



Improving health outcomes

A better future for New Zealanders
with KiwiHealth



2017

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He waka eke noa

A canoe which we are all in with no exception



Report Sponsor

KPMG was commissioned by Health Funds Association of New Zealand (HFANZ) to develop this discussion paper

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Purpose statement

The purpose of this discussion paper is to promote debate around how public and private health sector participants can work together to improve access, affordability, and outcomes of healthcare in New Zealand.

This paper highlights the importance of reducing the burden of ill health and explores options with potential to benefit individuals, the economy and society.

It is important to note that this is not intended as a policy position ready to implement.

Executive Summary

Based on current spending patterns, the cost of public healthcare will grow from 6.3% of GDP today, to 9.7% in 2060 – an increase of 53%.

New Zealand's health system consistently ranks well against other developed countries; both in terms of efficiency (cost per capita), and effectiveness (population outcomes).

However, the cost of providing this level of healthcare is increasing, potentially unsustainable, and could result in restricted access to public healthcare.

Both Government and industry participants are now actively looking at policy options to relieve some of the inherent pressures surrounding the cost of ill health. This paper explores one such initiative, referred to as KiwiHealth. This initiative encourages both employers and employees to adopt a more proactive and preventative approach to healthcare during the employees working years.

Based on current spending patterns, the cost of public healthcare will

grow from 6.3% of GDP today to 9.7% in 2060 – an increase of 53%.

Although likely to result in restricted access to healthcare before reaching this level, the increasing cost of healthcare would place additional pressure on the wider government budget, including education and welfare.

A key driver of the increasing cost pressure is the ageing population. The number of New Zealanders over the age of 65 is projected to increase to 1 in 4 by the middle of this century, compared to just 1 in 7 in 2013.

Additionally, the productivity of the working-age population is threatened, as non-acute illness such as chronic disease is becoming more prevalent.

Despite this, most working age New Zealanders rely purely on publicly provided healthcare, with only 28% currently covered by private health insurance (PHI).

While the PHI market is well placed to play a greater role, uptake of PHI is at the lowest level in recent New Zealand history. This is partly due to affordability, but equally reflects New Zealanders' reluctance to spend in the short term to gain the benefits at a later date. This phenomena is similar to the thinking behind the introduction of KiwiSaver, which was designed to address the reluctance of New Zealanders to save for a better retirement while they are working.

This paper sets out to discuss the issue of sustainability, equity, and the need to look at innovative ways to provide and fund healthcare in the future.

In discussions on healthcare, the indirect costs of ill health are often overlooked. Indirect costs are society's overall loss to illness, most notably the loss of output arising from labour force participants exiting





the workforce or reducing their productive hours. This discussion becomes more relevant in the face of potential increased use of restrictions in the public health system.

The direct and indirect costs of ill health are significant. The direct cost of public healthcare in New Zealand was approximately \$15.6 billion in 2015/16.¹ Although difficult to quantify, the Treasury estimated the indirect cost of health to be between \$4.13 and \$11.56 billion in 2010.²

What is KiwiHealth?

Fundamentally, KiwiHealth would be an umbrella name for certain PHI policies from existing health insurance providers. This approach is similar to that adopted for KiwiSaver.

The key features of KiwiHealth are envisaged to include:

- **No Government subsidies.**

While the initiative relies on the Government endorsing a mandatory employer subsidy, the fiscal impact of the scheme should be neutral to the Crown.

- **Mandated employer contributions.**

A healthy workforce benefits individuals as well as employers. Indicatively, KiwiHealth has been modelled on the basis that employers offer a subsidy to their employees of up to \$500 per year, should the employee wish to participate.

- **Minimum policy coverage for major medical events.**

There is a promising opportunity for private healthcare to contribute to better health outcomes through easier and faster access to elective services. This would require all policies to cover major medical events at a minimum; including specialist appointments, advanced diagnostics and elective surgery.

- **Utilisation of the current PHI system.**

KiwiHealth is designed to utilise the current PHI system as far as possible, including major policy types. This would avoid unnecessary administrative costs, and means that employers already offering PHI to employees would be able to continue their existing coverage and schemes.

What are the expected impacts of KiwiHealth?

Based on current research and initial economic modelling, the expected benefits of KiwiHealth include:

- **Improved access to healthcare for employees.**

Research indicates that privately-funded elective services have significantly shorter waiting times than services funded publicly. Increased access to PHI would allow for increased access to elective care - potentially leading to a healthier workforce.

- **Reduced pressure on public healthcare.**

Economic modelling indicates that KiwiHealth would fund approximately 50,000 additional elective surgical procedures and between 43,000 and 70,000 'other' encounters per annum by 2027 (of which some would directly substitute publicly-funded procedures, and some would be additional). In addition, the social impact of reducing early detection and improved management of chronic disease has many non-financial benefits to families and society.

Expected KiwiHealth outcomes

400,000

more people covered

50,000

more elective surgeries
per annum



\$224 million

in potential savings
to public health per annum



Improved labour
force participation
and productivity

No government
subsidy required



— Higher productivity and less absenteeism and presenteeism.

With increased access to elective care, early detection and intervention is more likely to occur. With the right preventative treatments, this has the potential to reduce the burden of ill health in future years.

Further considerations

The costs of KiwiHealth principally relates to the insurance premiums, which are made up of the employer subsidy and the employee contribution. While significant, the employer contribution is partly offset by reduced absenteeism and presenteeism, increased workforce productivity, and over time, wage absorption.

As with any policy initiative, there are some limitations that will need further consideration. These include the impact on individuals in part-time employment, those who are self-employed, or those performing non-market activities such as looking after children or the elderly. In addition, the distributional effects of further improving access to healthcare to those who already have comparatively easier access, as a means of relieving pressure on the public system, must be debated.

Fundamentally, KiwiHealth would be an umbrella name for certain PHI policies from existing health insurance providers. This approach is similar to that adopted for KiwiSaver.

From an economic standpoint, the option of doing nothing and relying on publicly-funded healthcare simply ignores an already evident trend, and shifts the financial burden to future generations.

It is therefore important to highlight these issues and set out the options in order to stimulate policy debate in the health sector and Government, whilst at the same time understanding the potential costs and benefits to New Zealanders.

¹ <http://www.treasury.govt.nz/government/expenditure/health>

² Treasury (2010), The Cost of Ill Health, New Zealand Treasury Working Paper 10/04



Introduction

The New Zealand health system consistently ranks well against other developed countries, both in terms of efficiency (cost per capita) and effectiveness (population outcomes). It provides wide access to healthcare at low or no cost to New Zealanders, with Accident Compensation Corporation (ACC) covering accidental injury, and private healthcare playing a complementary role through providing access to specialist services.



This paper explores whether there is an opportunity for PHI to play a greater role in providing access to some health services; in order to improve individual health outcomes and reduce or redirect costs away from the public health system.

There are a number of external factors that will affect the health system in the coming years. Like the rest of the developed world, New Zealand's population is ageing. The first cohort of "baby boomers" retired in 2011 and the next 20 years will see a dramatic change in the distribution of New Zealand's population.

New Zealand is also experiencing an increase in the prevalence of chronic disease such as obesity and diabetes, cardiovascular disease and arthritis. The combination of demographic change and growing prevalence of chronic disease will affect New Zealand in a number of ways, including a greater demand for healthcare services. This will place additional pressure on the public health system.

PHI alone cannot address all the problems that will face the public health system in the future. However, it may be effective at facilitating greater access to some services.

Objectives

The key objectives of this paper are to:

- Explore opportunities for PHI to increasingly complement the public healthcare system and improve individual health outcomes;
- Outline a policy option that could encourage greater uptake of PHI in New Zealand; and
- Assess the impacts of the proposed policy option on individuals, the public health system and the economy as a whole.

Approach

This paper takes a high level approach to addressing the growing demand and cost of healthcare in New Zealand and sets out to:

- Define the "problem" by assessing the current state and examining both direct and indirect costs of healthcare;
- Outline a high level policy option for consideration by Government and health sector participants; and
- Identify the key benefits and costs of the proposed policy option, including distributional effects (i.e. who benefits most vs who is excluded) where appropriate.

