

Assessing the Net Impacts of Private Health Insurance



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1. Executive summary

This report provides a high-level assessment of the net impacts of private health insurance (PHI) on the New Zealand economy. The health sector is a significant part of the New Zealand economy and government spending on health is projected to account for an increasing portion of gross domestic product (GDP) for the foreseeable future. Although the PHI market is less than 10% of the total health market it is still a billion-dollar industry with important impacts on the health outcomes of New Zealanders.

This report assesses the net costs and benefits of PHI to the New Zealand economy within a comparative institutional analysis framework. The costs and benefits of PHI are assessed in relation to a counterfactual that assumes PHI is not available in New Zealand and therefore the public health sector expands the quantity of its current services while maintaining the quality of service currently provided by the public system.

We have attempted to quantify, where possible, the net benefits of PHI relative to the counterfactual described above. It is inevitably very difficult to assess the net benefits of PHI because the counterfactual is hypothetical. The reality is that the private and public health systems in New Zealand have co-evolved over time and there are complex interdependencies between the two systems.

One of the key findings of this report is that there is a lack of empirical research into the performance of the health system in New Zealand. As a result, there is very limited information on the relative quantitative and qualitative performances and overall health outcomes delivered by the public and private health systems in New Zealand. The feedback from the many stakeholders we have spoken to has confirmed how difficult it is to answer some of the basic questions we have asked because the data and research are not available. Therefore, much of our analysis has, by necessity, been a qualitative assessment of the impacts of the PHI market.

Our overall assessment of the key impacts of PHI is summarised below.

- **Waiting times** - the balance of evidence indicates the private sector has materially shorter waiting times for elective surgeries. This reduction in waiting times means people experience less pain and suffering, incur fewer care-related expenses and need to take less time off work. The private sector allows for conditions to be treated before they become more acute. Even with very conservative assumptions we estimate an annual saving of around \$100m as a result.
- **Health coverage and outcomes** - PHI allows people to gain access to additional healthcare services to suit their own needs or preferences. The PHI market provides an option for many consumers to gain access to a somewhat wider range of health services than they would have access to if there was no PHI and allows many consumers to gain access to health services sooner than they otherwise would. Health coverage is likely to be wider and health outcomes somewhat better as a result of PHI.
- **Risk management and smart purchasing** - private insurers operating in a competitive market have stronger incentives than a Crown-owned monopoly would have to manage agency costs in the health system and to drive down prices. PHI providers adopt, to varying degrees, a

number of strategies to manage healthcare costs. These strategies include: preferred providers; risk-rating of premiums; co-payments; coverage for preventative care; and negotiating lower prices with providers with bargaining power resulting from scale. However, in the New Zealand market, the private gains are likely to be limited and the majority are likely to be realised by surgeons.

- **Long-term management of the health system** – the Treasury expects healthcare costs to become an increasing portion of government spending and GDP. The existence of PHI means there is an alternative mechanism in place to help meet the changing needs of the market, adapt to the rapid technological advancements (some of which increase costs) and help meet the pressures of future demand.
- **Competition** – some studies suggest that high levels of competition in areas with private and public hospitals may help drive down costs and improve health outcomes across both the public and private sectors. On the other hand, there may be economies of scale (as discussed below) from consolidating buying power in a few or a single purchaser(s). The gains from competition are likely to be limited in the New Zealand market.
- **Economies of scale** – New Zealand has a highly centralised health sector with around 80% of total health spending coming from the government and around 73% of the claims paid in the PHI market being met by one provider, Southern Cross. There might nevertheless be some scope for additional savings through economies of scale if there was a single-payer system.
- **Equity** – on the one hand, the PHI market allows significant numbers of people to gain access to privately-funded health services via PHI policies. As at September 2015, over 1.3 million New Zealanders were covered by PHI policies. On the other hand, to the extent there are supply constraints (see below), people getting access through the private system may be ‘crowding out’ those on public sector waiting lists.
- **Consumer choice** - PHI provides consumers with a range of health-cover and risk-sharing options. The public healthcare system deals with population health risks (‘public health’) and universal access to a centrally determined set of healthcare services. PHI allows more consumers to tailor services to their private needs.
- **Cost savings** – given the lack of data on the New Zealand industry it is very difficult to determine whether per capita costs of healthcare would be higher or lower if there were no PHI in New Zealand.
- **Supply constraints** – if the supply of healthcare services is constrained, as is likely to be the case in the shorter term, the lower treatment thresholds in the private sector will mean less severe cases with PHI policies will use up health resources that could otherwise be used in the public sector on more severe cases. However, if supply can adjust to higher or lower levels of demand, as is more likely in the longer term, then PHI is likely to have a positive impact on the market – individuals with PHI will seek health services privately and free up room on the public waiting lists for the severely injured, allowing more people to be treated.

- **Spurring demand** – PHI may encourage some additional government spending on healthcare, to the extent that private insurance results in additional use of taxpayer-subsidised healthcare products like pharmaceuticals, laboratory tests or GP visits. However, ‘pro-consumptive’ concerns regarding PHI are decreasing as PHI customers are increasingly purchasing major medical policies only, rather than comprehensive policies. In addition, PHI providers are increasingly making use of demand-management tools like excesses and minimum claim amounts. PHI is therefore likely to be pro-consumptive for some health services, although this effect in the current market is likely to be relatively small.
- **Fiscal impacts** - we estimate fiscal savings resulting from PHI of around \$400m p.a., although this estimate is indicative only, based on high-level assumptions. These savings should not be considered a ‘benefit’ in a national cost-benefit sense – they are largely a transfer of potential public sector spending to private sector spending.
- **Deadweight cost of taxation** – while, as noted above, the government spending that is avoided by having PHI is largely a substitution of public spending by private spending, there is still a real economic benefit to reduced public spending. Private spending through PHI avoids the distortionary effects of the taxes that would be required to fund the extra government spending if there were no PHI. The New Zealand Treasury recommends using a deadweight cost of taxation of 20% on public sector spending. Given our estimate of the fiscal savings generated by PHI, we estimate savings of approximately \$77m p.a. through avoiding the deadweight costs of taxation.

Overall, PHI provides significant benefits to New Zealand. PHI allows consumers access to a wider range of health services, with lower treatment thresholds than the public sector, likely leading to better health outcomes, albeit with an increase in total spending in the health sector. New Zealanders with access to PHI enjoy more flexibility and choice in their healthcare decisions. PHI, by reducing waiting times, is also likely to result in people having fewer days off work through poor health and thus higher economic output. In addition, we estimate PHI generates fiscal savings of around \$400m p.a. which has the benefit of less distortionary impacts from taxation on economic activity. On the other hand, PHI imposes some economic costs that would most likely be avoided under a single-payer, state-purchaser system. PHI may spur demand for some health services, such as GP visits and pharmaceuticals; exacerbate supply constraints in the short term; and be more costly to administer than a single-purchaser health system. While these costs are material, in our judgement PHI is likely to provide considerable net benefits to New Zealand.

2. Introduction

2.1 Background

The Health Funds Association of New Zealand (HFA) has engaged TDB Advisory Ltd (TDB) to conduct an independent economic assessment of the net impacts of private health insurance (PHI) on New Zealand. This report examines and quantifies in monetary terms - to the extent that it is feasible – the net impacts of PHI on the economy and on New Zealanders’ overall welfare.

This assessment of the net impacts of PHI considers both the benefits and costs of PHI to New Zealand. The report also provides a separate indicative assessment of the fiscal savings to the government from PHI.

In preparing this report, TDB met with a number of industry stakeholders who provided valuable information, including representatives of:

- the Ministry of Health (MoH);
- the New Zealand Private Surgical Hospitals Association (NZPSHA);
- PHI providers; and
- the Treasury.

2.2 Purpose of the report

This report provides an assessment of the costs and benefits of PHI to the New Zealand economy. We consider the net impacts of PHI relative to a counterfactual where there is no PHI available in the market. Where adequate data is available we have sought to provide empirical estimates of the costs and benefits. In practice, however, there is little hard data or formal studies of the costs and benefits of PHI. Where we have used empirical estimates, we have sought to err on the side of caution and be conservative in our estimates of the benefits of PHI.

This report does not make a case for changing the current level of PHI, nor does it offer any comment on the costs or benefits of possible government interventions to subsidise, tax or offer concessions for PHI. Rather the report provides an objective assessment of the impacts of the current levels of PHI on New Zealand.

