

# Removing Duplication in Public/Private Health Insurance in Australia: Opting Out With Risk-adjusted Subsidies?

Francesco Paolucci, James R. G. Butler,  
Wynand P. M. M. van de Ven<sup>1</sup>

## Abstract

*Australia's existing health-financing arrangements lead to partial duplication in coverage for private health insurance (PHI) holders. The two options to remove duplication are: 1) allowing individuals to 'opt out' from Medicare either (a) by purchasing PHI or (b) by self-insuring via medical savings accounts or other pre-payment arrangements; 2) confining PHI to the coverage of supplementary services. This paper argues in favour of Option 1(a), and argues that from an efficiency perspective PHI should be fully substitutive of Medicare coverage (that is, 'opting out' should be allowed); community rating should be replaced by premium bands; and the 30–40 per cent ad valorem subsidy for PHI should be replaced by ex-ante risk-adjusted subsidies.*

## Introduction

Following the introduction of Australia's universal tax-financed national health insurance in 1984 (that is, Medicare), the proportion of the population covered by private health insurance (PHI) declined from about 50 per cent to about 30 per cent in 1997. This suggested that an equilibrium secured by stable waiting lists in the public sector and stable levels of coverage by PHI was not emerging. Since 1997, several major policy changes have been introduced to redress this situation. These included the introduction of two forms of explicit subsidy in the competitive PHI market: a 30 per cent *ad valorem* premium subsidy (that is, premium rebate) to individuals who purchase PHI, and a tax penalty of 1 per cent of taxable income payable by single individuals with taxable incomes

---

<sup>1</sup> The Australian National University, Francesco.Paolucci@anu.edu.au; The Australian National University; Erasmus University Rotterdam.

in excess of \$70 000 p.a. (\$140 000 p.a. for couples) if they do not hold PHI (the Medicare levy surcharge).<sup>2</sup> A Lifetime Health Cover policy was also introduced with effect from July 2000 with an age penalty being imposed on individuals who first purchased private health insurance after age 30 years.<sup>3</sup>

While collectively the policy changes introduced since 1997 appear to have stabilised PHI coverage at around 45 per cent of the population, there still remain unresolved issues related to the design and interconnection between public and private healthcare financing. In this paper, we focus on one particular issue — duplication of insurance coverage and consequent over insurance, and its effects on efficiency and equity. In Australia, subsidised PHI does not lead to any reduction in coverage under the public insurance scheme (Medicare); that is, the full range of insurance benefits under Medicare is available to all eligible Australian citizens regardless of whether or not they purchase PHI.

This paper first discusses the possible rationales for subsidising PHI in Australia, given the presence of a compulsory tax-financed scheme (Medicare) under which a broad range of services may be accessed by all eligible residents. It then argues, taking the decision to subsidise PHI as given, that the current complex mix of subsidies (community rating, combined with claims equalisation and *ad valorem* premium subsidies)<sup>4</sup> is not optimal and that *ex-ante* risk-adjusted subsidies would better optimise the trade-offs between affordability, efficiency and incentives for risk selection. Finally the problem of duplicate coverage is considered, and it is argued that the overlap arising from duplication can be removed by either diminishing the role of PHI so that it is confined to providing supplementary coverage only or by allowing ‘opting out’ from Medicare coverage for those who purchase PHI; that is, making PHI fully substitutable for Medicare.<sup>5</sup> This paper considers the second of these options and outlines

---

2 The characterisation of the Medicare levy surcharge as an explicit subsidy is based upon the argument that the exemption of those with private health insurance from the levy gives rise to a tax subsidy or tax expenditure for private health insurance; that is, the government’s revenue from the levy is lower than it would be in the absence of the exemption. Using only those respondents in the Australian Bureau of Statistics 2004–05 National Health Survey who indicated they purchased private health insurance expressly for the purpose of avoiding the Medicare levy surcharge, Macintosh (2007) estimated this revenue loss to be in the range \$110 million to \$250 million, with a best estimate of \$230 million. The Treasury, in preparing its annual estimates of tax expenditures, treats the surcharge as a negative tax expenditure, with the revenue raised from the surcharge then being included as an offset against other tax expenditures (The Treasury 2008, Table A26).

