since the provision of prescription drugs will generally be linked to a consultation with a GP, I have also expressed the number of prescription items as an average per consultation (including items of service). The figures for 2008 only relate to the period from 1 February 2008 (i.e. after HIE status was abolished). No data are available on prescriptions by age and sex.

Table 10.7: Number of prescription items in the period from 2005 to 2008[22]

	Ordinary members		HIEs	
	Total number of items	Number per consultation (including items of service)	Total number of items	Number per consultation (including items of service)
2005	1,044,211	3.28	175,152	3.25
2006	1,067,496	3.19	184,120	3.39
2007	1,127,489	3.37	196,846	3.55
2008 from Feb	1,385,060	3.85	-	-

10.30 This table indicates that there was an increase in prescriptions per consultation in 2007 and more significantly in 2008. This is partly explained by the adoption of shared prescribing from 1 October 2007[23] and the inclusion of HIEs with ordinary members from 28 January 2008. However, this would not seem to explain all of the increase.

10.31 It is also notable that the number of prescription items per consultation for ordinary members has increased significantly since the analysis carried for the previous review of the Fund as at 31 December 2002. For example, at that review, it was found that there were about 2.5 items per consultation in 2002 for ordinary members and this has risen to about 3.3 in 2005, although it is not clear whether the two data sets are entirely comparable.

10.32 This increase should be seen in the context of the decline in the number of consultations per head from 4.4 in 2002 to about 3.8 in 2005 (see paragraph 10.23). A possible explanation might be that part of the reason for the increase in the number of prescriptions per consultation is that doctors (or patients) are seeking to limit the number of consultations required, but without affecting the overall number of drugs prescribed. Nevertheless, this would only seem to explain part of the increase in prescriptions per consultation.

10.33 For the review, I have assumed that the number of prescription items per consultation will be 3.85 in 2008 and this is assumed to increase by 1.5% each year, which is the same assumption as adopted for the previous actuarial review of the Fund as at 31 December 2002.

10.34 An assumption is needed about the cost of each prescription item and how this will increase in future. The table below shows, for each year from 2003 to 2008, the average cost per item, split between the net ingredient cost (NIC) and the dispensing cost (that is, the remuneration to the pharmacist). The costs are before deducting the prescription charge that applied up to 31 January 2008.

[22] Both the data supplied and the Fund accounts gave figures for the numbers of prescription items and these two sources seem to be broadly consistent. However, as the data did not split the figures for Ordinary members and HIEs and was not complete in all years, I have used the numbers shown in the accounts, except in the case of 2008 for which I used the data (as the accounts do not split the period from 28 January). The numbers of consultations have been taken from the data as summarised earlier in this appendix.

[23] There were only 7,118 prescription items relating to shared prescribing in 2008.

Table 10.8: Prescription costs in the period from 2003 to 2008 before deducting the prescription charge and for ordinary members and HIEs combined (£)[24]

	Number of items	Total NIC	Total dispensing cost	Average NIC	Average dispensing cost
2003	1,111,528	10,058,753	2,960,856	9.05	2.66
2004	1,164,037	10,407,153	3,225,399	8.94	2.77
2005	1,218,554	9,839,125	3,388,126	8.07	2.78
2006	1,251,616	9,821,943	3,476,672	7.85	2.78
2007	1,326,338	10,112,197	3,734,647	7.62	2.82
2008 to 31 Jan	106,507	816,451	311,689	7.67	2.93
2008 from 1 Feb	1,385,060	10,531,117	4,080,436	7.60	2.95

10.35 It is clear that the average NIC of drugs paid for by the Fund has been falling since 2003, which contrasts with increases seen in previous years. I understand that this fall in the average NIC of drugs can largely be attributed to a shift in prescribing patterns from branded drugs to cheaper generic drugs. However, the shift from branded to generic drugs can only occur once and it should not be assumed that the corresponding cost reductions could be maintained in the longer-term. Indeed, there is some evidence that the NIC has started to stabilise.