2.3 Structure of the report

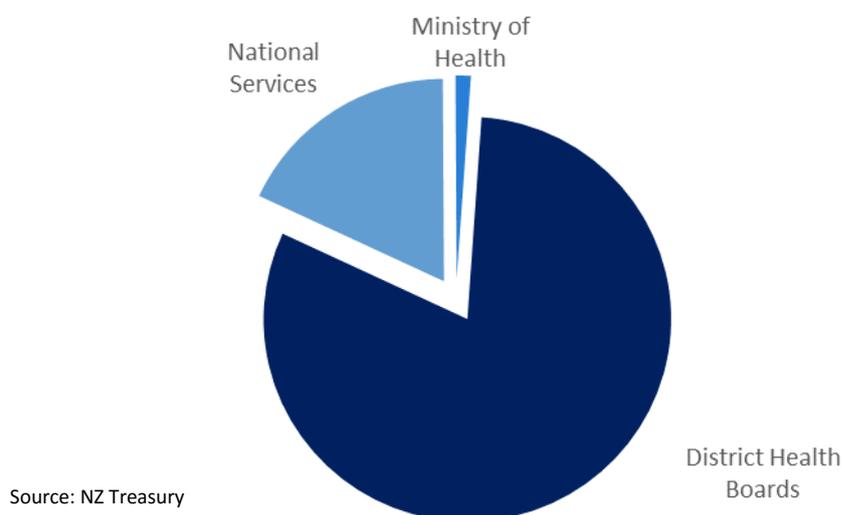
Following this introduction (Section 2), Section 3 of the report provides a brief background on the health sector. Section 4 outlines our methodology in carrying out this analysis. There is a lack of information comparing the public and PHI health sectors in New Zealand and Section 5 outlines our difficulties in gathering information. In Section 6 we carry out our cost-benefit analysis before providing an estimate of the fiscal impacts in Section 7, followed by our conclusions in Section 8.

3. Context

The New Zealand healthcare system consists of a mixture of publicly- and privately-funded and provided health services. In New Zealand approximately 80% of all healthcare spending comes from central government and the remaining 20% comes from private insurers or directly from consumers.¹

Public healthcare in New Zealand is funded through a complex system of government agency cooperation. The main source of funding for public healthcare in New Zealand is Vote Health, whereby the Minister of Health is responsible for appropriations through Vote Health. For the 2015/16 financial year, the amount allocated in the Budget to Vote Health totalled over \$15.8 billion. As depicted in Figure 1 below, approximately 81% of the Vote was distributed to District Health Boards, 18% went towards national services (such as, the purchase of national health and disability support services) and just over 1% of the Vote was used to fund the operation of the Ministry of Health.²

Figure 1: Distribution of Vote Health



Other substantial public funding mechanisms include (most notably) Accident Compensation Corporation (ACC) and spending through local governments and charitable organisations.

Figure 2 on the following page presents the OECD's findings on total spending on healthcare as a percentage of total government spending by country.

¹ OECD (2015), *Health at a Glance*.

² Treasury (2015), *Vote Health*.

Figure 2: Health expenditure as a percentage of total government spending

9.9. Health expenditure as share of total government expenditure, 2013 (or nearest year)

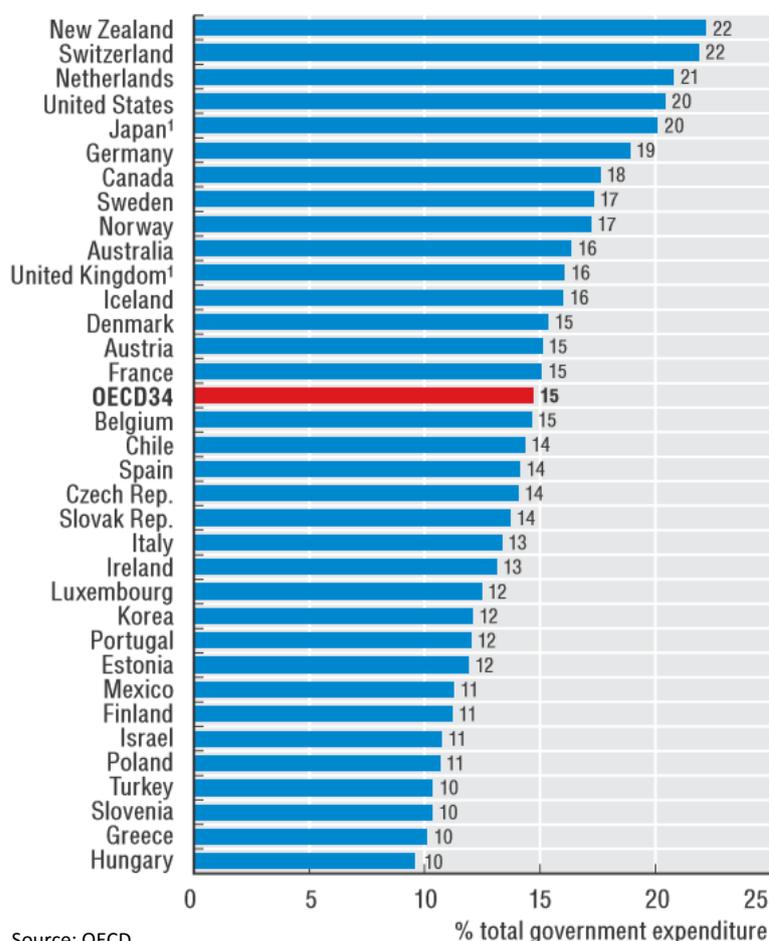


Figure 2 highlights New Zealand’s high level of expenditure on healthcare as a percentage of total government expenditure relative to other countries, with New Zealand having the highest relative spend in the OECD.³

In New Zealand, there is a set of publicly-funded health services that are generally available, although constrained through rationing. There are also significant differences in terms of the quality of care received through different DHBs around the country. In addition, consumers can purchase healthcare services directly from private providers or pre-emptively through PHI providers. Private funding of healthcare services is typically for cases where the government does not allocate funding for the service or where resources are constrained in the public sector. Of the private spending on healthcare, 72% (13% of total spending) is out-of-pocket expenses directly from consumers (a large portion of this is private co-payments for publicly-funded services such as GP visits and pharmaceuticals) and 28% (5% of total spending) comes from insurance companies.⁴

³ OECD, op. cit.

⁴ Ibid.

Private health insurance can be purchased from many different firms in New Zealand with Southern Cross Insurance accounting for the majority of market share (at around 73% of claims paid). PHI policies are typically split into two general categories: ‘major medical’ policies (to cover large, low probability events) and ‘comprehensive’ policies (to cover a wide range of medical expenses including major surgical procedures). In the past year, major medical insurance policies accounted for approximately 66% of all premiums collected and comprehensive insurance policies accounted for the remaining approximate 34%.⁵

4. Methodology

In this report we apply a standard welfare economics approach to estimate the net impacts of PHI on New Zealand. We analyse the incremental change in welfare that arises from the adoption of PHI relative to a (hypothetical) world in which PHI does not exist.

We undertake our assessment of the net impacts of PHI by carrying out a comparative institutional analysis. It is important to note that in comparing our two scenarios (of ‘with’ and ‘without’ PHI) it is the net impacts we are assessing. “The essential social problem is to work out which mechanisms – voluntary cooperation, market exchanges and collective choice – are best used for which purpose. We need them all. Markets can’t do everything, nor can governments.”⁶ To simply identify the costs and benefits of PHI in isolation would not provide a meaningful picture of its impact on New Zealand. “The limitations to the process of market exchange are sometimes referred to as ‘market failures’. However, such terminology is very misleading ... The only question that should matter is whether there is a better achievable alternative arrangement.”⁷ The costs and benefits of PHI must be identified in the context of and measured against a counterfactual scenario.

The current public healthcare system has evolved within a context where PHI exists, so it is difficult to establish an ideal counterfactual. In practice, were New Zealand to abolish PHI there are a number of ways that publicly-funded healthcare could change in terms of the quantity and quality of care provided. For example, the public sector could try to meet all the needs previously met privately.

It is very difficult to say how differently the healthcare system would look, in the short term and the long term, if the PHI providers did not exist. However, in this hypothetical analysis we consider a counterfactual that assumes that the quality of public care is held constant at its current levels to be the fairest and most appropriate scenario to assess the current costs and benefits of PHI.

For this counterfactual we think of PHI as currently covering three broad types of elective surgeries:

- elective surgeries which are not routinely offered in the public healthcare system or only in very severe cases (such as tonsils, varicose veins, most dental etc.);
- surgeries which are offered publicly (such as hip replacements, knee replacements, cardiac bypasses, angioplasty etc.)
 - for patients who do not meet the public-sector treatment threshold; and

⁵ Data provided by HFANZ for its members.

⁶ New Zealand Business Roundtable (2007), *Public Policy: An Introduction*.

⁷ Ibid.

- for patients who do meet the public-sector treatment threshold but choose to use private health services funded by PHI.

The counterfactual scenario assumes PHI is not available in New Zealand, but both public and private provision of healthcare continue. We assume that the provision of health services currently offered publicly will increase in our counterfactual to account for the extra demands on the public sector that would result once current PHI consumers (who meet the public sector treatment threshold) can no longer receive health services in the private sector. We therefore assume an increase in the quantity of publicly-funded elective procedures (to meet the needs of those who currently have PHI and who would meet the current public sector thresholds) while leaving the quality (thresholds, waiting times, care levels etc.) in the public sector unchanged from its current levels. Thus, in our counterfactual scenario we assume there is an increase in 'unmet' needs, to the extent that people who would have met the private thresholds (but not the public thresholds) are not treated or who have to wait for treatment; and those who require surgeries not offered publicly miss out.

