

**CHOICE AND AFFORDABILITY
FOR HEALTHCARE IN NEW ZEALAND:
A PROPOSED REBATE FOR HEALTH INSURANCE**

This report was prepared for
Southern Cross Medical Care Society by
Econtech Pty Ltd
in association with Harper Associates

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Key Findings

- The health insurance market faces a serious decline in the number of people insured due to an ageing population and rising health costs. Under the current arrangements, health insurance coverage may halve over the next ten years.
- A 30 per cent rebate on health insurance cover would reverse this trend by reducing the cost of premiums, leading to an increase in the percentage of people with health insurance from 33 per cent to 37 per cent. This result is broadly consistent with the NZIER (2001) study of a 33 per cent rebate, and with the “Easing the Pressure” (2004) study for Australia.
- With a 30 per cent rebate increasing health insurance coverage, health insurance funding of the health system replaces some government spending. This saving to the government budget (\$101 million) is more than offset by the cost of the rebate (\$203 million), leading to a small annual net cost to the government budget of \$103 million. If the rebate is restricted to hospital cover, the cost of the rebate (\$116 million) and the savings from the rebate (\$42 million) are lower, resulting in a lower net cost to the government of \$74 million.
- However, a decline in health insurance coverage would increase costs within the public health system. If health insurance coverage halved over the next ten years without the rebate, the net cost to the government (\$230 million) would be more than three times the cost of a rebate on hospital cover (\$74 million). Taking this one step further, if the health insurance industry became unviable due to low levels of coverage leading to the collapse of the industry, the net cost (\$461 million) to government would be more than six times the cost of a rebate on hospital cover.
- So, a relatively small net cost now (in the form of a rebate) would secure the future of the health insurance industry and may save the government from paying a much higher net cost in the future if the health insurance industry were to go into decline.
- Insured and uninsured persons contribute on the same basis to funding government health outlays through taxes. Yet insured people are effectively charged twice for access to elective surgery – once through taxation and once through health insurance premiums. A rebate would make the health system fairer. For every \$1 the government would spend on the rebate for an insured person, it spends \$2.76 on the same health services of an uninsured person. So the rebate is fair as it represents only a relatively modest government contribution to the health costs of the insured.
- The experience in Australia shows that a rebate on health insurance premiums has boosted coverage to a healthy level, reduced pressure on the public health system, improved the fairness of the health system (by the government paying some health costs of both insured and uninsured people) and generally secured the future of the health insurance industry.
- In summary, introducing a 30 per cent rebate in New Zealand has several motivations.
 - It would boost coverage from 33 per cent to a healthy 37 per cent.
 - The annual net cost to government would be relatively small at \$103 million for a health insurance rebate, or \$74 million for a hospital only rebate.
 - By comparison, the annual budget cost of the health insurance system going into decline is up to \$461 million.
 - A rebate would make the health system fairer.
 - Finally, New Zealanders would continue to be able to choose health insurance – which is something that many people clearly value.

Executive Summary

Introduction

Econtech and Harper Associates were commissioned by Southern Cross Medical Care Society to analyse options for improvements to government policy towards New Zealand's health insurance industry. In particular, the effects of introducing a health insurance premium rebate into the current health system are analysed.

In Australia, a 30 per cent rebate on private health insurance premiums already exists. This rebate was introduced by the Commonwealth Government in January 1999. In this report, the impact of introducing a 30 per cent rebate in New Zealand is analysed. These results are then compared with the actual impact of the rebate in Australia.

People with health insurance cover effectively pay twice for surgery-related services that are provided in public hospitals and can be substituted in private hospitals (such as elective surgery). By the government providing a rebate on health insurance premiums, it recognises that insured individuals are paying for part of their own health costs that would otherwise be paid by the government. In effect, a rebate acknowledges that insured persons contribute to their own health costs, by giving back part of what they pay for their health services.

In New Zealand, health insurance funds offer two broad types of health insurance cover. Major Medical cover includes hospital services (as well as elective surgery related specialist visits and diagnostic testing). Comprehensive Care cover includes a range of hospital and non-hospital services, such as visits to General Practitioners.

Rising real health costs have been eroding the affordability of health insurance in New Zealand, leading to declining coverage. Since the year 2000, insurers have worked to strengthen the market by making premiums more actuarially fair. This has allowed health insurance coverage to stabilise at around one-third of the population. However, there has still been some weakening in the market, with some New Zealanders downgrading their policies from Comprehensive Care to Major Medical. There is now little scope left to make premiums more actuarially fair in New Zealand. Consequently, rising real health costs are likely to see further falls in health insurance coverage in the years ahead. Over the next decade coverage could halve from one-third to one-sixth of the population.

With health insurance coverage in New Zealand now at about one-third of the population, it is similar to the level that prevailed in Australia before the introduction of the 30 per cent rebate and Lifetime Health Cover¹ (LHC). These measures lifted hospital coverage in Australia from 30 per cent at end-1998 to its current level of 43 per cent².

By providing a rebate on health insurance premiums, the Australian Government recognises that insured people are paying for part of their own health costs that would otherwise be paid mostly by the government. The rebate is therefore supported on fairness grounds because it represents a relatively small contribution to the health costs of an insured person compared to the larger contribution already made by the government to the equivalent health costs of an uninsured person. It is also in the Australian government's own interest to ensure the viability of the health insurance industry because if the health insurance industry

¹ Under the LHC policy, individuals who join health insurance after 15 July 2000 and are aged 30 to 65, pay a premium loading factor calculated from their age at entry to health insurance.

² "Hospital coverage" in Australia includes hospital only cover (similar to Major Medical cover in New Zealand) as well as hospital and ancillary cover (similar to Comprehensive Care cover in New Zealand).

were to collapse the government would incur a substantial increase in health outlays on persons who were previously insured.

Modelling

To analyse the impact of introducing a health insurance rebate in New Zealand, four scenarios have been modelled. All scenarios refer to the year 2001-02 — they vary only according to the health insurance policy arrangements that are assumed to be in place. The four scenarios are as follows.

1. “baseline” scenario: in this “business as usual” scenario, the existing policy arrangements (as at 2001-02) would stay in place and not be changed, leading to the same outcomes that were actually observed in 2001-02.
2. “30% rebate” scenario: in this scenario a 30 per cent rebate would be introduced for all health insurance premiums.
3. “rebate on hospital³ cover only” scenario: in this scenario a 30 per cent rebate would be introduced for hospital-related health insurance cover only.
4. “no health insurance” scenario: in this scenario it is assumed that the health insurance industry disappears.

The effects of the alternative policies can be assessed by comparing the simulated outcomes under each policy with the actual outcomes under the baseline scenario. Of particular interest are the effects of each policy on health insurance coverage and the government budget.

To simulate these four scenarios, Econtech has constructed a purpose-built model that analyses the impact of subsidising health insurance premiums in New Zealand. This model is called the Health Insurance Health Costs (HIHC) model. All model results refer to the year ended June 30, 2002. The model uses health insurance data supplied by the Health Funds Association of New Zealand (HFANZ) and health expenditure data published by the Ministry of Health (MoH). The model estimates distinguish health costs by health expenditure categories and source of funding. The health expenditure categories are:

- institutional care;
- community care; and
- other health costs.

The sources of funding included in the model are:

- government;
- health insurance funds; and
- non-health insurance private.

³ The subsidy is applied to health services that are included in Major Medical cover. Hospital services as well as specialist visits and diagnostic testing that are related to elective surgery are covered by this subsidy.

Modelling Results

The “30 per cent rebate” scenario is taken from Australian arrangements, where the rebate rate is also 30 per cent. It is assumed that the rebate is deducted from total premiums at the point of purchase, as it commonly is in Australia.

It is assumed that the 30 per cent rebate is applied in full to both Major Medical and Comprehensive Care cover. By making premiums more affordable, health insurance coverage is estimated to improve from the baseline rate of 33 per cent to 37 per cent. This healthy level of coverage helps to secure the future of the health insurance industry.

The 30 per cent rebate also encourages some people to upgrade their cover from Major Medical to Comprehensive Care, as seen in Chart 1. Coverage of Comprehensive Care rises from 17 to 24 per cent of the population.

With the cost of more health services covered by health insurance benefits, government outlays on institutional and community care costs would be lower than under the baseline scenario (see Chart 2). Specifically, it is estimated that the government would incur an annual saving of \$42 million for institutional care and \$59 million for community care services. On the other hand, the gross annual cost of the rebate is estimated at \$203 million in 2001-02. So the 30 per cent rebate would mean a net increase in annual government health costs of \$103 million, as the rebate cost of \$203 million is partly offset by the savings in government outlays on institutional and community care.

The modelled increase in health insurance coverage of 4 percentage points (from 33 to 37 per cent) from a 30 per cent rebate is broadly consistent with other Australian and New Zealand evidence. A study by the New Zealand Institute of Economic Research (NZIER) (2001) found that the introduction of a 33 per cent rebate would mean an additional 245,000 lives would be covered by health insurance. This equates to a 6 percentage points increase in health insurance coverage in 2000. So the NZIER estimated a somewhat higher increase in coverage but this was for a slightly higher rate of rebate.

The “Easing the Pressure” (2004) study for Australia found that the 30 per cent rebate and other health insurance policies (notably Lifetime Health Cover) raised hospital coverage in Australia from 30 per cent at end-1998 to 43 per cent in 2004. The bigger impact on health insurance cover in Australia compared to New Zealand results from the additional impact of the other health insurance policies that were introduced. So the coverage effects in this study are broadly consistent with the earlier NZIER and “Easing the Pressure” studies.

In Australia, there is a debate as to whether the 30 per cent rebate, which currently applies to both hospital and ancillary cover, should be restricted to hospital cover only. So in a “rebate on hospital cover only” scenario, the 30 per cent rebate is restricted to hospital cover (including specialist visits and diagnostic testing that are elective surgery related). Private hospital elective surgery services mostly directly replace public hospital elective surgery services. Therefore, by using a rebate to encourage the expansion of private hospital services, the government directly saves on some public hospital services. However, a rebate on non-hospital cover is less effective in generating budget savings because some non-hospital services are not subject to government funding. In anticipation of a similar debate occurring in New Zealand, this scenario models a 30 per cent rebate on hospital cover only. This implies a full rebate rate of 30 per cent for Major Medical cover, but a lower rebate rate of 16 per cent on Comprehensive Care, because it includes cover for non-hospital services.

Restricting the rebate to hospital only cover results in the same boost in health insurance coverage to 37 per cent, because hospital coverage remains as attractive as under the

unrestricted rebate scenario. However, compared with the unrestricted rebate scenario, this restricted rebate proposal results in some people changing their cover from the partly-subsidised Comprehensive Care to the fully-subsidised Major Medical, as seen in Chart 1.

Under the “rebate on hospital cover only” scenario, the annual gross cost of the rebate to the budget is estimated at \$116 million. Part of this cost is offset by savings in institutional care (\$42 million) because some hospital services are transferred from public hospitals to private hospitals. So the restricted rebate would mean a net increase in annual government health costs of \$74 million. Overall, restricting the rebate to hospital cover lowers the net annual cost to the budget from \$103 million to \$74 million.

As noted above, without government support, rising health costs could mean that health insurance coverage halves over the next decade. To investigate the possible implications of this declining trend in coverage, the final scenario considers the extreme case where the health insurance industry declines to the point where it is no longer viable (“no health insurance” scenario).

If the health insurance industry collapsed, health insurance funds would no longer be a source of health funding. This would leave gaps in the funding of institutional and community care services. In the Health Insurance Health Costs (HIHC) model, these funding gaps are filled by the other funding sources, according to their existing (2001-02) relativities in non-health insurance funding for each type of health service. For example, the institutional care (hospital) costs previously funded by health insurance are taken up mainly by government and only partly by the non-health insurance private sector. Community care costs previously funded by health insurance would also be mainly taken up by the government, but to a lesser extent than institutional care.