This paper is based on domestic and international research and supported by econometric modeling.

Background

What is the problem?

Like other developed countries, New Zealand's health system is experiencing a number of social and technological trends that will increase the future cost of healthcare services to a point where it may become unsustainable to offer universal healthcare to all New Zealanders.

Traditionally, New Zealand has relied on rationing public healthcare to manage demand, using techniques such as:

- **Minimum thresholds.** This involves prioritising individuals with high needs over those with less severe conditions;
- **Managed access and capacity.** Restricting the range and location of services provided by the publicly-funded system; such as pharmaceuticals or weight loss surgery.
- **Reliance on co-payments.** Basic healthcare services, such as primary care and pharmaceuticals, attract co-payments, with the aim of promoting individual responsibility among the adult population.

The public health system has a limited ability to vary co-payments as a funding source without creating serious inequities. This particularly applies to secondary and tertiary care or high-cost community care. By comparison, the PHI market has created a range of policy options which give consumers choice on the level of care and co-payment received.

Increased use of rationing tools in the public health system directly impacts on New Zealanders' ability to access healthcare and comes with a significant cost to society. Any increased rationing of healthcare services, would widen the gap between those who can access private healthcare out of their own pocket – and those who can't.

When faced with day-to-day financial decisions, many individuals and New Zealand families delay expenditure on healthcare, including health insurance.

An additional, increasingly relevant problem is the way in which public healthcare is provided. Publicly-funded care tends to focus on the severity of illness and those with the highest treatment need. Whilst this is understandable, it can often overlook the benefits of early diagnosis and intervention, prevention and disease management.

Why don't people take more responsibility for their own healthcare?

Health policy and funding has often struggled to tackle the wider economic impact of ill health to individuals, employers and the public health sector; and identify ways for individuals, families and whānau to become more engaged in their own health.

When faced with day-to-day financial decisions, many individuals and New Zealand families delay expenditure on healthcare, including health insurance.

For many, this is simply a question of affordability; for others, it is a belief that publicly funded healthcare services are sufficient. For most, it is simply a decision they delay.

In economic terms, this is often referred to as 'under-investment', or 'savings-behaviour', and is similar in nature to the problem faced by government policymakers when considering the introduction of KiwiSaver. Similar to KiwiSaver, the challenge is to encourage individuals

to make relatively small decisions with insignificant immediate benefits, and so avoid underestimating the long-term value of an investment in personal health and wellbeing. As with retirement savings (where the government intervened by introducing KiwiSaver), the government plays an important role in avoiding what economists may term 'market failure'.

The problem of Status Quo

Long-term sustainability of the New Zealand health system is unlikely to be achieved by relying on the status quo; where public healthcare, ACC, and private healthcare (funding and provision) simply co-exist.

There appears plenty of scope for public agencies, ACC, and private participants to work together to identify ways to better manage chronic disease; deploy human and physical capital more efficiently; and encourage New Zealanders to become engaged in their own healthcare. This highlights the importance of seeking shared long-term solutions, as well as promoting innovation in healthcare funding and delivery.

The cost of ill health in New Zealand

Figure 1. The Cost of ill health

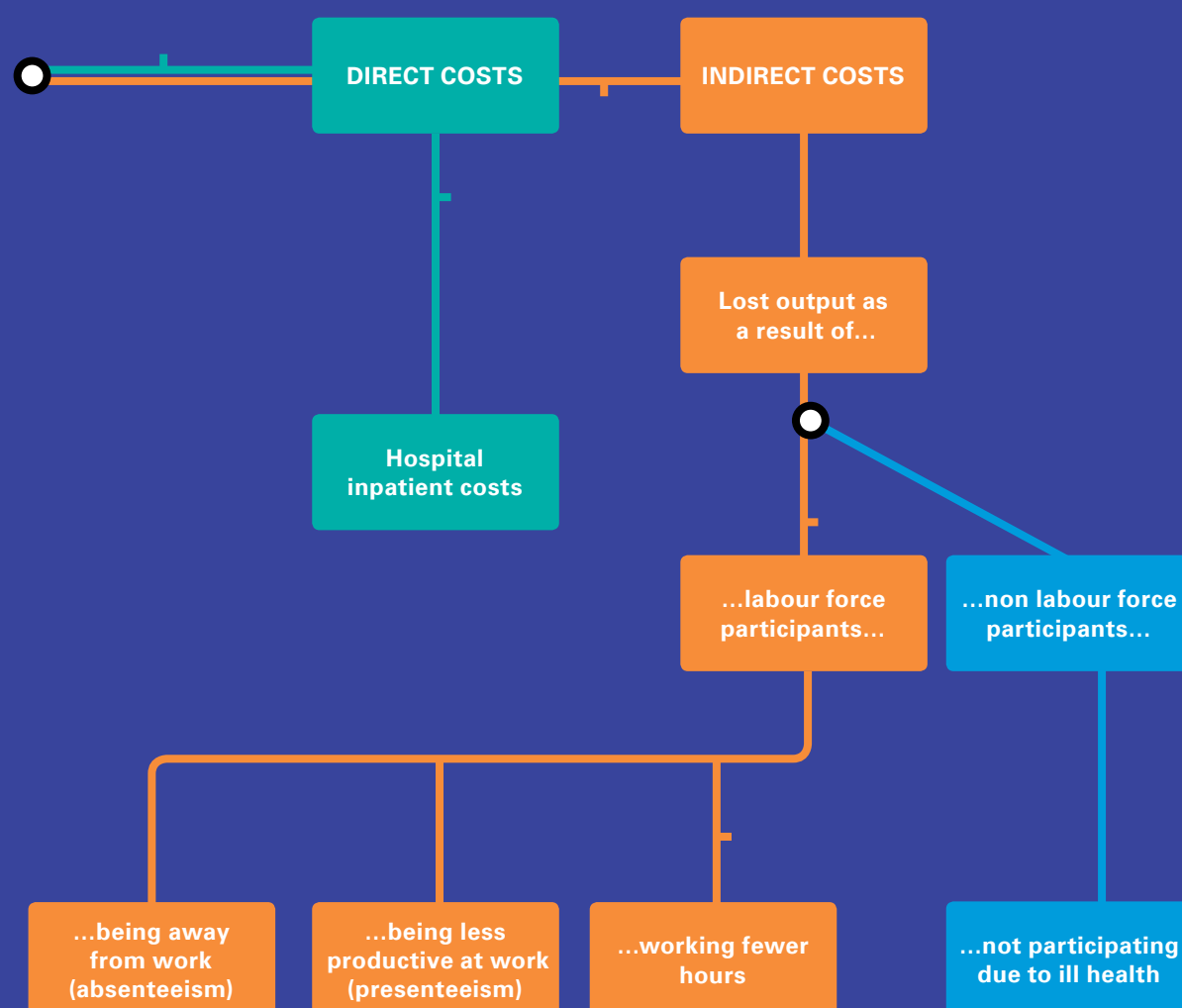


Figure 1 is a reconstruction from Treasury (2010) The Cost of Ill Health, and provides an overview of the wider cost of ill health to New Zealand.

The cost of ill health includes both the direct cost of healthcare, such as treatment and rehabilitation; and the indirect costs to society and the economy through lost productivity and quality of life.



The direct cost of ill health

The New Zealand health system is underpinned by three pillars: the public health system, ACC, and private care. Chief among these is the public health system, which accounts for approximately 83% of all health related expenditure.⁵ The remainder is made up of PHI, out-of-pocket payments, and charitable contributions. Supported by ACC and private care, New Zealand's health system is relatively efficient and delivers outcomes in line with other developed countries.

While direct costs are most commonly seen as the cost of providing hospital care (as highlighted in Figure 1) they are significantly broader than this. Direct costs also include primary care, maternity, community care, disability support, aged care, and some oral health. District Health Boards are mandated to manage the demand and cost of care through the introduction of:

- **Minimum access thresholds for elective care.** A points system is used to prioritise care towards individuals with high needs, and exclude those with conditions less severe.