Overall, we assume aggregate supply of elective surgeries declines with no PHI. We assume the quality of care in the public sector remains similar to today's public sector - that is, we expect waiting times, treatment thresholds, doctor-to-patient ratios etc. to remain similar to what they are now in the public sector.

In this report we identify and value, where possible, areas where PHI directly contributes to and benefits the New Zealand economy and areas where PHI has direct adverse effects on the economy. Both the economic benefits and costs can be categorised as being either quantifiable in monetary terms or very difficult or not quantifiable in monetary terms. There are inevitably a large number of economic costs and benefits that are difficult or impossible to assign credible specific monetary values to.

We will discuss these in detail below and attempt to weigh up the relative impacts of these various qualitative factors. For example, certain forms of healthcare provision can be considered pro-consumptive; that is, through partial or full subsidisation people are encouraged to consume greater quantities of healthcare services than they otherwise would have if they were faced with the full cost. However, subsidised health services will be consumed in excess whether they are publicly or privately funded – if we count the cost in one scenario we must count it in the other. Similarly, at present, people suffering from a medical emergency can be taken to a public accident and emergency (A&E) room and receive treatment. However, these facilities would also be available in our counterfactual scenario. If we count the benefits in one scenario, then they must also be counted in the other. Our analysis below focusses only on the net difference between the world with PHI and our counterfactual of no PHI.

Separately, we also include an estimate of the net fiscal impacts of PHI in section 7.

In preparing this report we met with various stakeholders in the industry who provided valuable insight and information. Our assessments below rely on the feedback from these stakeholders, the data and research they provided and our own literature review. We have not attempted to carry out our own surveys or gather new empirical data as that is beyond the scope of this assignment.

5. Data availability

As noted above, it is outside the scope of this report to undertake original empirical research on specific aspects of the costs and benefits of the private or public health sectors. This report relies on the information we have gathered from our meetings with key stakeholders, the data they have provided to us and our wider search of New Zealand and international healthcare literature.

In the New Zealand health sector there is a relative dearth of information regarding many aspects of the industry. Although the private and public healthcare markets have various mechanisms and procedures in place to monitor the level and quality of performance and outcomes there is very little comparative data available.

For example, even the benchmarks and performance across District Health Boards (DHBs) varies considerably and there has been significant variation in the treatment thresholds for different conditions across DHB borders. Further, the Ministry of Health holds little data on private hospitals with a 2014 study suggesting that “for optimal success, it is vital for MOH to improve their own datasets and to ensure that their data is put to its best use by researchers and analysts. Part of this improvement requires a push towards ensuring better data collection from the private healthcare sector of NZ”.⁸

A key finding from our work on this topic is just how limited the available data is. There is very little comparative information on the performance, the outcomes, and the quality of the public and private healthcare markets. The feedback we have received from the stakeholders we have spoken to has confirmed how difficult it is to answer some of the basic questions we have asked because the data is not available. Although a number of years old now, a wider study conducted by the OECD into the effects of private health insurance noted similar concerns: “the debate surrounding PHI markets in OECD countries is generally plagued by limited evidence on their functions and impact on health systems”.⁹

It is important to note the limitations that a lack of data places on this assessment. A number of the costs and benefits associated with PHI are discussed qualitatively below. Unfortunately, the nature of many of those costs and benefits in conjunction with the lack of local research and data make quantifying many of them in monetary terms impossible.

6. Analysis

This section details, to the extent possible in the time we have had available, the costs and benefits of PHI to New Zealand relative to our counterfactual. The counterfactual scenario assumes there would be no PHI market in New Zealand and the public health sector would expand so that the quality of

⁸ Singh, U., (2014) – *Studying the issues around the reporting of complete and quality data by private hospitals across New Zealand.*

⁹ Colombo, F. and N. Tapay (2004), *Private Health Insurance in OECD Countries: The Benefits and Costs for Individuals and Health Systems.*

public care remains constant at its current levels – eg, the public sector would not expand its scope to cover health services currently only offered via private funding or adjust its treatment thresholds.

6.1 Waiting times

The key quantifiable net benefit of PHI in our analysis is the increase in economic output resulting from PHI. Patients with PHI tend to receive elective surgery more quickly and spend fewer days away from work, resulting in increased economic output.¹⁰

A faster return to work benefits:

- individuals through increased incomes;
- employers through lower rates of absenteeism and increased output; and
- the government through higher tax revenues.

In economic welfare terms many of these benefits are interrelated and overlapping. To avoid double counting our calculation focusses only on the increase in output to employers.

We estimate the benefit that can be attributed to shorter waiting times for those receiving elective surgeries funded by PHI. We also carry out a cross-check of this estimate.

Our estimate is calculated based on the difference in the time taken off work by those waiting for surgery in the public system vs. surgery funded by PHI providers. Table 1 below presents various estimates of the additional days off work required by those on public waiting lists, as opposed to receiving privately-funded surgery.

Table 1: Additional days off work required on public waiting lists

Source	Days
NZIER - (TNS mean) (2013)	25.5 ¹¹
NZIER - (TNS median) (2013)	10 ¹²
Southern Cross research study (2005)	34 ¹³
NZIER - (CM Research) (2001)	19.8 ¹⁴

As Table 1 indicates, there is a large degree of uncertainty around the number of additional days off work required on public waiting lists. However, it is generally agreed that waiting times in the private

¹⁰ In New Zealand we typically observe a difference in waiting times and time off work for patients treated privately and publicly. Long waiting times are also observed in the single-payer public health system in Canada where patients have experienced a significant increase in waiting times over the past couple of decades: according to a report by the Fraser Institute, an independent think-tank, “the median waiting time to get treatment from a specialist [in Canada] has doubled in the past 20 years, to 18.2 weeks.” (Barua, B. (2014) *Waiting your turn: wait times for health care in Canada*.)

¹¹ NZIER (2014), *Estimate of the cost of waiting for elective surgery*.

¹² Ibid.

¹³ Southern Cross research study on elective-surgery waiting times (2005).

¹⁴ NZIER (2001), *Future Health Care Financing and the Public-Private Interface*.

sector are shorter¹⁵: “Provision of surgery at private hospitals tends to have shorter waiting times, and is not determined by the prioritization thresholds present in the public system”.¹⁶ It is important to note that a 2015 report carried out by the Office of the Auditor General found that the MoH and the DHBs had worked well in improving their management of treatment waiting lists and ensuring greater consistency across DHB boundaries.¹⁷ In order to be conservative in our savings analysis we take the lowest estimate of ten days.

Ministry of Health data on the patient discharges from DHBs and NZPSHA data suggest that there are around 500,000 elective surgeries carried out each year. Around 320,000¹⁸ patients were discharged from DHBs after being treated by surgical specialties in the 2014/15 year. A further 164,000¹⁹ patients received elective surgeries in NZPSHA hospitals in the past year²⁰. In addition, however, there are a number of private non-NZPSHA-members such as day surgery rooms, and small, private medical practices where surgeries are also carried out. NZPSHA facilities do not account for all PHI-funded surgeries as Southern Cross (around 73% of claims paid in the market) funds approximately 170,000 elective surgeries each year.

The Ministry of Health’s *Health and Independence Report 2015* indicates that the number of elective surgeries carried out each year is only around 167,000 (rather than the 320,000 above).²¹ These two sources (both from the Ministry of Health) are not identical measures, but it is not clear what is being measured in each case and why the discrepancy is so large. These examples highlight the difficulty there is in obtaining precise data in the health sector in New Zealand.

In addition, “the TNS report concludes in round numbers that there are:

- 280,000 [New Zealanders who] have been told they may require some form of elective surgery:
 - 110,000 of these are placed on waiting list; and
 - 170,000 of these are not placed on waiting list as they do not meet the relevant criteria.”²²

This information suggests that in addition to the uncertain number of elective surgeries carried out each year there are numerous people potentially in need of some kind of elective surgery who are unable to receive treatment because they do not meet the public sector treatment threshold.

¹⁵ A panel of experts is supporting the MoH in carrying out an independent survey to help effectively collect data on the existing level of unmet need in New Zealand. The MoH is also developing a national recording system to better manage patient referrals and to perhaps assist in the standardisation of treatment thresholds across DHB borders. (<http://www.stuff.co.nz/national/politics/77566630/Who-is-missing-out-on-surgery-Government-releases-first-figures-of-phantom-waiting-list?>)

¹⁶ Derret, S. et al. (2009), *Access to elective surgery in New Zealand: considering equity and the private and public mix*.

¹⁷ Office of the Auditor-General (2015), *Delivering Scheduled Services to Patients*.

¹⁸ Ministry of Health (2015), *Services delivered: Patient discharge and case-weight information*.

¹⁹ NZPSHA data on total procedures undertaken by member hospitals.

²⁰ Although the MoH indicates that around 8% of all publicly-funded procedures are carried out in private hospitals.

²¹ Ministry of Health (2015), pp. xi, 35, *Health and Independence Report 2015*

²² NZIER (2014), op. cit.