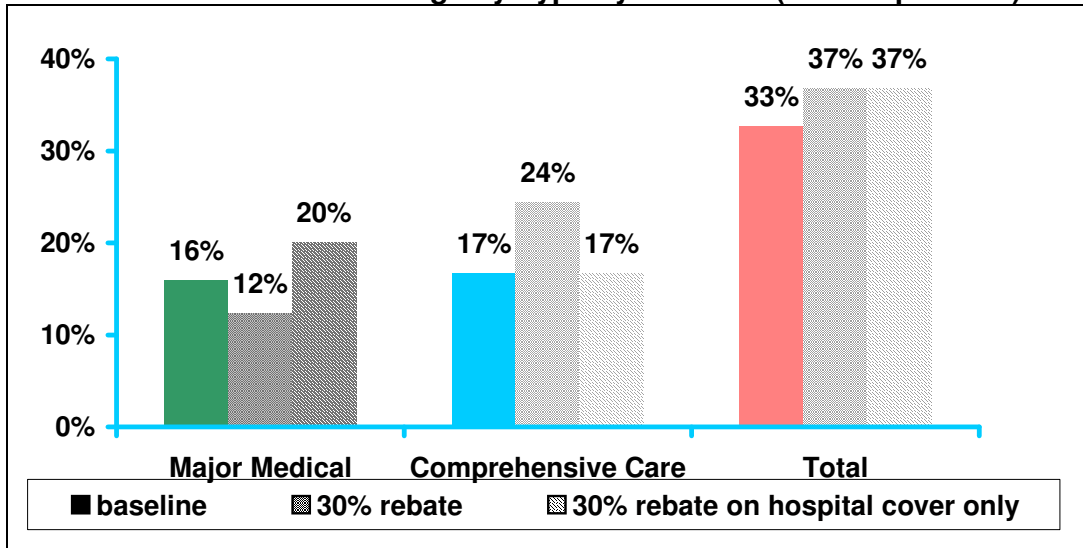
The overall effect of these funding shifts is that government replacement spending fills a substantial part of the health funding gap left by the disappearance of health insurance funding. As a result, the government incurs a net increase in health outlays estimated at \$461 million in 2001-02, as shown in Chart 2. This annual net cost is more than four times the annual net cost of introducing a rebate on all health insurance services (\$103 million) and more than six times the annual cost of introducing a rebate for only hospital related services (\$74 million). So while the government would incur a small net cost by introducing a rebate, it would also secure the future of the health insurance industry and may save itself from paying a much higher annual net cost in the future of up to \$461 million if the health insurance industry were to go into decline.

The collapse of the health insurance industry may represent an extreme scenario. However, it is quite conceivable that without government support in the form of a rebate, rising health costs could mean that coverage halves over the next decade, as suggested above. This would still lead to a major blow-out in annual government health outlays of \$230 million, halve the blow-out associated with a complete collapse of the industry.

This scenario also highlights the fact that the government spends more on health services for the uninsured than the insured. So when people drop health insurance cover, the government experiences a net increase in its outlays. In fact, for every \$1 the government spends in rebate for an insured person, it spends \$2.76 on the same health services of an uninsured person. Yet insured and uninsured persons contribute on the same basis to funding government health outlays through taxation. So the 30 per cent rebate is fair as it represents only a relatively modest government contribution to the health costs of the insured. This conclusion is almost identical to that reached in “Easing the Pressure” (2004), which found that without health insurance the Australian government would face an enormous jump in health outlays.

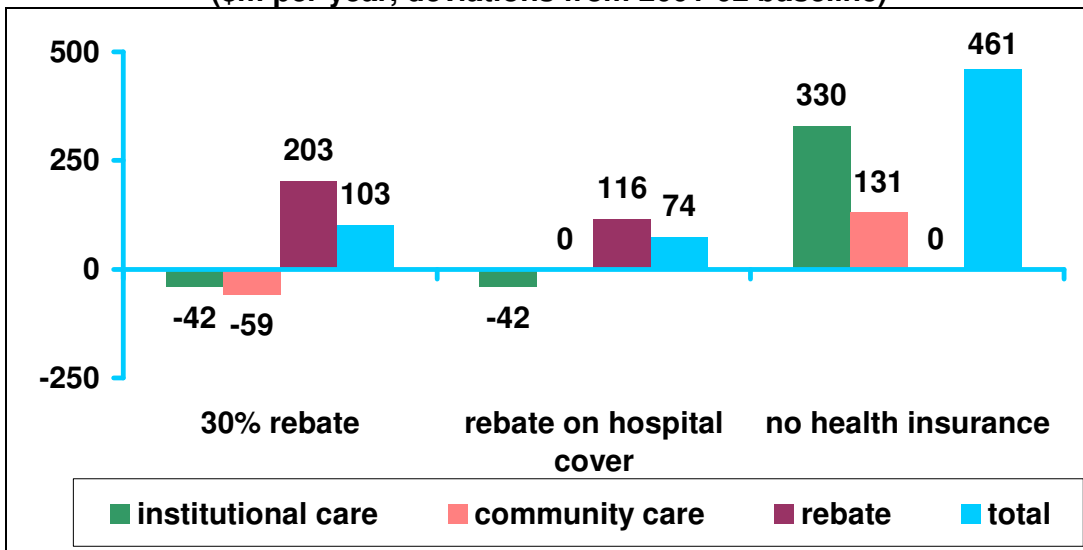
So introducing a 30 per cent rebate has several motivations. It would boost coverage from 33 to 37 per cent, helping to secure the future of the health insurance industry. The annual net cost to government would be at a relatively small at \$103 million, or \$74 million for a hospital only rebate. By comparison, the annual budget cost of the health insurance system going into decline is up to \$461 million. A rebate would make the health system fairer because the government would be spending \$1 on the rebate for an insured person for every \$2.76 it spends on the same health services of an uninsured person. Finally, New Zealanders would continue to be able to choose health insurance – which is something that many people clearly value.

Chart 1
Health Insurance Coverage by Type by Scenario (% of Population)



source: HIHC model

Chart 2
Government Health Expenditure by Area by Scenario (\$m per year, deviations from 2001-02 baseline)



source: HIHC model

1. Introduction

Econtech and Harper Associates were commissioned by Southern Cross Medical Care Society to analyse options for improvements to government policy towards New Zealand's health insurance industry. In particular, the effects of introducing a health insurance premium rebate into the current health system are analysed.

In Australia, a 30 per cent rebate on private health insurance premiums already exists. This rebate was introduced by the Commonwealth Government in January 1999. In this report, the estimated impact of a rebate in New Zealand is estimated and then compared with the actual impact of the rebate in Australia.

In New Zealand, health insurance funds offer two broad types of health insurance cover. Major Medical cover includes hospital services (as well as elective surgery related specialist visits and diagnostic testing). Comprehensive Care cover includes a range of hospital and non-hospital services, such as visits to General Practitioners. In comparison, health insurance funds in Australia offer two broad types of cover which are packaged in three different ways. Broadly, these packages are: hospital only; ancillary only; and joint hospital and ancillary cover packages. In Australia, ancillary health insurance includes cover for dental, optical, physiotherapy and other non-hospital health services. In contrast to the New Zealand system, ancillary cover in Australia excludes visits to General Practitioners.

For this report, four scenarios have been modelled to estimate the impact of introducing a health insurance premium rebate. First, a baseline scenario has been simulated. This scenario replicates the current structure of the health system for 2001-02. That is, the health insurance premiums, benefits, coverage and health expenditure that existed at the year ended June 30, 2002 are reflected in the baseline scenario.

The second scenario models the effect of a 30 per cent rebate on both types of health insurance cover (Major Medical and Comprehensive Care). This scenario is referred to as the "30 per cent rebate" scenario. This scenario is taken from Australian arrangements, where the rebate rate is 30 per cent. The effects of a 30 per cent rebate in Australia have already been modelled in "Easing the Pressure" (2004) which can be compared to the estimated effects of a hypothetical 30 per cent rebate in New Zealand.

In Australia, there is a debate as to whether the 30 per cent rebate, which currently applies to both hospital and ancillary cover, should be restricted to hospital cover only. So in the third scenario the 30 per cent rebate is restricted to health insurance cover for hospital services⁴. This scenario is referred to as the "rebate on hospital cover only" scenario. Private hospital elective surgery services covered by health insurance mostly directly replace public hospital elective surgery services. Therefore, by using a rebate to encourage the expansion of private hospital services, the government directly saves on public hospital services. However, a rebate on non-hospital cover is less effective in generating budget savings because some non-hospital services are not subject to government funding.

Without government support, health insurance coverage may halve over the next ten years. To investigate the implications of the health insurance system going into possibly terminal decline, a "no health insurance" scenario was simulated. It is acknowledged that this may be an extreme scenario, but the results can be pro-rated to see the effects of, say, a halving in coverage.

⁴ The subsidy is applied to health services that are included in Major Medical cover. Hospital services as well as specialist visits and diagnostic testing that are related to elective surgery are covered by this subsidy.

By comparing the outcomes of the alternative scenarios with the baseline scenario, the effects of each scenario are estimated. For example, the change in health insurance coverage due to the introduction of the 30 per cent rebate can be measured as the difference between the level of health insurance coverage in the “30% rebate” scenario and the “baseline” scenario.

Following this Introduction, this report is structured as follows.

- Section 2 reviews the historical trends in health insurance in New Zealand.
- Section 3 outlines the general debate regarding the health insurance rebate.
- Section 4 compares the features of New Zealand and Australian health systems.
- Section 5 outlines the approach to modelling the various scenarios.
- Section 6 presents the findings under the baseline scenario.
- Section 7 presents the findings under the “30 per cent rebate” scenario.
- Section 8 presents the findings under the “rebate on hospital cover only” scenario.
- Section 9 presents the results of the “no health insurance” scenario.
- Section 10 presents the main conclusions of the report.
- The Appendix A explains the workings of the purpose-built model which is used to estimate the results presented in the report.
- The Attachment contains detailed modelling results.

DISCLAIMER

While all care, skill and consideration have been used in the preparation of this report, the report is based on the terms of reference of Southern Cross Medical Care Society and so this report should be used only for the specific purpose set out below.

The specific purpose of this report is to model the impact of a health insurance premium rebate in New Zealand.

The findings in this report are subject to unavoidable statistical variation. While all care has been taken to ensure that the statistical variation is kept to a minimum, care should be used whenever using this information.

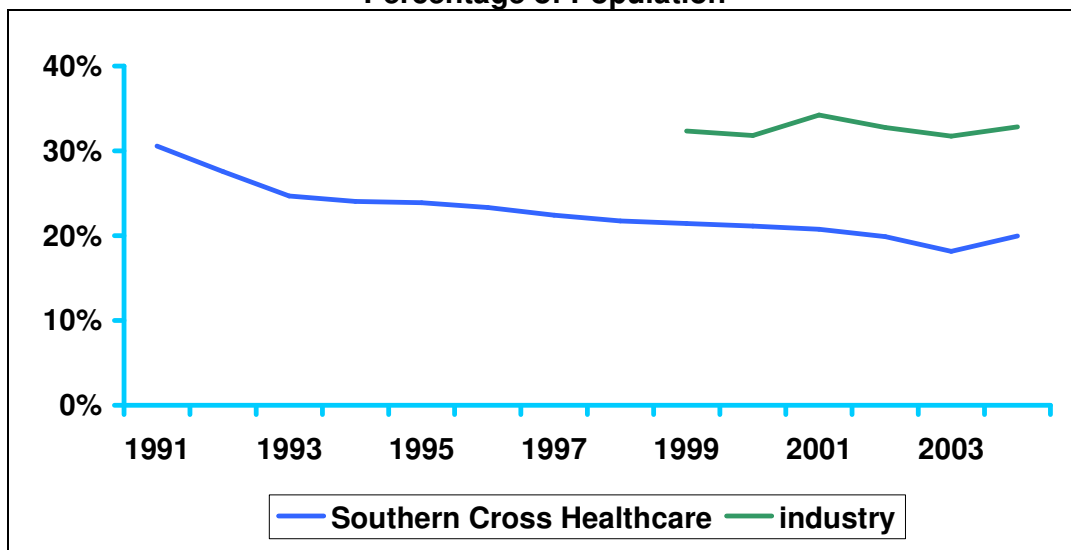
2. Historical Trends in Health Insurance in New Zealand

This section reviews the historical health insurance trends in New Zealand. Specifically, trends in health insurance coverage, premiums and benefits are reviewed.

Rising real health costs have been eroding the affordability of health insurance in New Zealand, leading to declining coverage. In the 1990s coverage of the population by Southern Cross, the largest insurer, fell from about 30 to about 20 per cent, as seen in Chart 2.1. Southern Cross is the major player in the New Zealand health insurance industry, with 67 per cent of insured persons insured by Southern Cross in 2001-02. Therefore, Southern Cross coverage data is used to indicate industry trends back to 1991, as consistent industry data is only available from 2000.

Since the year 2000, insurers have worked to strengthen the market by making premiums more actuarially fair. For example, in 2002, Southern Cross changed the structure of their premiums so that different premiums apply to each single year of age (from age 19 to 64). These measures have allowed coverage to stabilise at around one-fifth of the population for Southern Cross and one-third of the population for the entire health insurance industry, as also seen in Chart 2.1.