- **Co-payments in primary care.**

Co-payments for primary care, pharmaceuticals, and some ACC services are used to manage demand and promote individual responsibility amongst the adult population.⁶

- **Income and asset testing for Aged Care.** All people assessed for Age Related Residential Care (ARRC) are income and asset tested; with those above the threshold paying for their own care up to a maximum cost per week.

With growing demand and expectations, it is unlikely that these policy levers will be sufficient to manage the future demand for healthcare. Recent research by the New Zealand Treasury indicates that, were we to continue with our current spending pattern, the direct cost of public healthcare will increase from around 6.3% of GDP today to 9.7% in 2060.⁷ This equates in real terms to an increase of 53% in direct expenditure, raising significant questions around sustainability. Key drivers of this growth include:

- **A rapidly ageing population.**

In 2013, 1 in 7 New Zealanders were over the age of 65. This is projected to increase to 1 in 4 by the middle of this century.

- **Growth in chronic disease.**

The prevalence of certain chronic conditions, such as obesity related cardiovascular disease and diabetes, have been increasing across the New Zealand population in recent years; leading to greater demand for often specialist and/or expensive health services.

- **The cost of new treatments and technology.** These costs are driven both by the increased cost of newly-developed treatments and pharmaceuticals (e.g. the Keytruda cancer treatment drug), and greater access to care (e.g. bowel screening), as well as the cost of technology enhancement.

- **Rising expectations.**

New Zealanders have rising expectations regarding the type and extent of care they receive.

⁵ OECD.stats

⁶ Note that the ACC does not restrict access in the same way as DHBs, but use a co-payment system.

⁷ Treasury (2016), He Tirohanga Mokopuna, 2016 Statement on the long term fiscal position. Note the projections represent 'what if' scenarios based on historic spending patterns.



The indirect cost of ill health

The cost of ill health in New Zealand is not limited to the direct costs to the health system. Poor health may mean some individuals are less productive while they are at work, work fewer hours to manage their condition, or miss work altogether. This can affect the individual's career prospects, and reduce the productivity of the employer organisation. It can also place additional costs on the employers, who have to cover the costs of absent staff. Poor health may also prevent some people from participating in the workforce, which affects New Zealand's immediate and longer-term economic growth prospects.

Quantifying the indirect cost is complicated, with the Treasury estimating these costs to be between \$4.13 and \$11.56 billion in 2011.⁸

Recent research into the economic cost of chronic disease highlights the indirect cost of ill health. Focusing on the 45-64 year age group, the study

concluded that 26.4% of Australians employed full-time suffered from chronic disease, and 11.7% of part-time employees also have a chronic condition. Overall, 8.8% reported losing productive life years (PLY) due to their conditions. A further 6.4% of 45-64 year olds were not in the workforce due to their chronic condition⁹. This research highlights that a person out of the labour force due to chronic disease earned less than one quarter of a full-time employee, and less than one half of a part-time employee. People out of the workforce due to ill health also paid 99.94% less tax compared to those who were employed full-time¹⁰. Interestingly, the leading chronic conditions associated with premature exit from the labour force were back problems, arthritis, and mental and behavioural problems, as illustrated in Table 1¹¹.

In these studies, the resultant loss on income, increase in welfare support, and loss of taxation was estimated to be AU\$20.6 billion¹². The equivalent data is not available for New Zealand; however the broad conclusion of these

studies is that ill health is a primary barrier to workforce participation in this age group. Improved healthcare and prevention would be likely to have a positive economic impact; reminding us that healthcare, is in fact an investment in keeping our people healthy and able to participate in the workforce and society.

This paper acknowledges the benefits of addressing the impact of ill health using either Quality Adjusted Life Years (QALY) or Disability Adjusted Life Years (DALY), but does not explicitly model these.

⁸ Treasury (2010) The Cost of Ill Health, New Zealand Treasury Working Paper 10/04.

⁹ Schofield, D, et al. (2016), Economic costs of chronic disease through lost productive life years (PLYs) among Australians aged 45-64 years from 2015 to 2030: results from a microsimulation model.

¹⁰ Schofield, D et al. (2011), Economic impacts of illness in older workers: quantifying the impact of illness on income, tax revenue and government spending.

¹¹ Schofield, D et al. (2015), Lost productive life years caused by chronic conditions in Australians aged 45-64 years, 2010-2030.

¹² Schofield D, et al. (2017), The costs of diabetes among Australians aged 45-64 years from 2015 to 2030: projections of lost productive life years (PLYs), lost personal income, lost taxation revenue, extra welfare payments and lost gross domestic product from Health&WealthMOD2030.

Table 1. Reasons people are not in the workforce (Aged 45-64) in Australia

01		Back Problems (dorsopathies)	22.16%
02		Arthritis	15.06%
03		Mental and behavioural disorders	10.14%
04		Cardiovascular disease	6.81%

..... 54.17%






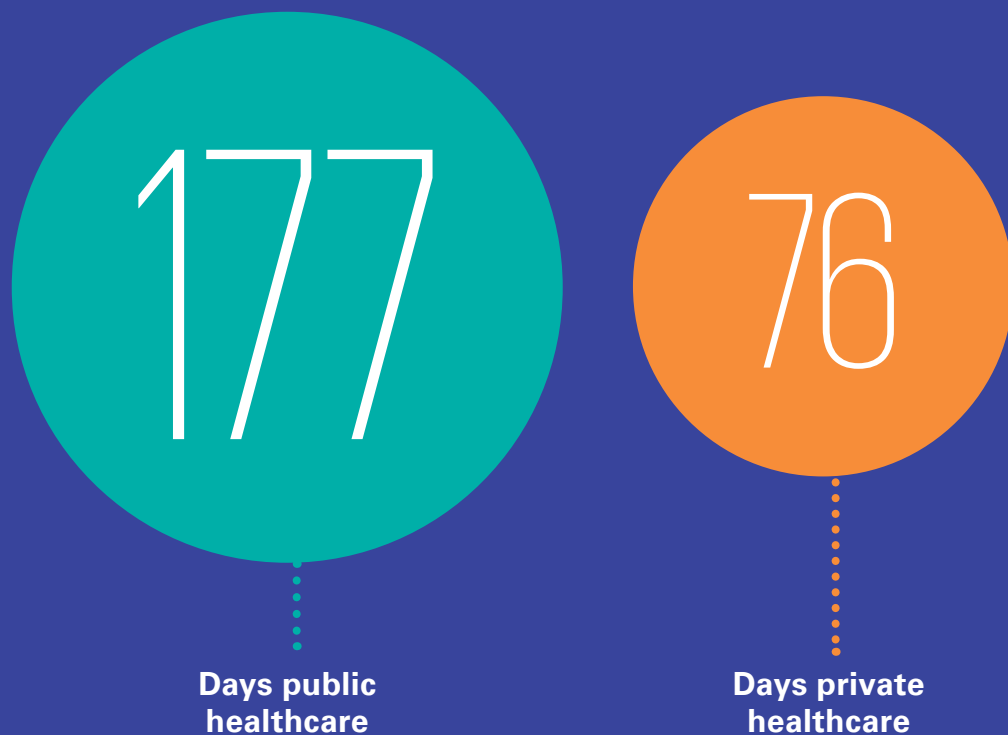
05		Depression (excluding post natal depression)	6.81%
06		Injury/accident	5.65%
07		Diseases of the nervous system	5.72%
08		Other diseases of the musculoskeletal systems and connective tissue	5.36%
09		Cancer	3.62%
10		Diabetes	3.33%



Figure 2. Average wait times for elective surgery from first GP visit¹³



¹³ TNS (2016) Assessing the demand for Elective Surgery amongst New Zealanders March 2016

Reducing the cost of ill health

Currently, the private health sector provides access to non-acute health services. Predominantly, these include specialist appointments, diagnostics and elective surgery.

The private sector complements the public system by providing access to services that may be restricted by treatment thresholds, waiting times, co-payments, and capacity limits in the public system.

By increasing access to elective services, PHI can support individuals to maximise their workplace participation and economic contribution and improve quality of life. Therefore, improving access to elective services is a channel through which PHI can contribute to reducing or avoiding the long-term cost of ill health in New Zealand.

As illustrated in Figure 2, a recent survey suggests that individuals receiving publicly-funded surgeries wait on average 101 days longer for surgery than those who have access to private healthcare¹³.