We use a low claim incidence rate in order to conservatively estimate an input for the number of PHI policy-holders who have elective surgery each year. The average privately-funded surgery is likely to be less severe than the average publicly-funded surgery as the public sector often has to deal with the most severe, most acute and most complicated cases. Our estimate therefore relies on a conservative claim incidence rate to ensure we do not overestimate the savings from privately-funded elective surgeries.

HFANZ has claim incidence rates broken down by policy type, age, and gender. For the working age population these claim incidence rates range from 9.35% (male, aged 20-24, major medical PHI policies) to 64.12% (female, 60-64, comprehensive PHI policies)²³. To be conservative, our estimate in Table 2 below assumes the lowest possible claim incidence rate (9.35%) across all age groups, genders and policy types.

HFA estimates²⁴ the current levels of PHI in New Zealand are:

- total lives covered: 1,341,400
- lives covered (working people): 773,970
- lives covered (non-working): 567,430

The 2015 Wellness in the Workplace survey estimated the median total cost for each absent employee in 2014.²⁵ This paper estimates a median cost of \$616 per year per employer for 4.7 days off work. On a per day basis this works out to be a median cost of \$131 per employee. We only focus on the cost to employers through lost output so we restrict our sample size to the working population with PHI policies.

Table 2: Estimate 2: savings from fewer days off work

Lives covered (employed)	773,970 ²⁶
Claim incidence rate	9.35%
Fewer days off work	10
Median cost of days off work (per day)	\$131 ²⁷
Total savings	\$95m p.a.

On this basis we estimate total savings from PHI of around \$95m p.a.

As noted above, the public sector typically deals with the most severe and complicated cases and therefore the time off work for those waiting for treatment in the public health system is likely to be skewed by the most extreme and acute cases. The private sector also carries out a number of surgeries that would not be provided publicly. However, we have taken a number of steps to ensure our estimates are particularly conservative:

²³ HFANZ data on PHI policies of members (2015).

²⁴ HFANZ data (Dec, 2015).

²⁵ Business New Zealand (2015), *Wellness in the Workplace – Survey Report 2015*.

²⁶ HFANZ estimate of current levels of PHI in New Zealand.

²⁷ Business New Zealand (2015), *op. cit.*

- 1) we only estimate the lost output to employers from time off work – in doing so we exclude all the additional costs, such as time taken off work to care for loved ones, pain and suffering, paid or unpaid care at home, lost productivity through unwell employees at work, interim medical costs and the costs incurred by all those who happen not to be employed;
- 2) the private sector has lower treatment thresholds and thus people are treated earlier and avoid the costs of drawn out, worsening conditions that end up being a further burden on the public health sector;
- 3) the ‘waiting times’ on public sector waiting lists are often underestimated – many people do not make the list despite needing elective surgery. Of the 280,000 people each year that are told they may require elective surgery but do not get it, 170,000 of them (61%) are not placed on a waiting list²⁸. A lot of time and consultation can pass in the public sector before a patient technically makes it on to a waiting list;
- 4) the privately insured tend to be more highly educated and have higher incomes. Our “median cost of days off work” is based on a population average which may be an underestimate. The average lost output for a person with PHI is likely to be higher than the national average given the demographic of PHI policy holders;
- 5) we take the most conservative estimate of the expected difference in days off work; and
- 6) we take the lowest possible claim incidence rate (males, aged 20-24 on major-medical-only policies).

Given the conservative assumptions described above we are only counting the lost output for around 72,000 surgeries each year.

Cross-check

To provide a cross-check of our above estimate we undertake a high-level analysis of the difference in the average number of days off work for those with health insurance and those without. A 2015 TNS survey²⁹, as shown in Figure 3 below, found that those with PHI took, on average, 4.7 days off work a year compared with 5.7 days off work for those without PHI.³⁰

²⁸ TNS (2013), *Assessing the demand for elective surgery amongst New Zealanders*.

²⁹ TNS (2015), *Understanding the employer benefits of health insurance*.

³⁰ Note: the study looked specifically at those with PHI paid for by their employer. In our estimate we extrapolate these findings to all those with PHI policies.

Figure 3: The effect of PHI on days off work



The TNS survey indicates that on average, one less day a year is taken off work by those with PHI. To estimate the aggregate output effect of PHI we use, as above, HFANZ data on the total lives covered of working people and the median cost of days off work estimated in the 2015 Wellness in the Workplace survey.

Table 3 below details the estimated savings from the reduced number of days off work taken by those with PHI.

Table 3: Savings from fewer days off work

Reduction in days of work for those with PHI	1
Lives covered (employed)	773,970
Median cost of days off work (per day)	\$131
Total savings	\$101m p.a.

Based on the above analysis we estimate total savings of around \$100m p.a. which is similar to our initial estimate.

We consider total savings of around \$100m p.a. to be a lower bound estimate of the possible savings resulting from reduced waiting times in the private sector. As detailed above, we have been conservative in our estimate and the costs of waiting for surgery (as they differ between privately-funded and publicly-funded surgeries) could be considerably higher than \$100m p.a.

6.2 Health coverage and health outcomes

The publicly-funded healthcare system is best suited to managing population health risks (e.g. communicable diseases) and ensuring everyone has access to a minimum level of healthcare and disability support. The New Zealand publicly-funded health system funds around 80% of total healthcare costs in the country. Given the New Zealand system is designed to provide access to largely free healthcare for everyone, rationing must take place through physical means (i.e. queuing) rather

than price-based means. This rationing is based on population risks and political decision-making, rather than individual risks or preferences.³¹

In New Zealand, PHI allows people to gain access to additional healthcare services to suit their own needs or preferences. The PHI market provides an option for many consumers to gain access to a wider range of health services than they would have access to in our counterfactual scenario.

As noted above, we assume under the counterfactual that the public healthcare system is expanded to cover the entire population but the quality of service remains similar to that currently provided by the public system. For any given surgery we do not have the data to make an adequate comparison of the quality of service received via public and private funding. We expect outcomes are fairly similar, especially given that many health specialists work in both the public and private systems. Over one third of surgeons split their time between the public and private sectors so it will often be the same person conducting the surgery in both sectors.

However, given everyone has the free option of participating in the public healthcare system, the fact that many people choose to purchase PHI suggests that the perceived level of coverage or the quality of service provided by PHI providers is worth at least the price of the premiums to consumers. For those who can afford it, PHI provides the option of access to a somewhat wider range of health services and at least a perceived improvement in the quality of care (e.g. through more timely access to services) and/or better health outcomes.

The existence of PHI thus provides consumers with the option of tailoring their health cover to suit their preferences and so, if the private market does not act as a significant distortion on the public health system,³² we should expect wider coverage for consumers and better health outcomes. If privately-insured patients are able to access treatments more quickly or which are unavailable publicly and also remove themselves from public waiting lists in favour of private-insured treatment, then it should lead to better health outcomes and free up space and resources for additional people to be treated via the public health system. We discuss the extent to which the market may be distorted and supply constrained in section 6.11 below.

6.3 Risk management and smart purchasing

Insurance generally, is about risk pooling and efficient risk management. A well-functioning market will result in risks being allocated to the parties who are most suited to managing the particular risks. In the case of healthcare, the government has a clear advantage in managing population health risks and providing general access to particular health services. PHI providers however, are likely to be well suited to managing many health risks, particularly low probability, high cost events like major surgery. Individuals are typically likely to be best placed to manage many of the high probability, low cost health risks (like visits to a GP) they face.

Private insurers in competitive markets are likely to have stronger incentives than a Crown-owned monopoly to manage agency costs in the health system and drive down prices. PHI providers adopt a

³¹ NZIER (2001), *Future Health Care Financing and the Public Private Interface*.

³² As discussed below in more detail.

number of strategies and cost-management mechanisms that reduce the moral hazard concerns and healthcare prices, such as:

- preferred providers;
- co-payments;
- coverage for preventative care;
- risk-rated premiums; and
- negotiating lower prices with providers with bargaining power resulting from scale.

However, government organisations can also take steps to manage these agency costs. Southern Cross (private) and ACC (public) are increasingly adopting these strategies in order to manage price inflation more effectively than an individual consumer can achieve through negotiation directly with healthcare providers. Pharmac has also performed well in reducing costs for consumers through bulk purchasing and negotiation of pharmaceuticals, and Sovereign proactively contracts with providers through its Healthcare Partnership Programme.

Both Southern Cross and ACC are also encouraging preventative steps to manage risks and reduce long term costs on the health sector. For example, ACC engages with New Zealand Football in an educational capacity to promote warm ups and other preventative care; Southern Cross has a number of workplace wellness programmes that are mostly preventative including a focus on fitness, nutrition, weight management, flu vaccinations and emotional health; and Southern Cross also will be shortly introducing an allowance for prophylactic treatment to prevent disease or illness from occurring where there is an identified high risk.³³

Consumers in the health sector, as for many other goods and services, can potentially be victims of overcharging, “gold-plating”, fear mongering and supplier-induced demand. However, it is uncertain whether the government, in our counterfactual, would manage these agency costs any better. In our counterfactual there is no option for consumers of allocating risk to PHI providers. In this risk management respect, the present system is likely to have positive net benefits relative to the counterfactual – in a single-payer system the low probability, high risk events that PHI providers currently manage would be forced onto the government or the individual who are not necessarily as well-equipped to manage these risks.