Chart 2.1
Southern Cross and Industry-wide Health Insurance Coverage
Percentage of Population

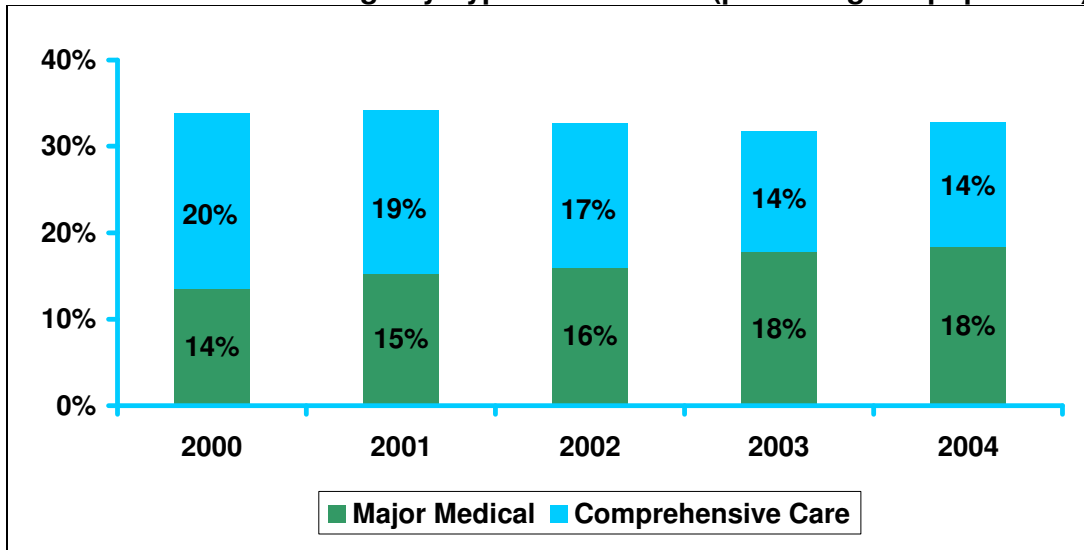


source: Econtech calculations using data from Southern Cross, HFANZ and New Zealand Statistics

note: "Southern Cross" refers to the percentage of the population covered by Southern Cross insurance packages. Southern Cross acquired Aetna Health in 2001, but the coverage data excludes Aetna membership. "Industry" refers to the percentage of the population covered by health insurance.

However, there has still being some further weakening in the market, with some New Zealanders downgrading their policies from Comprehensive Care to Major Medical. So from 1999-00 to 2003-04, Comprehensive Care coverage has slipped from 20 to 14 per cent of the population, as seen in Chart 2.2.

Chart 2.2
Health Insurance Coverage by Type: 1999 – 2003 (percentage of population)



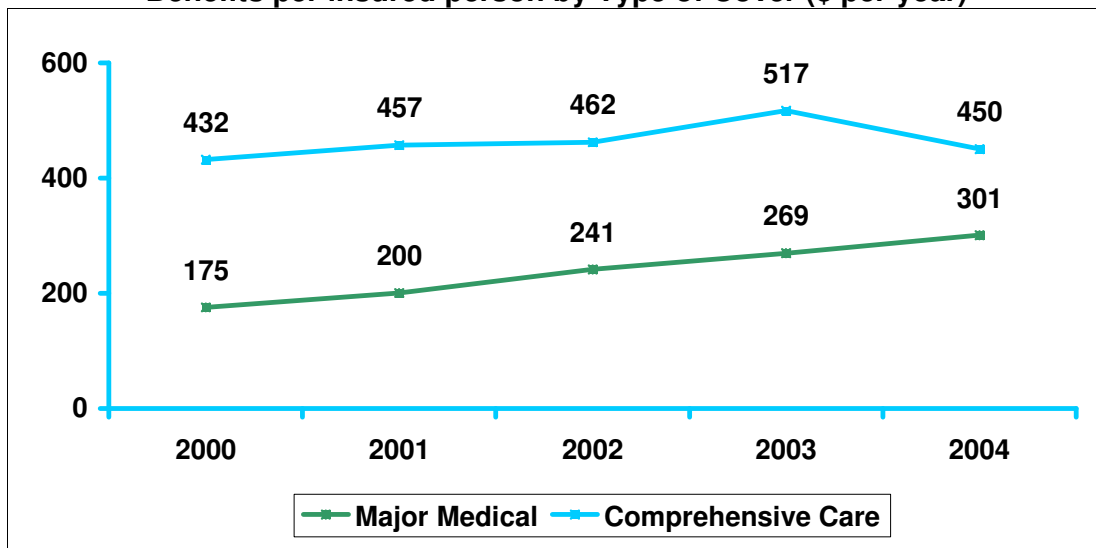
source: Econtech calculations based on HFANZ coverage data and Statistics New Zealand population data

note: years in chart refers to financial years

There is now little scope left to make premiums more actuarially fair. So as real health costs continue to increase in the future, there is little that the insurers can do to prevent a reversion to the historical downward trend in coverage. Over the next decade coverage could halve from one-third to one-sixth of the population in the absence of government support.

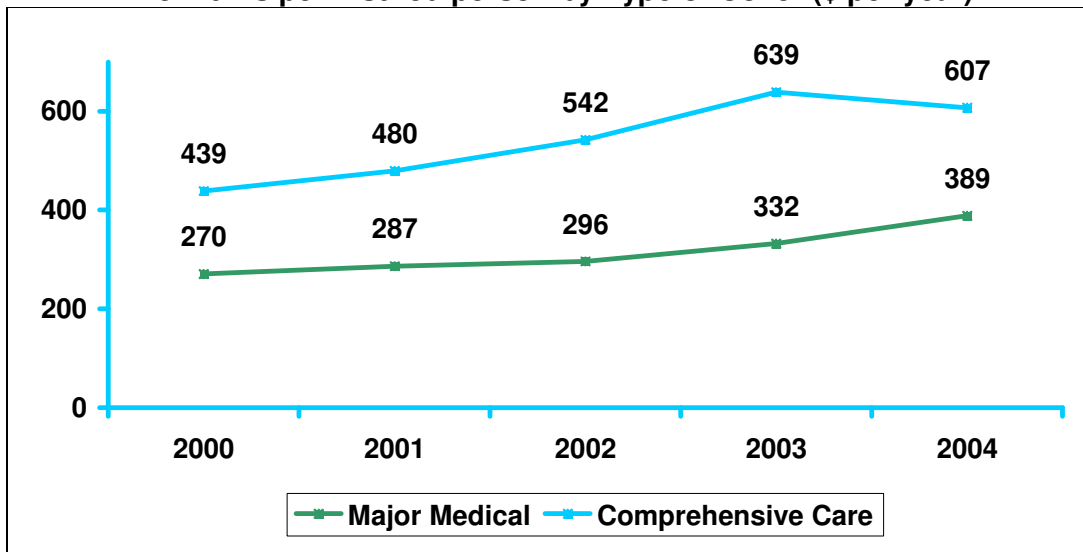
Charts 2.3 and 2.4 below show the trends in benefits and premiums over the last five years, respectively. These charts show that benefits and premiums per person for both Comprehensive Care and Major Medical have been generally rising together. Rising health costs have pushed up benefits leading to higher premiums.

Chart 2.3
Benefits per insured person by Type of Cover (\$ per year)



source: HFANZ data

Chart 2.4
Premiums per insured person by Type of Cover (\$ per year)



source: HFANZ data

3. New Zealand's Rebate Debate

In this section, the general debate surrounding the introduction of a health insurance rebate in New Zealand is discussed. The general arguments for a health insurance rebate are outlined drawing on the findings of recent studies by the New Zealand Institute of Economic Research (NZIER).

People with health insurance cover effectively pay twice for hospital services that are provided in public hospitals and can be substituted in private hospital (such as elective surgery). They pay once through taxes for public hospital services and once through premiums for private hospital services. People with health insurance choose to contribute to their own health costs through health insurance premiums. Paying twice provides insured persons with a choice about how they access health services. Given that one-third of New Zealanders have health insurance cover, choices about health services is clearly something that many people value.

By the government providing a rebate on health insurance premiums, it recognises that insured individuals are paying for part of their own health costs that would otherwise be paid by the government. In effect, a rebate acknowledges that insured persons contribute to their own health costs, by giving back part of what they pay for their health services. In contrast, the government pays a much higher proportion of the health costs of uninsured persons.

The health insurance industry is vital to the health industry. Without the health insurance industry non-health insurance funding sources would fill the gaps left by health insurance funding. In particular, the government is likely to fill most of the gap in institutional (hospital) and community care services left by the health insurance industry. This is because most people who were previously insured would no longer be treated as private patients, but as public patients in public health system. This would result in a significant increase in government health outlays. The Australian government recognises this by directly supporting the health insurance industry through the 30 per cent health insurance premium rebate.

A rebate on private health insurance would also promote a more efficient allocation of resources. Economists argue that products that are close substitutes should be subject to similar rebate/tax arrangements or the choice between those products will become distorted. At present, the decision between having elective surgery performed in private and public hospitals is heavily distorted in favour of public hospitals due to the 100 per cent government subsidy of public hospitals. A 30 per cent rebate on private health insurance would help reduce this distortion.

A significant issue facing the New Zealand health system is the waiting list of people to be treated in the public health system. This issue is outside of the scope of the modelling undertaken in this report, because that modelling focusses on financial issues and so does not account for possible changes in waiting times. However, waiting lists are an important issue that merit comment.

Using Australian evidence as a guide, the introduction of a rebate would raise health insurance coverage which would lead to a transfer of services from the public to private health system. Thus, the length of queues and the waiting times in the public health system would be reduced over the long-term as those that choose to take up health insurance cover due to the introduction of a rebate are treated in the private system, taking pressure off the public hospital system.

The introduction of a health insurance premium rebate would improve the quality of life for all New Zealanders in terms of reduced waiting times for elective surgery. Insured people incur minimal waiting time for elective surgery in private hospitals. So the increase in health insurance coverage associated with the introduction of a rebate would mean that more people incurred minimal waiting times for elective surgery in private hospitals. In addition, uninsured people on public health waiting lists would not wait for those that chose to take out health insurance cover due to the introduction of a rebate, and are being treated in private hospitals. So the waiting time for uninsured people would also be reduced. As mentioned, the extent of the likely reduction in the length of queues due to the introduction of a rebate has not been modelled in this report. Furthermore, the modelling assumes that while a rebate would result in a transfer of some public hospital services to private hospitals, it does not assume any increase in the level of health services provided.

Two reports prepared by the New Zealand Institute of Economic Research (NZIER) canvass the general case for supporting private health insurance in New Zealand. "The Tax Treatment of Health Insurance Premiums" (March 2001) develops a specific proposal to introduce a refundable income tax credit tied to the purchase of private health insurance. A second report, "Future Health Care Financing and the Public-Private Interface" (December 2001), argues the more general case for a private-public partnership in the funding of health care outcomes in New Zealand.

Both reports emphasise the potential for the private sector to support the public sector in delivering superior health outcomes to New Zealanders. By encouraging the private sector, the government can leverage its own outlays on public health and direct increased aggregate funding to the New Zealand health system. This is argued to occur in two main ways:

- encouraging people to take out private health insurance increases the likelihood that they will be treated in private rather than public health facilities, this shifting the burden of provision (and hence cost) away from the public sector and onto the private sector; and
- given the opportunity to choose their own provider, people devote more resources towards achieving health outcomes consistent with their own preferences rather than accepting the "one-size-fits-all" option offered through the public health system.

Both reports also argue the case in equity for some form of public support for private health financing. Public funding for private school education in New Zealand is offered as an analogous case. In this case, private schools receive public support in recognition of the fact that parents who send their children to private schools free up places for other children in the public school system. Furthermore, these same parents contribute to the funding of public schools through their taxes and therefore deserve some recognition of their choice to opt out of public education in the form of a tax credit.

The case in equity for public support of private health insurance is made on similar grounds. Those who opt to pay for private health insurance nevertheless contribute to funding the public health system through their income taxes. There is therefore a case for them to receive a credit or rebate of tax in recognition of the fact that they have chosen to opt out of the public health system.

While focussing on the net benefits to the public sector of encouraging the private sector, neither NZIER report estimates the net impact on public sector finances in New Zealand. The additional expenditure on private health insurance is estimated as well as some general impacts on national output through reductions in work-days lost as a result of faster treatment in the private sector (shorter treatment delays). But, unlike this report, the full budgetary impact for the New Zealand government is not presented.

This issue was raised in a critical response from the New Zealand Treasury. In a report entitled, "Costs of Subsidising Private Health Insurance" (2002), published on the New Zealand Treasury's website, the Treasury uses estimates provided in the earlier NZIER report to demonstrate that the tax credit proposal would incur a significant net cost to the public revenue. In its report, Treasury states that "any proposed insurance rebate falls at the first hurdle if it cannot 'break even' from the Government perspective"⁵.

While the NZIER reports emphasise wider public health benefits which might arise from greater choice and faster treatment in an enlarged private sector, Treasury regards the case for such benefits as unproven. Overall, it would be fair to describe Treasury's response to the NZIER work as sceptical at best and dismissive at worst.