The next section explores how the Government could encourage greater health insurance uptake without the use of public funds; provides a potential high-level design of the scheme; and outlines the benefits and costs of greater PHI uptake.





Designing KiwiHealth

The primary objective of KiwiHealth is to support working New Zealanders to maximise labour force participation by reducing the impacts of ill health.

What is KiwiHealth?

Like KiwiSaver, KiwiHealth would be a government-endorsed, but employer-subsidised scheme. Previous research has explored several types of interventions aimed at increasing the level of PHI in New Zealand, and most options have included some form of a Government subsidy or tax relief. However, this would not address the problem of fiscal sustainability.

The key characteristics of KiwiHealth are:

— **No Government subsidies.**

While the KiwiHealth policy relies on the Government endorsing a mandatory employer subsidy, the fiscal impact of the scheme is neutral.

— **Mandated employer contributions.**

A healthy workforce benefits individuals as well as employers. Indicatively, a scheme has been modelled where employers offer a subsidy to their employees of up to \$500 per year (CPI adjusted), should the employee wish to participate.

— **Minimum policy coverage:**

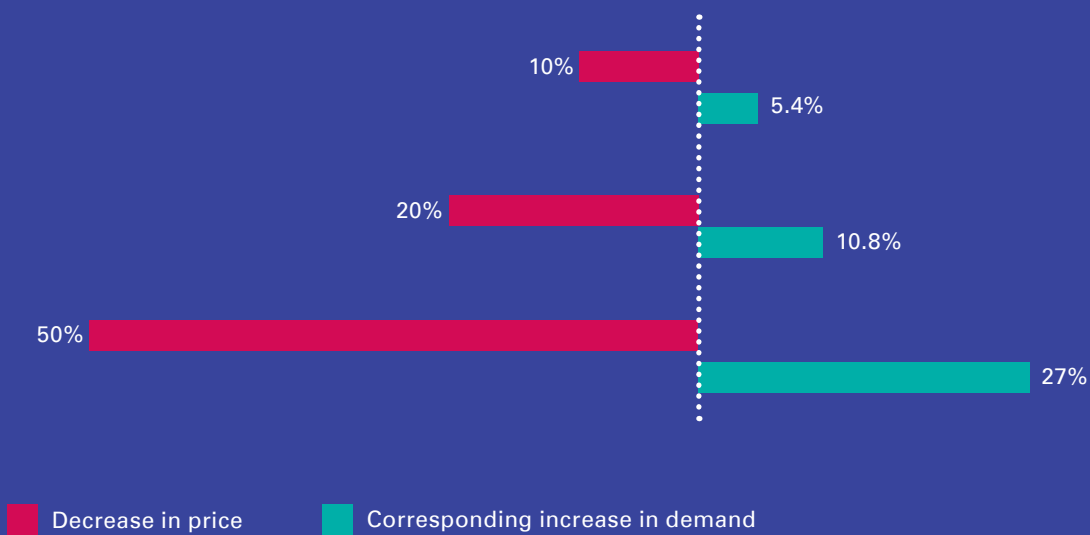
There is a promising opportunity for private healthcare to contribute to better health outcomes through easier and faster access to elective surgery. This would require all policies to cover major medical events at a minimum; including specialist appointments, advanced diagnostics and elective surgery.

— **Utilisation of the current PHI system.**

Utilising the current PHI system as far as possible would avoid unnecessary administrative costs.



Table 2: Elasticity of demand for PHI by subsidy level



What is the role of Government?

Government endorsement is central to the success of KiwiHealth. Although not financially subsidising the scheme, government involvement is important for the following reasons:

— **To reduce the risk of under-investment.**

Government plays an important role in directing proactive decision-making. Without government endorsement, there is a high risk there would be a low uptake for KiwiHealth. In economic terms, the reason for this is referred to as ‘under-investment’, or ‘savings-behaviour’. These terms refer to the common behavioural traits where individuals defer decisions by focusing on immediate costs rather than future benefits.¹⁵ Traditionally, government has played an important role in identifying ways to avoid under-investment, and should be considered as an important feature of KiwiHealth.

— **To target passive decision making.**

A key concept behind KiwiSaver and KiwiHealth is that individuals are more likely to join and stay in a scheme if they are automatically enrolled. Research based on a series of decision-making experiments show that individuals disproportionately remain with the status quo.¹⁶ This is a key behavioural economics theory that was used in the development of KiwiSaver, most notably the auto-enrolment aspect of the scheme.

— **To mandate the incentive.**

A further reason for government involvement is to mandate that employers offer an incentive by way of subsidy, specifically targeted to PHI. The anticipated effect of an incentive builds on the relationship between the price of a good or service and the corresponding demand i.e. elasticity of demand. The exact relationship depends on the type of goods/service. Table 2 show the relationship specific to PHI, based on an elasticity of demand of -0.54.¹⁴

¹⁴ NZIER (2014), Private health insurance - An expanding role in the future of health care? NZIER report to HFANZ.
The Treasury (2002), Treasury Report: Costs of Subsidising Private Health Insurance.
NZIER (2001), The tax treatment of health insurance premiums. Report to HFANZ.
¹⁵ Samuelson, W. & Zeckhauser, R. J (1988), Risk and Uncertainty.
¹⁶ Benartzi, Shlomo; Thaler, Richard H (2007), Heuristics and Biases in Retirement Savings Behaviour.

Who would be eligible for KiwiHealth?

Fundamentally, KiwiHealth needs to be available to all employees. It is anticipated that pre-existing conditions would be covered with an appropriate stand down period.



This section outlines the potential enrolment parameters for KiwiHealth as a starting point for further discussion.

How are people enrolled?

Assuming Government support, there are two key models for enrolment:

- automatic enrolment (opt-out) or
- employee driven enrolment (opt-in).

An opt-out scheme would most effectively target passive decision making. A less aggressive approach, would be an opt-in scheme.

Would pre-existing conditions be covered?

Fundamentally, KiwiHealth needs to be available to all employees, on the basis that all employers are mandated to subsidise the scheme. This raises an important question around

acceptance of pre-existing conditions. While the actuarial implications of this significant cover is out of scope for this report, it is anticipated that pre-existing conditions would be accepted with an appropriate stand-down period – similar to that of current PHI solutions.

Are there exceptions to Kiwihealth?

It is potentially beneficial to allow small business to be exempt from the scheme. Granting businesses with between 1 and 5 employees exemption would (based on 2015 data) exclude about 229,000 employees.¹⁸ Consideration will also have to be given to part-time employees, temporary staff and contract workers. This has been considered in the underlying econometric modelling.

What services would Kiwihealth cover?

It is anticipated that an eligible KiwiHealth policy would, at a minimum, cover 'major medical' events. One option is to design a base policy based on current Major Medical schemes, with the option to increase the cover to match current Comprehensive policies.

Table 3 summarises the key public policy considerations when selecting the level of cover in KiwiHealth compared to a 'do nothing' scenario.

¹⁸ Ministry of Business, Innovation and Employment (2015), Small Businesses in New Zealand

Table 3. KiwiHealth policy options

	Key benefits	Policy Considerations
Major Medical Cover	<ul style="list-style-type: none"> – Increased access to elective surgery and specialist consultations – Patients spend less time waiting for surgery and are therefore more productive 	<ul style="list-style-type: none"> – Public healthcare will still need to manage the more severe cases – Surgeries offered privately may not increase productivity
Comprehensive Cover	<ul style="list-style-type: none"> – Increased access to elective surgery and specialist consultations – Patients spend less time waiting for surgery and are therefore more productive – Co-payments covered – Increased access to primary care, and increased chances of early intervention – Potentially higher impact on productivity 	<ul style="list-style-type: none"> – Public healthcare will still need to manage the more severe cases – Private provision of primary care is often found to be demand-inducing – Comprehensive Care is less affordable than the Major Medical option – Employers should only need to subsidise base level care
Do nothing	<ul style="list-style-type: none"> – Workforce participants are not treated differently to other New Zealanders – No 'deadweight cost' of administering PHI schemes 	<ul style="list-style-type: none"> – Waiting times increase more rapidly – Loss of productivity due to absenteeism and presenteeism (for cases that could otherwise have been avoided) – Further increased pressure on public healthcare

What would happen to existing employer subsidised schemes?