3 For a more detailed discussion of these policy changes, see Butler (2002).

4 The PHI market is subject to community rating regulations that require any particular policy be sold at the same premium to all buyers. Premiums can vary between policies, and can also vary for the same policy if an age penalty applies under the lifetime health cover regulations. As community rating provides an incentive for insurers to avoid coverage of high-risk groups, open enrolment is required. Also, as community rating can result in fluctuating financial positions for insurers according to the exogenous mix of risks that purchase their policies, a reinsurance scheme has been in place for many years. Although the reinsurance scheme has been modified and renamed ‘risk equalisation’ in 2007, it is *de facto* a claims equalisation scheme designed to redistribute funds *ex-post* from insurers with below-average claims to those with above-average claims.

5 The option of allowing individuals to opt out by self-insuring via medical savings accounts or other pre-payment arrangements is discussed elsewhere (Butler 2010).

how consumer choice between Medicare and PHI combined with a system of risk-adjusted subsidies would improve incentives for efficiency and remove duplicate coverage.<sup>6</sup>

## Subsidising private health insurance in Australia: Why?

In the following sections, we discuss whether and to what extent the current system of subsidies in the Australian PHI market can be justified on economic grounds or on the basis of country-specific policy arguments. Furthermore, we discuss the main problems with the current system of organising subsidies in the Australian PHI market.

### Economic and country-specific arguments

From an economic perspective, subsidisation in competitive PHI markets can be justified as a direct way to achieve the goal of affordable access to (the coverage of) healthcare services for vulnerable groups (for example, low-income or high-risk individuals). The main economic rationales for governments to introduce subsidies with the purpose of achieving affordability and stability within competitive PHI markets are the potential for risk-rating and risk-selection,<sup>7</sup> the financial risk of becoming a bad risk,<sup>8</sup> and the presence of egoistic and altruistic externalities in the demand for healthcare services or coverage (Paolucci 2011; Paolucci *et al.* 2007; van de Ven and Schut 2007; Paolucci *et al.* 2006; van de Ven and Ellis 2000).

In addition to the economic arguments for subsidies, there may be also country-specific policy arguments to subsidise PHI. In the Australian private health insurance market, a complex system of subsidies has been introduced to achieve a multiplicity of policy goals, such as addressing the affordability, stability and attractiveness of PHI; decreasing the pressure on the public system by giving consumers more choice of coverage and services and by encouraging people to

---

6 See Butler (2008) for a discussion of the first option which would result in most coverage being provided by the national health insurance scheme with private health insurance covering only those services not covered by the public scheme.

7 Risk selection may result in high-risk individuals not being able to afford to buy insurance or insurers refusing to offer policies to high-risk individuals. It may also lead insurers to exclude from coverage (some) pre-existing medical conditions. Another form of selection is to design insurance policies to attract favourable risk-groups. Risk selection may have several effects, such as instability in the insurance market, a continuous exit of insurers due to bankruptcy, a welfare loss due to the inability to buy the preferred insurance coverage, and high prices for high-risk individuals (see, for example, Rothschild and Stiglitz 1976; Wilson 1977; Schut 1995; Newhouse 1996).

8 See, for example, Pauly 1992: 140; Cutler 2000.

take out PHI; and ensuring a balance between the public and private health sectors (The Department of Health and Aged Care 2000: 11). The underlying idea behind these country-specific motives is that subsidising the purchase of duplicate PHI will result in less pressure on the public scheme. In particular, it would result in reduced public spending in healthcare, by bringing in private resources and by increasing consumer choice. Subsidising PHI for services already covered by Medicare is therefore seen as an indirect way to achieve affordable access to healthcare services for everyone.

## The current system of subsidising private health insurance in Australia is not without problems

Although in general subsidies in competitive PHI markets may be justified on the basis of the above-mentioned economic and country-specific policy arguments, it appears that the current system of subsidising PHI in Australia is not without problems. In this section, we discuss several problems related to subsidising (duplicate) PHI that are specific to the design of the public/private mix in healthcare financing in Australia (and may be relevant also for other countries with a similar design — Ireland, for example).