By rejecting the proposal of a rebate because it does not 'break even', the possible long-term impact of not supporting the health insurance industry is overlooked by Treasury. While the budget cost of a rebate introduced today may outweigh the budget savings, it may save the government from facing significantly higher health costs in the future. For example, if the current arrangements remained in place and health insurance coverage halved in ten years, the added burden on the public health system would be substantial. Taking this possibility one step further, if health insurance coverage fell to a level where the health insurance industry was no longer viable and collapsed, the government would fund a substantial share of the health costs currently covered by health insurance funds. So it is important to secure the future of the health insurance industry today (through measures such as a rebate) to ensure that government health costs don't blow out in the future.

In this report detailed estimates of the impact of introducing a rebate on the government budget are presented. The modelling provides estimates of the expected savings that would be incurred by government, due to the transfer of some public hospital services into the private hospital system. It also provides estimates of the expected cost of providing the rebate. These savings and costs are used to calculate the net impact of introducing a rebate on the government budget. The modelling not only provides this detail for total government health costs but also for the three main types of health services.

This report also takes the important step of assessing the impacts on the government budget of the health insurance industry going into decline. The potential costs of this to the budget easily outweigh the net costs on a rebate to shore up the health insurance system.

Finally, this report reiterates the important equity and efficiency arguments for a rebate that were outlined above. These arguments need more consideration by Treasury, with its focus hitherto on short-term budget impacts.

⁵ New Zealand Treasury, *The Cost of Subsidising Private Health Insurance*, 2002, page 1

4. Features of the New Zealand and Australian Health Insurance Systems

In both Australia and New Zealand, public and private health funding sources operate within the health system. As background to the modelling conducted in later sections of this report, this section outlines and compares the main features of the New Zealand and Australian private health insurance systems. It begins with a general overview of the systems in New Zealand and Australia. This is followed by a critical review of the Australian system – taking into account the pros and cons of the Australian system, as seen by various observers. Finally, this section relates the lessons learned in the Australian private health insurance system to New Zealand.

4.1 Trans-Tasman Comparison of Health Insurance

This subsection compares the New Zealand and Australian health systems. Table 4.1 provides a summary comparison of the main features of both systems.

Table 4.1
Trans-Tasman Comparison of Health Insurance Systems

Aspect	New Zealand	Australia
health insurance cover 1	Hospital (Major Medical)	Hospital
health insurance cover 2	Hospital and non-hospital (Comprehensive Care)	Non-hospital (“Ancillary”)
age-based premiums	yes	Grandfathered in entry age
rebate rate	nil	30%
private hospitals	elective surgery	most services provided in public hospitals
regulatory environment	health insurance funds set prices subject to Human Rights Act 1993	Services and prices set according to regulator

As mentioned in the introduction, health insurance funds in New Zealand offer two broad types of health insurance cover – Major Medical and Comprehensive Care cover. As shown in Table 4.1, Major Medical cover in New Zealand is similar to ‘hospital’ cover in Australia. As the name suggests, Comprehensive Care cover includes both hospital and non-hospital health services.

Under the Human Rights Act 1993, New Zealand health insurance funds are able to differentiate premiums according to age, gender and other characteristics. Most health insurance funds in New Zealand set premiums that differentiate by age, and some funds also discriminate by gender. This means that health insurance premiums in New Zealand can be set in a broadly actuarially fair manner. For example, by differentiating according to age, health insurance funds can charge older people higher premiums to account for their typically higher use of hospital services, compared to younger people.

In Australia, funds were not permitted to differentiate premiums by age in the past. However, this changed with the introduction of Lifetime Health Cover (LHC) in 2000. Under LHC, premiums are set according to the age at which members take out private health insurance hospital cover. Under LHC, people who join later in life, say aged 55, pay a premium loading factor calculated from their age at entry to health insurance. The loading factor steadily rises from zero for an entry age of 30 to 70 per cent for an entry age of 65.

This loading rewards people who insure while young, recognising that this is a time of relatively low expected hospital benefits. Under grandfathering, those aged over 30 on 15 July 2000 and with continuous cover from that date are exempt from loadings that would otherwise apply. LHC is explained further in subsection 4.2.

LHC clearly differs in two important ways from the New Zealand system of taking age into account in setting premiums. First, in New Zealand, age loadings are based on the insureds current age rather than entry age to insurance. Either approach can be used to achieve premiums that are broadly actuarially fair with respect to age. Second, the age loadings in Australia are regulated while in New Zealand they are deregulated. The practical effect of this is that age loadings in Australia are not as close to achieving actuarial fairness compared with the age loadings in New Zealand.

Age loadings are important in strengthening the market for health insurance. Without age loadings, younger people are likely to shun hospital insurance because of its low expected benefits for them, leaving high claiming older people paying high premiums. This is known as the problem of adverse selection in insurance.

In January 1999, the Australian government introduced a 30 per cent rebate on health insurance premiums. Since then, individuals with health insurance have paid 70 per cent of health insurance premiums, while the Commonwealth Government rebates the remaining 30 per cent. The rebate applies to both hospital and ancillary cover. It has the effect of lowering the net premiums paid by individuals thereby enhancing the attractiveness of health insurance. As a result, health insurance has become attractive to more people. In March 2004, 43 per cent of the population had health insurance hospital cover, up from 30 per cent at the end of 1998 (before the introduction of the rebate and LHC). In New Zealand, there is no rebate for health insurance premiums.

A significant difference between the New Zealand and Australian health systems is the services offered in private hospitals. Most private hospitals in New Zealand only perform elective surgery. Unlike Australia, there are generally no emergency departments, maternity wards or acute surgery in private hospitals in New Zealand. In Australia, the range of services provided in private hospitals is similar to the services provided in public hospitals. This means that in Australia an insured person can generally choose whether to be treated in a public or private hospital. However, in New Zealand, this choice is available only to insured patients needing elective surgery.

A significant difference in terms of the private health systems in New Zealand and Australia is the regulatory environment under which health insurance funds operate. In New Zealand, the Health Funds Association of New Zealand (HFANZ) represents health insurance funds and promulgates industry guidelines. In New Zealand, health insurance funds are able to set premiums subject to the requirements set out in the Human Rights Act 1993. Section 48 of this Act states that health insurers can offer different terms and conditions to people on the basis of sex, disability, and age provided the different treatment is justified. In Australia, health insurance funds are regulated by the Private Health Insurance Administration Council (PHIAC). So, in New Zealand the health insurance industry is deregulated, while in Australia the industry is regulated by PHIAC.

The above features of the New Zealand and Australian health systems provide a useful background for the modelling conducted in later sections of this report. In the next subsection, a more thorough analysis of the pros and cons of the Australian health system are analysed.

4.2 Analysis of the Australian Health Insurance System

In Australia over the last few years, the Commonwealth Government has introduced a series of private health insurance policy initiatives. Since the introduction of these policies, health insurance coverage in Australia has increased significantly. The recent policy initiatives are outlined in the Table 4.2 below.

Table 4.2
Summary of Recent Health Insurance Policy Initiatives in Australia

Policy Initiative	Description	Introduction
Medicare Levy Surcharge	A levy 1% of taxable income for high income earners who do not have private hospital insurance.*	1 July 1997
Lifetime Health Cover (LHC)	Individuals who join health insurance after 15 July 2000 and are aged 30 to 65, pay a premium loading factor calculated from their age at entry to health insurance.	15 July 2000**
30% rebate on premiums	Commonwealth Government rebates 30 per cent of all private health insurance premiums.	1 January 1999

notes:

*"High income earners" refers to singles earning more than \$50,000 per annum and families earning more than \$100,000 per annum.

** LHC was originally to be effective from 1 July 2000 but this was extended to 15 July 2000 to give private health insurance funds sufficient time to process a flood of new members wishing to join ahead of the introduction of LHC.

The Medicare Levy Surcharge (hereafter "surcharge") was introduced to encourage high income earners to purchase private health insurance. High income earners without health insurance cover pay the surcharge of 1 per cent of their taxable income. This surcharge is in addition to a Medicare Levy which is paid by all taxpayers. (This levy is an additional 1.5 per cent of taxable income.)

LHC rewards early entry into health insurance with lower lifetime premiums than for later entry, and so recognises that younger people make less use of hospitals than older people. Specifically, individuals who join health insurance after 15 July 2000 and are aged 30 to 65, pay a premium loading factor calculated from their age at entry to health insurance. The loading factor steadily rises from zero for an entry age of 30 to 70 per cent for an entry age of 65. For example, an individual who enters health insurance at age 55 pays a loading of 50 per cent indefinitely. This loading takes into account that the person was uninsured while aged 30-54, a time of relatively low expected hospital benefits. LHC does not apply to ancillary cover.

The effect of LHC is to make the market for health insurance more actuarially fair. Over the long-term, LHC will greatly reduce the extent to which premiums of young persons are used to cross-subsidise the higher benefits of older persons. This makes health insurance more attractive for young people than has been the case in the past. However, the entry age loadings are regulated and fall a little short of true actuarial fairness.

As mentioned in subsection 4.1, the Australian government introduced a 30 per cent rebate on health insurance premiums in 1999. This has lowering the net premiums paid by individuals and therefore enhanced the attractiveness of health insurance. Health insurance coverage in Australia increased as a result of the introduction of the rebate and other

government policies directed at the health insurance industry. The rebate takes the form of a government rebate. Although the amount of the rebate (30 per cent of the premium) can be received in different ways, it is most commonly deducted from the total premium at the point of purchase.

By providing a rebate on health insurance premiums, the Australian Government recognises that insured people are paying for part of their own health costs that would otherwise be paid mostly by the government. The rebate is therefore supported on fairness grounds because it represents a relatively small contribution to the health costs of an insured person compared to the larger contribution already made by the government to the equivalent health costs of an uninsured person. It is also in the Australian government's own interest to ensure the viability of the health insurance industry because if the health insurance industry were to collapse the government would incur a substantial increase in health outlays on persons who were previously insured.

Various observers have proposed alternative Australian government policies towards health insurance. Specifically, they have proposed winding back the 30 per cent rebate on health insurance through a range of methods. ACOSS (2002) has proposed abolishing the rebate with respect to ancillary cover, Smith (2001) has suggested replacing the 30 per cent rebate with a fixed dollar rebate, and Dawkins (2004) has proposed means testing eligibility for the rebate.

These observers have generally implied that the direct savings from reducing the health insurance rebate would flow through in full to the Budget bottom line. However, to the extent that these proposals lead to lower health insurance coverage, funding gaps will be left by the disappearance of health insurance benefits for persons who drop health insurance cover. The government would fill its share of this funding gap by increasing government health outlays, offsetting part of its savings from winding back the 30 per cent rebate. Further, all of these proposals reduce the attractiveness of health insurance, and so involve a risk that the health insurance system will weaken. As already mentioned, the "Easing the Pressure" (2004) study found that if the health insurance system were to collapse, government budgets would come under increased pressure.

4.3 Relevance for the New Zealand Health Insurance System

With health insurance coverage in New Zealand now at about one-third of the population, it is similar to the level that prevailed in Australia before the introduction of the 30 per cent rebate and LHC. Introducing a health insurance premium rebate in New Zealand would make health insurance premiums more affordable for New Zealanders. Using the Australian experience as a guide, the introduction of a rebate will boost health insurance coverage. As more people take out health insurance and are treated in private hospitals, the pressure on public hospitals will ease. Alternatively, if health insurance cover is allowed to go into decline, the viability of the health insurance system may be in question. In that case the New Zealand government would face the challenge of funding a significant share of health services previously funded by health insurance benefits.

Even though the New Zealand government would incur the cost of providing the rebate, it would also reap the benefits of a transfer of public patients into the private health system. This would mean shorter queues in the public hospital system – an issue of importance in New Zealand and Australia.

The “Easing the Pressure” (2004) study found that in Australia the rebate on health insurance premiums reduces the burden on the public health system, thereby reducing government health outlays. This outcome is likely to apply not only to Australia, but to any country that operates a private health system that substitutes some services provided in the public health system – such as New Zealand.

5. Modelling Approach

Econtech has constructed a purpose-built model to analyse the impact of subsidising health insurance in New Zealand. This model is called the Health Insurance Health Costs (HIHC) model. A range of scenarios have been simulated using this model. The HIHC model does not make projections but rather models the impact of counter-factual scenarios in 2001-02. Specifically, it estimates how different assumptions about the policy environment would impact on the health insurance industry and funding of the health system. The model estimates distinguish health costs by health expenditure categories and source of funding.

Prior to modelling, Econtech conducted a detailed examination of the workings of New Zealand's health system. This research was conducted with an emphasis on health insurance. This research enabled us to gain insight into the workings of New Zealand's health system. This provided a sound basis to conduct the modelling. During our research, Econtech collected a range of data on New Zealand's health system which is used in the modelling. This data includes:

- industry-wide health insurance premiums, benefits and coverage data from HFANZ;
- premiums data from Southern Cross; and
- industry-wide health expenditure data by funding source and health expenditure category from the Ministry of Health (MoH).