Where employers already offer existing cover, it is envisaged that these schemes would automatically become approved or accredited KiwiHealth schemes. This would avoid disruption and encourage employers to provide subsidies over and above the minimum.

Who pays and what is the cost?

In short, both employers and employees would pay for KiwiHealth policies, with the major change being the obligated employer contributions.

In order to model KiwiHealth, it was assumed that the employer contribution matches the employee contribution dollar for dollar, up to a maximum subsidy of \$500; with the employee funding any remaining cost. Based on current price levels,

this subsidy would cover between 20% and 50% of the target working population's average premium.

The employer contribution needs to be significant enough to effectively drive uptake of KiwiHealth while keeping the cost of labour sustainable. In effect, however, the employer contribution would likely be absorbed by the employee over the long term; as many employers would likely, over time, include the KiwiHealth subsidy in the total remuneration package.

The real effect is for minimum wage earners whose salaries would not be able to absorb the contribution. A \$500 subsidy would therefore mean a 1.6% salary increase for a full-time worker earning the minimum wage.

How is KiwiHealth structured?

There are a number of employer-subsidised health insurance schemes already established in New Zealand. This provides KiwiHealth with a readily available administrative structure. Building on this would minimise the administrative effort required to initiate and manage the scheme.

Exploring the impacts of KiwiHealth

Econometric modelling suggests that 50,000 additional elective surgeries could be funded by PHI under KiwiHealth, at an estimated value of \$234 million.

This section explores the benefits and costs of KiwiHealth on individuals, the economy, and the public health system. The policy analysis is based on domestic and international literature and econometric modeling. The policy is designed at a high level, with the purpose of evaluating key implications of increasing the level of PHI in New Zealand.

The underlying econometric model used for this analysis is based on two key sources of data: demographic data from Statistics NZ, and historical PHI industry data provided by HFANZ. The key assumptions and sources of data are listed in Appendix 1. Outputs are modeled over a 20-year period to accommodate uptake over time and labour force growth.

The analysis is based on a number of assumptions.

Firstly, the uptake rate is modeled based on the assumed impact of the employer contribution.

Secondly, chronic disease and other existing health problems may not be accurately reflected in the model or incorporated in the assumed health of new policy holders.

Lastly, the claim to premium ratio, number of claims, and elective surgeries funded by PHI, are all based on historical trends. These assumptions may not accurately predict the future.





What are the benefits to the individual?

The key benefit to individuals under KiwiHealth is greater access to PHI and therefore, greater access to healthcare. Access can be assessed in terms of:

- **Choice.** Improving choice around the type of treatment, the location for treatment, and the range of pharmaceuticals offered.
- **Thresholds.** Improving access to healthcare for those conditions where there is a treatment benefit, but they would not currently meet the public sector thresholds (most importantly elective surgery).
- **Time.** Reducing the time it takes to access diagnostics, specialist advice, and treatment (e.g. First Specialist Assessment (FSA)).

The provision of elective surgery is the most commonly cited example of the rationing system and resulting waiting times for treatment. Recent research identified a difference of 101 days between private and public provision of elective surgery.¹⁹ Note that this excludes patients who fall below the public threshold altogether, and are not placed on a waiting list.

For an individual accessing public healthcare only, this could mean an extra:¹⁹

- 101 days with increased risk of being away from work due to the condition (absenteeism); and/or
- 101 days with increased risk of being less productive while at work due to the condition (presenteeism).
- Higher risk of the condition increasing in severity while waiting for surgery.

A key driver of the cost of healthcare is rising expectations. Patients are increasingly well informed, and more often have specific demands about the care they receive and when they receive it. Many countries have found private healthcare to be effective at responding to patient demands for new or more specialised services²⁰. This means that private healthcare, to a larger extent, can allow consumers to tailor services to their specific needs.

For individuals, increased access to healthcare and the subsequent reduced absenteeism and presenteeism could decrease:

- The risk of missing out on opportunities in the workplace;
- Financial stress and general anxiety linked to missing out on work because of treatable conditions; and
- Other social impacts on family and community.

International research indicates a connection between sick leave and a worker's earning potential. A study on the casual effect of sick leave on subsequent employment and earnings found that a 1% increase in a worker's sick leave reduced the worker's earnings by 1.2% two years later²¹.

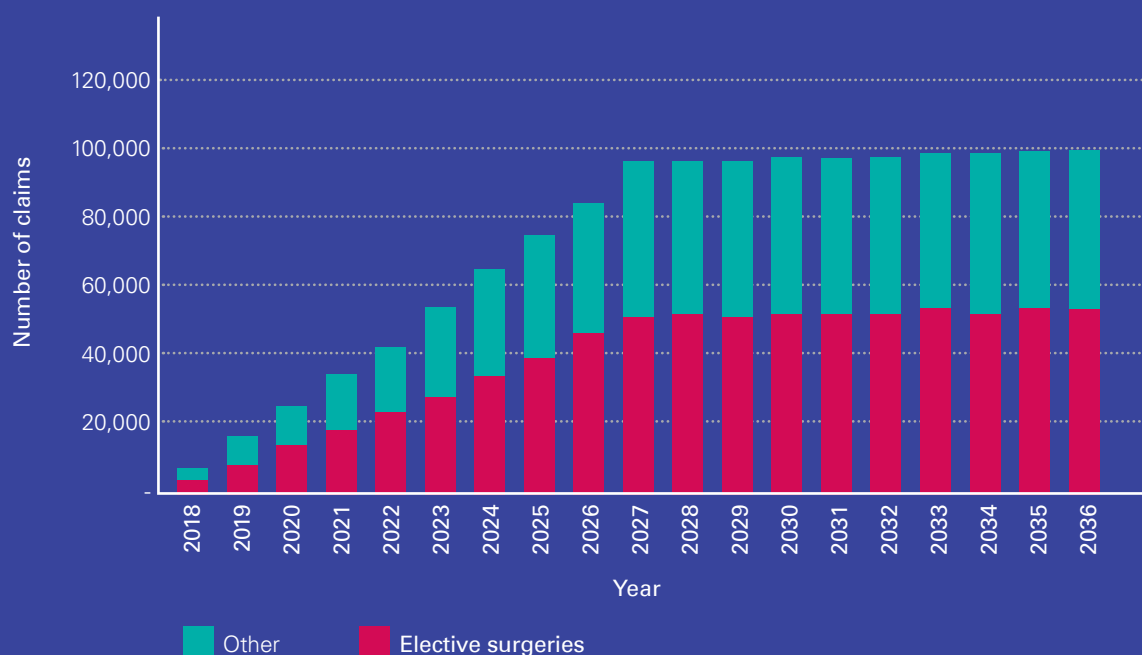
¹⁹ TNS (2016), op.cit.

*Note: this is unlikely to be the case for all conditions that require surgery.

²⁰ Colombo, F. and N. Tapay (2004), Private Health Insurance in OECD Countries: The Benefits and Costs for Individuals and Health Systems

²¹ Markussen, S (2011), The individual cost of sick leave, journal of population economics

Figure 3. Total number of (additional) claims under KiwiHealth (Scenario 1)



Distributional impacts

The New Zealand working population – and in particular, those in stable careers – would benefit from KiwiHealth.

While subsidised by employers, there is a risk that some New Zealanders, such as those in lower income brackets and ‘high-risk individuals’ who are charged higher premiums, would still not be able to afford PHI. This risk may be partially offset as uptake increases, policy offerings become competitive, and insurers pool risk and ensure competitively-priced premiums. Additionally, there is a portion of the population who may not be eligible, such as people out of the workforce, those in part time work, and the self-employed. This is accommodated by the uptake model, but worthy of further consideration.

When considering the distributional impacts of KiwiHealth, and whether PHI is, or could be affordable, we should not only compare PHI against the equity within public healthcare. If an individual can realise benefits from accessing the private health system, considerations should be given to the way in which as many as possible can do so. With this in mind; there is a larger portion of New

Zealanders who can afford to pay for a PHI policy than those who can pay for a major medical event out of their own pocket.

