



Private Healthcare Australia
Better Cover. Better Access. Better Care.



Senate Red Tape Committee

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Contact:

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EXECUTIVE SUMMARY

Private Healthcare Australia (PHA), the peak body representing Australia's major health funds, welcomes the opportunity to provide this submission regarding the effect of red tape on health services.

Private health insurance (PHI) is an integral part of Australia's mixed public-private health care system. PHI pays for close to two thirds of non-emergency surgery in Australia, 76% of same day mental health treatments and 56% of all mental health care type admissions, 61% of joint replacements, 59% of chemotherapy and 86% of retinal procedures. In addition, under general treatment cover, health funds pay out more than \$2.628 billion for dental care, substantially more than is paid towards dental care by the Federal Government. The majority of dental health services provided to low and middle income earners are subsidised by health funds in some way.

More than 13.5 million Australians, or 55% of the total population, hold some form of PHI and almost half of them have an annual income of under \$50,000. Community support for PHI is longstanding and strong with more than 80% of Australians with PHI valuing the product and wanting to keep it.

A strong private health system delivers economic efficiencies. A dollar spent by the Commonwealth in support of PHI delivers up to 15% greater public benefit than a dollar spent directly into the health system.¹ PHI provides choice, access to timely care, and reduces pressure on the public health system. Maintaining affordability and high participation in PHI is critical to the sustainability of Australia's health system. Due to indexation and other changes to the PHI rebate made by previous Governments, the value of the rebate as a proportion of premiums is declining and will continue to do so over time. This will exacerbate an affordability crisis in PHI that will have flow-through impacts on the public sector in key areas of non-emergency surgery waiting lists, mental health and dental care. A 'tipping point' has been reached for the sector. This is no idle comment, but rather is supported by substantial market research. PHA would be happy to share this research on a confidential basis if required.

PHA commends the Federal Government for delivering a broad-ranging package of PHI reforms late last year that will put downward pressure on premiums and make it easier for consumers to choose and use their health insurance. These reforms will critically support the industry to deliver high-value, affordable care to Australians.

In October last year, the Productivity Commission released its five-year productivity review report entitled 'Shifting the Dial' in which it directly refers to 'removing some shackles from private health insurance'. Data from the Australian Prudential Regulation Authority (APRA) clearly demonstrate health fund premium increases track rising input costs. For decades, an inflexible regulatory environment has locked health funds into paying claims whether or not evidence supports the quality, clinical outcomes and cost-effectiveness of the services provided. This has the effect of protecting vested interests, but now more than ever, with flat wages growth and cost of living pressures impacting households, this inflationary dynamic needs to be addressed.

Health funds have identified a number of measures that will deliver savings to both government and the industry. PHA is seeking to correct regulatory settings currently constraining the industry from evolving to meet the needs of modern consumers. Health funds will continue to work with

¹ Evaluate, *The relative efficiency of the private health insurance rebate v direct public health expenditure* (2017). The full report is attached at Appendix 1 to this submission.

government to build on the success of the recently announced reforms and to achieve savings and improved quality within the whole health care system.

The measures outlined in this paper focus on:

- Removing the artificial price floor for private hospital services created by the current second tier default benefit requirement;
- Deregulating PHI premium setting;
- Reducing fraud, waste and low-value care;
- Eliminating perverse incentives to use hospital care as the default option;
- Building on the initial reform of the Prostheses List; and
- Maintaining the effectiveness of government incentives (PHI rebate, Medicare Levy Surcharge (MLS) and Lifetime Health Cover).

RECOMMENDATIONS

The next wave of regulatory reform

1. Reform the second tier default benefit arrangements for private hospital providers by abolishing the 85% benefit requirement except for providers with less than 3% market share based on operating revenue.
2. Deregulate private health insurance premium setting process by establishing an independent price monitoring system with a desynchronised regulation process.
3. That a robust joint payment integrity program to improve Medicare Benefits Schedule and health fund benefit compliance be established which both assesses the validity of individual claims and acts to modify the claiming behaviour of individuals and groups of individuals. If done properly, this has the potential to save the Commonwealth and health fund payors in excess of \$1 billion per annum based on the claims integrity experience of member funds.
4. Outdated regulatory restrictions on health funds funding care outside hospital are removed, with view to permitting negotiated agreements covering consumer out-of-pockets in community settings. The Federal Government has recently announced a committee to review new and more appropriate models of care in mental health and rehabilitation as an initial step, but this should be extended to cover other areas in line with clinical best practice.
5. That the following structural measures be implemented to extend the strong work begun on Prostheses List reform and to capture both the savings and efficiency gains remaining in the system: regular benchmarking with the prices of older established products; the introduction of price disclosure; stricter controls on the support and other benefits provided by manufacturers and suppliers to providers; and a more rigorous evidence base, including an effective post-marketing surveillance on all implants with formal registry data required for new implants. For the most part these have already been recommended to the Federal Government in the review undertaken by Professor Lloyd Sansom, as Chair of the Industry Working Group on Private Health Insurance and Prostheses List pricing in 2016.

Maintaining a strong regulatory base

6. In order to help maintain affordability of PHI for low and middle income earners and avoid increasing costs in other parts of the health system and economy, the PHI rebate should remain on extras, or ancillary, cover. No further measures should be undertaken to reduce the value of the PHI rebate, and consideration should be given to its restoration for low and middle income earners when economic circumstances permit.
7. The value of the Medicare Levy Surcharge should be recalculated and established such that it provides a strong incentive for people to take out and maintain their PHI membership in combination with Lifetime Health Cover, and the proposed discount scheme for younger members. An increase of 50 basis points across the income thresholds is recommended.
8. Private health fund premiums paid by employers for the benefit of their employees' productivity and wellbeing are exempted from Fringe Benefits Tax.

CONTENTS

EXECUTIVE SUMMARY	2
RECOMMENDATIONS	3
The next wave of regulatory reform.....	3
Maintaining a strong regulatory base.....	4
INTRODUCTION: RECENT PHI REFORMS.....	6
Prostheses List benefit reductions.....	6
Lifetime Health Cover discount.....	6
Gold/Silver/Bronze/Basic product classification and standardised clinical terminology	6
Mental health safety net.....	6
PHIO website.....	7
Other important reform initiatives	7
THE NEXT WAVE OF REGULATORY REFORM.....	7
Second tier default benefit	7
Premium deregulation	11
Better mechanisms to reduce fraud, waste and low-value care	12
Elimination of perverse incentives to use hospital care	14
Building on the initial reform of the Prostheses List	16
MAINTAINING A STRONG SYSTEM OF INCENTIVES	19
Economic value of the rebate	21
The PHI rebate on 'Extras'	21
Maintaining the value of the Medicare Levy Surcharge	23
Measures to attract younger people into private health insurance.....	24
ABOUT PRIVATE HEALTHCARE AUSTRALIA	26
APPENDIX 1 – Evaluate Report	27

INTRODUCTION: RECENT PHI REFORMS

The reforms to PHI announced in October 2017 are an outstanding example of what can be achieved when Government and industry work together. In a process taking close to two years, health funds worked with the Federal Government and other private health stakeholders to deliver a package of reforms aimed at putting downward pressure on premiums, and making it easier for consumers to choose and use their health insurance. PHA commends and thanks the Federal Government for its work on these reforms and for starting to tackle the corruption, rorts and kickbacks that over time had become a feature of the prostheses supply chain, leading to poor outcomes for consumers in terms of both cost and safety.

Health funds pledged that all the savings made will be passed on to consumers in the premium rounds announced April 2018 and April 2019.

Overall the package included:

Prostheses List benefit reductions

The legacy 'Prostheses List' regulations forced health funds to pay benefits for medical devices 2-5 times higher than the price charged for the same device to public patients and in equivalent countries around the world. This had been putting upward pressure on health fund premiums as the cost of this area was growing exponentially.

Addressing market failures in the medical device supply chain has been a major priority for health funds on behalf of their members. The reforms announced by the Government will deliver \$300 million of savings and have a positive impact on premium increases over the next two years.

Lifetime Health Cover discount

The introduction of a "reverse Lifetime Health Cover" policy will support funds in attracting new and younger members and improving participation and affordability. Under this reform, health funds will be able to offer customers discounted premiums as an incentive to take out cover in their 20s. For those under 30, premiums will be reduced by 2 per cent a year, capped at 10 per cent after five years.

Gold/Silver/Bronze/Basic product classification and standardised clinical terminology

PHA has worked with the Government on its Gold/Silver/Bronze/Basic product classification to reduce complexity and simplify consumer choice as well as keep pressure off premiums. Health funds are committed to ensuring that new policies are effective in helping people choose and utilise their health insurance and they invest a considerable amount of time and money in this area. Making sure that people know what they are buying and that their policy is affordable and meets their health and life stage needs is the core objective of this PHI reform package.

In addition to this, the introduction of standard clinical terminology as part of product descriptors will allow consumers to compare 'apples with apples' when purchasing a health insurance policy.

Mental health safety net

Few people can effectively assess their risk of developing a mental health issue and, recognising this, health funds will introduce a mental health safety net for people with low-cost policies who are

unexpectedly admitted to hospital for a serious mental health condition. This safety net will provide people with a one-off opportunity to upgrade their cover at the time of such an episode, and fully cover their hospital stay without the usual waiting period on lower benefits.

PHIO website

The Private Health Insurance Ombudsman's website www.privatehealth.gov.au will be upgraded so that it can provide a source of independent advice about choosing a policy to consumers.

Other important reform initiatives

A number of other important reforms were also announced. These included: the introduction of a "rural health product" permitting health funds to offer travel and accommodation benefits under hospital cover; lifting the current cap on excesses from \$500/\$1000 for singles, couples to \$750/\$1500; and eliminating some natural therapies in general treatment policies. These changes will enhance the value proposition of PHI for people living in rural and remote Australia as well as improving value for money and enhancing consumer choice.

These reforms are an important step in putting downward pressure on premiums and in ensuring that the sector is more readily understandable for consumers. This in turn supports the long term viability of the health system both directly and through the flow-through effects on the PHI rebate. Without this impact, the subsequent decline in PHI membership would result in pressure on the Federal Budget across other areas of health and undermine the overall sustainability of Australia's health care system.

THE NEXT WAVE OF REGULATORY REFORM

In addition to the positive reforms to PHI already announced by the Government following the recent consultation process, the following recommendations for reform to the regulatory environment will further help to improve the value and sustainability of the private health sector in Australia.

Second tier default benefit

The second tier default benefit is the minimum level of benefit a health fund must pay for an episode of hospital treatment provided by a private hospital facility with which it does not have a negotiated agreement. The second tier default benefit is currently 85% of the average charge for the equivalent episode of hospital treatment under that health fund's negotiated agreements with comparable facilities within the same state or territory.²

The second tier default benefit was introduced in 1998, when the private hospital provider market was fragmented, and the PHI industry was calibrating to federal legislation introduced in 1995, which allowed contracting between health funds and hospital providers. At the time, it was felt that the health funds' larger market size allowed them too much negotiating power over private hospitals

² The average charge for the equivalent episode includes the sum payable under the negotiated agreement and any excess or co-payments payable by members in accordance with the health fund's rules; and excludes charges for prostheses and nursing-home type patients. Where a health fund has less than five negotiated agreements with comparable facilities in a state, then the benefit will be based on all of that health fund's negotiated agreements in that state. Where the second tier default is below the minimum benefit outlines in Schedules 1, 2 or 3 of the Private Health Insurance (Benefit Requirement) Rules 2011, the minimum benefit applies.

who were less concentrated in terms of market share. The Federal Government introduced the second tier default benefit with an eye to supporting smaller providers, and re-balancing market dynamics between health funds and private hospital providers.

By 2003, private hospital ownership began to concentrate and the balance of negotiating power shifted back to private hospital providers, with Ramsay Healthcare and Healthscope holding 37% market share at this time. The Federal Government proposed abolishing the second tier default benefit on the following grounds:

- Private hospital providers no longer required the protection of the second tier default benefit since the health fund-provider contracting environment had stabilised as both health funds and private hospital providers had matured in their approaches to commercial negotiation.
- Health funds had strong incentives to enter contracts with private hospitals because their members would move to other health funds if there was a narrow contracted provider network.
- The second tier default benefit had an undesirable effect of setting a price floor.

The Federal Government's proposal was defeated after intense opposition from industry groups, who argued policyholders would be adversely affected by a reduction in choice of hospital providers, particularly with small and regional hospital providers. Since this time, the private provider market has further consolidated with the two largest providers (Ramsay and Healthscope) increasing their ownership from 37% to 44% market share.³ Between 2003 and 2015, three of the top five largest overall receivers of second tier default benefit payments from health funds were large provider networks, including Ramsay, St Vincent's and Cabrini. Combined, these three providers account for 39% of second tier default benefit payments made by health funds.⁴

Considered today, the three main major concerns of the second tier default benefit are:

- It provides too much visibility on pricing data to private hospital providers, which strengthens their negotiating position. Health funds are obliged to provide private hospital providers with a schedule of second tier default benefit rates. This applies when a provider has been granted second tier eligibility by the Second Tier Advisory Committee and is out of contract with the fund.⁵ There is no equivalent obligation on private hospital providers to publish or share financial or clinical care data with health funds. This creates information asymmetry between the two negotiating parties.
- It creates a price floor at 85% of the episodic charge for comparable facilities in the same state. This encourages some hospitals to use the 85% as a 'fall-back' for negotiations. As the 85% rate is a price floor, rather than a ceiling, in some cases it results in higher out-of-pocket expenses for policyholders. This is because second tier eligible hospitals are not required to

³ PHA data

⁴ Anonymised data from PHA member health funds

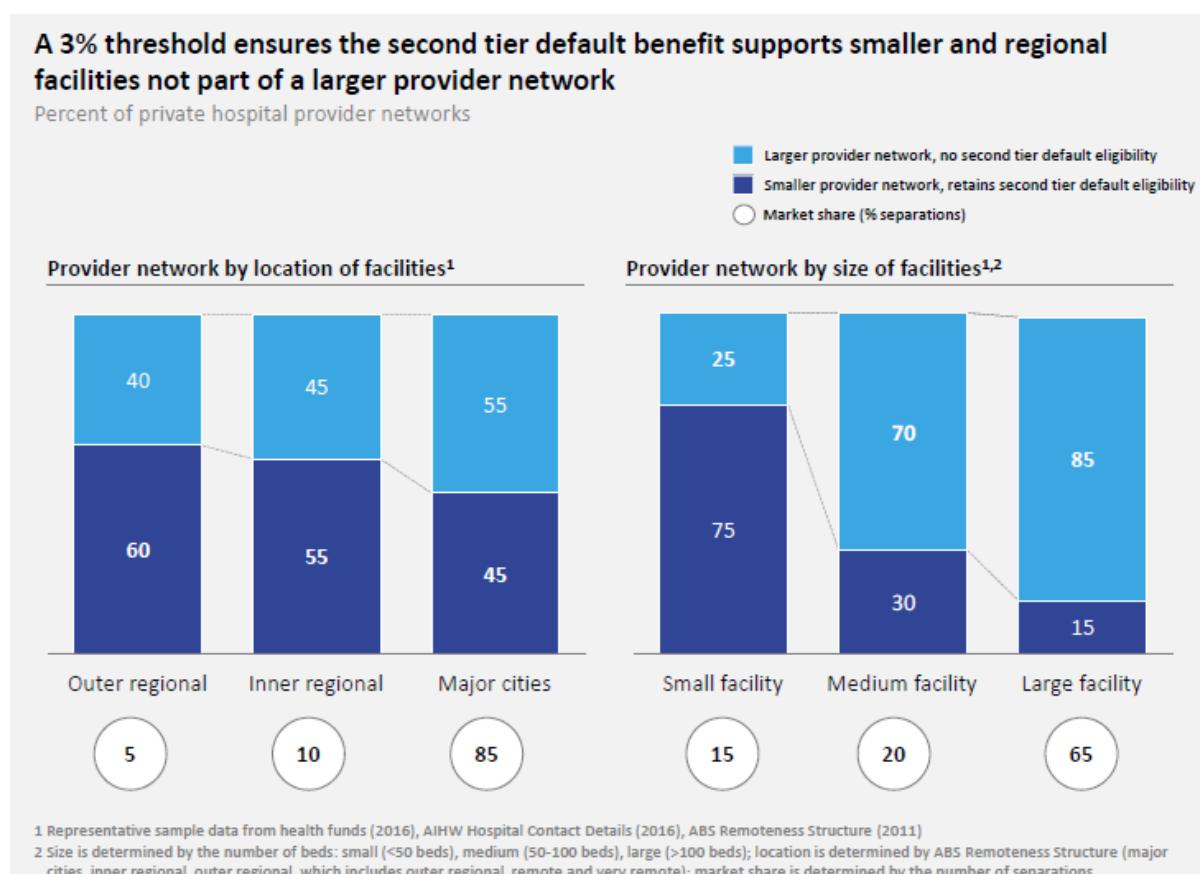
⁵ Currently, the Second Tier Advisory Committee (STAC) is comprised of three nominees of private hospitals and three nominees of health funds. It is bound by the Administrative Arrangements for the Second Tier Default Benefits for Overnight and Day Only Treatment. The STAC meets quarterly to consider applications for second tier eligibility and compile a list of Committee-approved facilities eligible for second tier benefits, which is published by the Department of Health in a Departmental Circular. Currently, eligible facilities are those that are: (1) private hospitals, (2) either compliant with National Safety and Quality Health Service Standards, or existing quality accreditation has not yet expired, (3) Provide simplified billing, (4) Practice informed financial consent and (5) submit Hospital Casemix Protocol data.

accept the second tier default benefit as full payment from the health fund and can elect to charge additional out-of-pocket expenses to patients.

- It limits the ability of health funds to reject lower quality provider facilities. Currently when health funds agree, under a contract, to pay a higher charge per episode to private hospital facilities that demonstrate high quality patient outcomes, they indirectly reward facilities with lower quality outcomes that may decide to utilise the second tier default benefit. The higher charge to the high performing facility will increase the health fund’s average charge per episode, and thereby increase the second tier default benefit it must pay to non-contracted hospitals.⁶

While there are clearly concerns with the current benefit, it is also acknowledged that some smaller and regional facilities do rely on the benefit as an option. These providers would be at risk in circumstances where the benefit was abolished. For example, 60% of outer regional facilities are not aligned with a large provider network.