As mentioned, under two of the alternative scenarios, a rebate on health insurance premiums is introduced. A similar proposal was recently analysed by the New Zealand Institute of Economic Research (NZIER) for HFANZ. The March 2001 an NZIER report provided estimates of the effects on health insurance coverage and the cost of claims of a proposed 33 per cent rebate on health insurance premiums. As discussed in section 3, the Treasury responded to this report in February 2002 with some simple modelling of the likely impacts on the Government Budget to argue against the proposal.

The HIHC model used in this study answers the Treasury criticism of the NZIER report by explicitly modelling budget impacts. More specifically, it improves on the earlier analysis in two key respects.

- First, the modelling is extended to cover the effects on health expenditures across the health system, not just health insurance coverage and benefits. Importantly, it includes detailed modelling of the impacts on government health expenditures. Savings in government health expenditures from higher coverage of health insurance are offset against the budget cost of the rebate.
- Second, the modelling of health insurance coverage, benefits and premiums is upgraded to distinguish between both types of cover, both genders and different age groups, as in the "Easing the Pressure" (2004) report. This provides a rigorous and convincing analysis of health insurance. Coverage decisions for each group are modelled to depend on the balance between expected benefits and costs, where the proposed rebate would have the effect of reducing costs.

The outcome of the modelling includes estimates of the effects on the following variables for each scenario:

- government health expenditures, including outlays on the proposed health insurance rebate and resulting savings in other government health expenditures;
- health insurance benefits;

- private non-health insurance health expenditures;
- health insurance coverage; and
- health insurance premiums.

Major Medical insurance covers hospital services, while Comprehensive Care includes cover for hospital and non-hospital services. For internal modelling purposes, it is more appropriate to model demand for hospital and non-hospital cover separately. So Comprehensive Cover has been treated as two separate insurance policies, one for hospital cover, and one for non-hospital cover. The hospital cover component is combined with the hospital cover provided by Major Medical. However, after the model is run, the coverage outcomes are converted back to be presented in the familiar form of Major Medical and Comprehensive Care coverage.

Hospital⁶ and non-hospital coverage are modelled separately because insured people chose cover based on the type of health service for which they want cover. For example, people wanting to be covered for hospital services choose Major Medical cover, while people that want both hospital and non-hospital cover chose Comprehensive Care cover. The model assumes that no one takes out health insurance cover for non-hospital health services alone. This modelling approach becomes important in scenarios where policy changes are directed at only one type of health service (i.e. hospital services) rather than health insurance in general. In such scenarios, there is likely to be some switching between cover types. This is taken into account by modelling hospital and non-hospital cover separately.

The model uses data for the year ended June 30, 2002. This is because the most recent data published by MoH (which was used as a source of health expenditure data) was for 2001-02. This data was published in April 2004.

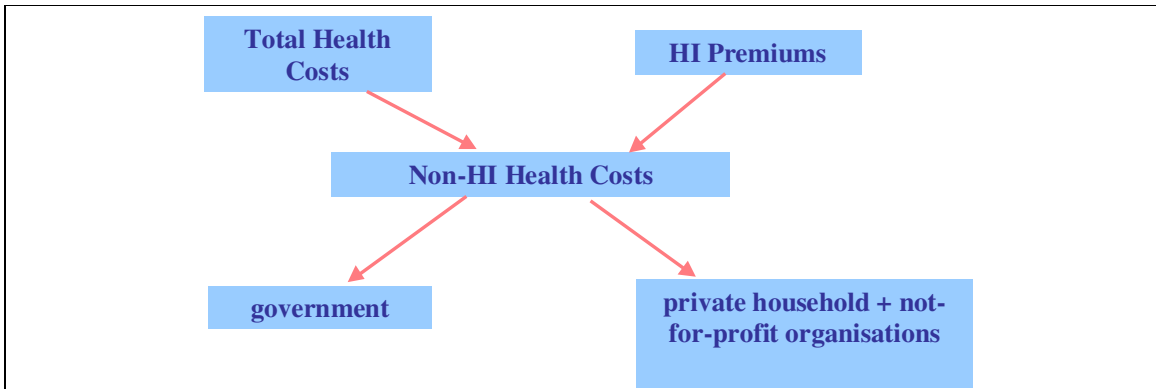
The HIHC model consists of two modules. These are the Health Costs (HC) module, which is concerned with modelling total health costs, and the Health Insurance (HI) module, which is concerned with modelling health insurance funding, which is a significant source of funding of total health costs. These two modules are described in more detail in Appendix A to this report. Here the focus is on the overall workings of the HIHC model. The workings of the model follow the process depicted in Figure 5.1.

The HC module assumes that demand, or the total amount spent, on each type of health service in 2001-02 is unchanged under each scenario. This is because it is assumed that total health spending would not change due to changes in the structure of the health system. While the amount spent by each funding source is likely to vary, total expenditure on each health service is not expected to change.

The HI module estimates the amount of spending on each type of health service that is funded by health insurance funds. This depends on separate estimates for Major Medical and Comprehensive Care coverage by gender by age, as well as associated estimates of benefits. The modelling of coverage by gender by age involves a comparison of effective premiums with benefits.

⁶ For modelling purposes, hospital cover is assumed to include specialist and diagnostic tests related to elective surgery, which is covered by Major Medical insurance.

Figure 5.1
Structure of HHC Model



note: “private households + not-for-profit organisations” is referred to as “non-health insurance private” in the rest of this report and modelling results.

Having determined the level of health insurance premiums, these are deducted from total demand for each type of health service to determine the balance of health costs to be funded from non-health insurance sources. Finally, the HC module allocates the balance of health costs across the two non-health insurance funding sources shown in Figure 5.1, based on 2001-02 relativities. These relativities are shown in Table 5.1 below. It shows the proportion of non-health insurance spending for each health expenditure category.

Table 5.1
Non- health insurance Funding Split, 2001-02

Category	Public	Non-Health Insurance Private
Institutional care	96%	4%
Community care	65%	35%
Other health costs	99%	1%

source: MoH

note: these health expenditure categories are discussed later in this section

This final step assumes that if health insurance no longer funds health services, the other funding sources will completely fill the gap (based on 2001-02 funding relativities for each type of health service). This is likely to occur for the most part. However, there may be some services currently funded by health insurance funds that would not be provided to the same extent if health insurance disappeared. However, it would be an error to treat the loss of such health services as a saving because the benefit to consumers of these services would be lost. Given this consideration, the simplifying assumption is made that other funding sources completely fill the gaps left by health insurance.

The approach shown in Figure 5.1 is applied separately for each type of health service. The HHC model distinguishes three categories of health services, as shown in the right-hand column of Table 5.2. These are an aggregated version of the health expenditure categories used by the New Zealand Ministry of Health (MoH), which are shown in the left-hand column of Table 5.2.

Table 5.2
Health Service Categories

MoH categories	HIHC categories
Total Institutional Care - public institutions (a) - private institutions (a)	Institutional Care
Community Care - personal health (b) - disability support (c)	Community Care
Public health services Teaching and research Ministry of Health	Other health costs

Notes:

- (a) This includes surgical and medical, mental health, dental, maternity and other health services.
- (b) This includes General Practitioner, midwife, specialist, referral services for diagnostic, physiotherapy, laboratory and other health services, dental, mental health, medicaments and other health services.
- (c) This includes age-related disability, psychiatric disability, intellectual disability and physical/sensory disability.

Institutional care health services (in Table 5.2 above) are covered under both the Major Medical and Comprehensive Care policies. In addition, some Community Care health services are covered under the Comprehensive Care policy. "Other health costs" are funded by non-health insurance sources and therefore are not included in either Major Medical or Comprehensive Care cover.

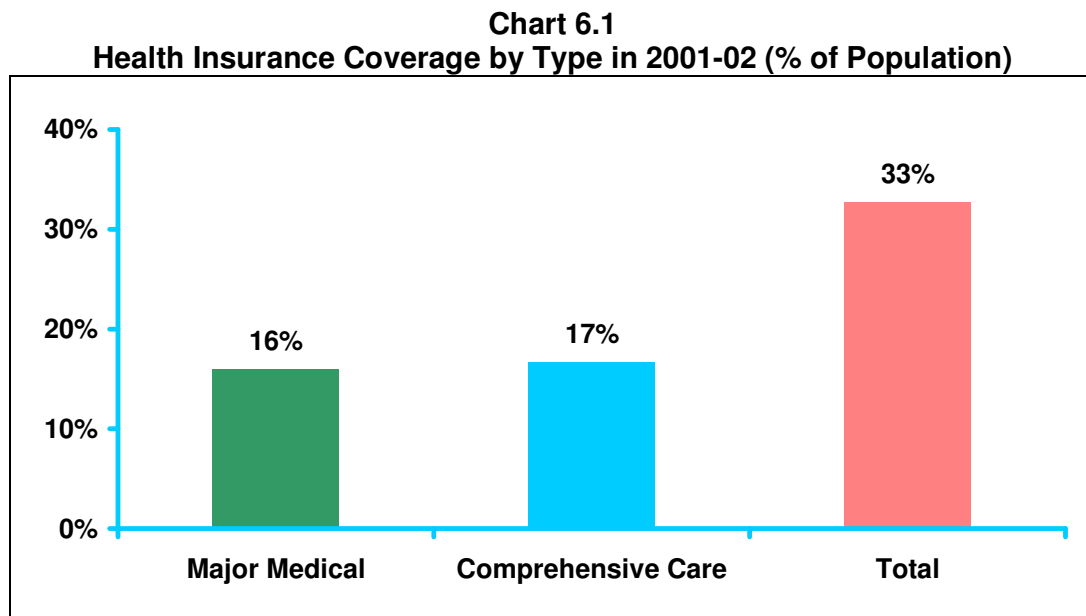
As noted above, the HC and HI modules are described in more detail in Appendix A to this report.

6. Baseline Scenario

As explained in the introduction, the HIHC model was used in this report to generate different health insurance scenarios. The baseline (or “business as usual / no change”) scenario is based on existing policy arrangements and outcomes in the health sector in 2001-02. The baseline scenario serves as a point of reference for the remaining scenarios – the results of those scenarios are often expressed as deviations from the “baseline” scenario. The key features of the baseline scenario are discussed in this section. Results of the alternative scenarios are then discussed in the following sections. The Attachment contains detailed tables of results.

6.1 Health Insurance Outcomes

Chart 6.1 shows Major Medical, Comprehensive Care and total health insurance coverage in 2001-02, as a percentage of the population. The chart shows that 33 per cent of the population were covered by some form of health insurance at the year ended June 30, 2002.



source: HIHC model

The chart shows that health insurance coverage is evenly split between Major Medical and Comprehensive Care cover. In June 2002, 16 per cent of the population was covered by Major Medical insurance and 17 per cent were covered by Comprehensive Care insurance. Overall, 33 per cent of the population had some form of health insurance cover. This level of health insurance coverage is similar to the level of coverage that prevailed in Australia before the 30 per cent rebate and LHC were introduced.

The table below summarises health insurance coverage, benefits and premiums in 2001-02. It shows that annual benefits and premiums per person were lower for Major Medical cover than Comprehensive Care cover. This is because Major Medical cover includes only surgery related hospital services, whereas Comprehensive Care cover includes a wide range of both hospital and non-hospital health services.

Table 6.1
Summary of Health Insurance Coverage, Premiums and Benefits

	Baseline
Health Insurance Coverage (% of population)	
Major Medical	16%
Comprehensive Care	17%
Premiums per insured person (\$ per year)	
Major Medical	297
Comprehensive Care	542
Benefits per insured person (\$ per year)	
Major Medical	241
Comprehensive Care	462

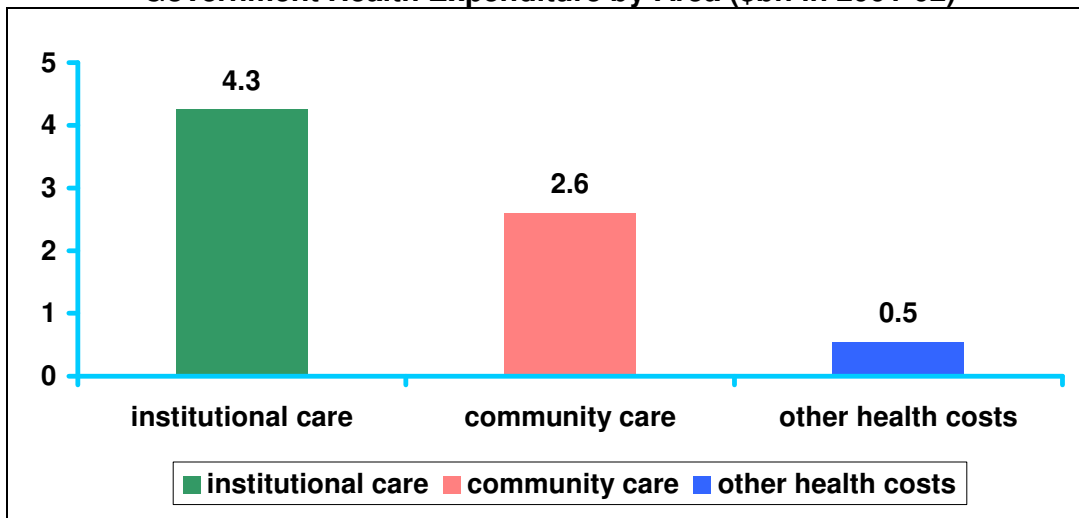
source: HIHC model

6.2 Health Expenditure

In the baseline scenario, health costs are modelled for 2001-02 assuming that existing policies and arrangements are in place. Chart 6.2 shows the level of government health expenditure for each health expenditure category in 2001-02.