Impact on the public health system

The key benefit to the public health system is the potential to lighten the burden of specialist assessments, high cost diagnostics, and elective surgeries.

As illustrated by Figure 3, econometric modelling suggests that about 50,000 additional elective surgeries would be funded by PHI under KiwiHealth in the year 2027, at an estimated value of \$234 million at the standard case weight price²². This is in addition to the current level of surgeries funded by PHI.

It is expected that surgeries funded by PHI will fall into two categories: those who substitute publicly-funded surgeries, and those that are additional (i.e. under the threshold for public provision). Although the first category represents the direct beneficial impact on the public health system, it is probable that the second category will be beneficial in the long term by reducing the burden of chronic disease. Pro-active access to elective surgery has the potential to

reduce or halt a conditions’ severity, and thereby keep individuals with long term diseases healthier for longer. This could lessen the long term burden of chronic disease.

Impact on employers and the wider economy

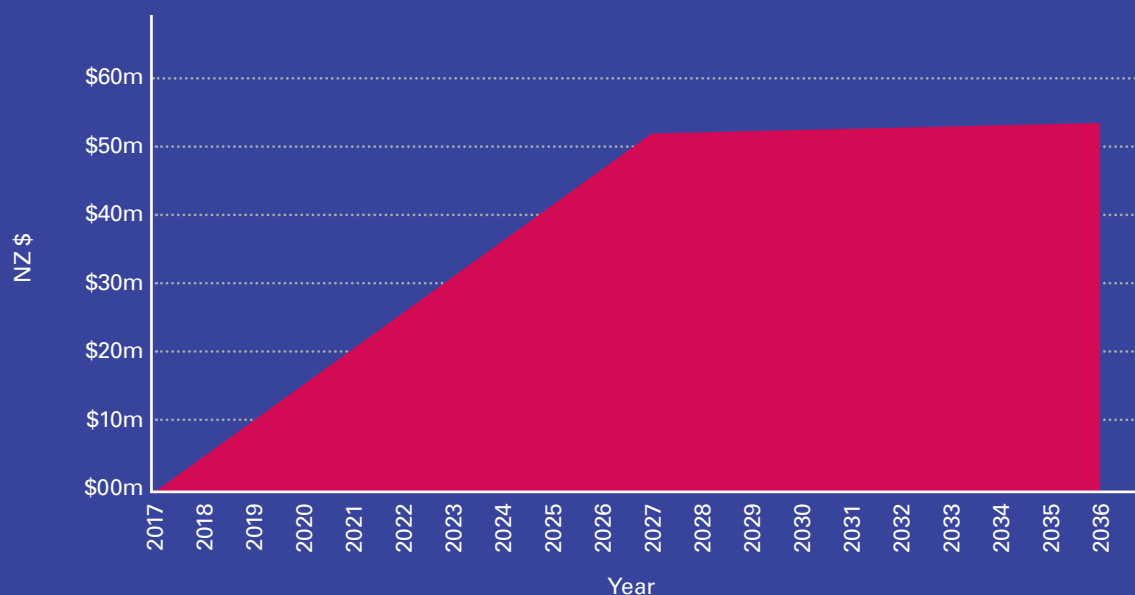
Recent research indicates that employees with subsidised health insurance, on average, take one less sick day per year²³. Econometric modelling shows that this would mean an additional 400,000 sick days saved per annum by 2027.

The same survey estimates the median direct cost of sick leave (e.g. overtime payments and hire of temporary staff) to be \$131 per employee per day. As illustrated in Figure 4, the additional uptake under KiwiHealth would result in more than \$52 million in savings to employers per annum by 2027.

²² Based on a New Zealand Weighted Inlier Event Separation (WIESNZ16) cost weight value at 2016/17 price of \$4,681.97 per WIES)

²³ TNS (2016), Assessing the demand for Elective Surgery amongst New Zealanders March 2016

Figure 4. Estimated savings from reduced direct costs of sick leave



The direct cost of sick leave does not account for productivity lost to absenteeism and presenteeism. With reference to Treasury's working paper on the indirect cost of ill health, we note that while quantifying this effect is challenging, there is no doubt it exists and that employers could gain significant productivity from a healthier workforce.

Recent research indicates that employees with subsidised health insurance, on average, take one less sick day per year²³. Econometric modelling shows that this would mean an additional 400,000 sick days saved per annum by 2027.

What is the cost of KiwiHealth?

The cost of KiwiHealth is up to \$500 per annum per employee, and this cost would apply to both new and existing PHI policies. Employers would therefore suffer a deadweight cost of subsidising the approximate 1.1 million working age New Zealanders who already

have PHI cover. However, many already receive voluntary employer subsidies. In the long run, this subsidy would likely be absorbed by the total remuneration package.

In addition to reducing the economic cost of ill health, and improving labour force participation, this focus on prevention and early intervention may have wider benefits to society. Lost productive life years (PLY) due to chronic disease is associated with:

- Lost income, and lost tax
- Increased welfare payments²⁴
- Illness-related early retirement²⁵

In Australia this has raised calls for "...greater investment in effective preventative health interventions which improve workers' health and work capacity."²⁶

There remains some debate whether these benefits will amount to a net economic benefit; and whether this accrues to the employer, the individual, or to the Crown. This highlights the need for New Zealand-specific research in this area.

²⁴ Schofield D, et al. BMJ Open 2017;7:e013158. doi:10.1136/bmjopen-2016-013158

²⁵ Schofield et al. BMC Public Health 2011, 11:418

²⁶ Schofield, Op Cit, BMJ Open

Figure 5. Employer/employee contributions



Conclusion

With a rapidly increasing cost pressure in the New Zealand health system, now is the time to consider options around how to afford future care.

KiwiHealth as a policy option is fundamentally based on the complementary relationship between the public and private healthcare systems. Increasing access to insurance means increasing access to healthcare, which results in significant benefits to the individual; employee and to society; especially in the provision of elective services and management of chronic disease.

The analysis in this report shows that even a conservative uptake of the scheme could significantly increase the number of elective services funded by PHI. This would in turn take pressure off the public health system, decrease waiting time for elective care, and contribute towards keeping New Zealanders healthy and productive.

Areas for further consideration

KiwiHealth is a way of opening up a broader discussion between public and private healthcare industry participants, with a common goal of improving outcomes and creating a more productive economy.

There are a number of important areas outside the scope of this report that should be considered further. This includes a more detailed policy design, such as:

- **Minimum policy coverage and the link to New Zealanders' productivity.** There is an opportunity to further investigate specific gaps in healthcare among New Zealanders and ensure that the healthcare services required to target these would be included in eligible KiwiHealth policies.
- **Workplace Based Schemes.** There are currently a significant number of employer-provided health insurance schemes in the market (where an employer offers employees the opportunity to join a specific PHI scheme tied to their workplace). These types of schemes have a long history in New Zealand, and are considered effective in the way they pool premiums across a workplace. They could, however, limit portability of policies (i.e. an employee's opportunity to retain PHI cover when changing employer). There is an opportunity to investigate the impacts of these schemes.
- **Quantifying the cost of ill health.** Further quantification of the cost of ill health, and more specifically the costs that could be avoided with more targeted healthcare would be valuable. While this is difficult to quantify, it would be beneficial in order to assess the effects of a potential scheme.
- **Employers absorption of subsidies.** As with KiwiSaver, it is likely that PHI subsidies over time would be absorbed in the total remuneration package. There is an opportunity to further investigate the impacts of this effect.
- **Fringe Benefit Tax (FBT).** PHI benefits both employers and employees. As with certain other employer-subsidised services (e.g. optometry) there may be an argument for exempting a portion of the subsidy from FBT.



Appendix 1

The econometric model is based on the following key assumptions:

Table A1. The key variables used in the econometric modeling were uptake of Kiwi Saver based on elasticity of demand, historical PHI claim rates, and demographic growth from Statistics NZ.