In these circumstances, the second tier default benefit supports outer regional facilities and smaller negotiating networks in securing quality outcomes for policyholders. Below, this exhibit demonstrates the proportion of facilities that are aligned with large provider networks with more than 3% market share, according to location of facility (outer regional, inner regional and major cities) and size of facility (small, medium and large).



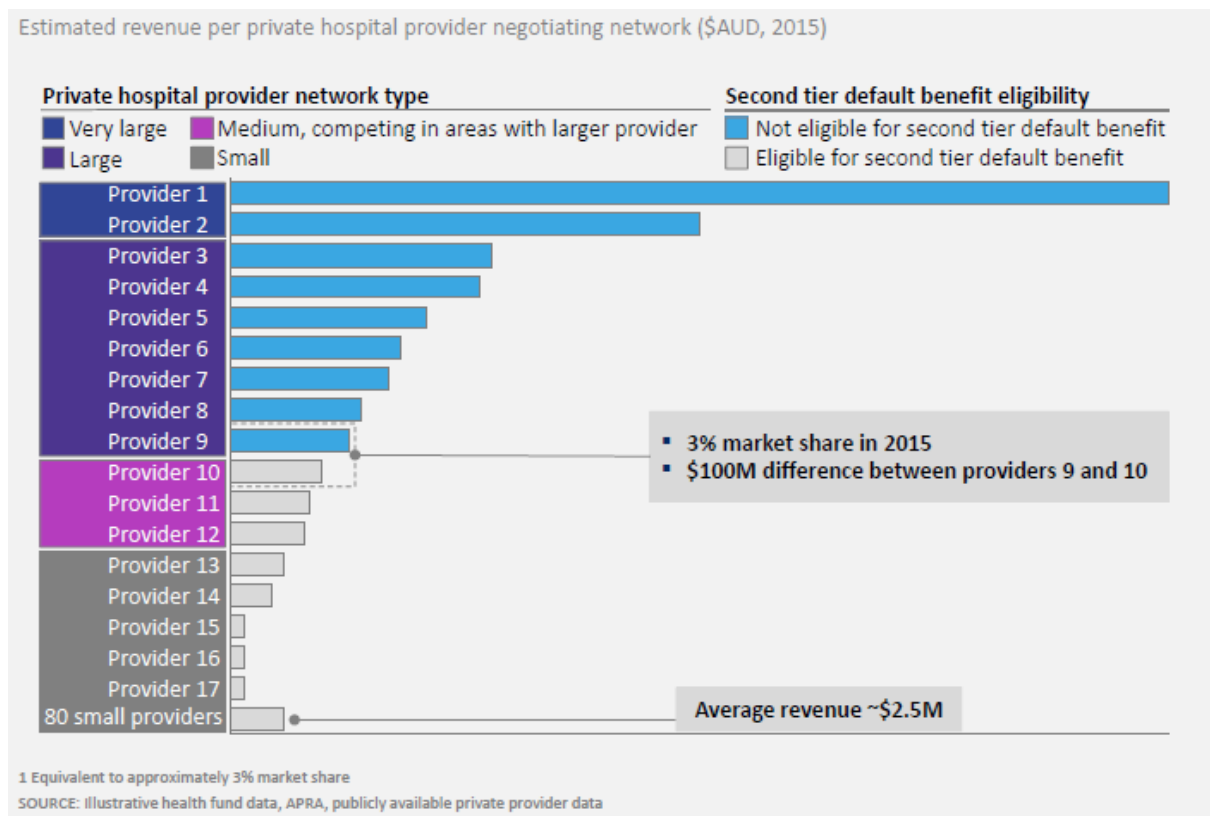
⁶ Health Insurance Restricted Membership Association of Australia (HIRMAA). (2015). *Submission to the Australian Government’s Department of Health consultations*. Available at membershealth.com.au/

Recommendation 1: Abolish the 85% benefit requirement by removing it from the *Private Health Insurance (Benefit Requirements) Rules 2011*, except for providers with less than 3% market share based on operating revenue.

This would:

- Remove visibility on pricing data and access to a fall-back negotiating position, and thereby rebalance negotiating power of private hospital providers, placing downward pressure on benefit outlays to private providers.
- Decrease invoicing certainty of uncontracted private providers, which would improve level of service and reduce invoiced costs. This would help reduce premiums and out-of-pocket expenses.
- Ensure smaller providers maintain a fair negotiating position, and maintain policyholders' access to the services offered by smaller private providers.

The exhibit below lists private provider networks ranked by revenue size, to provide an indication of the type of provider networks the proposed 3% market share threshold would be applicable to.



Impact of reform

Abolishing the 85% benefit requirement, other than for providers or networks with less than 3% market share based on operating revenue, could potentially result in significant gains for PHI policyholders and the Federal Government. In the first-order, private hospital charges per separation could decrease by up to 2%. This would result in a potential reduction of PHI benefit outlays of up to \$260m, assuming health funds passed 90% of this benefit to consumers via lower premiums. The pass-through of savings would result in an estimated first-order gain for existing consumers of up to \$180m and a gain for health funds of up to \$20m. The lower premiums could result in the Federal Government saving an estimated \$60m due to lower rebate outlays.

The second-order effect would be that new members would enter the market and purchase PHI policies due to the improvements in affordability via lower premiums and lower out-of-pocket expenses. This increased volume of policyholders would lead to an increase in expenditure by consumers on PHI and an increase in revenue for private providers.

Premium deregulation

Despite the fact that the most recent PHI premium increase of 4.84% was the lowest in a decade⁷, premium growth remains a contentious issue. The Federal Government regulates the PHI industry's overall premium increase through a centralised review process, whereby each health fund applies to the Minister for Health for approval of all premium changes. These proposed changes are submitted by health funds in November, and closely scrutinised by the Minister prior to public premium change announcements towards the end of February. Although legislation allows health funds to change premiums at any time, the current process is followed by convention. It is rigid with a prescribed deadline in November for submission of changes and approved changes taking effect 1 April.⁸ The process is cumbersome and time consuming for all involved, including the Minister, the Department of Health and APRA, who closely scrutinise each application, as well as for health funds who prepare their submissions.

The process places pressure on the ability of health funds to respond to the market as it creates a time lag between market signals, the approval of premium changes and the premium change taking effect. This lag can be between a minimum of five months, if the price signal is received and acted upon just prior to premium submission in November, and a maximum of seventeen months, if the price signal is received immediately after November's premium submission and not made effective until April in the second year following. Due to the heavily regulated process controlling premium increases, health funds are at high risk if they increase premiums by anything below their experienced cost increase. Changing to a deregulated market would allow health funds to take the risk with their pricing in favour of more affordable PHI, knowing they can alter their premiums later if required. The synchronised nature of the process poses a challenge as the simultaneous change to premiums for all health funds, as announced by the Minister in late February each year, sparks seasonal churn.

Recommendation 2: Establish an independent price monitoring system with a desynchronised price regulation process. An independent statutory authority would monitor premium changes by assessing health funds' adherence to a set of guidelines, such as Benefits Loss Ratio, that ensures price changes do not have an inappropriately adverse impact on policyholders.

Independent price monitoring removes adverse political risk of Ministerial involvement in PHI price setting, and ensures a regulatory body best suited to ensuring fair pricing behaviour is making the assessments. This is similar to changes the Federal Government has previously made in the finance sector.

Desynchronisation would ensure health funds price dynamically according to changing policyholder preferences, while allowing market competition to reduce premiums. It would also decrease the seasonal churn spike.

⁷ Hon. Greg Hunt MP, media release: *Lowest Health Insurance Premium Increases in a Decade*, 10 February 2017, see <http://www.greghunt.com.au/Home/LatestNews/tabid/133/ID/4156/Lowest-health-insurance-premium-increases-in-a-decade.aspx>

⁸ *Private Health Insurance Act 2007*, s66-10

One of the primary reasons for introducing Ministerial approval was the risk of premium inflation leading to Government expenditure on the PHI rebate rising above sustainable levels. However, as the rebate is now means-tested and CPI adjusted, the Government's outlays are reducing thereby alleviating the core need for Ministerial approval.

A new independent statutory authority be created to oversee the pricing of PHI premiums, given their complex actuarial nature. This new body could ensure operational independence from the Federal Government, while allowing for the appointment of a governing Board with specific expertise, such as actuarial capabilities. The Board would be accountable to the relevant Minister. Alternatively, an existing independent statutory authority, such as APRA could be considered to accommodate the new function.

Impact of reform

Premium deregulation is likely to deliver significant benefits to policyholders. Increasing competitiveness between health funds may lead to lower premium increases than would have occurred under the status quo, creating up to \$305m of value for policyholders and up to \$105m in cost savings on the PHI rebate for the Federal Government.

Better mechanisms to reduce fraud, waste and low-value care

Significant opportunities exist to improve how issues of fraud, waste and low-value care are identified and managed in the Australian health care context.

Increasing utilisation of services predominantly drives health system increases with a large part of this related to population ageing and the growing burden of chronic disease in our community. Significant incentives also exist as a result of the MBS fee-for-service model of reimbursement, as driving up procedure and consultation volumes under this system provides financial reward. Given the high information asymmetry between providers and consumers, provider-induced demand accounts for a significant proportion of services provided.

Reducing fraud and waste

A robust mechanism to manage compliance in the MBS program and to ensure the appropriate provision of services is important to the sustainability of both the program and PHI. Compliance ensures that funds are spent as intended and enforcing compliance has been shown in the Australian context to deliver savings.

Traditionally, MBS payment integrity has been managed through the Professional Services Review (PSR) process. The PSR was established in July 1994 as an Agency within the Health Portfolio to protect the integrity of Medicare and the PBS. Part VAA of the *Health Insurance Act 1973* establishes the agency, sets out its role and powers and the processes it follows in conducting its work.

In its administration of the Scheme, PSR is responsible for reviewing and examining possible inappropriate practice by practitioners when they provide Medicare services or prescribe Government subsidised medicines under the PBS.⁹ The key problem with the PSR process is that it relies heavily on the retrospective pursuit of financial gains by practitioners with the goal of recovering costs. This is cumbersome, involves long-drawn-out legal and administrative processes and is rarely successful. In 2014-15, the Department of Human Services recovered only 20% of

⁹ About the PSR Scheme (2016), www.psr.gov.au

Medicare debts that year due to incorrect claiming, inappropriate practice or fraud.¹⁰ However PHA notes that in 2016–17 there was a significant increase in recoveries achieved by the PSR.

Modern data analytics offer the opportunity to use data more effectively to provide feedback to health professionals generating MBS claims. This would then give them the opportunity to proactively modify their behaviour and prevent fraud and inappropriate practice from occurring in the first place.

Health funds have already demonstrated the effectiveness of feedback in reducing inappropriate claims. Health professionals are aware ‘someone is watching’ and are given data about how they are claiming relative to their peers before any punitive action is taken.

In 2016, compliance personnel in the Department of Human Services were merged into a single unit with MBS compliance at the Department of Health. This presents a unique opportunity to begin a preventive data analytic-based payment integrity and compliance regime, to leverage and back up the good work on the MBS Review.

Any such payment integrity program will need to move beyond assessing the validity of individual claims and address the claiming behaviour of individuals and groups of individuals. A comprehensive, behavioural analytics approach requires capabilities beyond the traditional skill set of the PSR and a mandate that goes from recovery of erroneously paid money to transparent monitoring and education of the provider population as well as claiming citizens. As the Government recently experienced with the Centrelink payment integrity effort, a thoughtful and pro-active communications and stakeholder management plan is imperative to the success of any such programs.

Health funds are seeking the following improvements in the current compliance system:

1. Matching of MBS data to Hospital Casemix Protocol data to determine whether hospital admissions have actually occurred when MBS claiming indicates they should have;
2. When a compliance red flag occurs at the health fund end, having a clear protocol in place for how the Medicare compliance division in the Department of Health is notified, what corrective and preventive actions are taken, and how feedback is given back to the fund about outcomes;
3. When a compliance red flag occurs requiring investigation by the Department of Health Provider Benefits Integrity Division, ensuring health funds are also notified if they too have exposure through hospital or allied health claiming. This does not occur currently, so health funds have no line of sight into possible compliance breaches and no mechanism for cost recovery; and
4. Regular consultation with the Department of Health Provider Benefits Integrity Division to identify and prioritise problem areas.

Recommendation 3: That a robust joint payment integrity program to improve Medicare Benefits Schedule and health fund benefit compliance be established that both assesses the validity of individual claims and acts to modify the claiming behaviour of individuals and groups of individuals. If done properly, this has the potential to save the Commonwealth and health fund

¹⁰ Department of Health, Consultation Paper: Improving Medicare Compliance, September 2017. [https://www.health.gov.au/internet/main/publishing.nsf/Content/824207FEDBDDF73FCA257EF40007939F/\\$File/Compliance-Stakeholder-Consultation-Paper.pdf](https://www.health.gov.au/internet/main/publishing.nsf/Content/824207FEDBDDF73FCA257EF40007939F/$File/Compliance-Stakeholder-Consultation-Paper.pdf)

payors in excess of \$1 billion per annum based on the claims integrity experience of member funds.

Elimination of perverse incentives to use hospital care

Since the advent of Medicare in its current form, as defined in the *Health Insurance Act 1983*, health funds have been prohibited from funding medical services that are provided out-of-hospital and covered by Medicare. This includes GP visits, consultations with specialists in their rooms and diagnostic imaging and tests. While this may have been justifiable over 30 years ago, its effect today is negative.

The purpose of this was to eliminate the possibility of an inflationary impact from having a second payor involved in fee-for-service care provided in an environment with low-entry barriers. However with time, it has created a strong perverse incentive to default to more expensive treatments and the most expensive setting of care, which is in-hospital. This is putting upward pressure on PHI premiums.

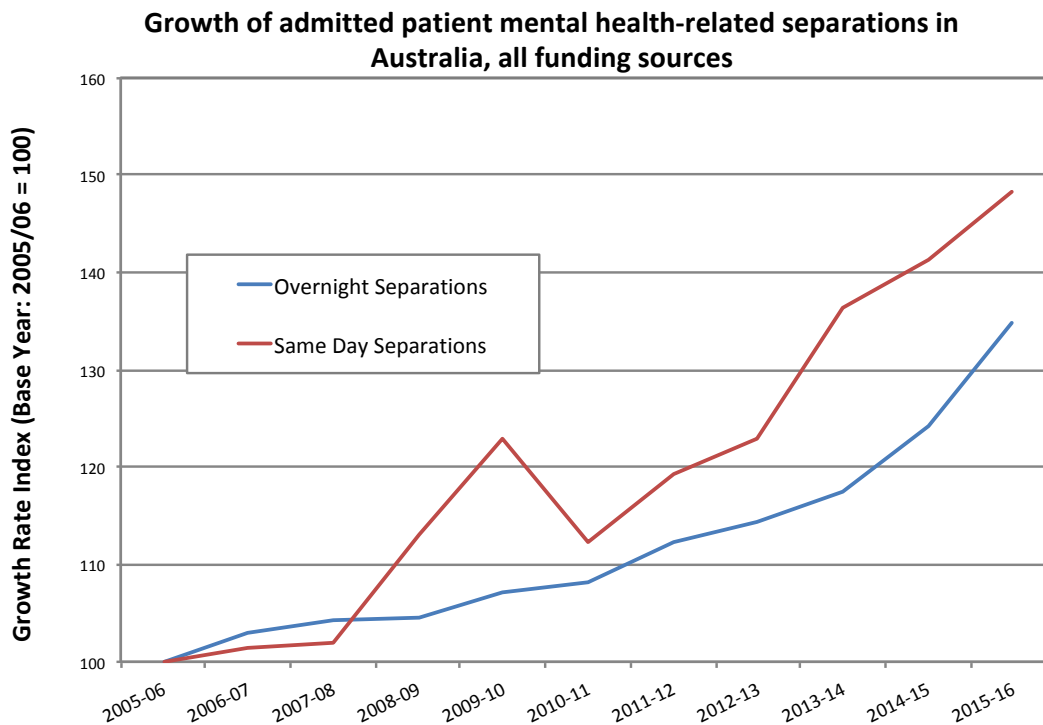
The cause of the perverse incentive is that patients need to pay a co-payment when the treatment is provided out-of-hospital or in a doctor's rooms. If the care is provided in a hospital setting, the doctor is able to access health fund gap cover schemes, and the patient's co-payment can be reduced or eliminated. Unfortunately the accommodation charges even for a day stay in a hospital are in the order of hundreds of dollars per patient. Furthermore, there is an incentive to perform more complex and invasive treatment than is actually required to justify the hospital admission, which impacts the MBS. The perverse incentive is exacerbated in situations where doctors have a financial interest in the hospital providing the service, which occurs most often in day surgery facilities.

The following is a non-exhaustive list of procedures and treatments, which are designed to be performed as outpatient procedures in doctors' rooms or even in the home, which are increasingly occurring in hospital settings:

1. Mental health day programs & group therapy
2. Transcranial magnetic stimulation
3. Rehabilitation day programs
4. Excision biopsy of skin lesions
5. Intraocular injections
6. Delivery of chemotherapy and other IV drugs
7. Delivery of drugs via subcutaneous injection
8. Diagnostic endoscopies

These treatments may represent essential care but lose value if the default setting of care becomes the most expensive available. Over time, the original policy intent of the funding restriction has failed, as the drift of care into a hospital setting is inflationary and at odds with the evolution of medical practice around the world.

There has been dramatic growth in mental health day admissions over the last decade. The only mental health day service where hospitalisation is clinically indicated is electroconvulsive therapy for severe depression.



Source: Admitted Patient Care data collection

The inflexibility of the restriction on funding of outpatient care has become increasingly impractical for another reason. Chronic health conditions associated with ageing have emerged as the predominant burden of disease and these are for the most part treated in the community with the goal of preventing hospitalisation. In addition, standardised treatment programs, which by their very nature are best provided in the community, are becoming prohibitively expensive. Management of a pregnancy is a key example, where technology and indemnity costs have translated into very high out-of-pocket costs for consumers which is acting as a deterrent to choosing private health, and overburdening public hospital maternity services. Some effective community-based services are even disappearing because they cannot attract a viable level of funding.