### Is subsidising duplicate private health insurance coverage necessary and proportionate to achieve affordability?

Although the introduction of subsidies in competitive PHI markets can be justified to achieve the goal of affordable access to healthcare services, it is questionable whether subsidising PHI is *necessary* and *proportionate* in the Australian context given the presence of a subsidised (that is, tax-funded) universal public insurance scheme (that is, Medicare) that covers wholly or partly a broad range of services. In particular, the national public-health insurance scheme (Medicare) is explicitly designed to guarantee affordable and equitable access to healthcare services in Australia (Department of Health and Aged Care 2000). Similarly, in other countries with a National Health Service or Scheme (NHS) such as Canada, France, Ireland, Italy, and the United Kingdom, the primary objectives of the NHS are to provide affordable and equitable access to healthcare services (Cutler 2002). Medicare and PHI coverage for the costs of several healthcare services overlap to a large extent, and PHI holders retain full access to Medicare coverage (that is, no opt-out). The overlap between public and private insurance coverage leads to a duplication of coverage and subsidies that raises concerns about *ex-ante* and *ex-post* moral hazard. Furthermore, duplication of coverage and subsidies for the same set of services involves higher *transaction costs* than a single universal health insurance scheme (Medicare) (Paolucci 2010) and it may lead to cost-shifting (Morrisey 2003; Scotton 1995). In sum, according to the economic rationales there is no direct motive to introduce a system of

subsidies in the Australian PHI market if affordable access to (the coverage of) healthcare services is already guaranteed by a universal publicly tax-funded scheme (Medicare). Therefore, subsidising duplicate PHI in Australia, given the presence of a universal public insurance scheme, is not *necessary* to achieve an affordable access to healthcare services. Moreover, it is also not *proportionate* because duplication of coverage and subsidies may lead to over-insurance, high transaction costs and cost-shifting, and thereby to inefficiencies.

**Is the current system of subsidising private health insurance an effective way to decrease the pressure on public financing?**

The proportion of Australians holding PHI has increased by 14 percentage points in the last 10 years, from 30 per cent (1998) to about 45 per cent (2010), as a result of the introduction of several forms of subsidies to encourage individuals to purchase PHI (for example, Medicare levy surcharge, 30–40 per cent premium rebate, Lifetime Health Cover). Nevertheless, the overall share of total recurrent health expenditure privately financed (including PHI and out-of-pocket expenditures) is now lower than it was a decade ago, having fallen from 34.2 per cent in 1996–97 to 31.3 per cent in 2006–07. Moreover, this seems to be attributable to an increase in out-of-pocket expenditures rather than in PHI expenditures (see Table 1). The increase in the percentage of the population covered by PHI has apparently not been accompanied by a proportionate increase in the share of PHI expenditures in health financing. PHI expenditures as a proportion of total healthcare expenditures have fluctuated between 7–11 per cent in the last 10 years but the downward trend is clear. This unexpected finding between the increasing percentage of PHI holders and the decrease of the PHI share in total healthcare expenditures may be attributed to two main reasons. First, those who are *purchasing* PHI are not *using* it as much as they could because they can continue to use (and probably do so) the public system (Moorin and Holman 2007; Lu and Savage 2006; Moorin and Holman 2006). Second, there are large public expenditures (that is, subsidies) associated with PHI policies, so the increase in PHI coverage is likely to have contributed to an increase, rather than a decrease, in public expenditures. As a result, the current system of subsidising PHI in Australia appears not to have been an effective way to decrease the pressure on public financing.

**Table 1: Percentage of total recurrent health expenditure financed from private sources, Australia, 1998–99 to 2008–09**

	PHI <sup>a</sup>	OOP <sup>b</sup>	Other non-govt	Total private share, all sources <sup>c</sup>
1998–99	8.0	17.3	7.8	33.0
1999–00	6.9	16.7	7.3	30.8
2000–01	7.1	18.0	7.2	32.3
2001–02	8.0	17.5	7.2	32.8
2002–03	8.0	16.7	7.3	32.0
2003–04	8.1	17.5	7.3	32.8
2004–05	7.7	17.4	7.1	32.3
2005–06	7.6	17.4	6.9	32.0
2006–07	7.6	17.4	7.2	32.2
2007–08	7.6	16.8	6.9	31.3
2008–09	7.8	16.8	5.7	30.3

Notes: <sup>a</sup> Private Health Insurance; <sup>b</sup> Out-of-pocket Expenses; <sup>c</sup> the sum of columns 1–3.