The chart shows that government health expenditure on institutional care (hospital) accounted for more than half of total government health expenditure. Community care services include General Practitioners, referral services (such as physiotherapy), disability support and other non-hospital health services. Community care services accounted for about 35 per cent of total government health costs.

Chart 6.2
Government Health Expenditure by Area (\$bn in 2001-02)

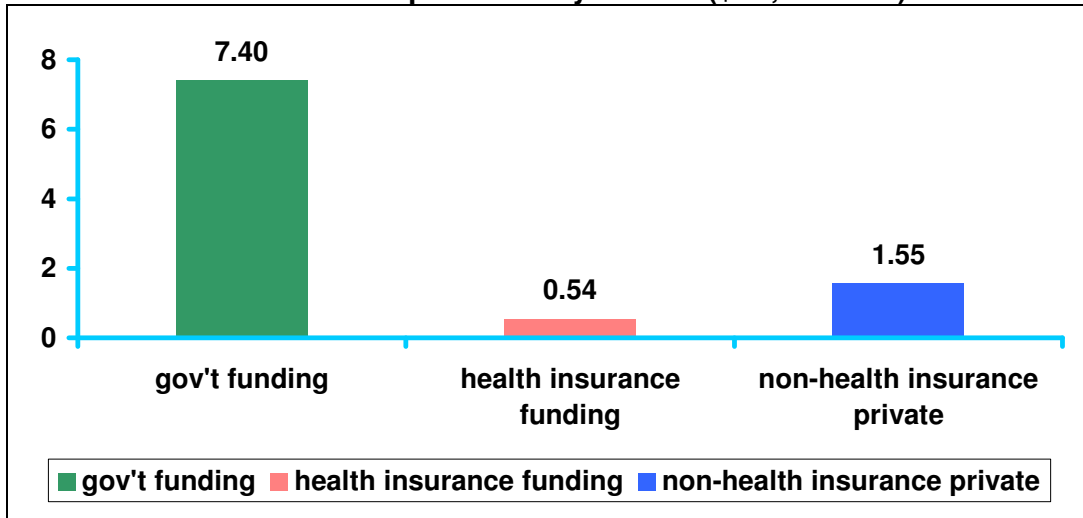


source: HIHC model

note: In "other", the chart combines three separate categories of health services, namely public health services, teaching and research, and Ministry of Health costs.

Chart 6.3 provides an alternative breakdown of health expenditure, this time according to funder. The chart shows that the government is the main source of health funding in New Zealand. Specifically, in 2001-02, government health spending accounted for 78 per cent of total health expenditure. Health insurance funds accounted for 6 per cent, while non-health insurance private health funding sources accounted for the remaining 16 per cent.

Chart 6.3
Total Health Expenditure by Source (\$bn, 2001-02)



source: HIHC model

note: "non-health insurance private" includes private household and not-for-profit organisations.

The level of health expenditure among funders changes when the structure of the health system changes. The next section discusses the impact of improving support for the private health system.

7. “30 per cent Rebate” Scenario

In this section the impact of introducing a 30 per cent rebate on health insurance premiums is analysed. This section analyses the results of modelling a hypothetical situation (in 2001-02) where a health insurance premium rebate is introduced. This “30 per cent rebate” scenario is taken from Australian arrangements, where the rebate rate is also 30 per cent. The results of this scenario can therefore be compared to the actual impact of the 30 per cent rebate in Australia. It is assumed that the 30 per cent premium rebate is applied to both Major Medical and Comprehensive Care cover.

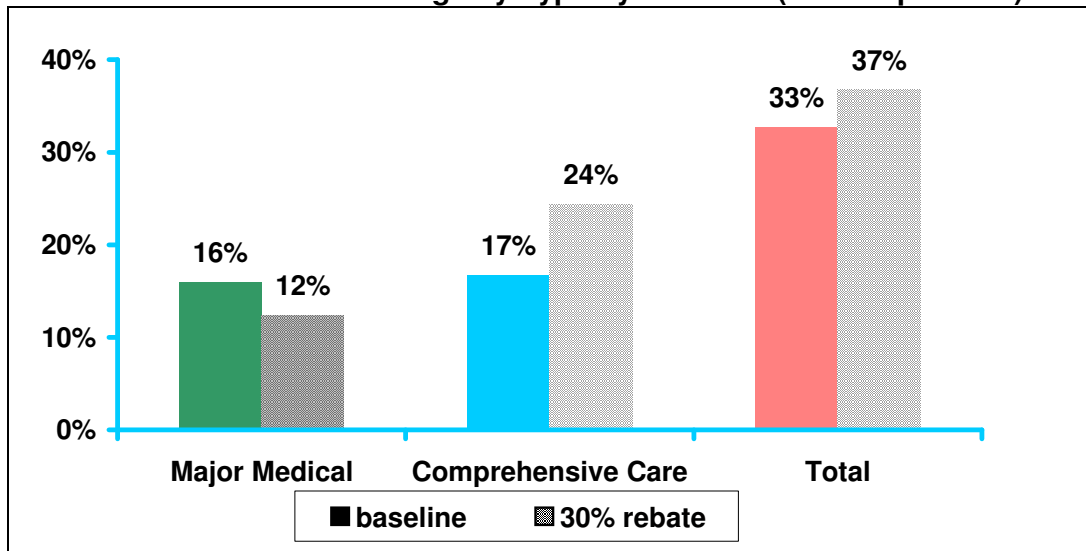
The rebate would take the form of a government rebate, as it does in Australia. In Australia, the rebate can be received in different ways but it is most commonly deducted from the total premium at the point of purchase. It is assumed that the rebate for health insurance premiums in New Zealand would also be deducted from premiums at the point of purchase.

Subsection 7.1 analyses the impact of a 30 per cent rebate on the health insurance industry. This is followed by an analysis of the impact on government health outlays in subsection 7.2. Finally, in subsection 7.3, these results are compared to the findings of the “Easing the Pressure” (2004) study which relates to the impact of a 30 per cent rebate on health insurance premiums in Australia.

7.1 Health Insurance Outcomes

With a 30 per cent rebate in place, health insurance premiums become more affordable. This makes health insurance more attractive, leading to an increase in the percentage of the population with health insurance cover. Chart 7.1 below shows that with a 30 per cent rebate, total health insurance coverage is expected to be 4 percentage points higher than under the baseline scenario, at 37 per cent. This level of coverage helps to secure the future of the health insurance industry.

Chart 7.1
Health Insurance Coverage by Type by Scenario (% of Population)



source: HIHC model

The 30 per cent rebate also encourages some people to upgrade their cover from Major Medical to Comprehensive Care. Coverage of Comprehensive Care rises from 17 to 24 per cent of the population, as seen in Chart 7.1.

The table below shows health insurance coverage, benefits and premiums under the “baseline” and “30 per cent rebate” scenarios. It also compares the difference in health insurance coverage, benefits and premiums with and without the 30 per cent rebate.

Table 7.1
Summary of Health Insurance Coverage, Premiums and Benefits

	Baseline	30% rebate	change
Health Insurance Coverage (% of population)			
Major Medical	16%	12%	-4%
Comprehensive Care	17%	24%	8%
Premiums per insured person (\$ per year)			
Major Medical	297	227	-70
Comprehensive Care	542	378	-164
Benefits per insured person (\$ per year)			
Major Medical	241	242	1
Comprehensive Care	462	460	-2

source: HHC model

note: premiums per insured person are net of rebate

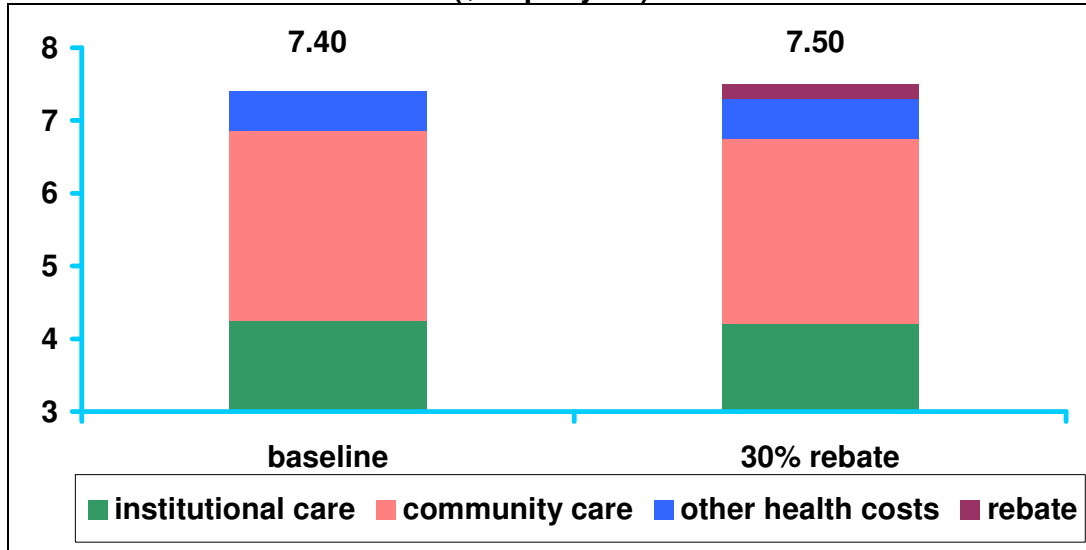
Table 7.1 shows that with a 30 per cent rebate, Major Medical and Comprehensive Care premiums would be lower than under the baseline scenario, reflecting the cost saving effect of the rebate. Benefits per person are expected to remain similar under both scenarios.

7.2 Health Expenditure

As shown in subsection 7.1, the introduction of a rebate on health insurance premiums would cause an increase in health insurance coverage. This means that some health related services that would have been provided in the public health system are transferred to the private health system. This eases the burden on the public health system. The extent to which the increase in health insurance funding replaces government health expenditures depends on the importance of government as a funder of the health services in question.

The overall impacts of the 30 per cent rebate on the government budget are summarised in Chart 7.2. With more health services covered by health insurance benefits, government outlays on institutional and community care costs would be lower than under the baseline scenario (see Chart 7.2). On the other hand, this is more than outweighed by the cost of the rebate. So Chart 7.2 shows an increase in annual government health costs from \$7.40 billion to \$7.50 billion.

Chart 7.2
Government Health Expenditure by Area by Scenario
 (\$bn per year)

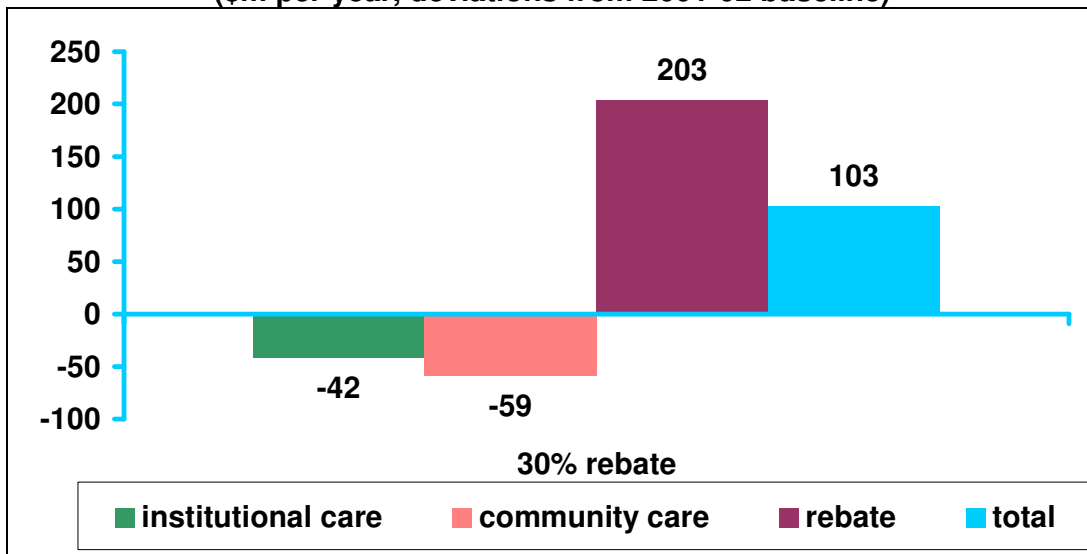


source: HIHC model

note: In “other health costs”, the chart combines three separate categories of health services, namely public health services, teaching and research, and Ministry of Health costs

This increase in government health costs of about \$100 million is considered from another angle in Chart 7.3, which presents the differences in each cost component between the 30 per cent rebate scenario and the baseline scenario. It is estimated that the government would incur an annual saving of \$42 million for institutional care and \$59 million for community care services from increased funding of health costs from health insurance benefits.