Enabling health funds to provide funding for services provided out-of-hospital which are either a substitute for hospital care, permit the better integration of care for the elderly, mothers and the chronically ill, or which have the potential to prevent avoidable hospital admissions or readmissions, would be welcomed by the sector. Avoidance of unnecessary hospital admissions and patient co-payments are key factors in keeping private health sustainable, and are also in patients' best interests.

Health funds are not asking for a laissez-faire arrangement that could potentially inflate the cost of out-of-hospital services and undermine Medicare, but removal of regulations which restrict their ability to reach negotiated agreements with doctors to provide no/known-copay services in the community in ring-fenced areas which make sense in terms of clinical best practice, and which remove perverse incentives to admit patients to hospital.

Examples of the types of health services that could be better funded as a result include:

- Integrated (coordinated) care of people with multiple chronic conditions registered with a GP Health Care Home;
- Management of a pregnancy at a reduced out-of-pocket cost;
- Provision of improved health care for people in residential aged care, and the frail aged living at home; and
- Improved health care options for people in rural and remote Australia.

A number of health funds have invested significant effort and resources in better care for people at risk of complications from chronic disease, with view to preventing avoidable hospital admissions, prolonged length of stay in hospitals and unplanned readmissions. CarePoint, operating in Victoria and WA, is an integrated health care pilot supporting both public and private patients battling chronic disease and complex health issues. This program was designed by Medibank and is supported by HBF. Australian Unity's preventive health arm Remedy Healthcare launched its 'Mindstep' program, which targets people with anxiety and depression who have recently been discharged from hospital, with view to preventing readmission.¹¹

Bupa has announced a partnership with Brisbane-based Hatch Maternity Services to eliminate the huge gaps now associated with management of a pregnancy. This has been achieved through negotiation with the health professionals in the service, to provide an arrangement acceptable under the legislation on a trial basis.¹²

Enabling this type of program to expand and flourish by removing the red tape which prevents health funds from financing out-of-hospital care will enhance the role of primary care in addressing chronic disease and will put downward pressure on premiums.

Recommendation 4: Outdated regulatory restrictions on health funds funding care outside hospital are removed, with view to permitting negotiated agreements covering consumer out-of-pockets in community settings. The Federal Government has recently announced a committee to review new and more appropriate models of care in mental health and rehabilitation as an initial step, but this should be extended to cover the circumstances described above.

Building on the initial reform of the Protheses List

Whilst welcoming the 'one-off' benefit reductions announced last year, additional savings are available in relation to the Protheses List and greater transparency must be introduced into the medical device supply and benefit system. Measures utilised by the Federal Government in other areas of health, especially in pharmaceuticals, could readily be adapted or adopted in this area, building on the progress achieved in 2017.

Many anomalies still exist in the operations of the Protheses List and ongoing reform could deliver additional savings. A 2015 report commissioned by the PHI industry "Costing an Arm and a Leg" identified that \$800 million is being wasted annually on excess benefits paid for medical devices.

Furthermore, the Independent Hospital Pricing Authority (IHPA) undertook its own analysis in 2017, in which it compared Protheses List benefits with Australian public hospital prices paid for the same

¹¹ Remedy Healthcare has spent seven years researching and developing its first in kind mental health program. (November 2015) <http://www.australianunity.com.au/thoughtplus/health-latest/2015/december/remedys-mental-health-first#sthash.4s0RPQMp.dpuf>

¹² Article in Brisbane Courier Mail 'New mums can now give birth to their bubs without paying \$10 000 gap fees' Sue Dunlevy Sunday December 17 2017. Regulatory change is required to make a trial project such as this scalable.

device. This report concludes there is an additional \$1 billion expenditure per year wasted in overpayment for medical devices in the private sector.¹³

Some of these measures include: regular benchmarking with the prices of older established products; the introduction of price disclosure; stricter controls on the support and other benefits provided by manufacturers and suppliers to providers; and a more rigorous evidence base, including an effective post-marketing surveillance on all implants with formal registry data required for new implants.

Savings achieved from these measures would not only flow through to consumers through their premiums but also the Federal Government via the procurement of medical devices by the Department of Veterans' Affairs and through lower prices achieved in the public sector.

Benchmarking against older products

Reform of the reference pricing system would adjust reimbursement levels for each clinical category of products to bring them in line with comparable health systems. By defining a basket of common products with domestic and international comparators and accounting for variances in delivery models, exchange rates, etc., a reference pricing system could ensure that all stakeholders receive fair compensation for their value-add with little incremental overhead required.

This process of benchmarking, or reference pricing, which is utilised in relation to Australia's Pharmaceutical Benefits Scheme (PBS), should be introduced in relation to prostheses. This would enhance the current model with a stronger evidence base of domestic and international benchmarks. It would be relatively straightforward to achieve as it requires little reform; has widespread usage internationally; is familiar to Australians given the operation of the Pharmaceutical Benefits Scheme; and could lower benefits to benchmark levels.

Western Australia Health public hospital procurement data indicates some of the potential savings. Spend-weighted prices for a basket of 41 prostheses stock-keeping units (SKUs) were compared, to arrive at an average benchmark as an indicator of prostheses prices in Australian public hospitals. Of the 41 SKUs, Prostheses List prices were lower for only two SKUs and higher for the other 39 – ranging from being 0.9 to 5.2 times the level of the Western Australia Health price points. As publicly available Western Australia data is limited to particular categories, only cardiac, ophthalmic and orthopaedic prostheses were examined. These three categories represent approximately 34% of overall PHI prostheses expenditure. Whilst this data is limited to Western Australia Health, it is an indication of some of the price differentials that exist and the savings that could continue to be made.

Whilst \$300 million of savings has been captured in the current round of reform, additional savings could be achieved by using Australian public hospital prices and international price comparator prices from equivalent economies.

Price disclosure

Price disclosure for PBS listed medicines was introduced in 2007 as part of a reform package. The aim of price disclosure is to ensure that the price paid for pharmaceuticals, in this case by the Government, is closer to the price at which they are supplied in the market. This involves suppliers being required to advise the Government of information regarding the supply of their product for a

¹³ 'IHPA Report under s208 on prosthesis costs in public and private hospitals' March 14, 2017

certain identified data collection period. That information is used to work out the price at which their medicines are sold.

A similar system could be introduced for the supply of prostheses into the Australian market, utilising hospital, PHI and supplier information. This would enable savings to be achieved by accounting for rebates in either cash, goods or services paid by suppliers to customers against Prostheses List benefits.

Support provided by manufacturers to providers

Manufacturers' product representatives now attend the great majority (perhaps 90%) of orthopaedic surgeries where their company's product is utilised although the clinical evidence for attendance in all cases has never been established. The attendance of sales representatives during surgical procedures has escalated dramatically since the Prostheses List appeared in its current form in 2006. In the great majority of these cases, the presence of device reps is not driven by clinical need but by the desire to prevent competitors influencing the provider. Whilst some argue lower prices would cause manufacturers to reduce their sales force and therefore cease to provide surgeons with the same degree of support, the arguments for this do not hold up and stricter controls of the type and means of support and other benefits provided by manufacturers to providers are necessary.

Interviews with surgeons and international experts indicate that, in jurisdictions where prostheses prices are lower, product representatives still attend where genuinely necessary. Health funds are willing to support service staff and manufacturer representatives if it can be clearly demonstrated the services provided are genuinely clinically relevant. Under no circumstances should health fund benefits be used to support sales activities of manufacturers where there is no patient benefit.

Introducing a reporting system, not unlike that operating in relation to pharmaceuticals where Medicines Australia discloses support, incentives and other benefits provided to prescribing doctors, is essential to both price the support given by manufacturers to providers annually and better understand the nature of the support and benefits provided.

A more rigorous evidence base

Given the experience of the industry in recent years, a more rigorous evidence base, including an effective post-marketing surveillance on all implants with formal registry data required for new implants is required. This will become even more important as technology evolves and a new wave of prostheses, such as new heart valves and 3D printed devices, come onto the market. Whilst establishing this base is important in order to manage the risks involved in relation to prostheses, it is also critical in identifying the value of these devices and the outcomes that they deliver to patients. By establishing this base, it might also facilitate the integration, over time, of prostheses costs into an episode-based payment. Agreeing on a predetermined reimbursement per procedure (e.g. per MBS item) would create stronger incentives for manufacturers to compete on price and improve the sustainability of the overall health system. This proposal reflects the current structure of the Department of Health, which is aligning all health technology evaluation and assessment functions in one area, and the way that health policy is moving in a number of countries.

Recommendation 5: That the structural measures outlined above be implemented to extend the strong work begun on Prostheses List reform and to capture both the savings and efficiency gains remaining in the system. For the most part these have already been recommended to the Federal Government in the review undertaken by Professor Lloyd Sansom, as Chair of the industry Working group on Private Health Insurance and Prostheses List pricing in 2016.¹⁴

¹⁴ Report of the Industry Working Group on Private Health Insurance Prostheses Reform. Emeritus Professor Lloyd Sansom 2016

MAINTAINING A STRONG SYSTEM OF INCENTIVES

In the late 1990s, following an economic downturn and a banking crisis impacting the southern states in particular, the hospital system was in crisis. Public hospitals had been hit hard by funding cuts and the rapid introduction of activity-based 'casemix' funding as a savings measure. They were struggling to recover and were experiencing waiting list blowouts, industrial action and significant problems in quality and safety problems. Newspaper headlines reported '20 000 avoidable deaths per year' in Australia's public hospitals.

At the same time, PHI had become unaffordable for the average family as a result of young people exiting the market, leaving a risk pool of high claimers. This created a toxic cycle of high premium increases, followed by further dropouts of low claimers.

Regulation at this time permitted a person to join a fund for the first time late in life when they were certain to claim whilst paying the same premium as a young person who had just joined. Multiple double figure premium rises were common in a 12-month period and hospital cover fell to an all-time low of just under 30% of the population. Both small and large funds required intervention to stop them failing. Government market research estimated that over 700 000 people on full pensions were going without food and other essentials to be able to maintain PHI cover.

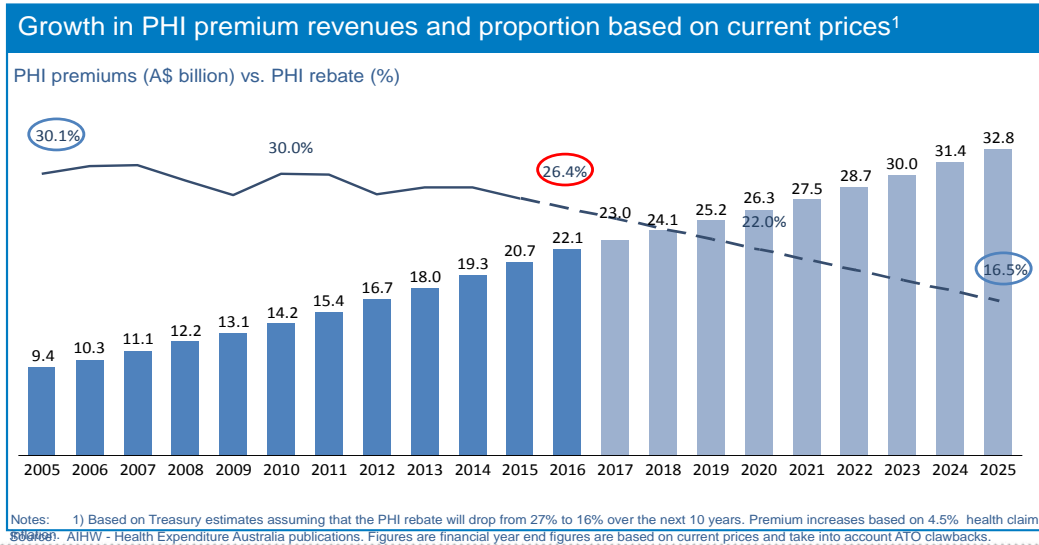
To stabilise the PHI market and give public hospitals a chance to recover, the Howard Coalition Government introduced a package of reforms, which included the following measures:

- Lifetime Health Cover (LHC) which penalises people who join a health fund over the age of 30 through a sliding scale of higher premiums proportional to age;
- The Medicare Levy Surcharge (MLS) which penalises higher income earners (singles earning over \$90,000, and families earning over \$180,000) with a higher Medicare levy if they did not take out PHI; and
- The 30% rebate on premiums which was a government rebate which was paid as a percentage of the premium in its original form to all PHI policyholders with hospital cover.

Market research indicates that the combination of these measures underpins 75% of demand for PHI. Further, they acted to successfully stabilise uptake of PHI at its current level of just under 50% of the population.

Since the introduction of this regulatory regime, there have been multiple variations to the regulations governing the rebate aimed at controlling government outlays in this area. The net effect of these measures is to greatly slow the growth of PHI rebate outlays, and in fact, taking into account a decline in numbers of people with rebate-eligible policies, expenditure on the rebate is expected to decline, not increase, with time.

The impact of indexation of the rebate on consumers cannot be underestimated. The impact of non-full indexation of the rebate on premiums is essentially compound interest at the difference between general CPI and health/premium inflation. If health inflation continues at the same rate, the value of the rebate as a percentage of the premium, which is currently just 25.9%, will be 16% within a decade. At the same time, health fund claims have been increasing at 8.1% per year.



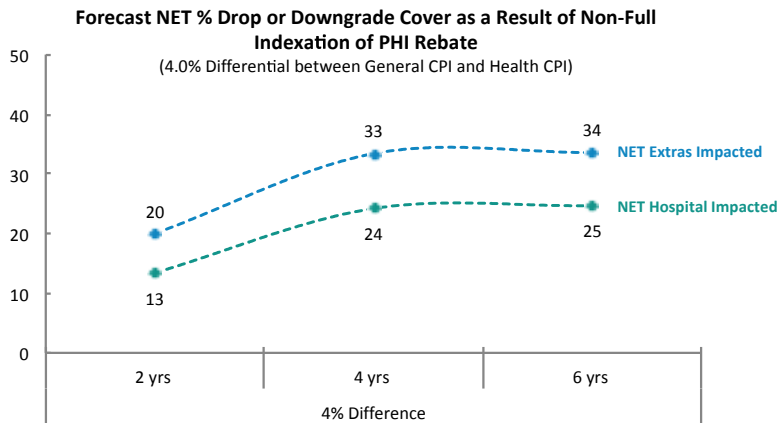
IPSOS used consumer behaviour survey work to model the impact if the difference is 2.5% and also 4.0% over a six-year period. At a 2.5% differential, one in four extras policies and one in five hospital policies are dropped or downgraded at the six-year mark. At a 4% differential, a truly concerning one in three extras policies and one in four hospital policies are impacted at the six-year point - this is the most likely outcome if nothing else changes.

IPSOS Price Impact and Consumer Reaction simulation model 2015



Forecast impact of non-full indexation: 4.0% p.a. difference

- At a 4% differential, a truly concerning one in three Extras policies and one in four Hospital are impacted at the 6 year point.
- Downgrade more likely than drop ... at 6 years 6% drop Hospital, 14% drop extras.



Section 9.5
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Further measures eroding the rebate, particularly if they disproportionately impact younger, healthier members will exacerbate an affordability crisis in PHI which will have flow-through impacts on the public sector in key areas of non-emergency surgery waiting lists, mental health and dental care. A 'tipping point' has been reached for the sector.

Economic value of the rebate

Work undertaken for PHA last year by economic consultants Evaluate showed that Australia receives substantial benefits from the PHI rebate.¹⁵ This occurs on two fronts:

1. First, because the Commonwealth contribution to PHI is lower than its contribution to public healthcare, the PHI rebate allows a higher amount of care to be delivered per dollar of public expenditure; and
2. Second, analysis of welfare outcomes from different forms of health expenditure (public, insurance, out-of-pocket) shows that a dollar spent by the Commonwealth via PHI delivers up to 15% greater public benefit than a dollar spent directly into the health system.

The conclusion from this study is that the PHI rebate is both allocatively and expenditure-efficient, and that marginal increases in this instrument would deliver more public welfare than corresponding increases elsewhere in the health system.

In addition, the PHI rebate has proven an important component of the measures stabilising PHI coverage in the community. Health funds appreciate the requirement for budget repair and are not arguing for restoration of the rebate in its original form. Further hastening the phase down of the rebate will be however detrimental to affordability of PHI for Australians already experiencing financial stress.

The PHI rebate on 'Extras'

The PHI rebate is payable on any complying health insurance product (CHIP) that provides hospital treatment, general treatment (also known as ancillary or extras) cover or both.

From time to time, government and other stakeholders have proposed removal of all or part of the rebate on the general treatment component as a savings measure, despite there being no evidence that this proposal would work in practice or deliver any budget savings.

There are a number of risks in taking this approach as well. First, it would increase the complexity of an already complicated measure. Second, extras cover delivers value to young people who are less likely to make hospital claims, but who derive considerable value from cheaper access to dental and allied health services in the community.

In the absence of extras cover, it is less likely that younger people would enroll in PHI, because they have lower expected returns, i.e. lower probability of hospitalisation; and insurance is comparatively expensive for young people. While the combination of community rating and lifetime loading address equity goals, the core pricing of PHI is typically over what a risk-rated price would look like for people in their 20s.

The longer-term risk of increasing the price of extras is also that those who do not enter PHI early, have a higher chance of being priced out of the market later in life, which leads in turn to longer waiting lists, productivity losses, and higher whole-of-system costs for healthcare.