	Total uptake rate:	Number of claims lodged:	Population growth:	Uptake of each policy:
Scenario 1	Rate based on elasticity of demand. Reaching 55% of the labour force by 2027	Historical average	NZ Stats projections: 50th percentile	70% Major Medical 30% Comprehensive
Scenario 2	As above	As above	As above	50% Major Medical 50% Comprehensive

Table A2. Further data supporting the model and their sources are listed below.

Data	Source
Labour force estimates (historic)	NZ.Stats, data extracted on 09 Feb 2017 03:34 UTC (GMT)
Labour force projections	NZ.Stats, data extracted on 16 Jan 2017 02:23 UTC (GMT)
Unemployment rates	NZ.Stats, 10 year averages
Price of policies	Estimates based on current Southern Cross premiums.
Claim incidence rates (and number of claims)	Estimates based on historic HFANZ provided industry data
Premium-to-claim ratios	Estimates based on historic HFANZ provided industry data

Outcomes of Modelling:

Figure A1: Number of lives covered (with KiwiHealth) over time

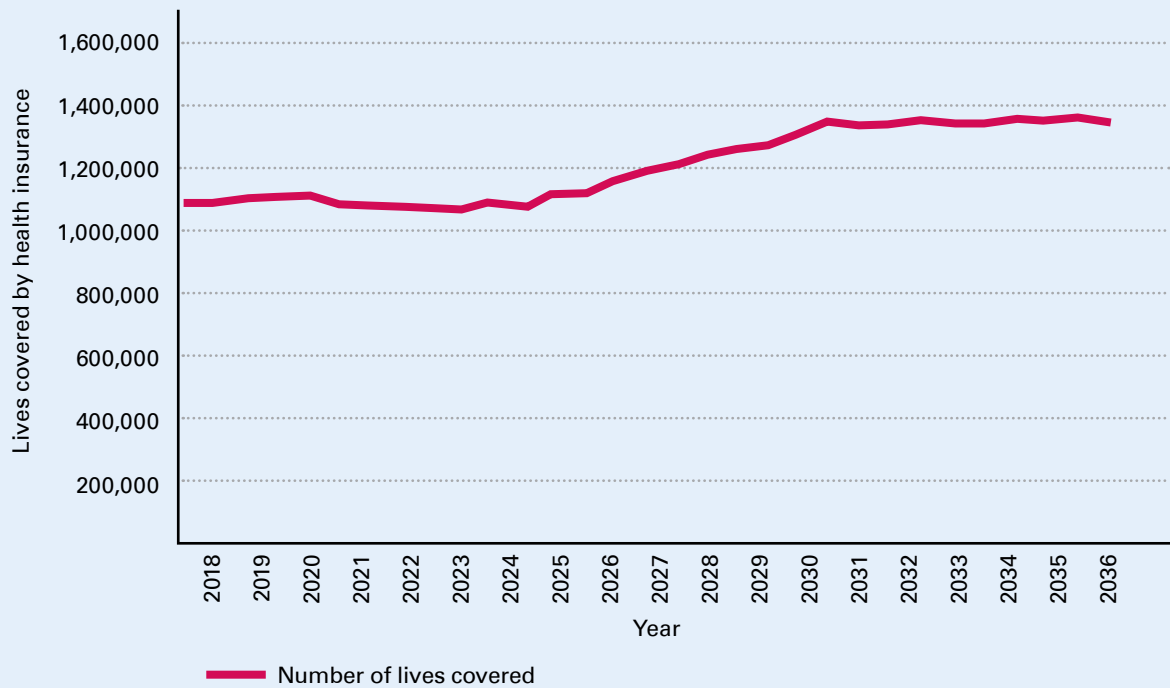


Figure A1 shows the growth in PHI uptake under KiwiHealth, which is estimated to be up to 400,000 additional lives covered by 2028.

Figure A2: New lives covered (scenario 1)

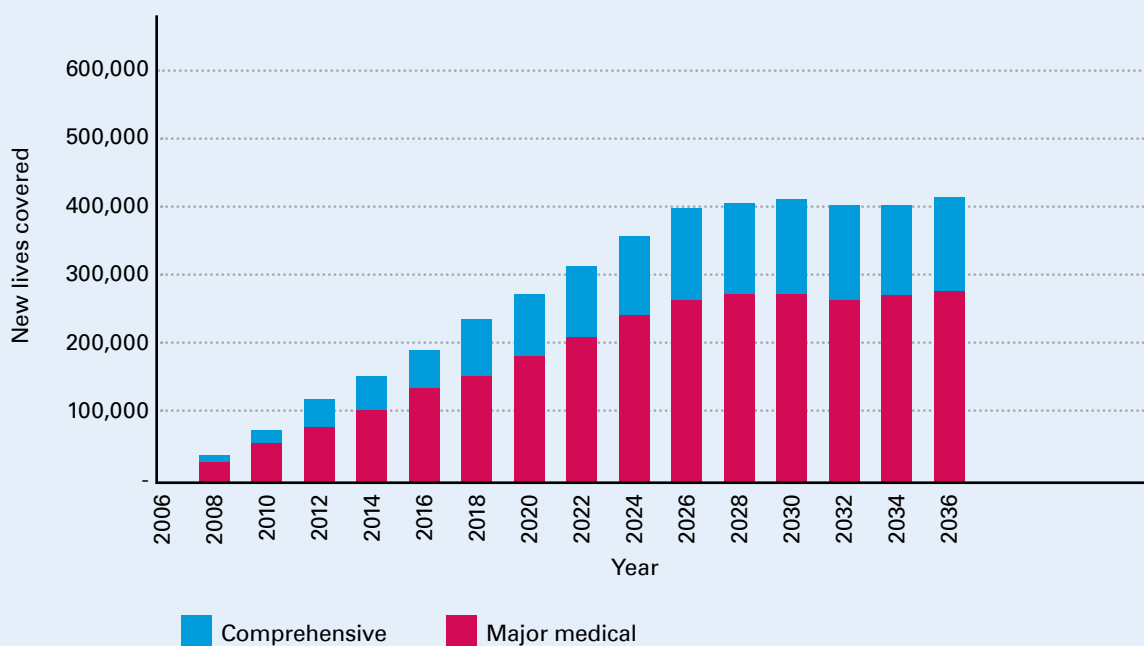


Figure A2 and A3 show number of new lives covered under scenario 1 and 2.
Figures A3 and A4 summarize the expected lives covered under scenario 1 and 2

Figure A3: New lives covered (scenario 2)