Chart 7.3
Government Health Expenditure by Area
 (\$m per year, deviations from 2001-02 baseline)



source: HIHC model

notes: see notes to Chart 7.2

On the other hand, the gross annual cost of the rebate is estimated at \$203 million in 2001-02. So the 30 per cent rebate would mean a net increase in annual government health costs of \$103 million, as the rebate cost is partly offset by the savings in government outlays on institutional and community care.

This short-term budget analysis provides only part of the picture of the likely effects of a 30 per cent rebate. Over the long-term, the introduction of a rebate, by boosting health insurance coverage to a healthy level, would help to secure the future of the health insurance industry. The long-term issues that this raises are analysed in section 9.

7.3 Comparison with other Studies

In this subsection, the estimated impact of a 30 per cent rebate in New Zealand is compared with the results from other recent studies. Specifically, the impact of the 30 per cent rebate in Australia was recently assessed in the “Easing the Pressure” (2004) report. The NZIER (2001) also conducted a recent study analysing the impact of introducing a 33 per cent health insurance rebate in New Zealand. The results from both of these studies are compared with the corresponding results in this report (where it is also assumed that a 30 per cent rebate is applied to the full range of health services covered by health insurance).

The modelled increase in health insurance coverage of 4 percentage points (from 33 to 37 per cent) from a 30 per cent rebate is broadly consistent with other Australian and New Zealand evidence. The study by NZIER (2001) found that the introduction of a 33 per cent rebate would mean an additional 245,000 lives would be covered by health insurance. This equates to a 6 percentage points increase in health insurance coverage in 2000. So the NZIER estimated a somewhat higher increase in coverage but this was for a slightly higher rate of rebate.

The “Easing the Pressure” (2004) study for Australia found that the 30 per cent rebate and other health insurance policies (notably Lifetime Health Cover) raised hospital coverage in Australia from 30 per cent at end-1998 to 43 per cent in 2004. The bigger impact on health insurance cover in Australia compared to New Zealand results from the additional impact of the other health insurance policies that were introduced. So the coverage effects in this study are broadly consistent with the earlier NZIER and “Easing the Pressure” studies.

8. “Rebate on Hospital Cover Only” Scenario

The previous section analysed the impact of introducing a 30 per cent rebate on both types of health insurance cover – Major Medical and Comprehensive Care. In this section, the impact of introducing a 30 per cent rebate on hospital related services only is analysed. That is, health insurance premiums for non-hospital services are not subject to the rebate.

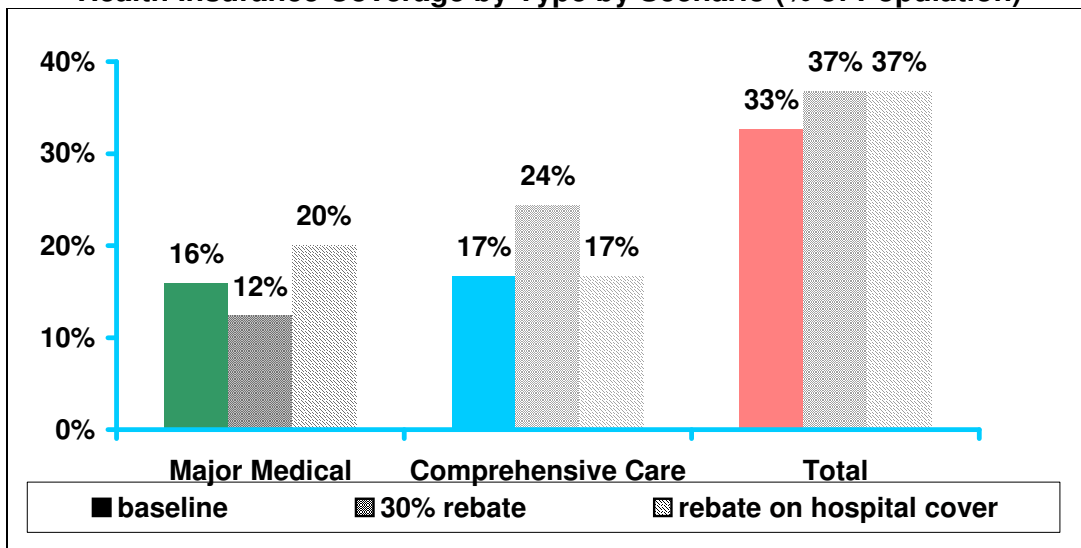
This restricted form of the rebate is considered because in Australia there is a debate as to whether the 30 per cent rebate, which currently applies to both hospital and ancillary cover, should be restricted to hospital cover only. So in a “rebate on hospital cover only” scenario, the 30 per cent rebate is restricted to hospital cover (including specialist visits and diagnostic testing that are elective surgery related).

Private hospital elective surgery services mostly directly replace public hospital elective surgery services. Therefore, by using a rebate to encourage the expansion of private hospital services, the government directly saves on some public hospital services. However, a rebate on non-hospital cover is less effective in generating budget savings because some non-hospital services are not subject to government funding. In anticipation of similar debate occurring in New Zealand, this scenario models a 30 per cent rebate on hospital cover only. This implies a full rebate rate of 30 per cent for Major Medical cover, but a lower rebate rate of 16 per cent on Comprehensive Care, because it includes cover for non-hospital services.

8.1 Health Insurance Outcomes

Restricting the rebate to hospital only cover results in the same boost in health insurance coverage to 37 per cent, because hospital coverage remains as attractive as under the unrestricted rebate scenario. However, compared with the unrestricted rebate scenario, this restricted rebate proposal results in some people changing their cover from the partly-subsidised Comprehensive Care to the fully-subsidised Major Medical, as seen in Chart 8.1.

Chart 8.1
Health Insurance Coverage by Type by Scenario (% of Population)



source: HIHC model

Table 8.1 below shows health insurance coverage, premiums and benefits under the “baseline” and “rebate on hospital cover only” scenarios. It also shows the difference between these two scenarios. The table shows that annual premiums per person (net of rebate) are expected to be lower with the rebate than under the baseline scenario. The reduction in premiums reflects the respective premium subsidies on each type of health insurance cover.

Table 8.1
Summary of Health Insurance Coverage, Premiums and Benefits

	baseline	rebate on hospital cover	change
Health Insurance Coverage (% of population)			
Major Medical	16%	20%	4%
Comprehensive Care	17%	17%	0%
Premiums per insured person (\$ per year)			
Major Medical	297	207	-89
Comprehensive Care	542	467	-76
Benefits per insured person (\$ per year)			
Major Medical	241	242	0
Comprehensive Care	462	462	0

source: HIHC model

note: premiums per insured person are net of rebate

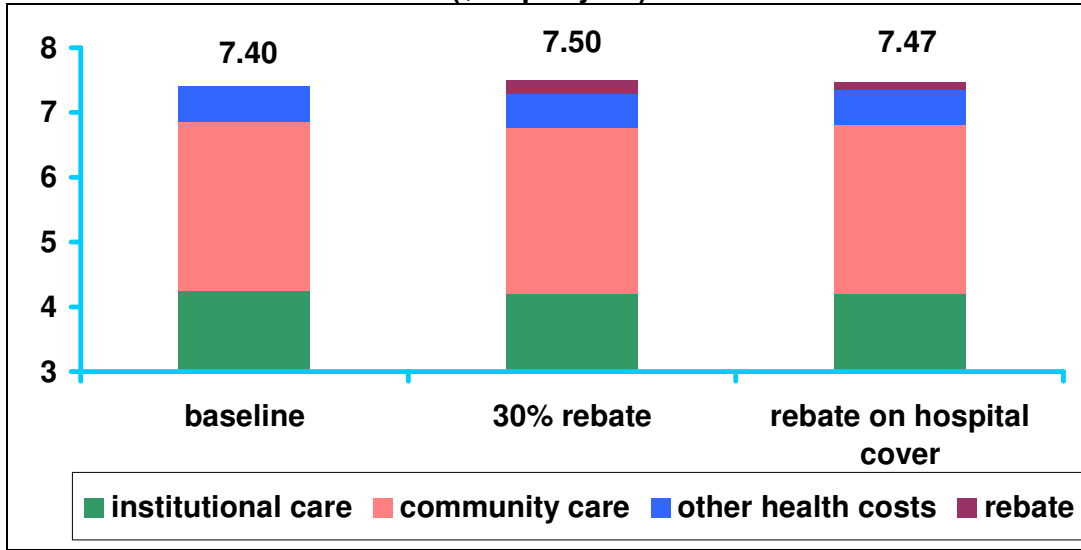
8.2 Health Expenditure

The HIHC model takes into account both the cost and benefit of a hospital only rebate. That is, it takes into account cost to the government of providing the rebate as well as the benefit of eased pressure on the public hospital system.

Chart 8.2 shows government health expenditures under each of the scenarios that have been modelled so far. It shows that the restricted rebate results in a lower increase in total government expenditure than the unrestricted rebate. This increase in government health costs is considered from another angle in Chart 7.3, which presents the differences in each cost component between the two 30 per cent rebate scenarios and the baseline scenario.

Under the “rebate on hospital cover only” scenario, the annual gross cost of the rebate to the budget is estimated at \$116 million. Part of this cost is offset by savings in institutional care (\$42 million) because some hospital services are transferred from public hospitals to private hospitals. So the restricted rebate would mean a net increase in annual government health costs of \$74 million, as the rebate cost of \$116 million is partly offset by the savings in government outlays on institutional care. Overall, restricting the rebate to hospital cover lowers the net annual cost to the budget from \$103 million to \$74 million.

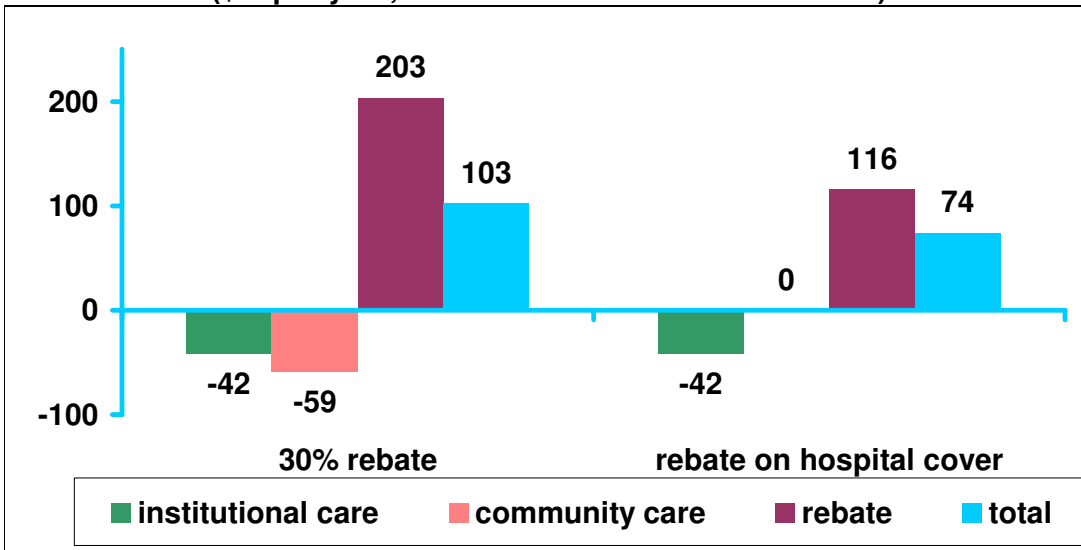
Chart 8.2
Government Health Expenditure by Area by Scenario
 (\$bn per year)



source: HIHC model

note: In “other health costs”, the chart combines three separate categories of health services, namely public health services, teaching and research, and Ministry of Health costs.

Chart 8.3
Government Health Expenditure by Area by Scenario
 (\$m per year, deviations from 2001-02 baseline)



source: HIHC model

notes: see notes to Chart 8.2.

The viability of the health insurance system is more certain under the two rebate scenarios because health insurance coverage rates are at healthier levels than the baseline scenario.