In addition, younger people who are injured or suffer illnesses, which place them on hospital waiting lists, will experience greater losses of welfare due to their age and career stage. There are broader economic losses due to this phenomenon. Young people with a mental health disorder for example,

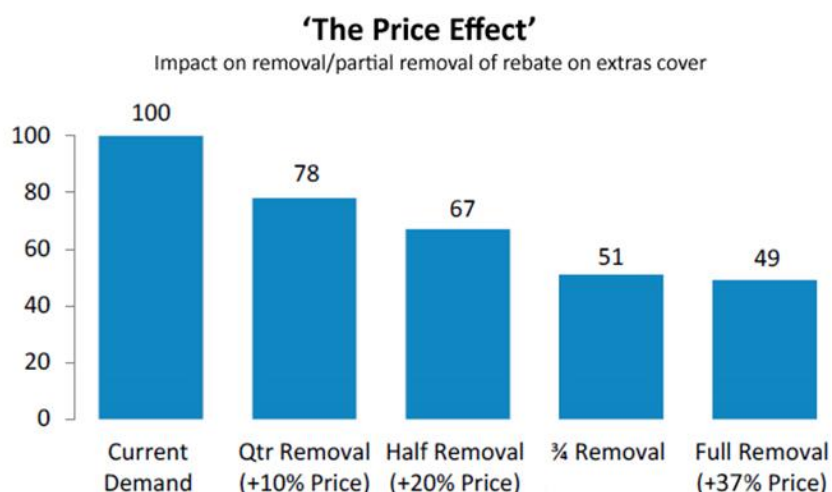
¹⁵ The full report is included in *Appendix 1*

will struggle to get admitted to a public hospital, however the loss of productivity this could cause throughout the early stages of working life, will potentially impact them throughout life.

The removal of the rebate on extras would equate to a price increase of 37% for most Australians. This would have immediate consequence including a halving of the demand for extras. This would detrimentally impact on PHI take up by younger people who are more interested in extras benefits in general than hospital cover. This is demonstrated below.

Forecast impact – Removal of Rebate on Extras

Stated impact of a full removal of the rebate (equating to a 37% price increase) is a halving of demand for Extras



Section 9.5

If the premium for your ancillary or extras cover for things like optical, dental, physiotherapy and the like were to increase by XX%, which of the following would summarise your likely behaviour?

The public health impact of regular preventive dental and eye checks is significant and the potential impact on preventative dental care of removing the rebate on extras would be extremely negative. Health funds pay out over \$2.6 billion per annum in dental benefits, which is more than Federal Government dental programs. 53% of extras claims are for dental care and one-in-two Australians claim for dental services through a health fund.

Increasingly, health funds are contracting with dentists and purchasing dental practices in order to consolidate and create economies of scale. This has helped reduce out-of-pocket costs and improve quality. AIHW data consistently shows that people with PHI have better dental health outcomes than the uninsured in Australia.

Removing the rebate on extras cover could potentially undermine the positive system health funds are creating in dental health and will not save money in the long run.

Poor dental health and decay cause pain, poor nutrition and embarrassment. When appearance and speech are impaired by dental disease, opportunities for education, employment and social interactions are impacted. Poor oral health can also cause systemic health problems like heart infections, coronary heart disease, stroke, and poor outcomes in pregnancy and pneumonia.

In 2010-11 (the most recent data), there were 60,590 potentially preventable hospital admissions for dental conditions and 129,084 cases of general anaesthesia for dental procedures. This is extremely

costly, and reducing access to preventive dentistry would risk increasing the expenditure on these conditions as well as reducing the productivity of impacted individuals.

Recommendation 6: In order to help maintain affordability of PHI for low and middle income earners and avoid increasing costs in other parts of the health system and economy, the PHI rebate should remain on extras, or ancillary, cover. No further measures should be undertaken to reduce the value of the PHI rebate, and consideration should be given to its restoration for low and middle income earners when economic circumstances permit.

Maintaining the value of the Medicare Levy Surcharge

The Medicare Levy Surcharge (MLS) is an important policy setting with 37% of customers reporting that minimising their exposure to it is an important reason for holding PHI. Over time, however, the value of the MLS is being eroded thereby decreasing its impact on PHI membership. Bracket creep in combination with premium increases for some people, has resulted in the premium being paid now being greater than the additional tax with the result that, over time, individuals and families may choose to pay the surcharge rather than hold PHI.

Average MLS expenditure per individual only increased by 1.1% to \$1,331 in 2014-15 compared to previous 12 months. This compares with wages growth rate of around 2.3% in 2014-15.

In 2014-15, ATO taxation statistics (latest figures) show that¹⁶:

- 77% of individuals paying the MLS (125,990 persons) had a taxable income greater than \$90,000. This compares with 73% of individuals paying the MLS in the previous year (up + 4%). This compares with 42% (85,030 persons) in 2009-10 (5 years ago)
- 59% of individuals paying the MLS (97,320 persons) had a taxable income greater than \$100,000. This compares with 57% of individuals paying the MLS in the previous year (up +2%). This compares with 31% (62,945 persons) in 2009-10 (5 years ago)
- 23% of individuals paying the MLS (38,603 persons) had a taxable income greater than \$150,000. This compares with 22% of individuals paying the MLS in the previous year (up +1%). This compares with 9% (18,520 persons) in 2009-10 (5 years ago)

Five years ago in 2009-10, the proportion of individuals paying the MLS and having a taxable income less than \$90,001 was 58% of the total MLS payers (116,720 persons). This has since dropped to 23% of the total MLS payers (38,545 persons) in 2014-15.

Taxable income ranges	Individuals paying MLS in 2014-15	MLS (\$) in 2014-15
up to \$90,000	38,545	\$25,234,102
\$90,001 to \$100,000	28,670	\$25,247,232
\$100,001 to \$150,000	58,717	\$73,495,886
\$150,001 and above	38,603	\$94,971,206
TOTAL	164,535	\$218,948,426

¹⁶ ATO Taxation Statistics individual income tax return statistics (Published April 2017)

Taxation statistics 2014–15 Individuals: Selected items for 1997-98 to 2014–15 income years

	Individuals paying MLS	MLS (\$)
1997–98	167,330	\$112,142,940
1998–99	267,630	\$165,980,790
1999–00	276,590	\$166,595,962
2000–01	166,085	\$103,585,909
2001–02	203,695	\$124,659,977
2002–03	245,785	\$151,124,433
2003–04	346,135	\$212,964,034
2004–05	452,440	\$276,814,678
2005–06	535,995	\$334,559,635
2006–07	680,090	\$431,162,935
2007–08	760,230	\$482,765,262
2008–09	221,825	\$195,443,083
2009–10	241,915	\$209,253,201
2010–11	254,870	\$227,110,036
2011–12	264,125	\$247,129,523
2012–13	218,086	\$277,897,180
2013–14	198,776	\$261,654,559
2014–15	164,535	\$218,948,416

Medicare Levy Surcharge	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Number of Individuals	241,915	254,870	264,125	218,086	198,776	164,535
Total Cost (\$)	\$209,253,201	\$227,110,036	\$247,129,523	\$277,897,180	\$261,654,559	\$218,948,416
Average cost per person (\$)	\$865	\$891	\$936	\$1,274	\$1,316	\$1,331

Recommendation 7: The value of the MLS should be recalculated and established such that it provides a strong incentive for people to take out and maintain their PHI membership in combination with Lifetime Health Cover, and the proposed discount scheme for younger members. An increase of 50 basis points across the income thresholds is recommended.

Measures to attract younger people into private health insurance

Australia’s system of community rating in private health insurance means health funds cannot alter premiums according to the health status of customers. The Lifetime Health Cover legislation was introduced in 1999 to provide a ‘stick’ incentive for younger people to join a health fund, thereby stabilising the risk pool. Lifetime Health Cover means premiums rise for every year a member joins a health fund after the age of 30. Prior to this, an 85 year old could join a health fund for the first time knowing they intended to claim, and pay the same premium as a 25 year old.

Recent health fund data has again shown the risk pool is deteriorating as premiums increase, with growth in health fund membership and claims in people aged over 65, and membership growth in people aged under 35 flat lining.

To counter this the Federal Government, as part of its private health reform package, announced a regulated unfunded discount scheme for people aged under 30. From April 1 2019, health funds will be able to offer premium discounts on hospital cover of up to two per cent for each year that a person is aged under 30, to a maximum of 10 per cent for 18 to 25 year olds.

To strengthen the impact of this measure, PHA recommends consideration of removal of Fringe Benefits Tax on private health insurance premiums paid as an employee benefit. This will incentivise the uptake of private health insurance by people of working age, and also employers to actively invest in the health of their employees. Currently employers are strongly disincentivised from investing in private health insurance as FBT means they are currently paying 2.1x the premium.

The Fringe Benefits Tax Assessment Act (FBTAA) provides for a wide range of exemptions that have been introduced by the Government either on social, political or administrative convenience grounds. PHA believes those benefits afforded to the public by private health insurance, namely the significant alleviation of pressure on the public health system, warrant the exemption of private health insurance from the Fringe Benefit Tax (FBT). Specifically, the payment of an employee's PHI premiums by their employer (or associate or third party by arrangement) should be exempted.

Further, such a policy action will serve as a notable workforce productivity measure with private health members able to access much faster elective surgery than those seeking to access the public system. This is particularly important given that around 311,000 Australians were forced to wait more than 37 days and nearly 15,000 forced to wait more than a year for elective surgery in public hospital settings in 2015-16.

Recommendation 8: Private health fund premiums paid by employers for the benefit of their employees' productivity and wellbeing are exempted from Fringe Benefits Tax.

ABOUT PRIVATE HEALTHCARE AUSTRALIA

Private Healthcare Australia (PHA) is the Australian private health insurance industry's peak representative body that currently has 20 registered health funds throughout Australia and collectively represents 96% of people covered by private health insurance.

PHA member funds today provide health care benefits for almost 13 million Australians. Private health insurance is provided through organisations registered under the *Private Health Insurance Act 2007*. The financial performance of registered health funds is monitored by the Australian Prudential Regulation Authority (APRA), an independent Australian Government body, to ensure solvency and capital adequacy requirements are met.

All members of Private Healthcare Australia are registered as health benefits organisation with the Commonwealth Government and comply with Government standards and regulations on benefits and solvency.

APPENDIX 1 – Evaluate Report



Economics. Policy. Strategy.

The Relative Efficiency of The Private Health Insurance Rebate v. Direct Public Health Expenditure

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1 August 2017

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Evaluate

Evaluate was formed in September 2016, to bring fresh thinking to policy and economic questions, particularly those in the social sphere.

Our particular goal is to identify long-term solutions to ensuring the sustainability of Australia's admirable social compact, including universal access to healthcare and education, and the supply of aged care, housing and other social infrastructure.

Our approach is based on a traditional microeconomic toolkit, moderated by the knowledge that social services are accessed by people with a vast variety of experiences, needs and resources. Consequently, we have no bias towards either public or private supply of services, noting that the access and welfare needs of different Australians typically require a mix of both.

The Principals of Evaluate are experienced professionals, and we complement this with external expertise where possible.

www.evaluate.net.au

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www.privatehealthcareaustralia.org.au



Table of contents

Authors	2
Evaluate	2
Funding	2
Table of contents.....	3
Executive Summary	5
Introduction.....	6
Why PHI?	7
History of Private Health Insurance in Australia	8
The early years.....	9
Post-World War II.....	9
Towards a mixed public/private model.....	10
1996 – the ‘perfect storm’	11
Stabilising the private health insurance market – a package of reforms.....	12
The Private Health Insurance Incentive Scheme (PHIIS)	12
Hospital Purchaser Provider Agreements	13
The Australian Government Private Health Insurance Rebate	13
Lifetime Health Cover	13
No-gap or known gap products	14
Impact of these reform measures	14
Variations to the regulatory regime over time.....	14
Means testing the rebate	15
Changing the Medicare Levy Surcharge	15
Removal of the rebate from Lifetime Health Cover loading	15
Indexation of the rebate to the Consumer Price Index.....	15
Freezing income thresholds at 2014-15 levels.....	16
Current Situation	16
Methodology and Analysis	18
Current rates of subsidy	18
Allocative efficiency: return on investment	20
Expenditure efficiency: impact on household welfare.....	25
Parameters	31
Valuing <i>ka'</i> : what is the price of the waiting list?	31



The rate of subsidy: s	31
Price elasticities of demand.....	32
The labour tax rate: tL	35
Expenditure elasticity	35
The rate of substitution	36
Outputs.....	37
Conclusion	39
Broader Context	40
Appendix A: Table of Variables.....	41
Appendix B: Administration cost v. Deadweight Loss	42



Executive Summary

This paper seeks an answer to the question: is a dollar spent by government via private health insurance (PHI) more or less efficient than a dollar spent directly in the public system?

There are multiple dimensions to this problem, and a survey of literature shows competing views. However, there are reasonable grounds for believing that the gains to consumer welfare from subsidising PHI are no less than, and may be greater than, those from putting more money into the public system.

This is not a comparison of quality or outcomes in the public and private systems. Rather it is a review of expenditure efficiency.

For context we look at the history of PHI in Australia, which is substantially longer than the history of universal public care. From that, we note that – far from being a novel activity – the use of PHI subsidy by Australian Governments has a history that extends back to the first part of the 20th Century.

Prior to the introduction of Medicare, this led to insurance coverage amongst Australians of up to 80% of the population, which provided for high standards of healthcare, albeit with a minority relying to some extent on charitable or uncompensated care.

From there, we look at the economic effects of PHI on two fronts.

First, we consider allocative efficiency, which looks at the overall effect of health expenditure through direct purchase: dollar for dollar expenditure by the Commonwealth.

Here we find that there are some respects in which health expenditure via the PHI Rebate is more efficient than direct expenditure through the public system. At the heart of this finding is the fact that because of user-funded premiums, PHI makes a lower call on the public purse, and hence avoids some of the deadweight costs of taxation.

Secondly, we look at the welfare effects of spending a marginal dollar variously: in the public system; via the PHI Rebate; or as a user-payment from private consumers.

We measure welfare gains as a reduction in the opportunity cost of waiting for care: bypassing queues is the principal role of payments made by PHI; and the shift in demand to insured care reduces the waiting time of public patients.

The results of this analysis show that there is a greater welfare gain from the PHI rebate than from marginal investment in public care. In other words, holding everything else constant, redirecting a dollar of public expenditure from the PHI rebate to public hospitals would reduce efficiency. This result seems reasonably robust to changes in the modeling parameters used in the analysis.

We note that where extras are a stapled component of PHI including hospital insurance, there can be sound policy reasons for applying the rebate to them. Primary among those reasons is the role of extras in attracting relatively young and healthy consumers. In the absence of those consumers, charges would likely have to rise, though we do not quantify the costs and benefits of alternative scenarios in that respect.



Finally, we make some observations on the broader value of PHI, beyond the marginal effects.

Introduction

The question we consider in this paper is whether a dollar spent on healthcare via private health insurance (PHI) is more or less efficient an investment in the Australian healthcare system than a dollar transferred into the public health system. This is in turn an evaluation of the economy-wide efficiency of the PHI Rebate.

In 2014, the Commonwealth Government's National Commission of Audit (NCOA) opined:

A rise in the share of the nation's income devoted to health care is not necessarily a matter of policy concern as long as the expenditure is cost effective, used efficiently, and the benefits outweigh its opportunity cost (including the excess burden of the taxes raised to pay for the expenditure).¹

This question of cost-effectiveness is what we are testing here. In doing so – as suggested by the Commission – this paper is indifferent to the actual scale and mix of healthcare expenditure as long as it is productive.

The preliminary hypothesis was that marginal returns on health expenditure should be roughly equal, with greater gains available from inframarginal effects. By the marginal effects, we refer to gains which occur from the direct application of insurances, to relieve pressure on the public system. And by inframarginal, we refer to the broader benefits of having competing systems, such as the impact competition can have on innovation and experimentation.

The expectation that there would be little marginal gains from preferring either social or private insurances assumed that supply constraints would limit short-term competitive gains whereas, in the longer term, competition should raise the productivity and quality of all providers.

It is important from the outset to emphasise that our interest is in the effects of financing choices rather than hospital selection. These are not identical: the use of PHI in public hospitals is an increasingly widespread practice, though it may be ill-conceived, because it undermines the primary goal of the insurance model, which is to support a separate and competing system; and there continues to be substantial purchase of private hospital services by Commonwealth and State Governments in order to decrease waiting times and lists.²

Having looked specifically at the differential effects of 'social health insurance' and PHI, we find that the positive marginal welfare effects of funding via private insurance exceed those of public health finance.

¹ National Commission of Audit. (2014). *Towards responsible Government*, Appendix 1-9.3, p.194. <http://www.ncoa.gov.au/report/appendix-vol-1/9-3-pathway-to-reforming-health-care.html>, accessed 27 July 2017.

² In 2014-15, 10.1% of expenditure in public hospitals was funded by health insurers, premium rebates, out of pocket costs and other non-government sources (including compensation schemes) – in particular, private health insurers (including premium rebates) accounted for 3.1% of expenditure in public hospitals. Conversely, 12.8% of expenditure in private hospitals was funded by governments, not including premium rebate expenditure – this represents the direct purchase of private hospital services by government. Some 4.0% of all government hospital funding (purchases of services), not including premium rebate expenditure, was in private hospitals. See: Australian Institute of Health and Welfare. (2016). *Health Expenditure 2014-15*. Table A3.



This is not simply a matter of the discounted Government contribution to care which occurs via PHI: we are primarily interested in comparing dollar for dollar rather than relative share of costs (although this is also considered).

Rather, welfare gains are due to effects on waiting times and the demand characteristics of health consumers. Welfare gain measures are critical to provide a true picture of whether scarce resources, particularly tax revenues, are being allocated efficiently.

Traditional comparisons between different levels of health expenditure look at expenditure as a percentage of gross domestic product (GDP) which can be misleading. For example, World Bank data from 2014 shows that 9.4% of Australian GDP (from all sources) is spent on health compared to 9.1% for the United Kingdom; and 17.1% for the United States.³ However, expenditure should not be regarded as a good indicator of healthcare access, outcomes, or equitable distribution. In particular, there is widespread confidence that an Australian in need of urgent surgical intervention will be more readily assured of access than a US resident.

For Australians, equity of access is a central expectation of the health system, alongside quality and effectiveness: notwithstanding that it may require competing suppliers as well as some means-testing. To this end, we start from a point of indifference to the broad mix and consumption across the system, rather focusing on what changes in funding patterns would deliver greater marginal gains.

We are naturally aware that there remain ideological biases toward different healthcare models at all corners of politics. However, we share the view that:

*The debate on private vs. public seems anachronistic ... It is no longer a question of private vs. public but rather, "what is the best and most efficient mix for the local context?"*⁴

Our conclusion is therefore not that all public expenditure should be reallocated to one sector or another, which would be unlikely to be desirable even in a greenfield environment. However, we do believe there is compelling evidence that subsidising PHI is at least at the margin more welfare-maximising than re-diverting such monies to the public sector.