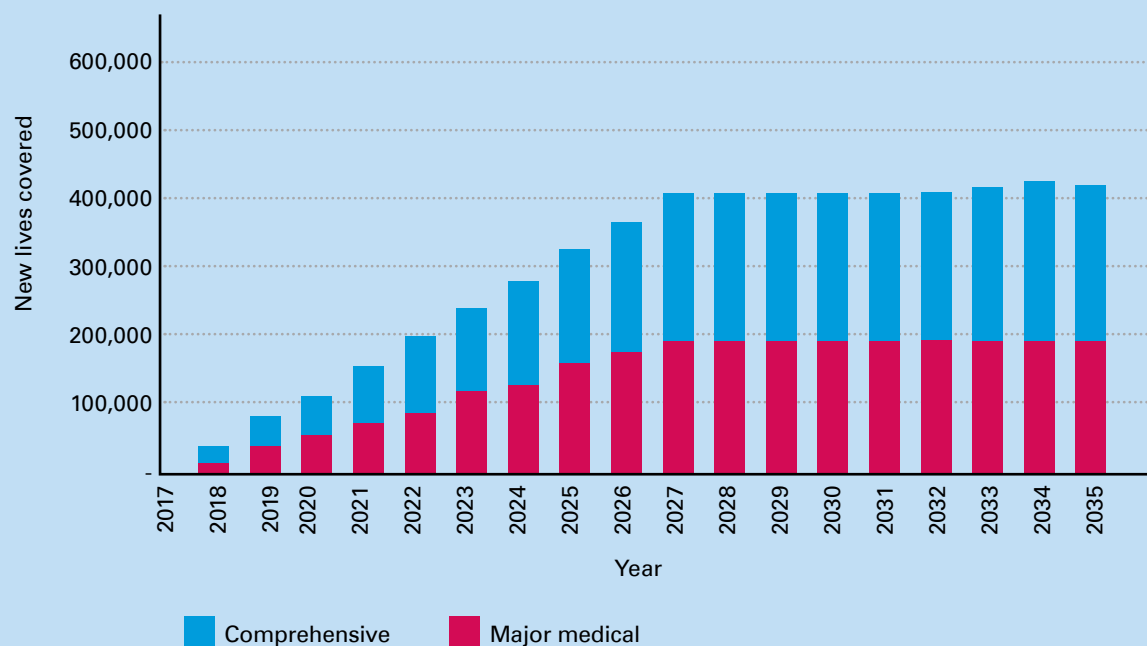


Figure A4: Premiums and claims paid

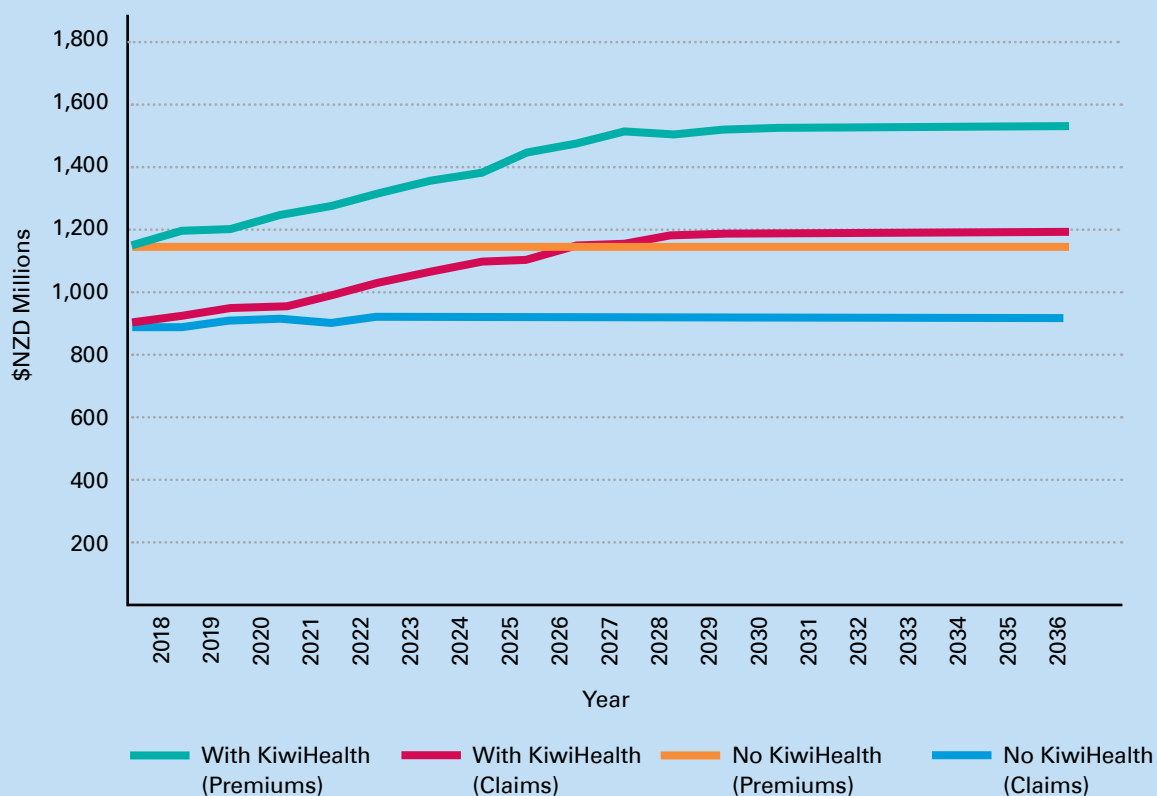


Figure A4 shows the expected premium and claim increase over time, based on historic averages. We note the value of claims relative premiums have increased in later years and that the estimated value of claims is conservative.

Appendix 2

Supply side considerations

Whether private provision of elective surgeries will increase the overall quality of healthcare in New Zealand depends on the following two key aspects:

- The level of public/private substitution. Would privately funded surgeries have otherwise been funded by the public system?
- The elasticity of supply of resources (surgeons and healthcare professionals). Would the resources used in the private system otherwise have been used in the public system?

Furthermore, does the existence of ACC and PHI help attract and retain the supply of skilled healthcare professionals to New Zealand.

The answer is likely to be a mix. In the short term, the supply of experienced professionals in New Zealand is relatively inflexible, and many of them work both privately and publicly.

Recent research suggests that PHI covers the following types of elective surgeries :

1. Elective surgeries that are not routinely offered in the public healthcare system or offered only in very severe cases (e.g. varicose veins, and dental surgery).
2. Surgeries that are offered publicly, e.g. such as hip and knee replacements and cardiac bypasses:
 - a) for patients who do not meet the public sector treatment threshold; and
 - b) for patients who meet the public sector thresholds but choose to use private health services funded by PHI.

It can be argued that 2b is the only pure public/private substitution.

Research does however suggest that PHI has, in certain health systems, 'injected financial resources into health systems, which has contributed to the financing of additional capacity and services'. If there is unmet demand for elective surgeries, and the public system is not increasing supply to meet the demand, investments in additional resource need to come from elsewhere.

References

- Benartzi, Shlomo; Thaler, Richard H (2007), *Heuristics and Biases in Retirement Savings Behaviour*
- Business New Zealand and Southern Cross Health, *Wellness in the Workplace – Survey Report 2015*
- Colombo, F. and N. Tapay (2004), “Private Health Insurance in OECD Countries: The Benefits and Costs for Individuals and Health Systems”, OECD Health Working Papers, No. 15, OECD Publishing, Paris
- Markussen, S. J *Popul Econ* (2012), 25: 1287. doi:10.1007/s00148-011-0390-8
- Ministry of Health (2016) *Overview of the Health System*. Available at: <http://www.health.govt.nz/new-zealand-health-system/overview-health-syste> [Accessed 21 February 2017]
- NZIER (2001), *The tax treatment of health insurance premiums*. Report to HFANZ
- NZIER (2014), *Private health insurance – An expanding role in the future of health care? NZIER report to HFANZ*
- OECD (2017), *OECD.stat Health expenditure and financing* [Accessed 21 February 2017]
- Samuelson, W. & Zeckhauser, R. J (1988), *Risk and Uncertainty*
- Schofield, D et al. (2011), *Economic impacts of illness in older workers: quantifying the impact of illness on income, tax revenue and government spending*. BMC Public Health 2011, 11:418
- Schofield, D et al. (2015), *Lost productive life years caused by chronic conditions in Australians aged 45-64 years, 2010-2030*. MJA 2013 (6) 21 September 2015
- Schofield, D, et al. (2016), *Economic costs of chronic disease through lost productive life years (PLYs) among Australians aged 45–64 years from 2015 to 2030: results from a microsimulation model*. BMJ Open 2016; 6:e011151. doi:10.1136/bmjopen-2016-011151
- Schofield D, et al. (2017), *The costs of diabetes among Australians aged 45–64 years from 2015 to 2030: projections of lost productive life years (PLYs), lost personal income, lost taxation revenue, extra welfare payments and lost gross domestic product from Health&WealthMOD2030*. BMJ Open 2017;7:e013158. doi:10.1136/bmjopen-2016-013158
- TDB Advisory (2015), *Assessing the net impacts of private health insurance*.
- TNS (2015), *Assessing the demand for Elective Surgery amongst New Zealanders* March 2016
- The Treasury (2002), *Treasury Report: Costs of Subsidising Private Health Insurance*
- Treasury (2016), *He Tirohanga Mokopuna, 2016 Statement on the long term fiscal position*
- Treasury (2010), *The Cost of Ill Health*, New Zealand Treasury Working Paper 10/04

Statement of Responsibility

Our report was prepared solely in accordance with the specific terms of reference set out in the engagement letter agreed between ourselves and Health Funds Association of New Zealand (HFANZ) and for no other purpose.

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The report dated 12 June 2017 was prepared based on the information available at the time. KPMG have no obligation to update our report or revise the information contained therein due to events and transactions occurring subsequent to the date of the report.



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