6.4 Long-term management of the health system

Going forward, the pressures on the healthcare system are likely to increase. It is unlikely that the increasing public demand for health services will be fully met by a publicly-funded system alone. There will be a need for other solutions to meet the growing expectations of an aging population with longer life expectancies and a desire to access a wide range of technological advancements.

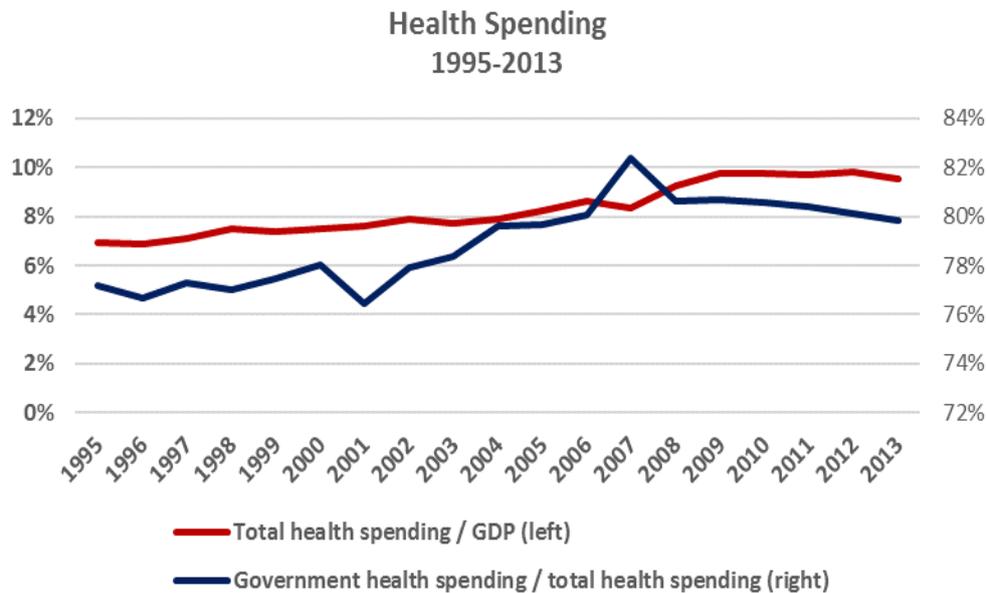
The OECD has collected information on health spending in New Zealand over the past two decades.³⁴ As can be seen in Figure 4 below, total health spending in the economy as a percentage of GDP has

³³ http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11580017.

³⁴ OECD Health Statistics.

steadily increased. The public share of total health spending is higher than it was 20 years ago, although has declined slightly in recent years.³⁵

Figure 4: Historical spending on health in New Zealand



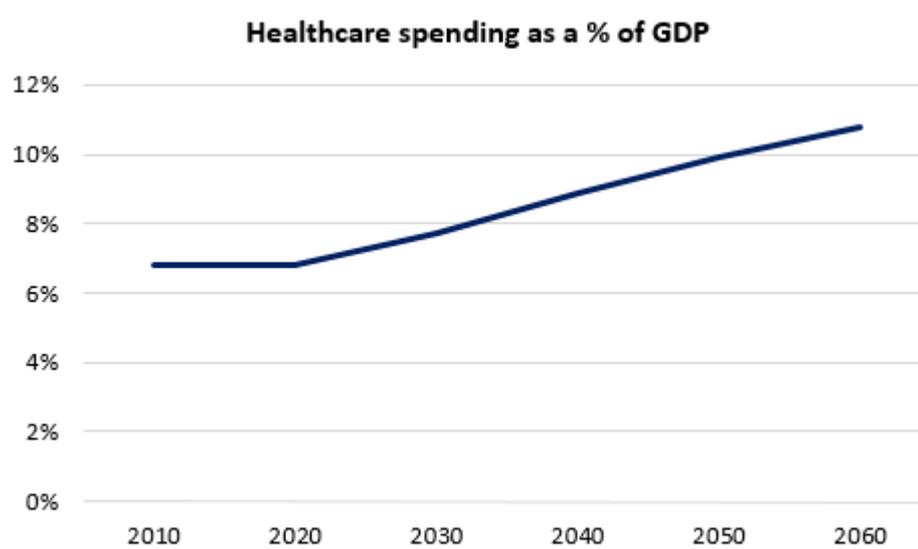
It is important to note that not only has total spending on health steadily increased over the past 20 years, government spending now accounts for a higher proportion of total spending. Healthcare is becoming an increasingly significant part of the New Zealand economy and this places growing fiscal pressures on the government to meet the growth in demand.

The Treasury projects that these pressures will continue going forward and public healthcare spending will increase from 6.8% of GDP in 2010 to 10.8% of GDP by 2060 as can be seen in Figure 5 below.³⁶

³⁵ The NZ health spending data from 2008 onwards was recently revised. This adjustment means the 2007 data is inconsistent with the following years and appears as an outlier.

³⁶ Treasury (2013), *Affording Our Future*.

Figure 5: Projected government spending on healthcare



The Treasury expects a steady increase over time in government spending on healthcare reflecting the growing demand for health services from the public. In order to feasibly meet the public health needs, a publicly-funded, equitable healthcare system must ration and provide similar access to health services for everyone. However, technological advancements will broaden the range of health services and products available and they are likely to be increasingly tailored to the needs of different types of consumers. The private sector is likely to be more adept at and better-suited to allowing people to tailor insurance policies and coverage to meet their needs.

Improved technology is perhaps the most important factor in increased spending on healthcare.³⁷ Technological advancements in this market are not slowing down. PHI providers can assist in providing access to new products for consumers at a small scale, tailored to customers with specific needs. It is much more difficult for the government to navigate the fast-paced changes in the market when its key role is to manage population health risks and provide general access to a standardised set of health services.

The existence of PHI ensures there is an alternative mechanism in place to adjust to the changing needs of the market, adapt to the rapid technological advancements and help meet the pressures of future demand. The counterfactual scenario, a public single-payer system, is less likely to have the flexibility or capacity to meet the growing pressures on the health system.

6.5 Competition

There is some evidence that a competitive private market for hospitals can prompt both public and private hospitals to improve their performance. The English National Health Service (NHS) introduced reforms from 2002 to 2008 encouraging patient choice and competition among providers. One study found that once “patients were given the ability to select the hospital they attend[ed] for surgery and the government provided publicly assessable information on provider quality to inform patients’

³⁷ Henderson, D., (2015), *Health Care Incentives Matter*.

choices” then their “marker for service quality (AMI mortality) improved more quickly for patients living in more competitive hospital markets.”³⁸

Similarly, in their 2012 paper, “Competition in Health Care Markets”, Gaynor and Town conduct a literature review of the relationship between competition and quality in healthcare markets. These studies focus on the US market and find that on balance, in markets where prices are administratively set, competition has a positive impact on quality. “However, the results from studies of markets where prices are set by firms (eg, privately insured patients) are much more variable. Some studies show increased competition leading to increased quality, and some show the opposite. While this may appear surprising, it is not. Economic theory predicts that quality may either increase or decrease with increased competition when firms are setting both quality and price.”³⁹

A 2015 US study carried out by the National Bureau of Economic Research found that “hospitals negotiate higher prices when they face less competition: those with monopoly power charge an average of 15 percent more than those in areas with four or more hospitals”.⁴⁰

On the other hand, Pharmac is a relatively successful single purchaser of pharmaceuticals in New Zealand. That success is, in part, due to the support of some PHI providers not competing with Pharmac so as to avoid undermining its bargaining power with pharmaceutical companies. In this case, competition amongst local buyers is likely to benefit offshore pharmaceutical companies.

There is a fairly direct link between the existence of private health insurance and the number of privately-funded hospitals in New Zealand. Some studies suggest that these additional hospitals tend to create a more competitive market than we would expect to see in our counterfactual. This competition may lead to either lower costs and/or better quality of service in both the private and public hospitals in an area. However, it is difficult to determine what the effects of competition and PHI might look like in New Zealand relative to our counterfactual.

6.6 Economies of scale and bargaining power

‘Economies of scale’ are the cost savings that result from increasing the scale of operations of an organisation. Increased scale may lead to savings in production, administration and purchasing costs on a per unit basis.

In our counterfactual a single-payer public health system could benefit from economies of scale and increased bargaining power. In principle, a single payer could enjoy some savings in administrative expenses and avoid the duplication that currently exists across multiple PHI providers. The Center for Medical Progress estimated that a single-payer system in the US could generate significant savings in administration costs. In its 2007 study they estimate that the administrative costs for private health insurance range from 11-14 percent of total premiums, while only 6% of the Medicare budget is taken

³⁸ Copper, Z et al. (2011) *Does Hospital Competition Save Lives? Evidence from the English NHS Patient Choice Reforms*.