Why PHI?

At this point, we pause to briefly comment on what private health insurance actually does, and what are its goals. This is important, as it informs the succeeding methodologies for examining whether Government contribution via the PHI Rebate is efficient in terms of those goals.

First, it is well-understood that Government funding for hospital services is limited, mostly by a combination of: the population's tolerance for taxation; and, the expectation that tax income will be spent on a mix of services, not just healthcare.

³ World Health Organization. (2017). Global Health Expenditure database. <http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS>, accessed 27 July 2017

⁴ Hsu, Justine. (2010). *The relative efficiency of public and private service delivery*. World Health Report (2010) Background Paper, No.39: p.5.



The consequence of this is a requirement for rationing: in hospital care, this is done via waiting lists. The fact that care in public hospitals does not attract a user charge may lengthen the waiting lists, to the extent to which it induces moral hazard by consumers or health care providers.

There are welfare losses from waiting lists, and substantial costs associated with maintaining the quality of life of those in the queue.

Conversely, PHI allows insured persons the choice of opting out of the waiting list, and being treated more expeditiously, in a private hospital. At the same time, they receive some other benefits, including doctor selection.

There is a mix of public and private benefits here. The private benefits are captured in the insured patient's experience: having rapid treatment; peace of mind from having selected a service provider; potentially avoiding comorbidities or longer recovery associated with treatment delays.

This may be paid for by a mixture of PHI and out-of-pocket copayments.

There are also public benefits associated with this activity. Some of these are related to the private experience: patients receiving timely interventions will have less time out from workforce participation⁵; and earlier intervention may save costs in the future.

However, the broad public benefit is a reduction in the length of the public waiting list. This is measured in our paper as a welfare gain, associated with shorter waiting times. Again, some of this is a private benefit (individual patients in the public space being treated more quickly) and some of it is shared (reduction in interruptions to workforce participation, and reduction in non-hospital health costs).

This combination of private and public benefits from PHI is why there is merit in some public participation in PHI funding, to increase the rate of insurance across the population.

History of Private Health Insurance in Australia

In investigating the history of PHI in Australia, we have identified a theme common in both literature and, most likely, with the broader community also. Government involvement in, and support for, the PHI sector is frequently positioned as a recent phenomenon, and one closely associated with the reforms introduced by the Howard Coalition Government in its early years.

In reality, Australian Government support and involvement in PHI significantly pre-dates this period. Current health financing arrangements reflect the blending of social and voluntary insurance which have underpinned Government's subsidisation of health throughout the second half of the twentieth century.⁶ This demonstrates the long term view of the value delivered by the sector to the Australian health system and the centrality of the values of choice and access which it underpins.

⁵ Time out of the labour force is not in itself a welfare cost, if it reflects a choice to consume more leisure. However, illness forces involuntary leisure, which is a cost. There is also a tax wedge, so higher involuntary leisure imposes a broader cost on third parties in the form of lower tax receipts.

⁶ Cullen, David, *Review of the Pricing Arrangements in Residential Aged Care: Historical Perspectives*. Background Paper 4, Commonwealth of Australia, 2003.



The early years

The forerunners of today's private health insurers can be found in the activities in the 19th century friendly societies: not-for-profit 'self-help' financial organisations and mutual funds that pre-dated most welfare provisions by governments, and aimed to support individuals during times of need through mutual self-funding. Many of these organisations – often called 'mutuals' – operated in Australia in the 1800s and continued into the early 20th century.⁷

During the years between the two World Wars - particularly during the 1930s - this system came under stress, as did the free doctor services provided to poor patients through charitable hospitals. This decade also saw the emergence of hospital or medical based health funds, such as the Hospital Contributions Fund of New South Wales (HCF) in 1932.⁸ These years also saw various Governments – the Cook Government in 1913, the Bruce/Page Government in 1928 and the Lyons Government in 1938 – consider the introduction of government-run social insurance schemes although these did not progress into practice.⁹

Post-World War II

The post-World War II period saw the establishment of a more extensive social services system under the Menzies Government. This expansion was informed by the Government's approach establishing a 'partnership between the government and the individual through the union of governmental aid and voluntary effort'¹⁰ and included the introduction of the Voluntary Health Insurance (VHI) scheme established by the *National Health Act 1953*.

Under this system, existing insurers acted as agents for the VHI scheme and received subsidies from the Commonwealth in the form of benefits and underwriting of the claims by the chronically ill.¹¹

The VHI subsidies had a crowding-out effect by ensuring non-subsidised products could not be price-competitive, making it nearly impossible to conduct health insurance outside the scheme: only not-for-profit organisations that met the Department of Health's prudential requirements were permitted access to the VHI scheme.¹² In addition, during this period, PHI contributions became tax-deductible. This system of fiscal advantages and financial incentives existed until 1974.¹³

The *National Health Act 1953* also established Australia's system of community rating for PHI together with open enrolment.

⁷ Private Health Insurance Administration Council (PHIAC). (2015). *Competition in the Australian Private Health Insurance Market*. Research Paper 1, June 2015.

⁸ HCF. (2017). *2016 Year in Review*. <https://www.hcf.com.au/content/dam/hcf/pdf/about-us/2016%20Year%20in%20Review.pdf>, accessed 18 July 2017.

⁹ Cullen, David, *Review of the Pricing Arrangements in Residential Aged Care: Historical Perspectives*. Background Paper 4, Commonwealth of Australia, 2003.

¹⁰ Cullen, David, *Review of the Pricing Arrangements in Residential Aged Care: Historical Perspectives*. Background Paper 4, Commonwealth of Australia, 2003.

¹¹ Private Health Insurance Administration Council (2015). *op. cit.*

¹² Scotton, RB and MacDonald, CR. (1993). *The Making of Medibank*. School of Health Services Management, University of New South Wales, Australia.

¹³ Colombo, F and Tapay, N. (2003). *Private Health Insurance in Australia: A Case Study*. OECD Health Working Papers No. 8, OECD, 30 October 2003.



Under community rating, insurers are not permitted to charge differential premiums to individuals based on any risk factor, such as age, gender or health status. This has the result that all individuals holding the same PHI product living in the same State pay the same premium for that product. In addition, private health insurers are not permitted to refuse cover to any individual regardless of their risk or other status.

By prohibiting risk-rated premiums, and preventing insurers from refusing customers, these regulations can induce insurers to engage in potentially inefficient ‘risk selection’, whereby they seek to discourage high risk consumers and attract low risk consumers through the design of insurance options. At the same time, they can induce adverse selection by customers, older and more ill Australians will have a higher expected return on their premiums. In those ways, they compound the difficulties PHI faces in competing with an alternative product—coverage through the public system—that is provided on an uncharged basis. Maintaining a viable PHI industry in the presence of these distortions has required a range of public policy interventions, ranging from rebates to Lifetime Health Loading (discussed below).

Towards a mixed public/private model

In 1970, PHI coverage reached a national peak of 80%.¹⁴ By the time of the Whitlam Labor Government’s election in 1972, however, there was a significant impetus towards the establishment of a national social health insurance scheme following the implementation of similar programs in Europe during the period of post-war reconstruction.

Medibank was intended as: “a universal, compulsory, publicly-administered and funded health insurance scheme.”¹⁵ The dismissal of the Whitlam Labor Government and the subsequent election of the Fraser Coalition Government saw a significant restructure of Medibank with the universal system of cover dismantled and a return to a substantially PHI-funded model supported by public subsidies.

At the same time in 1976, Medibank Private, managed by the Health Insurance Commission, was established as a government owned private health insurer, operating in all states and territories. Private health insurance coverage, which had fallen during the period of Medibank’s operation, rose sharply after the discontinuation of Medibank Mark II in 1981,¹⁶ and tax rebates for PHI were introduced.¹⁷ Coverage in the early 1980s was between 55% and 68% of the population.¹⁸

The election of the Hawke Labor Government in 1984 saw the establishment of Medicare, the second iteration of a universal, publicly funded national insurance scheme. This remains the major funder of Australia’s health care system.

¹⁴ Quinn, C. (2002). *The Pasts and Futures of Private Health Insurance in Australia*. NCEPH Working Paper Number 47, National Centre for Epidemiology and Population Health, The Australian National University, December 2002.

¹⁵ Private Health Insurance Administration Council (2015). *op. cit.*

¹⁶ Quinn, C. (2002). *op. cit.*

¹⁷ Colombo, F and Tapay, N. (2003). *op. cit.*

¹⁸ Australian Bureau of Statistics. (2001). ‘Health expenditure: Private health insurance’. *Australian Social Trends, 2001*. <http://www.abs.gov.au/AUSSTATS/abs@.nsf/2f762f95845417aeca25706c00834efa/Oaaf3311ebcd3646ca2570ec000c46e4!OpenDocument>, accessed 19 July 2017.



Following the introduction of Medicare, subsidies for PHI ceased, following the earlier removal of tax rebates for PHI in 1983.¹⁹ PHI coverage dropped sharply to 50% and coverage then continued to fall slowly but reasonably consistently over the next ten years.²⁰

A number of policy initiatives were introduced to address the fall in PHI coverage, recognising its perceived value and broad population cover.²¹ Initiatives included:

- The introduction of requirements in 1988 compelling funds to enable portability by recognising waiting periods already served by policy holders moving between insurers;
- Changes to minimum insolvency requirements in 1988; and,
- Changes to the Medicare Levy in 1995.²²

At the same time, a number of other events in the broader economy were acting to generate a perfect storm for PHI: a situation that led to additional and significant changes in how Government approached private insurance.

1996 – the ‘perfect storm’

Economic downturns in the 1990s, following the 1980s banking crises, drove funding cuts to public hospitals, particularly in Southern Australia. Further, the introduction of ‘casemix’ funding and its operation as a savings measure meant that public hospitals were under significant pressure, with safety and quality issues being regularly raised both in the media and more generally.

The economic downturns also impacted the private sector, with PHI becoming largely unaffordable for average families as unemployment rose and real wages stagnated or even fell. Community rating acted to compound this issue as older (or sicker) individuals paid the same premium as younger, healthier members. Given that individuals could join PHI funds at any point of their lives, including when they were older and almost certain to lodge claims exceeding the value of their premium, community rating resulted in young people in PHI attracting premiums exceeding their true risk.

Given that this provided little or no incentive for younger people to hold PHI, many of them exited the sector. Adverse selection (the deterioration in the quality of the insured pool as healthier consumers opt out) in turn reduced the effectiveness of risk pooling and increased the premiums required to cover the sicker population retaining their insurance.²³

The intersection of these conditions created the elements of a ‘perfect storm’: with premium increases rising rapidly; leading to a further fall in the number of lower claiming members whose premiums were in fact essential to the wellbeing of the sector. Premium rises above ten percent became common, sometimes several times within a twelve-month span, leading to more members dropping their cover. This downward

¹⁹ Colombo, F and Tapay, N. (2003). *op. cit.*

²⁰ Quinn, C. (2002). *op. cit.*

²¹ Colombo, F and Tapay, N. (2003). *op. cit.*

²² Private Health Insurance Administration Council. (2005). *op. cit.*

²³ Colombo, F and Tapay, N. (2003). *op. cit.*



spiral threatened the very existence of the PHI sector with only about 30% of the population holding hospital cover by 1997.²⁴

Stabilising the private health insurance market – a package of reforms

That the system was in crisis was recognised by the Howard Coalition Government which introduced a number of measures designed to support the PHI sector, while providing room for the public hospital sector to stabilize.

There was significant concern regarding the impact of falling PHI coverage on the sustainability of public hospitals with then Minister for Health and Ageing, the Hon Dr. Michael Wooldridge, stating in a submission to a Senate Inquiry that:

...the health of the publicly funded health sector depends upon a vital private sector. Having some six million Australians with PHI directly pays for around one-third of the costs of hospital care in Australia. If there were no private sector, the extra costs borne by the taxpayer would simply be unsustainable.²⁵

The packages of reforms introduced as a result of these concerns fundamentally took two forms: financial incentives based around subsidies and taxation; and incentives which ameliorated premium rating restrictions. At the same time, it was assumed that incentivising a broader population base back into PHI would allow for a better balanced risk pool, and therefore fewer and lower premium rises.

The packages were introduced over time with some of the earlier initiatives further developed and replaced over time.

The Private Health Insurance Incentive Scheme (PHIIS)

- *A tax rebate or reduced premium*

In July 1997, the PHIIS was introduced as a government-funded reduction in the cost of PHI premiums for those individuals in the lowest income band. This reduction could be accessed in one of two ways, either as a tax rebate for the individual or as a reduced premium. This was an early form of means testing.

- *The Medicare Levy Surcharge (MLS)*

In addition to the rebate or reduced premium, the PHIIS also introduced an additional contingent incremental Medicare levy for those in the highest income band who did not hold private health hospital insurance.

This meant that, for single people earning over \$80,000 and families with incomes over \$180,000, their mean rate of taxation would increase by an additional 1% increment if they failed to take out private insurance. As identified by the Department of Health, the MLS is essentially 'a tax on people that earn over

²⁴ Quinn, C. (2002). *op. cit.*

²⁵ The Hon Dr. Michael Wooldridge, quoted in: Quinn, C. (2002). *op. cit.*



a certain amount and don't have PHI hospital cover'.²⁶ It is separate from the normal Medicare Levy and is positioned as an incentive and savings measure, not a revenue measure.

Hospital Purchaser Provider Agreements

Hospital Purchaser Provider Agreements had been introduced in 1995, following the passage of the *Health Legislation (Private Health Insurance Reform) Amendment Act 1994*.²⁷ Designed to allow private health insurers to negotiate with hospitals to pay them above the Medicare Benefits Schedule (MBS) fee where there was an agreement for in-hospital medical services, the intent of these Agreements was to facilitate simplified billing practices and, critically, enable the elimination of out-of-pocket costs for patients.²⁸ Changes to the Hospital Purchaser Provider Agreements were made in April 1998 to help achieve its objective of reducing medical gaps experienced by consumers.²⁹

The Australian Government Private Health Insurance Rebate

The PHI rebate, effective from January 1999, was a universal rebate of 30% on PHI premiums. Funded by the Government, those with PHI could access the rebate either as a reduced premium or as a tax rebate. The 30% rebate replaced the earlier means-tested PHIS rebate and was designed 'to help people meet the cost of PHI'.³⁰

In 2005, the PHI rebate was increased for people 65 to 69 years old from 30% to 35%, and to 40% for people 70 years old and over. The changes applied to both new and existing PHI members.

Lifetime Health Cover

Lifetime Health Cover (LHC) "is a Government initiative that began on 1 July 2000. It was designed to encourage people to take out hospital insurance earlier in life, and to maintain their cover throughout their life."³¹ This was done by permitting (making) health insurers to charge differential premiums based on the members' age at the time they first took out private hospital cover.

Lifetime Health Cover regulations mean that anyone who takes out PHI pays a loading of 2% on their premium for each year of age they are over 30. No loading exists for those who hold private health insurance prior to their 30th birthday.

This loading lasts for ten years from the time that the insurance is first purchased and is capped at a maximum of 70%. For example, someone taking out PHI for the first time the day after their 45th birthday would attract a 30% loading on their premium and pay an incremental 30% of the listed premium price each year for the following ten years.

²⁶ The Department of Health. (2017). 'Private Health Insurance', <http://www.health.gov.au/internet/main/publishing.nsf/Content/private-1>, accessed 20 July 2017.

²⁷ Health Legislation Amendment (Private Health Industry Measures) Bill 2002, Bills Digest No. 143 2001-02, http://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/bd/bd0102/02bd143 (accessed August 2017).

²⁸ Australian Bureau of Statistics. (2001). *op. cit.*

²⁹ Health Policy Solutions, 'Impact of the changing role of private health insurers on clinical autonomy', 11 November 2015, <https://www.surgeons.org/media/22316534/HPS-Report-Health-Insurance-and-Clinical-Autonomy-Nov-2015.pdf>, (accessed August 2017).

³⁰ The Department of Health. (2017). *op. cit.*

³¹ The Department of Health. (2017). *op. cit.*



As a grandfathering effect, those who held cover before 1 July 2000, later extended to 15 July 2000, were exempt from paying the Lifetime Health Cover regardless of their age at that date. This operated effectively as an amnesty or grace period for those taking out new cover prior to the 15 July date.

No-gap or known gap products

No-gap or known gap products were introduced in July 2000 in order to encourage health funds to offer policies that either enabled members to avoid paying out-of-pocket expenses or allowed them to know in advance what those out-of-pocket costs would be. Unless private health insurers introduced one or more policies involving a no-gap or known gap, they were not permitted to offer members access to the 30% PHI rebate as a premium reduction.³²

Impact of these reform measures

The impact of the reform measures was significant and immediate. In the March quarter of 2000, private health insurance coverage was 32% for hospital insurance and 33% for ancillary insurance. Over the June quarter of that year, coverage rose significantly with hospital coverage reaching 43% and ancillary coverage 39%. The September quarter saw a continued increase with those with hospital coverage reaching 46% and those with ancillary cover to 41%.

This rise in coverage resulted in an additional 415,200 people aged 30 years and over covered by PHI by September 2000, compared to June of the same year. Notably only 11,300 of those people were paying higher premiums as a result of the Lifetime Health Cover regulations.³³ This indicates the major impact this policy had on people's decision to invest in PHI, with the vast majority taking up insurance during the amnesty period.

In 2006, the Explanatory Memorandum for the *Private Health Insurance Bill 2006* stated that the 30% Rebate; the increased rebate for older Australians; Lifetime Health Cover; and the No-Gap and Known Gap arrangements had 'helped ensure a viable and sustainable private health sector, while also improving the capacity of the public hospital system to deliver services to the Australian community'.³⁴

Variations to the regulatory regime over time

Since the initial changes enacted by the Howard Government, a variety of measures have been introduced that have changed the original reform package. The majority of these relate to regulatory changes regarding the rebate, with the aim of restraining government expenditure and most were announced by the Rudd Labor Government in the 2009-10 Budget.