10.36 In the longer-term, it can be expected, as experienced in many countries, that the overall rate of drug cost inflation (excluding dispensing costs) will tend to rise faster than general prices. This will reflect the net effect of reductions in costs as a drug becomes more established and available and the introduction of expensive new drugs. For the purpose of the projections in this report, I have assumed that the average NIC of drugs will in future rise at 1.5% a year more than prices (which is equivalent to the assumed rise in earnings).

10.37 In addition to the NIC, the Fund has to pay the dispensing cost, that is the amount received by pharmacists for dispensing the drug. These have increased by 2.1% a year from 2003 to 2008, which compares with the increase in average earnings and prices over the same period of over 4% a year. In the long-term, it might be expected that the dispensing charges made by pharmacists would broadly reflect changes in average earnings, although there should be some scope for efficiency savings.

10.38 However, I understand from the Department that there is currently an agreement in place with pharmacists that dispensing costs will only increase in line with price inflation, although this agreement is currently being reviewed. I also understand that the level of dispensing costs has come under scrutiny recently and that any increases in the next few years are likely to be limited. For this review, as instructed by the Department, I have allowed for dispensing costs to increase in line with prices.

10.39 At the previous review, no information was available on how costs were split between the NIC and the dispensing costs. A single assumption was therefore made that the

[24] These figures have been taken from the data provided for the review rather than the accounts. The data in the accounts did not provide a breakdown of costs in this way.

average cost of drugs (including the dispensing costs) would increase by 1.5% a year more than prices.

10.40 The Fund also provides vouchers to those who require a gluten-free diet. The value of each book of 10 vouchers has been unchanged at £14.00 since 2002. Given that the vouchers form only a small part of Fund expenditure, I have made the simple assumption that spending on the vouchers will increase in line with the growth in the total membership of the Fund and price inflation.

10.41 It is also necessary to make assumptions about three recent changes to the Fund benefits:

> Shared prescribing
> Swine flu benefit
> Pathology charges

10.42 Shared prescribing was introduced with effect from 1 October 2007 and resulted in an increase in the number of items subsidised by the Fund. As discussed above, the assumption about the number of items prescribed has been based on data for 2008 and therefore it should already allow for the effect of shared prescribing. Additional information provided indicated that there was a significant increase in the number of shared prescribing items between 2008 and 2009. However, this increase will implicitly be allowed for in the results of this review because the projected costs for 2009 have been aligned with those shown in the Fund accounts for that year.

10.43 The additional costs associated with "swine flu" outbreak were all incurred in 2009 and I understand that these amounted to £258,000. Again, these costs will implicitly be allowed for because the projections for 2009 are aligned with the figures in the accounts. However, since the swine flu costs were specific to 2009 it would not be appropriate to assume that these additional costs applied in all future years. Therefore the alignment factor applied in 2010 and future years has been adjusted to remove the impact of swine flu.

10.44 The "pathology benefit" was introduced from 1 January 2010. Projections of its cost made by the Department of Social Security indicate that it will have a cost of about £750,000 in 2010. For this review, it has therefore been assumed that the additional cost will be £750,000 in 2010. I have assumed that in future years the cost will increase in line with spending on Medical Benefit. This implicitly means that the rate of pathology benefit is assumed to rise in line with general prices and the number of recipients will follow the number receiving a consultation.

10.45 Finally, it is necessary to make an assumption about the future costs of administration. These comprise mainly the costs of staff and services, both of which are related to the general movement in earnings. I have therefore assumed that the costs will increase after 2009 in line with average earnings.