³⁹ Gaynor, M. and Town, R. J., (2011), *Competition in Healthcare Markets*.

⁴⁰ NBER (2015), *The Price Ain't Right? Hospital Prices and Health Spending on the Privately Insured*.

up by administration costs.⁴¹ These findings indicate considerable scope for savings through economies of scale if the health sector were to consolidate into a single-payer as in our counterfactual.

A single-payer public health system may also enjoy a noticeable increase in bargaining power compared to the current system. At the moment over one third of surgeons work solely in the public sector, over one third perform a mixture of public and private work (as noted above) and the remainder work solely in the private sector. The existence of the PHI market provides significant, privately-funded work for surgeons and it means there are a number of buyers in the market. In our counterfactual there would be significantly fewer surgeons able to find private work and many would only have a single purchaser to negotiate with. There would be some scope for driving down the current costs to the extent that specialists have significant market power while there are competing health-service purchasers in the market. The Crown as a single purchaser may be able to better negotiate with healthcare providers to drive down costs for the public.

On the other hand, the New Zealand health sector is already highly centralised. The annual claims paid out by PHI providers were around \$1b in 2015 (with the difference between earned premiums and claims paid around \$230m).⁴² The government, on the other hand, expects to spend around \$11.7b to fund health services from District Health Boards (DHBs) in 2015/16.⁴³ The PHI market in New Zealand makes up a relatively small portion of the total health spend. It is also dominated by one large provider, Southern Cross. Furthermore, Southern Cross pays out around 90%⁴⁴ of its total premiums in claims and so the 11-14 percent estimate (referenced above) for the United States is likely to overstate the average administrative costs for PHI in NZ.

Once it is factored in that some of the PHI services are complementary rather than duplication, that the PHI providers may be enjoying the benefits of smart purchasing, and the additional public administrative costs associated with expanding the public health services sector, then the scope for savings in the counterfactual is likely to be relatively small. Further, it is possible that a large, single-payer monopoly could experience bureaucratic inefficiencies and complexity issues. It is therefore not necessarily the case that cost-savings will be achieved through the creation of a state-owned monopoly funder.

Further, the increased bargaining power a single purchaser has vis-a-vis medical professionals may also be limited over time as there is an international market for highly-skilled medical professionals and a fair degree of global labour mobility.

Although we consider the scope for savings through economies of scale is fairly limited in New Zealand's highly centralised health market, on balance we expect that it is more likely that some savings could be achieved.

⁴¹ Center for Medical Progress at the Manhattan Institute (2007), *Comparing Public and Private Health Insurance: Would a Single-Payer System Save Enough to Cover the Uninsured?*

⁴² HFA quarterly data on the New Zealand PHI market.

⁴³ Treasury (2015), *Vote Health*.

⁴⁴ Information provided by Southern Cross.

6.7 Equity of outcomes

Part of the issue in attempting to gauge the equity of different outcomes is the difficulty associated with measuring and defining 'equity' and 'desirable outcomes'. As we note earlier in this report, there is a lack of industry data generally. However, in this instance, it is uncertain what data would be needed in order to best measure the equity of outcomes. The number of patients treated? Waiting times? The quality of care and recovery? Whether there is a systematic bias in the quality and quantity of treatments received by different groups in society? And then it would be a matter of ensuring the same data was collected in the public sector and PHI-funded sector and comparing them.

For instance, the government has recently pushed to reduce waiting times to a maximum of four months. One strategy to do so was to increase the threshold required to qualify for surgery. A recent study found that "whilst elective waiting times had reduced, no data was collected on the outcome of those patients who did not reach the threshold for treatment".⁴⁵

If an individual cannot receive a medical procedure available through the public health system due to the treatment threshold being too high, the waiting time being too long or the service not being offered, then the alternative is to seek medical attention privately. In our counterfactual, only a relatively few wealthy individuals would be able to afford expensive private medical treatment (by paying directly 'out of their pocket'). This would create a situation where the vast majority of the country only have access to the standard public healthcare system, while a select few can enjoy the benefits of access to private healthcare.

The PHI market, on the other hand, allows significant numbers of people to gain access to privately-funded health services via PHI policies. As noted above, as at September 2015 over 1.3 million New Zealand lives were covered by PHI policies. The PHI market may therefore create a more equitable healthcare market as it allows a large portion of the country to gain access to additional health services than would be the case if there were no PHI.

It is worth noting that PHI does not solve all equity concerns: Blumberg found that "the privately insured tend to be more highly educated, between the ages of 35 and 64 years of age, currently employed, higher income, and of European descent, as compared to the rest of the adult population".⁴⁶

Attempting to assess the relative equity of outcomes, even qualitatively, is a difficult task. It is uncertain which scenario is likely to perform best on this measure.

6.8 Consumer choice and flexibility

PHI provides consumers with a range of health-cover and risk-sharing options. As discussed above, under the counterfactual consumers would be forced to use the public healthcare system or pay in full for private healthcare. The public healthcare system deals with population risks and general access to a centrally determined set of healthcare services - it is much harder to set limits and tailor services

⁴⁵ Blackett, J. et al. (2014), *The impact of the 6-month waiting target for elective surgery: a patient record study*.

⁴⁶ Blumberg, L., (2006), *The Effect of Private Health Insurance Coverage on Health Services Utilisation in New Zealand*.

on a case-by-case basis. The inevitable rationing that must take place in any public healthcare system will not suit the needs and preferences of everyone. PHI allows more consumers to tailor services to their private needs.

For example, Pharmac will have a stricter policy on the pharmaceuticals it funds than many insurance providers. Having PHI may provide a sick individual exposure to a wider range of treatment options. The PHI market is also likely to adapt more quickly to a changing healthcare landscape and technological advancement. This flexibility may allow surgeons (many of whom will also work in the public sector) to be exposed to and become familiar with new treatments, new drugs and new medical equipment (such as robotic surgeries).

There is likely to be a significant loss of individual choice under a monopoly state purchaser for those individuals who can afford PHI. This concern is likely to be exacerbated within a political context where Ministers may face pressures to pander to the majority. There is a greater risk that the healthcare system will cater to the voting majority.

6.9 Deadweight cost of taxation

In section 7 of this report we provide an indicative estimate of the net fiscal savings that are likely to result from the PHI market relative to our counterfactual. We estimate indicative savings of approximately \$390m p.a.

If there were no PHI, the additional government spending that we estimate would be required would have to be financed by increased taxation. This increased taxation has a distortionary effect on private spending, saving and work decisions. This distortionary effect of taxation is referred to as the 'deadweight cost' of taxation.

The New Zealand Treasury recommends assuming a deadweight cost of taxation of 20%, i.e. for costs that must be funded via general taxation additional costs are generated by the distortionary effects of the taxation process.⁴⁷

Applying Treasury's recommended rate of 20% for the deadweight cost of taxation to our estimated fiscal savings of \$390m p.a. we estimate that net economic benefits of around \$77m p.a. would be generated by the PHI market relative to our counterfactual.

6.10 Cost savings

Given the limited availability of data on the PHI market and the lack of empirical research on the issue in New Zealand it is beyond the scope of this report to quantify the overall cost savings that may arise from PHI in New Zealand.

The government's role in the health market is to manage the population health risks and provide universal equitable access to these services. The PHI market also attempts to address some of these same health concerns by providing PHI products that can be tailored to individual requirements (in addition to offering access to other health services the government does not or cannot provide).

⁴⁷ Treasury (2015), *Guide to Social Cost Benefit Analysis*.

It could be argued that the profit incentive and competition between PHI providers encourages improved customer service, increased efficiency and drives down the costs of healthcare services for PHI purchasers. Some commentators believe the existence of a private healthcare market allows the public sector to hire clinicians and surgeons more cheaply. It may also allow more public hospitals to have part-time access to specialists as they can supplement their incomes with private-sector work.

On the other hand, the profit motive of PHI providers may not necessarily lead to improved health outcomes or reduced costs for patients: duplication of administrative costs across multiple PHI providers could be considered unnecessarily costly; some believe the PHI market spurs demand for healthcare placing a greater burden on the public sector; the profit motive can lead PHI providers to compete on customer selection and risk profiles rather than on the quality of their service and efficiency; and given the complexity of the market and the asymmetries of information, PHI providers may encourage consumer decision making that is at odds with desired social outcomes.⁴⁸ Some believe that the existence of a PHI market increases the costs of physicians for the entire market. Also, there are some concerns that the private health sector adopts new and expensive technologies, even when cost and efficacy are questionable, and these technologies cascade through the system as a whole.

Given the lack of data on the New Zealand health industry it is very difficult to determine whether per capita costs of healthcare would be higher if there were no PHI in New Zealand.