At the time, the Government argued that the measures would also make the operation of the PHI rebate fairer and financially sustainable while supporting consumer choice in health care. Since its introduction,

³² Australian Bureau of Statistics. (2001). *op. cit.*

³³ Australian Bureau of Statistics. (2001). *op. cit.*

³⁴ The Parliament Of Australia, House of Representatives. (2006). *Explanatory Memorandum – Private Health Insurance Act 2006 (and others)*, http://parlinfo.aph.gov.au/parlInfo/download/legislation/ems/r2673_ems_45c273f9-92b8-4faa-b9ee-17ca60e182e0/upload_pdf/307054%20a.pdf;fileType=application%2Fpdf, accessed 19 July 2017.



the cost of the PHI rebate had grown steadily and, in 2010–11, cost \$4.7 billion.³⁵ In the same year, the percentage of the population covered by private hospital health insurance was 45.3%.³⁶

Means testing the rebate

In the 2009-10 Budget, the Australian Government announced its intention to introduce income thresholds at which different rebate levels would apply: essentially a means test on access to the PHI rebate. This affected not only those Australians in receipt of the 30% rebate but also those older Australians who received the higher 30% or 40% rebate levels if their income was within the new thresholds.

As a result, individuals would no longer universally receive the 30% originally introduced in 1999 but rather would, depending on their income level, receive a 30%, 20% or 10% rebate or, for those over the highest income threshold, no rebate at all.³⁷

This change was estimated to save \$6.78 billion over four years and commenced on 1 July 2012.

Changing the Medicare Levy Surcharge

In the same Budget, the Government proposed changes to the MLS with a sliding scale related to income. As a result, those on higher incomes without insurance were liable to pay higher penalty contributions, ranging from the original 1% levy to new rates of 1.25% or 1.5% depending on income level.

Removal of the rebate from Lifetime Health Cover loading

Announced at the same time as the above two measures, the Australian Government also advised that that they would remove the part of the PHI rebate then payable on the Lifetime Health Cover loading. This commenced on 1 July 2012 and was estimated to save \$386 million over four years, since at that time 1,052,994 people in Australia had a Lifetime Health Cover loading payable on their PHI.³⁸

As at March 2017, some 1,058,409 people were subject to a Lifetime Health Cover loading; the number of people subject to the LHC loading decreased by 89,855 over the preceding 12 months. Over the year, 125,050 people had their loading removed after paying a loading for ten years.³⁹

Indexation of the rebate to the Consumer Price Index

The Government also announced that the rebate on PHI would be indexed against either the Consumer Price Index (CPI) or the level of the premium increase, whichever is lower. This initiative, which commenced

³⁵ Biggs, A. (2011). *Legislation to means test the private health insurance rebate re-introduced – debate continues*. Parliamentary Library, http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/FlagPost/2011/July/Legislation_to_means_test_the_private_health_insurance_rebate_re-introduceddebate_continues, accessed 20 July 2017

³⁶ Private Health Insurance Administration Council. (2011). *Annual Report 2010-11 – The Operations of Private Health Insurers*. <http://www.apra.gov.au/PHI/PHIAC-Archive/Documents/Annual-Report-on-Operations-2010-11-web-version.pdf>, accessed 21 July 2017.

³⁷ Biggs, A. (2011). *op. cit.*

³⁸ Cabinet document, 'Removal of the Australian Government Rebate on Private Health Insurance from Lifetime Health Cover Loadings', [https://www.health.gov.au/internet/main/publishing.nsf/Content/foi-disc-log-2013-14/\\$File/Document%2010%20-%20removal%20of%20rebate%20on%20PHI%20from%20LHC%20loadings.PDF](https://www.health.gov.au/internet/main/publishing.nsf/Content/foi-disc-log-2013-14/$File/Document%2010%20-%20removal%20of%20rebate%20on%20PHI%20from%20LHC%20loadings.PDF), accessed 21 July 2017.

³⁹ APRA. (2017). Private Health Insurance Quarterly Statistics, March 2017. <http://www.apra.gov.au/PHI/Publications/Pages/Quarterly-Statistics.aspx>, Accessed 27 July 2017.



on 1 July 2014, affects lower and middle income earners and, as a result, the value of the 30% rebate is dropping each year.

For low income earners, what was previously a 30% rebate on their PHI is now effectively a 26% rebate⁴⁰ and this will also apply at other tiers of the rebate. The effective value of the rebate will continue to fall as a percentage while health inflation and premium increases remain above CPI.

Freezing income thresholds at 2014-15 levels

Income thresholds for rebate eligibility and the MLS are frozen at 2014-15 levels through 2017-18, saving a projected \$370.9 million between 2018-21. The saving arises from bracket creep.

In 2014, the Abbott Coalition Government announced that the income thresholds then applying to the Medicare Levy Surcharge and PHI Rebate would not be indexed for three years, from 1 July 2015 to 30 June 2018. Until this point, the income thresholds had been indexed annually to account for the rise in income needed to meet inflation. In announcing that the indexation would be frozen for three years, the Budget said the savings made would be invested in the Medical Research Future Fund.

In the 2016-2017 Federal Budget, the Turnbull Coalition Government announced a continuation of the indexation freeze for a further three years. This means it will be in operation at current levels until 30 June 2021.

Current Situation

The impact of the above changes has been to slow the growth of the cost to the Commonwealth of the PHI rebate and, given that the number of people eligible for a rebate will fall over time, expenditure on the rebate is forecast to continue its decline.

In July, the Australian Competition and Consumer Commission released its annual report to the Australian Senate regarding the PHI industry. The report confirmed that affordability is a significant concern for consumers with 61% of people who had allowed their PHI to lapse citing the cost of premiums. Real household expenditure on PHI premiums was identified as having increased by 19.7% between 2006 and 2014 and above-CPI premium increases have occurred in every year since that time.

The clear issue here is that savings taken by the Government via bracket creep are contributing to a reduction in the affordability of PHI.

The ACCC report also cited *Online Research Unit* research that 21 per cent of survey respondents plan to relinquish or reduce their PHI cover in the following 12 months with 66% considering that their current policy was too expensive.

In addition, consumers are both shifting to lower-cost policies that have lower benefits, and ceasing to hold PHI altogether: with a 0.42% decline in the number of people holding hospital or combined cover. The report cited Australian Prudential Regulation Authority (APRA) figures that, in June 2015, 47.37% of the Australian population held private hospital or combined health insurance but by June 2016 that percentage

⁴⁰ Private Health Insurance Ombudsman, 'Australian Government Private Health Insurance Rebate', <http://www.privatehealth.gov.au/healthinsurance/incentivessurcharges/insurancerebate.htm>, accessed 22 July 2017.



had fallen to 46.95%.⁴¹ The decline is continuing, with APRA reporting 46.5% of the Australian population holding private hospital or combined health insurance in March 2017.⁴²

The ACCC also found that at the same time as the number of people with coverage was decreasing, the level of hospital benefits paid by health insurers per person increased by 4.2%, along with a 2.9% increase in general benefits per person. At the same time, average out-of-pocket expenses rose by 6.9% for episodes of hospital care.

Statistics from the Australian Prudential Regulation Authority indicate that hospital benefits paid by private health insurers increased from \$13.3 billion in the twelve months to 30 June 2015 to \$13.4 billion for the twelve months to 30 June 2016.⁴³ This is a slight drop in real terms, with total outlays falling less quickly than the decrease in the population covered.

⁴¹ Australian Competition and Consumer Commission. (2016). *Report to the Australian Senate On anti-competitive and other practices by health insurers and providers in relation to private health insurance for the period 1 July 2015 to 30 June 2016*. <https://www.accc.gov.au/publications/private-health-insurance-reports/private-health-insurance-report-2015-16>, accessed 21 July 2017.

⁴² Australian Prudential Regulation Authority. (2017). *Private Health Insurance Quarterly Statistics, March 2017*. <http://www.apra.gov.au/PHI/Publications/Pages/Quarterly-Statistics.aspx>, accessed 27 July 2017.

⁴³ Australian Prudential Regulation Authority. (2016). *Private Health Insurance Quarterly Statistics, June 2016*. <http://www.apra.gov.au/PHI/Publications/Documents/1608-QSR-20160630.pdf>, accessed 21 July 2017.



Methodology and Analysis

Current rates of subsidy

The PHI rebate varies by income, age and family status. It has been means tested since 2012 and rates have been consistently reduced over recent years. Current and recent rates are shown in Table 1 below.⁴⁴

Table 1: PHI Rebate Rates for Past Two Years

Status	Income thresholds			
	Base tier	Tier 1	Tier 2	Tier 3
Single	\$90,000 or less	\$90,001 – \$105,000	\$105,001 – \$140,000	\$140,001 or more
Family	\$180,000 or less	\$180,001 – \$210,000	\$210,001 – \$280,000	\$280,001 or more
Age	Rebate for premiums paid 1 July 2016 – 31 March 2017			
Under 65 yrs	26.791%	17.861%	8.930%	0%
65–69 yrs	31.256%	22.326%	13.395%	0%
70 yrs or over	35.722%	26.791%	17.861%	0%
Age	Rebate for premiums paid 1 April 2017 – 30 June 2017			
Under 65 yrs	25.934%	17.289%	8.644%	0%
65–69 yrs	30.256%	21.612%	12.966%	0%
70 yrs or over	34.579%	25.934%	17.289%	0%

The principle behind the variable rebate is one of simple means testing. We note that means testing private health without means testing public care is a potential source of inefficiency as it makes consumption of public care even cheaper in a relative sense, skewing consumption decisions. However, the political limits to copayments in the public sector are well understood.

⁴⁴ <https://www.ato.gov.au/individuals/medicare-levy/private-health-insurance-rebate/income-thresholds-and-rates-for-the-private-health-insurance-rebate/?anchor=Incomethresholdsfor201516201617and201718#PHIincomethresholds> Downloaded July 2017



We also note that the rebate can be taken as either a discount to insurance premiums (Government payment to the insurer) or as a tax offset. While there may be some differential transaction costs between these choices, they are presumed to be small and therefore this paper does not account for them.

Finally, it also appears that health inflation is predominantly outside the control of health insurers: given the constraints provided by both Government premium caps and a falling market for PHI, we would expect that if insurers had substantial market power, they would be able to push back against higher medical supply costs. There are few signs of this occurring. As a policy matter, it would therefore make sense to look more closely at addressing the factors driving overall health inflation, rather than simply premium increases.



Allocative efficiency: return on investment

Our primary interest in this paper is the efficiency of Commonwealth Government finance for hospital-based healthcare in Australia. While we consider some issues of technical efficiency of the hospital sector itself, the focus here is on the question of marginal return on expenditure.

Our initial set of equations are prior considerations of what the Commonwealth is buying through its contribution: from these, we move the economic effect of those contributions.

The direct per-separation price for Commonwealth funding of public hospital care under activity based funding (ABF) is:

$$(1.1) \quad AP_{Sep}^N (1 + M)$$

Note that Average Price (**AP**) is used here rather than Marginal Price as there remain obvious supply constraints, so the marginal price would be expected to be higher. This is also consistent with the prevailing activity-based funding (ABF) approach to public hospital transfers. The AP_{Sep}^N would ideally be a weighted average taking into account events priced by the National Efficient Price (NEP) and the National Efficient Cost (NEC) which are set by the Independent Hospital Pricing Authority (IHPA). The former is for large hospitals and the latter for small or regional centres. It may also include purchases by the Department of Veterans' Affairs (DVA) and other agencies. This may include some purchases from private hospitals.

Throughout this paper, for notation, **N** (national) is used to indicate public (uninsured) healthcare, and **P** for care covered at least in part by private insurance.

M is the marginal excess burden of taxation, which is discussed in greater detail below.

The direct price of a PHI-funded episode of care is simply:

$$(1.2) \quad AP_{Sep}^P$$

which may include some public hospital expenditure, i.e., insured patients in public hospitals.

For the purposes of this paper, we presume that there is no practical difference between the direct prices AP_{Sep}^N and AP_{Sep}^P . In 2009, the Productivity Commission found that, despite substantial variance between States, the average cost for a casemix-adjusted separation was \$4,302 in a public hospital and \$4,172 in a public hospital.⁴⁵

This is close to parity. Further, without access to the National Minimum Dataset which is limited to Government,⁴⁶ there is little capacity to draw conclusions as to whether the two prices have materially diverged since the Productivity Commission undertook its analysis. Accordingly, we will treat these as being in a 1:1 ratio ($AP_{Sep}^N = AP_{Sep}^P$). Given that Governments are substantial purchasers of private hospital

⁴⁵ Productivity Commission. (2009). Public and Private Hospitals, Research Report. p.102

⁴⁶ Described here, but nil reports: <http://www.health.gov.au/internet/main/publishing.nsf/Content/health-casemix-data-collections-about>



services as well as public hospital, some convergence of prices might happen in any event, if governments outsourced treatments to the private sector when it has a substantial cost advantage.

The public cost of a single PHI-funded separation is given by:

$$(1.3) \quad A\varepsilon_{Sep}^P [1 + M]$$

where $A\varepsilon_{Sep}^P$ is the average dollar share of the rebate per separation in dollars, given by the total annual expenditure on the PHI Rebate divided by the number of separations covered at least in part by PHI. The public cost would not occur for separations for patients with PHI who receive hospital care without using their insurance (though the government would bear that cost in the form of a higher payment to public hospitals).

So, the first comparison is the direct cost between Commonwealth purchase of hospital services via the States and Territories, and the public cost per separation funded in part by the PHI Rebate.

This ratio will predictably be greater than 1, as Equation 1.1 where the Government pays full cost is always greater than 1.3 where it pays only part.

This reflects the baseline equity and efficiency policy goals of Commonwealth health funding. In particular: the introduction of means testing combined with Lifetime Health Cover and the Medicare Levy Surcharge together act as a proxy for means testing free hospital access against taxable income; and the greater allocation of funding for public v. private health service reinforces the needs-basis for funding policy.

This is essentially an accounting comparison, not a comparison of efficiency per dollars spent. For the latter, we need to consider the administrative costs of public v. private insurances.

This is our first comparison of efficiency rather than simply public expenditure. It is important because, when we look at allocation of money from the Treasury via private providers, we are naturally concerned as to its full economic cost.

So, taking into account both relative expenditure as well as the operating costs of the private sector, our comparison here is given by⁴⁷:

$$(2.1) \quad \frac{AP_{Sep}^N \left(\frac{1}{1-D_N} \right) (1+M)}{AP_{Sep}^P \left(\frac{1}{1-D_P} \right) \{1 - A\psi_{Sep}^P + [A\psi_{Sep}^P (1+M)]\}}$$

where:

$A\psi_{Sep}^P$ is similar to the calculation of $A\varepsilon_{Sep}^P$ except that it is the average public share of the PHI component per separation expressed as a *percentage*, rather than a dollar amount. It is equivalent to the average rate of the rebate as a percentage of PHI premiums (for products including hospital cover);

⁴⁷ See Appendix B for further explanation of the effect measured in this equation



D_N and D_P are the respective administrative costs of public health expenditure and PHI, with the latter expected to be higher; and,

M is the marginal excess burden of taxation (MEBT) which is the primary deadweight loss associated with public revenue raising, and is expressed as an incremental fraction per dollar of taxation.

The examination here is whether the higher administrative costs of payment via PHI are outweighed by the opportunity cost to the economy from the deadweight loss of Commonwealth revenue raising.

The test is whether the quotient of the model is greater than 1, which would indicate efficient expenditure via PHI. Our calculations are discussed in detail below, but the rebate is efficient on this test.

What is driving this efficiency is that insured's co-contribution to PHI costs (i.e. the share of those costs not covered by the rebate) doesn't incur the marginal excess burden of taxation; obviously, if the rebate increased, that statement would be less true. And if the rebate were reduced to zero, the (1+M) term would drop out of the PHI component entirely (though PHI, which competes with a service provided at no direct charge to consumers, might not be viable were that to occur).

Effectively, the key point here is this:

1. Because it allows consumers to avoid waiting times, PHI provides a higher quality service;
2. Consumers are willing to make some contribution from their own pockets to obtain that service, and associated benefits such as hospital and doctor selection;
3. Their contribution allows the government to spend less, avoiding some of the cost of taxation;
4. As the rebate rises, that saving diminishes;
5. However, there are some consumers who are at the margin between the higher waiting time public system and the higher consumer charge in the private system and who would switch to the public system when the rebate is cut; and
6. As a result, neither a rebate set at zero nor one set at 100% will be efficient with the optimal point depending on the elasticities of demand.

This model does not positively account for the risk-management benefits of an insurance model v. a direct purchase or out-of-pocket system. Rather it is a comparison of the differential efficiency of funding health outlays via social v. private insurances.

A critical element of this analysis will be our assumed rate of M . This rate is highly variable depending on the selected tax base and its associated mobility.

While recent estimates of MEBT on Commonwealth taxes range from 10% for a broader GST to 139% for incremental rates of company tax, we believe the appropriate comparator is the MEBT of income tax.



This is apposite as:

- Whereas the States receive GST, the rebate is a Commonwealth expenditure, and the personal income tax is the largest single source of Commonwealth income;
- As noted, it is a conservative figure, compared to company tax;
- There is little prospect of an increase in GST, and changes in health-related outlays, notably for the NDIS, are being funded through changes in the income tax;
- Both the incentive structure to drive purchase of PHI, and the means-testing of the PHI rebate are couched within the personal income tax system.

Using personal income tax gives us an MEBT generally agreed at around 33c ($M = 0.33$) for an extra dollar raised via income tax.⁴⁸ Compared to estimates of other taxes – for example company tax – this is a relatively non-contentious estimate, with Treasury estimates previously finding 32% for the average marginal rate.⁴⁹

A potential issue here is that the MEBT rate rises with the marginal rate of taxation. Consequently, the economic effects of increasing income tax to cover healthcare, or using income tax to service recurrent expenditure borrowing, would be higher again than this rate. Nonetheless, for this paper, we assume that money spent at the margin between private and public funding has no effect on the MEBT rate.

A further assumption we make is that the administrative costs of PHI (D_P) should not include profit. This simply reflects the fact that we have not allocated an opportunity cost of capital to public sector healthcare.

In considering this, we note it is occasionally suggested that if efficiency were equal, then it would be of necessity that the private sector expectation of profit would mean a relative reduction in actual healthcare expenditure.⁵⁰ This is confused. Capital has an opportunity cost, regardless of whether it is used in the public or the private sector. The fact that opportunity cost is brought to book in the private sector, but not necessarily in the public sector, does not alter the underlying economic reality.