9. “No Health Insurance” Scenario

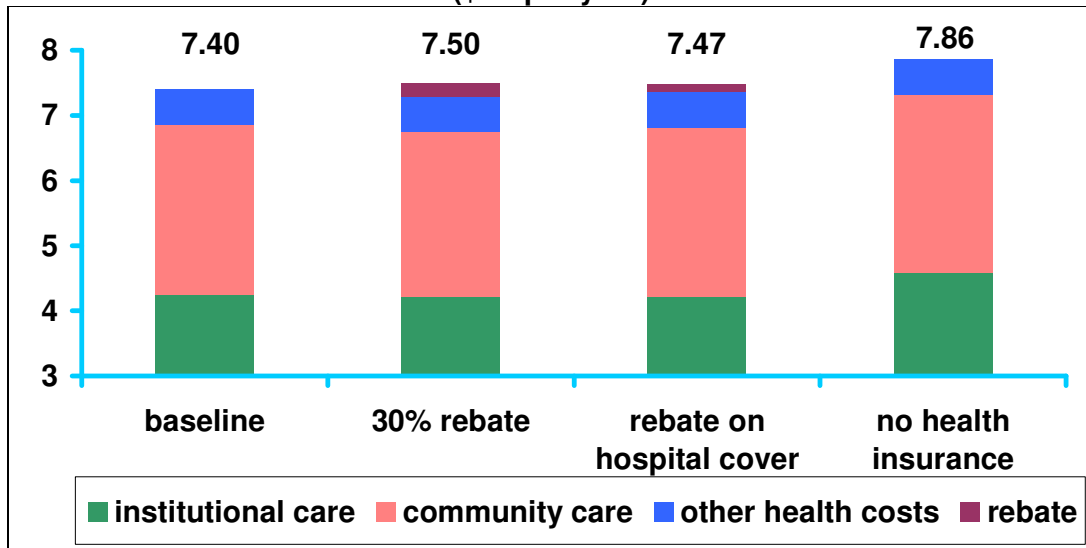
As noted in section 2, without government support, rising health costs could mean that health insurance coverage halves over the next decade. To investigate the possible implications of this declining trend in coverage, the final scenario considers the extreme case where the health insurance industry declines to the point where it is no longer viable (“no health insurance” scenario).

9.1 Effect of Health Insurance Collapse on Government Budget

Under a scenario in which there is no private health system, health insurance funds are no longer a source of health funding, leaving gaps in the funding of institutional and community care health services. In the HHC model, these funding gaps are filled by the other funding sources, according to their relativities in non-health insurance funding for each type of health service in 2001-02. For example, the institutional (hospital) costs previously funded by health insurance are taken up mainly by government (96 per cent) and only partly by the non-health insurance private sector. Interestingly, community care costs previously funded by health insurance are also mainly taken up by government (65 per cent). The overall effect of these funding shifts is that government replacement spending fills a substantial part of the health funding gap left by the disappearance of health insurance funding.

Chart 9.1 shows the effects of cost shifting to government under each of the scenarios including the “no health insurance” scenario. The government already faces a large health outlay of \$7.40 billion. If health insurance were to disappear, this outlay would be much higher at \$7.86 billion. This represents a rise of \$461 million. The additional health outlays of \$461 million would be in areas vacated by health insurance funding, especially institutional care.

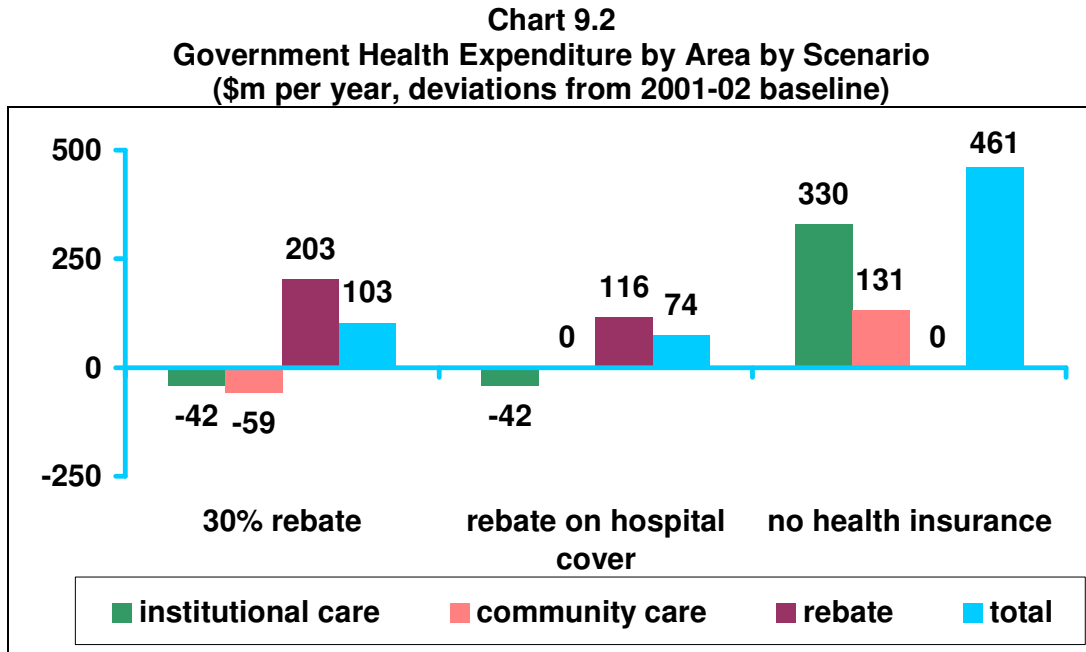
Chart 9.1
Government Health Expenditure by Area by Scenario
((\$bn per year))



source: HHC model

note: In “other health costs”, the chart combines three separate categories of health services, namely public health services, teaching and research, and Ministry of Health costs

Chart 9.2 shows the net impact on government health costs under each of the alternative scenarios including the “no health insurance” scenario. Each of the alternative scenarios is compared to the “baseline” scenario. Of course, under the baseline and “no health insurance” scenario there is no rebate.



source: HIHC model

notes: see notes to Chart 9.1

Chart 9.2 clearly shows that the disappearance of health insurance causes a significant jump in government health costs. This is mainly because the disappearance of the health insurance industry would put significant pressure on the public hospital system. Without the health insurance industry, the net addition to government health outlays is estimated at \$461 million in 2001-02. This is made up of an additional \$330 million in institutional care costs and an additional \$131 million in community care costs.

This annual net cost is more than four times the annual net cost of introducing a rebate on all health insurance services (\$103 million) and more than six times the annual cost of introducing a rebate for only hospital related services (\$74 million). So while the government would incur a small net cost by introducing a rebate, it would also secure the future of the health insurance industry and may save itself from paying a much higher annual net cost in the future of up to \$461 million if the health insurance industry were to go into decline.

The collapse of the health insurance industry may represent an extreme scenario. However, it is quite conceivable that without government support in the form of a rebate, rising health costs could mean that coverage halves over the next decade, as suggested above. This would still lead to a major blow-out in annual government health outlays of \$230 million, half of the blow-out associated with a complete collapse of the industry.

9.2 Health Insurance Rebate and Fairness

The budget impacts lead to an important point about fairness. The net addition to government outlays (under the “no health insurance” scenario) arises because governments spend more on health services for the uninsured than the insured. So when people drop health insurance cover, the government experiences a net increase in its outlays.

In fact, for every \$1 the government spends in rebate for an insured person, it spends \$2.76 on the same health services of an uninsured person. Yet insured and uninsured persons contribute on the same basis to funding government health outlays through taxation. These figures are derived by comparing total government health cost without the health insurance industry to the total government health costs with a 30 per cent health insurance rebate in place.

So the 30 per cent rebate is fair as it represents only a relatively modest government contribution to the health costs of the insured. This conclusion is almost identical to that reached in “Easing the Pressure” (2004), which found that without health insurance the Australian government would face an enormous jump in health outlays. The report found that for every \$1 the Australian government pays for an insured person, it spends \$2 in meeting the health needs of an uninsured person.

10. Conclusion

So introducing a 30 per cent rebate has several motivations.

- It would boost coverage from 33 to 37 per cent, helping to secure the future of the health insurance industry.
- The annual net cost to government would be at a relatively small at \$74 million for a hospital only rebate. By comparison, the annual budget cost of the health insurance system going into decline is up to \$461 million.
- A rebate would make the health system fairer because the government would be spending \$1 on the rebate for an insured person for every \$2.76 it spends on the same health services of an uninsured person.
- Finally, New Zealanders would continue to be able to choose health insurance – which is something that many people clearly value.

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Appendix: Health Insurance Health Costs (HIHC) Model

A1. Introduction

Section five of the main report provides an overall perspective on the HIHC model. This Appendix describes in more detail the two modules that make up the HIHC model. These are the Health Costs (HC) module and the Health Insurance (HI) module. The HIHC model does not make projections but rather models the impact of counter-factual scenarios. Specifically, it estimates how different assumptions about the policy environment impact on the health insurance industry.

A2. Health Costs Module

The overall function of the HC module is to estimate spending on three categories of health expenditure according to three funding sources. The three categories of health services and the three funding sources are identified in section five of the main report. The data on spending on health services by funding source is from the New Zealand Ministry of Health (MoH).

HC Module Data Sources

Health Funds Association of New Zealand (HFANZ) health insurance health funding by cover type by age by gender
New Zealand Statistics population by gender by age: June 30 2002
Ministry of Health health funding by source by expenditure category

The HC module is used to model total health costs, and to allocate non-health insurance funded health costs between the other two funding sources. These three steps are now described in turn in more detail.

A2.1 Total Health Costs

The first step in the modelling process is to fix demand for health services for each of the three types of services at the 2001-02 level.

A2.2 Funding of non-health insurance Health Costs

After the first step determines total demand/spending for each type of health service, the second step (described in section A3) determines the portion of this demand that is met by health insurance funding. The remaining portion is then met by other funding sources, according to existing (2001-02) relativities in the third step, as shown in the box below, which uses institutional care funding as an illustration.

Institutional Care Funding

$$\text{Institutional[source]} = \text{Institutional ratio[source]} \times \{\text{Institutional} - \text{Institutional[Health Insurance]}\}$$

Source = Government, non-health insurance private

A3. HI Module

A3.1 Introduction

The purpose of HI module is to estimate health insurance funding as the middle step of the modelling process. This funding level by type of health service is then fed into the HC module to determine the balance of health funding to be met from other (non-health insurance) funding sources.

The major driver of health insurance funding is health insurance coverage. Coverage rates have been modelled in detail, according to the type of cover, gender and age group, and taking into account the driving role of the balance between premiums and benefits. Data on health insurance coverage and funding has been sourced from HFANZ, while data on health insurance funding has been sourced from MoH (as detailed in the box).

HI Module Data Sources

Health Funds Association of New Zealand (HFANZ)
 coverage by age group by gender by cover type
 benefits by age group by gender by cover type
 premiums by cover type

MoH
 health insurance funding by health service

A3.2 Coverage Rates

Coverage rates are modelled in detail, according to two types of cover, both genders and 15 age groups (extending from 20-24 through to 84-89 and 90 and over), giving a total of 60 equations. The underlying coverage has been modelled for hospital (including surgery related specialist and diagnostic testing) and non-hospital services. This is then converted to Major Medical and Comprehensive Care in the model. The form of the coverage equation is shown in the box below.

Coverage equations

$$\text{logit}(\text{cov_hospital}[x,g]) \equiv \ln(\text{cov_hospital}[x,g]/(1-\text{cov_hospital}[x,g])) = a[x,g] + b*(\text{premium_hospital}[x,g]/(\text{benefits_hospital}[x,g]))$$

$$\text{logit}(\text{cov_non-hospital}[x,g]) \equiv \ln(\text{cov_non-hospital}[x,g]/(1-\text{cov_non-hospital}[x,g])) = c[x,g] + d*(\text{premium_non-hospital}[x,g]/(\text{benefits_non-hospital}[x,g]))$$

cov[x,g] = coverage rate for age group x and gender g

premium[x,g] = effective premium net of rebate per insured person for age group x and gender g

benefits[x,g] = expected benefit per insured person for age group x and gender g

b,d = parameters representing sensitivity of logit(coverage) to the balance between effective premiums and benefits for hospital and non-hospital coverage respectively.

The 'b' and 'd' parameters are based on Australian evidence (see "Easing the Pressure" (2004) and Wilson (1999)). The "intercept" parameters, "a" and "c" were chosen so that each equation accurately predicts actual coverage rates by age by gender in 2001-02.

A3.3 Age-based Premiums

The HIHC model is designed to take into account that New Zealand health insurance premiums are typically set according to age. As mentioned in section four of the main report, New Zealand health funds are able to differentiate premiums according to age, gender and other characteristics provided that the difference in treatment can be justified as per the Human Rights Act 1993. Thus, premiums in New Zealand are generally set according to current age. (By comparison premiums in Australia are set according to entry age.)

A3.4 Premiums and Benefits

In the HI module, health insurance benefits are set separately for each type of health insurance cover by gender by age. Premiums are then modelled as a mark-up on benefits.