6.11 Supply constraints

Demand for health services is increasing in New Zealand in response to longer life expectancies, a shift in population demographics, advances in medicine and increased public expectations. The Treasury projects that healthcare spending will steadily increase from 6.8% of GDP (or 23% of total government revenue) in 2010 to 10.8% of GDP (or 33% of total government revenue) by 2060.⁴⁹ This increase in demand will place pressure on the healthcare system. These pressures and the costs and constraints associated with becoming a medical professional mean that there are some aspects of the New Zealand market that limit the supply of surgeons in the country, particularly in the short term.

Some opponents of PHI argue that privately-funded surgeries use resources that would otherwise be used publicly. The concern is that less severe issues are treated privately while some of the most important cases on public waiting lists miss out as a result. The opposing view holds that privately-insured patients can seek treatment privately and therefore free up space on public waiting lists allowing a greater number of cases to be treated overall.

A 2009 study on the New Zealand health sector found that “high private provision was not associated with better access to publicly funded surgery. Moreover, the argument that private provision for the well-off reduces the burden on the public system allowing better access for the poor was not supported. Consequences (sic) of two-tier health systems, as in New Zealand, need more investigation

⁴⁸ Colombo, F. and N. Tapay (2004), op. cit.

⁴⁹ Treasury (2013), *Affording Our Future*.

and public discussion.”⁵⁰ This finding does not make it clear which of the above effects dominate: the study suggests that PHI does not allow more patients to access public treatment, but nor does it indicate that PHI uses up medical resources to the point that there is a reduction in the number of patients that have access to public care.

It is important to consider the supply elasticity and labour mobility in the healthcare services market over different time frames. In the short term, the supply of surgeons in New Zealand is likely to be very inelastic (ie, to be fixed, with supply not responsive to increases in price). To the extent that labour mobility is low, the bargaining power of surgeons is high and the supply of medical professionals is inelastic, the private sector may cannibalise the public supply of health services. Prices are likely to be driven up and fewer of those most in need will be treated publicly while less severe cases will employ resources through private-sector treatment that could otherwise be used more effectively.

To the extent that the supply of healthcare services is price inelastic, as it is more likely to be in the shorter term, then PHI may have a negative impact on the market – the limited number of medical professionals in the country will be splitting their time between the public and private sectors. The lower treatment thresholds in the private sector will mean less severe cases with PHI policies will use up health resources that could otherwise be used in the public sector on more severe cases.

On the other hand, supply is likely to be more elastic in the medium to long term. To the extent that labour mobility is high, the bargaining power of surgeons is low and the supply of medical professionals is elastic then the private sector will not cannibalise the public supply of health services. Patients with PHI seeking privately-funded health services will free up space on public-sector waiting lists for the severely injured, allowing more people to be treated.

Furthermore, the existence of PHI adds significant capacity to the private health sector. The physical capital employed by NZPSHA members (beds, operating theatres, procedure rooms, medical equipment) is a clear indication of the additional resources that private healthcare brings to the overall health market in New Zealand. It is unlikely that in our counterfactual, the public sector would fund this level of additional physical capacity.

There is some evidence that New Zealand’s medical labour force is internationally mobile. For example, a study conducted by the Association of Salaried Medical Professionals and the 20 District Health Boards notes: “New Zealand has the lowest ratio of specialists per thousand population in the OECD and has the highest proportion of international medical graduates of any country in the OECD, a third of whom leave within 9 years of registration, and we lose around 16% of New Zealand trained specialists within 9 years of starting their specialist career.”⁵¹ These pressures make the retention of medical professionals in New Zealand difficult but also indicate a significant degree of international labour mobility. In our counterfactual there would be no PHI: income for health professionals is likely

⁵⁰ Derret, S. et al. (2009), *Access to elective surgery in New Zealand: considering equity and the private and public mix*.

⁵¹ ASMP and DHBs (2010), *Securing a Sustainable Senior Medical and Dental Officer Workforce in New Zealand*.

to be lower as the private sector tends to be more lucrative for many top surgeons. The lower income would likely lead to some medical professionals leaving the country.

Overall, the industry is fairly constrained with surgeons possessing a considerable amount of bargaining power. However, supply constraints are likely to dominate primarily in the shorter term. These constraints will mean that the lower treatment thresholds in the private sector enable less severe cases (with PHI) to use up health resources that could otherwise be used in the public sector on more severe cases. However, if supply can adjust to higher or lower levels of demand, as is more likely in the longer term, then PHI is likely to have a positive impact on the market – individuals with PHI will seek health services privately, encouraging investment in additional physical capital, and freeing up room on the public waiting lists for the severely injured, allowing more people to be treated.

6.12 Spurring demand

The Cato Institute, a US-based think tank, considers the fundamental cause of rising healthcare costs to be that “people are usually spending someone else’s money when they purchase health care services ... In most situations patients neither benefit when they spend wisely nor bear the consequences of spending foolishly”.⁵² This concern is one that has persisted with some opponents of the PHI market continuing to consider insurance providers as an interference that blunts demand-focussed reduction policies led by the government.

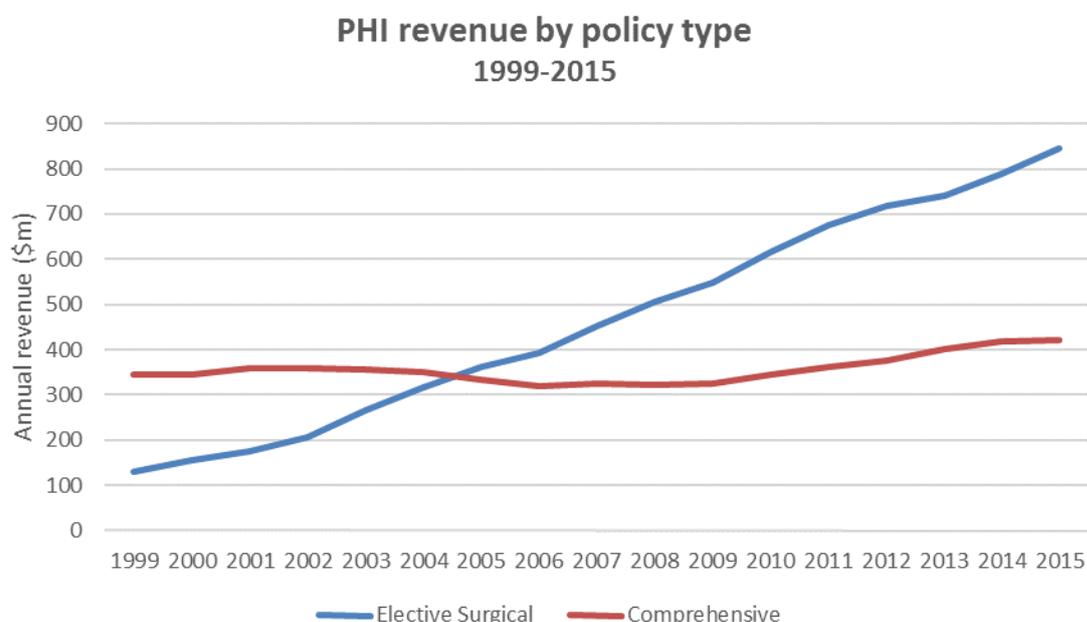
Economic theory suggests that the information asymmetry that exists between health providers and purchasers will lead to the problem of moral hazard: people who have purchased private health insurance or who have access to subsidised public healthcare are more likely to make use of health services as they are financially incentivised to do so. In Oregon, the government conducted a lottery for Medicaid coverage, randomly assigning financial aid for health services to a subgroup of those eligible for the lottery. In her study of the impacts of this Oregon lottery, Amy Finkelstein found strong evidence of ex-post moral hazard in Oregon: “Medicaid increases annual medical spending by about 25 percent”.⁵³

To the extent that PHI allows consumers to claim back the costs of various health services it is likely that demand for health services will increase – the strongest demand-spurring incentives are likely to result from comprehensive insurance policies covering the lower cost, higher frequency health services. The incentive to consume more health services is likely to be less strong for major medical procedures, although there may still be an incentive to use health services sooner than one otherwise would have. Figure 6 below indicates the significant change in demand for different types of insurance policies in New Zealand over the last 15 years.

⁵² Cato Institute (1993), *Patient Power: The Cato Institute’s Plan for Health Care Reform*.

⁵³ Henderson, D., (2015), op. cit.

Figure 6: PHI revenue from comprehensive and elective surgical policies⁵⁴



Consumer behaviour has shifted considerably over the 16-year period from 1999 to 2015: in the first quarter of 1999, for every dollar spent on comprehensive-cover PHI premiums, \$0.35 was spent on elective surgery premiums; by the third quarter of 2015, for every dollar spent on comprehensive cover PHI premiums, \$2.09 was spent on elective surgery premiums. This is a six-fold increase and now approximately two thirds of insurance premium payments are accounted for by strictly ‘major medical’ insurance policies. We have also been advised by industry that, over this time period, PHI providers have increased the use of excesses and minimum claim amounts in order to further reduce the pro-consumptive effects of PHI.

The main mechanism for the government keeping demand in check is rationing (with some co-payments) – essentially restricting the quantity and breadth of health services on offer. However, a taxpayer-funded, single-payer system often isn’t very effective at managing the moral hazard problem.