11 Appendix E: Summary of projections

Table E.1: Summary of income, outgo and the projected Fund balance in the Health Insurance Fund in 2010 earnings terms based on the principal assumptions and assuming net nil future migration[25]

	2007	2012	2017	2022	2027
Fund at start of year	**52.8**	76.0	68.7	56.4	31.5
Contributions	25.5	27.9	26.9	26.0	24.8
States of Jersey vote	1.3				
Investment income[26]	3.0	-0.5	-0.5	-0.4	-0.2
Total income	**29.9**	**27.4**	**26.4**	**25.6**	**24.6**
Outgo financed by contributions:					
Medical benefit	5.2	6.6	6.3	6.1	5.9
Pathology benefit	-	0.8	0.7	0.7	0.7
Pharmaceutical benefit	9.7	17.7	19.2	21.0	23.1
Gluten-free vouchers	0.1	0.1	0.1	0.1	0.1
Medical benefit (HIEs)	0.7				
Pharmaceutical benefit (HIEs)	1.2				
Administration costs	1.1	1.5	1.5	1.5	1.5
Transfer from Fund		5.8			
Total outgo financed by contributions	18.0	32.6	27.9	29.5	31.3
Outgo financed by States' vote:					
Medical benefit (HIEs)	0.5				
Pharmaceutical benefit (HIEs)	0.8				
Total outgo financed by States' vote	1.3				
Total outgo	**19.3**	**32.6**	**27.9**	**29.5**	**31.3**
Excess of income over outgo	10.7	-5.3	-1.5	-3.9	-6.7
Fund at end of year	**63.4**	**70.7**	**67.2**	**52.5**	**24.9**
Mean fund expressed as months of outgo financed by contributions excluding transfers from Fund	39	33	29	22	11
Break-even contribution rate	**1.5%**	**2.3%**	**2.1%**	**2.3%**	**2.5%**

[25] The 2007 figures are the actual amounts from the Fund accounts. Figures may not sum to totals shown due to rounding.
[26] The investment return is negative from 2012 because it is shown relative to earnings growth, which is assumed to be higher than the rate of return on the assets.

Table E.2: Summary of income, outgo and the projected Fund balance in the Health Insurance Fund in 2010 earnings terms based on the principal assumptions and assuming future immigration of 150 heads of households each year[27]

	2007	2012	2017	2022	2027
Fund at start of year	**52.8**	**76.3**	**71.2**	**62.7**	**43.0**
Contributions	25.5	28.5	28.3	28.2	27.7
States of Jersey vote	1.3				
Investment income[28]	3.0	-0.5	-0.5	-0.5	-0.3
Total income	**29.9**	**27.9**	**27.8**	**27.7**	**27.4**
Outgo financed by contributions:					
Medical benefit	5.2	6.7	6.5	6.3	6.2
Pathology benefit	-	0.8	0.8	0.7	0.7
Pharmaceutical benefit	9.7	17.9	19.7	21.9	24.3
Gluten-free vouchers	0.1	0.1	0.1	0.1	0.1
Medical benefit (HIEs)	0.7				
Pharmaceutical benefit (HIEs)	1.2				
Administration costs	1.1	1.5	1.5	1.5	1.5
Transfer from Fund		5.8			
Total outgo financed by contributions	18.0	32.9	28.7	30.7	32.9
Outgo financed by States' vote:					
Medical benefit (HIEs)	0.5				
Pharmaceutical benefit (HIEs)	0.8				
Total outgo financed by States' vote	1.3				
Total outgo	**19.3**	**32.9**	**28.7**	**30.7**	**32.9**
Excess of income over outgo	10.7	**-5.0**	**-0.9**	**-3.0**	**-5.5**
Fund at end of year	**63.4**	**71.3**	**70.3**	**59.7**	**37.5**
Mean fund expressed as months of outgo financed by contributions excluding transfers from Fund	39	33	30	24	15
Break-even contribution rate	**1.5%**	**2.3%**	**2.0%**	**2.2%**	**2.4%**

[27] The 2007 figures are the actual amounts from the Fund accounts. Figures may not sum to totals shown due to rounding.
[28] The investment return is negative from 2003 because it is shown relative to earnings growth, which is assumed to be higher than the rate of return on the assets.