Our proposed figure is $D_P = 0.085$. This is based on the last full year of all expenses divided by all revenues across all funds.⁵¹ If reported profit were to be included, then this would rise to $D_P = 0.139$. We use this latter as a sensitivity measure. In comparison for the public sector, we will use a figure $D_N = 0.024$, based on a reported average administration component from AIHW.⁵²

⁴⁸ Murphy, C. (2016). *Efficiency of the tax system: a marginal excess burden analysis*. TTPI – Working Paper 4/2016, ANU, June 2016, p.6

⁴⁹ L Cao et al. (2015). *Understanding the Economy-wide Efficiency and Incidence of Major Australian Taxes*. Treasury Working Paper 2015-1, April 2015, p.32

⁵⁰ Dahlgren, Göran. (2014). "Why public health services? Experiences from profit-driven health care reforms in Sweden." *International Journal of Health Services* 44.3: p.510

⁵¹ \$1.91 Billion total expenses against \$22.49 Billion in total fund revenue: APRA. *Private Health Insurance Operations Report 2015-16*. Financial performance tab. Released 9 November 2016.

⁵² AIHW. (2014). "How much does Australia spend on health care?", *Australia's health 2014*. Australia's health series no. 14. Ch.2.2, p.3



Consideration has been given to the proposal that there may also be an MEBT associated with the Medicare Levy Surcharge, given this is a tax-based incentive, i.e., the presence of the penalty has a distorting effect.

There is certainly a distortion associated with the MLS; but it is difficult to evaluate. For those consumers who would have bought PHI in any event, the MLS has no behavioural effects, hence no MEBT. So it really depends on how much effect it has. Seen in that light, a reduction in the rebate is likely to increase the MEBT (and total welfare cost) of the MLS (as it means more consumers will only buy PHI because of it), while an increase in the rebate reduces it (because more consumers will buy PHI regardless).

Given the focus on the rebate, and on the economic impacts of reducing the rebate, the higher the welfare cost of the MLS, the weaker any case for reducing the rebate will therefore be.

From our initial considerations of direct efficiency of public v. private expenditure, we progress to the more important question: how this may be reflected in terms of household welfare gains.



Expenditure efficiency: impact on household welfare

The issue of how much of the cost of a hospital separation is met by the Government and what is the economic cost of that expenditure is only a partial examination of efficiency.

Similarly, if we were to only compare the benefits purchased in the public and private sectors, it would not deliver an accurate picture of the effect of the rebate. By “benefits purchased” we refer to the expenditure on hospital services in each sector respectively, which we have assumed may be bought at similar supply costs. To do this, our scope needs to be broadened from the private benefits received by patients to the broader welfare gains produced by reduction in waiting times.

Building on the work of Parry (2001),⁵³ we consider the relative welfare gains from public sector expenditure between two initial options, viz.:

1. Marginal increases in direct expenditure on public hospital services; and,
2. Marginal increases in indirect expenditure on private hospital services, via contribution to PHI.

In the Australian context, this is a choice between increased funding for hospitals from the Commonwealth via State and Territory Governments and the PHI subsidy.

The question is which of these most efficiently contributes to overall welfare. In terms of Government’s capacity to contribute to welfare via the health finance system, the key measure is a reduction in the loss represented by the opportunity cost of public hospital waiting lists (the cost to consumers and the economy from avoidable waiting times).

This is a reduction to household welfare or utility, describing the cost of unmet demand for healthcare and the costs which flow from it.

Drawing on Parry,⁵⁴ proposed measurements are:

for the change in welfare from an increase in expenditure on public hospitals, we expect an incremental increase per additional dollar of public health output to be:

$$(3.1) \quad dW_t^N = \left[-s + \left\{ \frac{1-s}{-\eta^N} k'_a - (1-s-c) \right\} - s \frac{dH^P}{dH^N} - M \left\{ 1 - c + s \frac{dH^P}{dH^N} \right\} \right]$$

for corresponding change in welfare from increase in Government payments to private services, we expect an incremental dollar of private health output to produce:

$$(3.2) \quad dW_t^P = \left[-s + \left(-\frac{dH^N}{dH^P} \right) \frac{1-s}{\eta^N} k'_a - M \left\{ s - \frac{1-s}{\eta^P} \right\} + \frac{(1-s)}{(-\eta^P)} M \zeta^P \right]$$

⁵³ Parry, Ian William Holmes. (2001). *On the Efficiency of Public and Private Health Care Systems: An Application to Alternative Health Policies in the United Kingdom*. Resources for the Future.

⁵⁴ Ibid., see Parry’s Appendices for derivation of equations.



where:

dW_t^N and dW_t^P respectively are the increases in welfare associated with an increased unit of public (National) or private health output at a given rate of taxation;

t is the labour tax rate (effective rate) and is for reference purposes;

s is the effective rate of public subsidy for private health care. Whereas for Parry's original calculations, s was expressed as a small tax subsidy (recognising UK policy settings), in Australia it is equivalent to our earlier measure $A\psi_{Sep}^P$ as it is a transfer from taxes raised, rather than a deduction;

η^N and η^P respectively are the price-elasticities of demand for public and private healthcare. We note here Parry's view that elasticity for PHI in the UK would be much higher than some international averages, given its low base. We would not expect this to be the case in Australia;

k'_a is the average cost of the waiting list;

c is the user fee (if any) for public healthcare;

H^N and H^P are respectively household consumption of public and private healthcare, where \hat{H}^N is a limit to consumption caused by government budgetary constraints;

M is again the marginal excess burden of taxation, which is a source of deadweight loss; and

ζ^P is the expenditure (income) elasticity of demand for private healthcare. We note some common and distinctive features of the equations:

- The subsidy for private healthcare is explicitly treated as a cost to welfare in both equations, which is proper, as it is present at a discretionary rate for any mix of public and private services;
- The common term $\frac{1-s}{\eta^N} k'_a$ illustrates the relation of the subsidy to welfare gains, where an increase in the subsidy rate will reduce the overall loss through a reduction in the waiting list;
- Each equation includes a revenue financing term; and,
- We presume k'_a will be indifferent to changes in waiting list structure (see below).

We also make a range of assumptions which underpin the application of these equations. These include:

- For the purposes of evaluating the efficiency of the PHI rebate, we restrict the value of s to the subsidy itself. In particular, this means:
 - We do not include other tax-funded contributions to healthcare, including the Medicare Safety Net, Net Medical Expenses Tax Offset or the Pharmaceutical Benefits Scheme subsidy; and,



- We do not regard the Medicare Surcharge ‘foregone’ for those who take out PHI as a charge to Government revenue. This is because the expected or preferred value of the measure is zero, having been explicitly designed as a penalty via the tax system rather than as a revenue measure.

On this, we would suggest that if the penalty were expressed as a fine, rather than an *ad valorem* measure, there would be no discussion;

- Complementing this approach, we treat the MBS contribution to specialist interventions - which is an equivalent expenditure in both public and private settings – as immaterial, as it is incorporated in the NEP. In addition, it is unaffected by marginal changes in the PHI subsidy, or by the operation of PHI;
- We presume for simplicity that in the Australian context, $c = 0$. While in the British context, the small cost of pharmaceuticals may be included, the expected cost of public care in Australia is zero (notwithstanding that public hospitals commonly no longer provide take-home pharmaceuticals at discharge). The effect of this assumption is not insignificant as the absence of an expected copayment in the public system to some extent crowds out or reduces the market incentive for PHI and should have some effect on elasticities;
- Out-of-pocket costs for private patients are outside the parameters of this analysis, except that expected gap cost of private care may have an effect on demand for PHI. There is no doubt that there are social welfare effects from out-of-pocket costs, and that these are unevenly distributed.

While there is a body of literature which assumes perfect capacity to discriminate based on price, this appears to be an impractical assumption. More recent research also suggests a positive relationship between increases in PHI coverage and the size of out-of-pocket costs⁵⁵, although the relationship is difficult to interpret, as the causation may run either way.

For the purposes of our analysis, we assume that the welfare savings addressed by the PHI Rebate are entirely encapsulated within the opportunity cost of waiting k'_a . Copayments and other out of pocket costs may also contribute to this, but it is presumed that they are primarily responsible for the private benefits received by PHI holders, particularly doctor selection.

The expenditure elasticity at the individual household level may be influenced or obscured by a range of factors, including:

- Means testing, which is based on taxable income, not wealth or actual income;
- Lifetime loading effects on decision to purchase;
- Access to services, i.e., private health insurance is likely to be less attractive outside the catchments of large private hospitals; and/or,
- Imperfect behaviour. We have considered consequences of poor individual decisions elsewhere in this paper but, in particular, neither rational calculation of future demand for

⁵⁵ Dormont, Brigitte, and Mathilde Péron. (2016). "Does health insurance encourage the rise in medical prices? A test on balance billing in France." *Health economics*, 25.9 : 1073-1089.



healthcare, nor consistent intertemporal choices, are assumed as these would require high levels of insight into PHI as an investment, rather than as an annually consumed and irregularly utilised service;

- For the purposes of comparing efficiency of expenditure, we presume – perhaps controversially – that money may be spent equally efficiently in the public and private health systems. It is important to distinguish between the efficiency of hospital operations and the efficiency of funding mechanisms.

The assumption of roughly equal levels of technical efficiency is consistent with previous reviews of the technical efficiency of hospitals by the Productivity Commission. While it has observed that both not-for-profit and for-profit providers might increase outputs from a common level of inputs, there does not appear to be any significant difference in capacity to economise on inputs for a fixed level of outputs.⁵⁶ There are also scale effects here, with greater disparities between small hospitals, including by ownership.⁵⁷

Given capacity constraints in both public and private hospitals, the latter observation is more relevant. For consideration of efficiency, it is typical to **take** key inputs, i.e., total beds, supply of doctors, etc., as fixed at a given level, and then measure output given that level.⁵⁸

We note in support of this that there is an increasing alignment between PHI and public health's recent ABF approach. For example, contracts between PHI providers and private hospitals may now include reduction in payment for avoidable adverse events, which has long been a feature of ABF financing.⁵⁹

- We have not included in our analysis the different treatment of capex between public and private services. Capex costs will be passed on to insurers in the private sector, but tend to be separated from the ABF in the public sector. From an efficiency perspective, a dollar of capital invested should be treated as having the same opportunity cost, regardless of whether it is invested in the public or private sector.
- For simplicity, we are not discounting outcomes of our expenditure efficiency calculations by administrative costs. This effect is tested in equation 2.1;
- While it is discussed below in greater detail, we assume that effects on waiting lists and on unmet demand for public care are indifferent to the composition of the lists. We recognise the difference in casemix affects relative efficiency of hospital operation, but:

⁵⁶ Forbes, Matthew et al (PC). (2010). "Measuring the technical efficiency of public and private hospitals in Australia". Presentation to Australian Conference of Economists. Sydney, September 27-29, 2010.

⁵⁷ For full data see Productivity Commission. Public & Private Hospitals, Multivariate Analysis: Supplement to Research Report. May 2010. Partic. p.114

⁵⁸ Cf. Asandului, Laura, Monica Roman, and Puiu Fatulescu. "The efficiency of healthcare systems in Europe: a Data Envelopment Analysis Approach." *Procedia Economics and Finance* 10 (2014): 261-268.

⁵⁹ Productivity Commission. Efficiency in Health: Productivity Commission Research Paper. April 2015. p.33



- There are medium-term constraints on public supply, including beds, theatres and specialist staff⁶⁰. A place is a place. This may initially seem to be a limitation to the model, but in practice predicting structural changes in waiting lists will not alter overall demand for hospital accommodation;
- Waiting lists have two rationing effects, viz.:
 - Prioritising urgent care (cardiac arrest, oncology) over less time-sensitive conditions;
 - Total rationing of hospital access, within each category;
- Consequently it may be in practice irrelevant for the average cost of waiting k'_a whether private patients were to migrate to the top, middle or end of the public waiting list, and vice versa. Our reasons for this are discussed in further detail in our valuation of k'_a ;
- At the same time, we are aware that private hospitals may focus on diagnosis-related groups (DRGs) which are typically more in the category of 'elective surgery': private hospitals do not replicate public waiting lists, and their delays are purely due to supply of surgical services.

The impact of this is discussed elsewhere in the paper but, given the expectation that public hospitals cater to more high-impact DRGs, it is likely that any shift from the private to the public sector will create inefficiencies, at least in the short term, through poor matching of demand and specialist capacity. These might be addressed through changes in specialist capacity, though this would take time, and it is not clear that specialists are so easily moved; and,

- It is occasionally argued that the application of the rebate should be restricted to hospital services, not general treatment or extras cover. This is not germane to our model but, at least for younger people, it is likely that the rebate on extras is an important component of the incentive to take out PHI. The converse will become true with age.

This does not mean that our analysis would endorse a subsidy for PHI which is exclusive of hospital cover: non-hospital insurance will have no material effect on waiting lists and therefore does not meet stated welfare goals. As an observation here, it might be argued that there is a useful welfare gain in subsidising healthcare activities which are preventive, and thus reduce future demand, but this tends to add to the argument for including extras in the Rebate calculation, rather than subsidising them as a standalone.

Following from the discussion above, we consider a third case suggested by Parry, which is the efficiency of increased private user fees for private care. We have not considered his work on user fees for public care as this would violate Australian political constraints:

$$(3.3) \quad dW_c^P \approx \left[-s + \left(-\frac{dH^N}{dHP} \right) \frac{1-s}{\eta^N} k'_a + k'_a \left\{ s - \frac{1-s}{\eta^P} \right\} + \frac{1-s}{\eta^P} \frac{M}{1+M} \zeta^P \right]$$

⁶⁰ Similar restrictions may prevail in the private sector, but we assume that the presence of copayments assists in addressing these. This would particularly occur with greater willingness of key medical staff to work.



As there is no revenue-financing effect here, we might expect that this third option will increase the stock of social welfare at a greater rate than tax-based investment in private care. We note here that the expected greater efficiency of direct private contributions over public contributions is not an argument against the PHI rebate. To the contrary, it reinforces the view that the rebate is an important measure to encourage the largest possible participation in PHI, although it is equally clear that as the rebate rises, the benefit decreases and the cost (in terms of the deadweight loss associated with financing higher levels of public outlays) falls.

We are also aware that there has been some recent discussion around direct payment of a subsidy benefit for private hospital services,⁶¹ which superficially might appear to obviate demand for PHI. However, this notion excessively discounts the benefits of an insurance-based model (both in terms of risk-sharing and in terms of the role of insurers in managing risk) and confers substantial new risk upon Government.

⁶¹ Senate Estimates, Community Affairs Committee Transcript. 29 May 2017. Pp.13-14



Parameters

Valuing k'_a : what is the price of the waiting list?

The datum k'_a in our equations is a measure of the valuation that consumers put on the loss associated with waiting for healthcare. Formally, it is a measure of the distribution of those valuations: with a higher value for k'_a indicating a more common valuation across the population; and a lower value indicating more disparity of perceived losses.

The valuation of k'_a is extremely complex, and it will be difficult to gain a consensus figure. Accordingly, we have not attempted a formal valuation within the scope of this paper.

We will therefore consider a broad range of measures for k'_a . This accords with Parry's assumption that the average cost of waiting (k'_a) must be lower than unity with the marginal cost (k_m) as willingness to pay for treatment (the driver of η^P) varies by individual.⁶²

We have therefore adopted Parry's range of 0.25 to 0.75, with a mean of 0.5. The higher figure implies a lower variance from any period of waiting. These are positive figures because waiting is always a cost.

The rate of subsidy: s

For the purpose of calculating the mean rate of subsidy s we divide the total rebate paid by the number of insured persons, and calculate this as a percentage of the mean price of insurance (only inclusive of hospital cover). We recognise that insurance policies exhibit substantial heterogeneity, but our question is whether the subsidy is efficient, not the design of individual policies.

Consequently, we are interested in the rate, not the actual dollar amount.

At December of 2016, 46.6% of Australians had some form of hospital cover, down from 47.2% twelve months earlier. In terms of actual people, this was some 11,328,000.

In the prior twelve months, approximately 7.0 million Australians were registered for the PHI Rebate, at a cost of \$5.9 billion up from \$5.7 billion for the previous year.⁶³ According to the industry regulator – the Australian Prudential Regulatory Authority (APRA) - total industry premium revenue over the same period was \$22.05 billion.^{64,65}

Using an average amount of \$5.8 billion as our dividend,⁶⁶ this gives us a mean of $s = 0.263$. This is substantially higher than the UK figure of 0.05, which was only a partial tax deduction. For comparison to

⁶² Parry, Op. Cit., p.16

⁶³ Department of Human Services. *2015-16 Annual Report*. p.53

⁶⁴ APRA, Op. Cit.

⁶⁵ Annual data from APRA does split hospital and extras (general treatment and ambulance) cover, but does not allow us to identify how much of the latter is stapled to hospital policies, and thus eligible for a rebate

⁶⁶ To match the financial rather than the calendar year



the mean, the maximum Australian rebate over the same period was 37% (aged over 70, lowest income bracket).⁶⁷

Price elasticities of demand

The price elasticity of demand for PHI η^P has multiple prospective measures.⁶⁸

There is of course a relationship between the MLS and η^P , which is that the rate of the MLS will reduce the elasticity figure: a higher surcharge will incentivise more people to select PHI, and the *ad valorem* design of the surcharge (its calculation as a tax on income) will make PHI more attractive as incomes rise.⁶⁹ This is its function. This also interacts with means-testing to ensure that PHI remains attractive, as the subsidy falls while the surcharge increases.

There is a variety of factors which influence price elasticity, including:

- education and access to information;
- income;
- personal taste;
- age;
- health status;
- prior healthcare experience;
- ability to utilise PHI (capacity to fund copayments); and
- desire to avoid tax surcharges.

Given the complex interaction of these factors, we are suspicious of interpolating elasticity data from abstract models of healthcare expenditure. So, for the purposes of this study, we use a predicted elasticity based on consumer survey, which accords with industry experience.