Overall, although PHI may still encourage demand to some extent we consider this effect to be relatively small. Therefore, we expect our counterfactual scenario to perform slightly better in terms of spurring demand, but given the trend in the type of insurance policies purchased, the pro-consumptive concerns regarding PHI are likely to be reducing further.

7. Fiscal impacts

This section estimates the fiscal impacts of PHI relative to our counterfactual. It should be noted that these fiscal impacts are not national net costs or benefits but simply an indication of the expected impact on the government’s budget.

⁵⁴ HFANZ statistics on the PHI market.

7.1 Reduced government expenditure on health

If there were there no PHI (eg, as a result of a policy change) the government would be likely to adopt a mix of increased rationing, changing treatment thresholds and expanding supply.

A 2006 study carried out by Blumberg assessed the impact of PHI coverage on the use of health services in New Zealand.⁵⁵ The study used 2002/2003 data. At that time, comprehensive policies accounted for approximately 60 percent⁵⁶ of PHI coverage while the remainder covered major medical procedures only. The Blumberg study found that:

“private insurance tends to increase the use of GP services, specialist services, and pharmaceuticals among those most likely to have comprehensive health insurance – high-income individuals. In addition it is safe to assume an increase in the use of ancillary services associated with GP and specialist visits, such as laboratory tests, x-rays, and other imaging services. There was no overall significant effect of private insurance on public hospital inpatient, day-patient, or emergency room care, although there was a modest but statistically significant decline in public hospital inpatient use for the low-income population with private coverage.”⁵⁷

Blumberg estimated PHI imposed a cost of \$40m to \$100m p.a. on the public healthcare system. Blumberg’s paper argues that “the structure of private health insurance is oriented to covering out-of-pocket costs and filling in gaps left by the public system, not to substituting for government services”. However, in our view, although PHI does act partly as a supplement and complement to the public healthcare system, there are also a number of overlaps. Many major medical procedures (such as knee replacements, hip replacements, hernia repairs, cataract surgeries etc.) are carried out privately and via the public health system. In fact, as noted above, in the decade since the Blumberg paper was published there has been a significant shift in the PHI market - the majority of privately-insured individuals are only covered by policies for major medical treatments and much of PHI is largely a duplication of the public health system. Therefore, surgeries funded privately are likely, at least in part, to be saving money that would otherwise be spent publicly.

In addition, the treatment thresholds in the public health system are higher than in the private system – some people with PHI end up being treated earlier than they otherwise would be in the public sector. These conditions that would otherwise go on to become more severe and costly to treat are often dealt with earlier in the private system and thus avoid imposing even higher costs on the public system.

It is an important question to consider but it is typically assumed that private provision of public services will result in a fiscal saving. For example, Bloom notes in passing that “private provision of

⁵⁵ Blumberg, L., (2006), *The Effect of Private Health Insurance Coverage on Health Services Utilisation in New Zealand*.

⁵⁶ HFANZ statistics on the PHI market.

⁵⁷ Blumberg, L., (2006), op. cit.

healthcare is attractive because it reduces the government's fiscal burden".⁵⁸ This seems to be a widely accepted view. We consider Blumberg's findings unreasonable in today's New Zealand health market. Below we provide a high-level indicative estimate of the fiscal savings that are likely to be generated by the PHI market.

In 2015, approximately \$1.3b was spent on PHI premiums. We do not expect the PHI market to generate fiscal savings on a dollar-for-dollar basis but this figure is the starting point for our indicative estimate below.

We assume that of the \$1.3b in PHI revenue that fiscal savings are only generated on:

- the revenue paid out by PHI providers as claims;
- claims paid out under major-medical policies and 50 percent of comprehensive PHI policies; and
- a further down-weighted portion of the remaining claims expenditure (50%) as the private treatment threshold is below that of the public sector and some treatments offered under PHI are not offered publicly.

In addition, we agree that some aspects of comprehensive PHI insurance policies may encourage the use of health services that are partially subsidised by government funding (for example, GP visits, prescription medication, specialist visits, nursing visits etc.). We take Blumberg's mid-point estimate of the costs imposed on the public sector by PHI.

Table 4 below provides a summary of our indicative estimate of fiscal savings given the assumptions noted above.

Table 4: Estimated fiscal savings (\$ p.a.)

	Adjustment	Total
PHI revenue		\$1,260m
Claims paid	less \$237m	
		\$1,023m
Major medical + 50% comprehensive	less \$178m	
		\$845m
Blumberg estimate of comprehensive PHI impact	less \$70m	
		\$775m
Treatment threshold/type difference (50%)	less \$388m	
Total fiscal savings		\$387m

Our estimate of the fiscal savings generated by the PHI sector is around \$390m p.a. This is an indicative estimate only given the assumptions that have been made above.

While some arbitrary assumptions have had to be made, given the lack of empirical data, we consider the above estimate to be conservative for the following reasons:

⁵⁸ Bloom, D. (1998), *Public and Private Roles in Providing and Financing Reproductive Health Care*.

- the public sector would also have additional administration costs were it to take on board some of the work currently carried out privately. However, we are strictly counting PHI earnings paid out in claims in our estimate and make no allowance for administration costs;
- the treatment threshold is significantly lower in the private sector and so we have down-weighted our estimate by 50%. This down-weighting is necessarily arbitrary. However, many of these procedures will be offered both publicly and privately (such as, cardiac, hip, shoulder, knee and back surgeries). Further, many of the surgeries that meet the clinical threshold for treatment but would not immediately qualify for public sector treatment will pre-emptively be saving public sector spending in the future;
- there is no account taken of the dynamic and flow on effects likely to result from early intervention and reduced waiting times in the private health market. These wider social impacts are likely to be positive and reduce spending in the health sector and in areas such as social housing, welfare etc.;
- we do not account for the lost fringe benefit tax collection that would result from the loss of work-based PHI schemes. Southern Cross understand that this change would likely cost over \$40m in revenue,⁵⁹ and
- we acknowledge that insofar as aspects of PHI policies are pro-consumptive and encourage consumption of publicly-funded health services then PHI can increase the financial burden in some areas of the health sector. These burdens are most likely to include costs such as GP visits, prescription medication, specialist visits and nursing visits covered by comprehensive PHI policies. We take Blumberg's mid-point estimate of the costs imposed on the public sector through comprehensive insurance policies in order to be conservative. Although the Blumberg estimate was carried out a decade ago, total spending on comprehensive PHI policies has not increased significantly. In addition, given the significant change in the type of PHI policies people buy and the increased use of excesses and minimum payment thresholds, we expect these public-sector costs to be minimal.

7.2 Taxation impacts

In section 6.1 above we estimate the expected increase in economic output resulting from reduced waiting times for surgeries funded by PHI providers. Our lower bound estimate of the net economic benefits is \$100m p.a. Some portion of this benefit will be enjoyed by the government through an increased tax take.

For simplicity, we assume the government will benefit from an increase in revenue equivalent to the corporate tax rate of 28%, resulting in an approximate revenue uplift for the government of around \$28m p.a. Any more sophisticated estimate of the taxation effects is too difficult to quantify given the lack of empirical data.

⁵⁹ Southern Cross (2015), *Fringe Benefit Tax on Employer Subsidised Health Insurance*.

7.3 Regulatory costs

There are some limited regulatory costs associated with the existence of a PHI market. PHI providers are subject to standard regulations including:

- the prudential and solvency requirements of the Reserve Bank of New Zealand;
- the requirement to register as a financial provider under the Financial Markets Authority;
- the Insurance and Financial Services Ombudsman Scheme; and
- general consumer legislation requirements.

However, there are no regulatory requirements placed specifically on PHI providers. Therefore, although the existence of PHI will generate more regulatory costs for the government than under our counterfactual we do not expect these costs to be significant. Even if we assume these costs were as high as \$28m p.a. (equivalent to the increased tax take from the increased output from PHI) then our indicative estimate for the combined fiscal savings resulting from PHI relative to our counterfactual is still around \$390m p.a.

8. Conclusions

This report provides an assessment of the costs and benefits of the current levels of PHI to the New Zealand economy. We find that PHI provides significant benefits to New Zealand and some material extra costs, relative to our counterfactual of a situation where there was no PHI.

One of our key observations is on the lack of data available in the health sector. There is little hard data or formal empirical studies on PHI in the New Zealand market. There is also very little comparative information on the relative performances of the public and private health sectors. Further work by the Ministry of Health or others on the relative quality of care, health outcomes, waiting times, patient satisfaction levels etc. in the public and private health sectors would be useful for benchmarking and monitoring purposes. The lack of data has prevented us from concluding, even qualitatively, whether PHI results in net benefits to New Zealand on some issues, including on the equity of health outcomes, competition effects, and overall health-service cost savings.

PHI may result in some healthcare costs being higher than they would otherwise be and spur demand for some health services. However, we conclude that PHI, on balance, benefits New Zealanders. These benefits arise through reduced waiting times and increased output through fewer days off work, wider health coverage, greater consumer choice and the avoided deadweight cost of taxation.

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