From a random sample of Australians with health insurance, the research firm *Ipsos* has identified the expected responses of consumers to a reduction in the rebate.⁷⁰ The various rates, depending upon scale of reduction are:⁷¹

⁶⁷ <https://www.ato.gov.au/individuals/medicare-levy/private-health-insurance-rebate/income-thresholds-and-rates-for-the-private-health-insurance-rebate/> Downloaded July 2017

⁶⁸ We note above some concern with Cheng's application of this datum. Further, we regard the 'effective premium' on which it is based as contestable. The proposed 'effective premium' in Cheng's case is the retail price net of both the rebate and the MLS as applicable. This makes the effective premium lower than it should actually be. For our purposes, the effective premium is the premium paid by the consumer (the retail premium minus any means-tested subsidy).

⁶⁹ For discussion see: Robson, Alex, Henry Ergas, and Francesco Paolucci. "The analytics of the Australian private health insurance rebate and the Medicare levy surcharge." *Agenda: A Journal of Policy Analysis and Reform* (2011): 27-47.

⁷⁰ <http://ipsos.com.au/>

⁷¹ Data supplied by Ipsos, commissioned by Private Healthcare Australia, 2017



Size of Reduction = n	Intend to drop = Y_n	Intend downgrade	Implied elasticity = η^P
Status quo ($n = 0$)	3% = Y_0	12%	-
25%	8%	17%	0.95
50%	9%	27%	0.68
75%	12%	26%	0.80
100%	12%	28%	0.68
100% + 15% increase	16%	31%	-

Our calculation of η^P is based on the implicit price increases, so:

$$4.1 \quad \eta^P = \frac{-(Y_n - Y_0)}{\left[-s\left(1 - \frac{1}{1+n}\right)\right]}$$

The dividend here is the reduction in the rate of people insured, and the divisor is the change in the price of insurance. We make several observations on this:

- For consistency, we have used the mean rate of $s = 0.263$. While we might reasonably assume that the reduction in coverage will at least initially occur in the lower-income cohort, we have no clear evidence of this from our survey data;
- The figure Y_0 against which we net other decreases may be interpreted as an effect of the interaction between the most recent annual rise in PHI premiums and any simultaneous or consequent changes in the mean household consumption function: By this we mean that it is a measure of perceived value against affordability, with no formal change in the rebate rate, noting that a component of premium rise is due to bracket creep against the means-tested rebate, which is not captured elsewhere in our model, this makes the measure conservative;
- The intent to downgrade cover is not insignificant, particularly as it implies a slight increase in price-elasticity between the 75% and 100% reduction; and
- There is a clearly a variety of measures here, from $\eta^P = -0.68$ to $\eta^P = -0.95$. Equally, there is some evidence of behavioural response in the survey, with the rate of η^P increasing and decreasing over different sequential increments.

From our perspective, the relevant price elasticity is one which occurs at the margin. Consequently, we have used the figure $\eta^P = -0.95$ as our marginal price elasticity of demand. This represents the effect of an initial shock to the price of PHI. While the lower figures for greater shocks may suggest dilution as the most



sensitive cohort is already removed from the PHI pool, we remain primarily interested in marginal expenditure.

This estimate is substantially lower than Parry's UK range of -2 to -10, however, these reflect both the low rate of subsidy in the UK, alongside the absence of other incentives such as the Australian MLS. Probably more than anything though, high elasticity figures are a consequence of a small insured base. We note that a recent US study found elasticities of take-up with respect to price around one, in line with our assumption.⁷²

Parry originally associated his much higher levels of η^P with the low rate of take-up in the UK. However, in 2005, looking at a slightly different dimension of the problem he scaled this back to a narrower range of 0.5-3⁷³.

A key observation here is that we might reasonably assume higher sensitivity to price amongst younger consumers of PHI. The temptation following this observation is to discount the potential welfare losses from excluding these consumers, as younger people will have lower rates of service consumption.

However, this is short-term thinking. If there were no lifetime loading, then it might be reasonable, but there is evidence that those who leave or fail to enter the market at a younger age may find themselves priced out later in life.

According to the Australian Taxation Office (ATO), in the 2014-15 financial year, 164,535 Australian taxpayers paid the Medical Levy Surcharge at a total cost of \$218,948,416. The mean contribution was \$1,331.⁷⁴

The MLS rates are per Table 3.⁷⁵

⁷² Kruegera, AB, and Kuziemko, I. (2013). The demand for health insurance among uninsured Americans: Results of a survey experiment and implications for policy. *Journal of Health Economics* 32:780–93

⁷³ Parry, Ian WH. "Comparing the welfare effects of public and private health care subsidies in the United Kingdom." *Journal of health economics* 24.6 (2005): p.1201.

⁷⁴ ATO. Taxation statistics 2014–15 Individuals: Selected items for 1978–79 to 2014–15 income years 1,4. 2017. Excel Table 1B

⁷⁵ ATO. Income rates and thresholds for the Medicare Levy Surcharge: <https://www.ato.gov.au/individuals/medicare-levy/medicare-levy-surcharge/income-thresholds-and-rates-for-the-medicare-levy-surcharge/> Downloaded July 2017



Table 3: Medicare Levy Surcharge Rates 2014-18:

	Base tier	Tier 1	Tier 2	Tier 3
Single threshold	\$90,000 or less	\$90,001 – \$105,000	\$105,001 – \$140,000	\$140,001 or more
Family threshold	\$180,000 or less	\$180,001 – \$210,000	\$210,001 – \$280,000	\$280,001 or more
Medicare levy surcharge	0%	1%	1.25%	1.5%

Clearly a payment of \$1331 must occur either from a Tier 1 Family or Tier 2 Single. Individuals and families in these tiers are have relatively high incomes which suggests that – if this is not simply irrational behavior - later working-age consumers are being locked out of PHI due to LHC loading.

Drawing on the same dataset, we have selected a figure of $\eta^N = -0.5$. Our rationale for this is that the lower elasticity figure of 0.68 may be regarded as a measure of willingness to pay for private healthcare in the absence of any subsidy. η^N is an own price elasticity, which implies a willingness to pay in this case for public healthcare, if it were not free.

It may be that the price-elasticity of demand for public healthcare is even lower than this, but given various settings such as the MLS, it is not unreasonable to presume a relatively narrow band between the two data.

Given our earlier assumption that $c = 0$, there is no real basis for calculating η^N other than as a complement to the price-elasticity of demand for private care. This may have been more visible in the rapid fall of private insurance following the introduction of Medicare in 1984, though this data is somewhat aged.

Our argument for discounting this figure from -0.68 to -0.5 is that currently insured Australians are on average wealthier than uninsured consumers. Keeping in mind that this is a complementary figure, we believe the selected value is reasonable. It is also the same value originally used by Parry for the UK market, where c is still small, but non-zero.

The labour tax rate: t_L

For the labour tax burden, we have used an effective average tax rate measure from the OECD. While this is highly variable by marital status and presence of children, we have selected a lower modal rate of $t_L = 0.24$.⁷⁶ It is purely for reference.

Expenditure elasticity

We believe Parry’s range of 1.0–3.0 with a median of 2.0 for expenditure elasticity of demand is also high. Instead, we have selected an observed figure of $\zeta^P = 1.1$ which is an average of expenditure elasticities on

⁷⁶ OECD. *Taxing Wages: 2015-16 – Special Feature: Taxation & Skills*. 2017. p.54



healthcare across OECD countries.⁷⁷ This is for all healthcare consumption rather than solely within the private sector, so it may partially underestimate elasticity but, given that we account for separate price effects in our other elasticity measures, using an average seems reasonable.

The rate of substitution

We have two substitution rates required for our equations: $\frac{dH^P}{d\hat{H}^N}$; and $\frac{dH^N}{dH^P}$.

The former is the rate of increase in public care relative to the private sector, where we relax the public spending constraint \hat{H}^N . The latter is a more direct substitution where public contribution to the rebate is increased.

For the former, we would argue that if national healthcare output were incrementally increased, the induced increase in demand could be expected (to first order) to be spread across the public and private sectors in proportion to their current shares,⁷⁸ so:

$$\frac{dH^P}{d\hat{H}^N} = \frac{9.4}{31.6} = 0.30$$

Looking to the second datum, we note that the use of private healthcare will naturally increase with the subsidy. This will occur for three reasons:⁷⁹:

1. People substitute private care for public care;
2. People change their consumption mix, increasing their overall demand for healthcare relative to other (non-healthy) goods; and,
3. People who are already in the private sector increase the amount of their insurance.

In the absence of the latter two behaviours, we would assume that the substitution effect: $\frac{dH^N}{dH^P} = -1$

However, increases in insurance coverage and increases in consumption of health goods and services have the effect of discounting this back towards zero. In his original work, Parry estimated the latter two effects as having a relative small impact, and therefore estimated a range of -0.4 to -0.8.

However, in Australia, the broader set of options for PHI coverage should make the discount greater than for the UK. Therefore, we have estimated a range:

$$\frac{dH^N}{dH^P} = -0.4 \text{ to } -0.6$$

⁷⁷ Lago-Peñas, Santiago, David Cantarero-Prieto, and Carla Blázquez-Fernández. "On the relationship between GDP and health care expenditure: a new look." *Economic Modelling* 32 (2013): 124-129.

⁷⁸ AIHW. *Health Expenditure Australia 2014-15*. Health and welfare expenditure series no.57. 2016. Table A9

⁷⁹ Parry. Op. Cit. p.15



The reason the first of these terms is positive is that it implies a marginal increase in the overall rate of care, as opposed to the latter, which is a straight substitution. This is again because in the former case, we are relaxing the public spending restraint \hat{H}^N . There is not a comparable restraint in the PHI sector.

Each of our parameters is listed at Appendix A.

Outputs

Allocative efficiency test

Our first test, based on equation 2.1, sought to answer simply whether the deadweight loss of taxation outweighed the greater administrative cost of PHI.

As a sensitivity test, we vary the datum D_p between:

- 1.15, where PHI administration is at 8.5%; and,
- 1.08, if we include profit as an administrative cost, to take the figure to 13.9%.

The conclusion here is that funding hospital separations via PHI rebate as opposed to direct full cost is allocatively efficient, even taking into account higher administrative costs in the private sector.

Another way of stating this data is that all else equal, a dollar spent by the Government on the PHI Rebate is up to 15% more efficient than a dollar redirected to the public system.

The key driver of this result is that the share of MEBT which occurs for the separations partially funded by the rebate is low compared to public care, and the administrative costs are thus outweighed by the deadweight loss.

Comparative welfare gains

Equations 3.1, 3.2 and 3.3 allow us to make a dollar-for-dollar comparison respectively between the choices of incremental government investment in either public or private healthcare, and increased user payments into private care.

There are multiple options for selected variables here, so the following tables show outcomes depending upon different assumptions. An important preliminary point to keep in mind with these data is that they are significant for their relativity, rather than their absolute values.

For 3.1, which determines the welfare change from a marginal dollar substituted to public health, we have three potential outcomes depending upon the value of k'_a :



Table 4: Welfare change per tax-derived marginal dollar spent on public health

k'_a	dW_t^N
0.25	-1.06
0.5	-0.70
0.75	-0.33

As noted by Parry, the welfare effect is highly sensitive to our valuation of waiting times. Transferring funds from the PHI subsidy to public health becomes less negative where we assume there is a more homogeneous value accorded by the community to waiting times. However, while we are unable to directly measure this parameter, were the variance in the value placed on waiting times relatively homogenous, we would not expect to see as much variation in the take-up of PHI as there seems to be.

The overall conclusion here is that the reduction in deadweight loss from relief of waiting times consequent on marginal redirecting funds to the public sector fails to outweigh the deadweight loss associated with revenue raising. This is consistent with our preliminary test of the MEBT.

For our equation 3.2, which examines the additional welfare gain for a marginal dollar added to PHI, we have multiple outcomes based on settings of k'_a and $\frac{dH^N}{dH^P}$:

Table 5: Welfare changes per tax-derived marginal dollar spent on private health

$k'_a / \frac{dH^N}{dH^P}$	-0.4	-0.5	-0.6
0.25	-0.23	-0.19	-0.15
0.5	-0.08	-0.01	0.07
0.75	0.07	0.18	0.29

Our base-case (0.5,-0.5) suggests that the current settings for the PHI subsidy are not unreasonable: if we were looking at the outputs as absolute numbers, it would argue for neither additional nor lower contributions to the rebate, but again, we caution that these figures should be read as relative, not absolute, given the challenges in establishing the value of some parameters.

And predictably for our equation 3.3, the effects are greater where there is no revenue-raising term:



Table 6: Welfare changes per marginal dollar from increased user fees for private health

$k'_a / \frac{dH^N}{dH^P}$	-0.4	-0.5	-0.6
0.25	-0.03	0	0.04
0.5	-0.01	0.06	0.13
0.75	0	0.12	0.23

In theory, increased copayments may have a lower efficiency cost than raising additional public revenue, though the comparison also depends on what effect those copayments ultimately have on health outcomes. However, in practice, the challenge is to balance copayments against incentives required to increase PHI participation.

Given community rating, the main effect of increased user fees is likely to be a deteriorating in the quality of the insured risk, increasing costs, and creating the risk of a vicious spiral in which PHI demand unravels, as it did in 1996.

Conclusion

Overall, using broad welfare effects as the evaluation criterion, the analysis suggests that for reasonable parameter values, a marginal reallocation of funding away from the PHI rebate to public hospital funding would be likely to reduce efficiency.



Broader Context

The preceding analysis focuses on the effect of purchasing choice on social welfare, by measuring different options' capacity to address the deadweight loss of waiting times, while considering the equivalent losses associated with economically-distorting revenue raising.

However, there are potential welfare effects of PHI which are not captured in this model. The first of these is simply the benefit of choice

As well as expanding the range of options consumers face, we expect that PHI yields benefits through the competitive effects of the private sector which it supports, and which acts as a discipline on the public sector.

These benefits are inherently difficult to quantify. They have nonetheless been stressed in recent official reports. For example, the Harper Review noted the Productivity Commission's advice regarding human services that:

“Lack of choice can result in poorer quality and more expensive services, and less diversity and innovation. In contrast, user control of budgets creates incentives for suppliers to satisfy the needs of users, given that they would otherwise lose their business. That in turn typically leads to differentiated products for different niches.”⁸⁰

This is the mechanism which the 'voucher' of PHI provides to insured consumers, and which we would expect to drive innovation and quality increases in both the private and public sectors.

Similarly, the Productivity Commission in its review of Human Services advised:

“Greater contestability and user choice could be part of a broader suite of reforms to improve outcomes. Even a small percentage improvement in outcomes from public hospital services could deliver significant benefits in aggregate, given the scale of service provision.”⁸¹

Contestability and user choice are fundamental to the private sector. The size of the gains they can bring needs to be seen in the context of broader pressures on health spending.

Thus, the most recent Intergenerational Report (IGR) projects a rise in government health expenditure as a percentage of GDP of over one third, from 4.2% to 5.5% by 2054⁸². Much of this is driven by population ageing, and we would expect political factors to exacerbate this growth.

Given these pressures, it is obviously important to try to ensure the increase in demand is met as efficiently as possible. The results derived above suggest PHI has an important role to play in meeting that goal.

⁸⁰ Harper, Ian et al, *Competition Policy Review: Final Report*. March 2015. p.230

⁸¹ Productivity Commission. *Introducing Competition and Informed User Choice into Human Services: Identifying Sectors for Reform: PC Study Report*. November 2016. p.85

⁸² Treasury. *Intergenerational Report 2015*. p.60: <http://www.treasury.gov.au/PublicationsAndMedia/Publications/2015/2015-Intergenerational-Report>



Appendix A: Table of Variables

Description	Designation	Value/Range
Marginal Excess Burden of Taxation (MEBT)	M	0.33
Administrative cost of public health funding	D_N	0.024
Administrative cost of PHI (and including profit)	D_P	0.085 (0.139)
Per-separation share of PHI funding (same as s)	$A\psi_{Sep}^P$	0.263
Labour tax rate	t	0.24
Mean rate of PHI rebate	s	0.263
Price elasticity of demand for public healthcare	η^N	-0.5
Price elasticity of demand for PHI	η^P	-0.95
Average cost of waiting (mean)	k'_a	0.25 to 0.75 (0.5)
User cost of public healthcare	c	0
Expenditure elasticity of demand for PHI	ζ^P	1.1
Substitution rate of public for private care	$\frac{dH^P}{d\hat{H}^N}$	0.30
Substitution rate of private for public care	$\frac{dH^N}{dH^P}$	-0.4 to -0.6



Appendix B: Administration cost v. Deadweight Loss

This appendix explains how equation 2.1 shows allocative efficiency of the PHI rebate:

$$\frac{AP_{Sep}^N \left(\frac{1}{1 - D_N} \right) (1 + M)}{AP_{Sep}^P \left(\frac{1}{1 - D_P} \right) \{1 - A\psi_{Sep}^P + [A\psi_{Sep}^P (1 + M)]\}}$$

$$\frac{AP_{Sep}^N \left(\frac{1}{1 - D_N} \right) (1 + M)}{AP_{Sep}^P \left(\frac{1}{1 - D_P} \right) \{1 + A\psi_{Sep}^P * M\}}$$

$$\frac{AP_{Sep}^N}{AP_{Sep}^P} * \frac{\left(\frac{1}{1 - D_N} \right)}{\left(\frac{1}{1 - D_P} \right)} * \frac{(1 + M)}{\{1 + A\psi_{Sep}^P * M\}}$$

$$\frac{AP_{Sep}^N}{AP_{Sep}^P} * \frac{(1 - D_P)}{(1 - D_N)} * \frac{(1 + M)}{\{1 + A\psi_{Sep}^P * M\}}$$

Assuming $AP_{Sep}^P = AP_{Sep}^N$, then the quotient is greater than 1 if and only if:

$$\frac{(D_P - D_N)}{(1 - D_N)} < \frac{(1 - A\psi_{Sep}^P) * M}{\{1 + M\}}$$

That is if:

$$\frac{(D_P - D_N)}{(1 - D_N)} * \{1 + M\} * AP_{Sep}^P < (1 - A\psi_{Sep}^P) * AP_{Sep}^P * M$$

The left hand side of the equation is the economic cost of using the funds currently spent on the administration of PHI (in excess of the costs of social insurance). The right hand side is the tax payable on the out of pockets costs of the health treatment.

{ EVALUATE

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