Source: AIHW (2010)

### Is the current system of subsidising private health insurance effective in providing incentives for reducing waiting times in the public hospital sector?

One may question whether, under the current mix of public and private (duplicate) coverage for the costs of care delivered by public and private providers, there are incentives for the government and physicians to achieve a stable equilibrium with acceptable waiting times in the public sector (Scotton 1990). In particular, there appear to be perverse incentives for the government not to reduce waiting times in the public sector because the more it succeeds in doing so, the more it will reduce the demand for PHI. Furthermore, there also seem to be perverse incentives for physicians not to reduce the waiting times in the public sector because this would imply a reduction of demand for their own services in the profitable private sector.

### Is the current system of subsidising private health insurance effective and efficient in tackling selection in the private health insurance market?

Adverse selection (high-risk individuals are more likely to buy PHI than low-risk groups) has been a persistent problem in the Australian PHI market (Butler 2003; Connelly and Brown 2006), particularly after the introduction of Medicare (1984). As mentioned above, Medicare is a universal tax-financed public insurance scheme that provides coverage for care delivered in public hospitals to public

patients at zero-price; subsidies for inpatient and outpatient care delivered by private medical practitioners; and subsidies for a broad set of services such as included in the Medical Benefits Scheme (MBS) and the Pharmaceuticals Benefit Scheme (for example, pharmaceuticals, pathology, diagnostics, and allied healthcare services such as optometry). Before the introduction of Medicare, most Australians were privately insured — 77.6 per cent in June 1971 (PHIAC 2008a). After its introduction and the subsequent substantial increase in public-sector direct healthcare expenditures, PHI coverage fell. In June 1984, 50 per cent of the population held PHI and in 1997 only 30 per cent (Butler 1998). The decline in PHI coverage, which does not provide *per se* an indication of adverse selection, was accompanied by a crowd-out of low-risk groups from PHI coverage and an increase in high-risk individuals buying PHI.<sup>9</sup> The empirical evidence of an adverse-selection death spiral is quite straightforward. For example, in the period between 1984 and 1998, while the percentage of people with PHI fell by 14 percentage points, PHI coverage in the 70+-year-old population increased from 31 per cent to 37 per cent while in the 25–34-year-old population it fell from 46 per cent to 22 per cent (Connelly and Brown 2006).

Between 1997 and 2000, several measures were introduced by the government to increase and stabilise private health insurance coverage, such as the Private Health Insurance Incentives Scheme (PHIIS), the 30 per cent subsidy to all PHI-holders, and the Lifetime Health Cover (LHC) scheme which involves age-based penalties for late joiners, with the penalties commencing at age 31 (Hall *et al.* 1999; Butler 2002). Overall, these measures have had a positive effect on PHI take-up. In 2000, coverage increased from 31 per cent to 43 per cent of the population. However, although these measures have been effective in increasing PHI coverage and have improved the risk profile within the pool of PHI holders, Brown and Connelly (2005) have shown that the adverse-selection problem has not been solved. In particular, they show evidence — based on the age composition of the insurance pool — of the re-commencement of an adverse-selection death spiral in the post-LHC period. The most recent changes (2005–2007) introduced within the PHI market appear to reinforce rather than redress the adverse-selection problem. In particular, the increased rebate for 65+-year-olds (35 per cent) and for 70+-year-olds (40 per cent), the extension of PHI coverage to long-term services and the reduction in the maximum duration of the LHC age penalty from 35 years to 10 years are likely to create additional incentives for worse risks to buy PHI coverage. In a PHI market with community rating and open enrolment, this is likely to result in increased selection. All in

---

9 Many agree that the downward spiral in coverage in the Australian PHI market reflected adverse selection induced by regulation such as community rating (and open enrolment) (Butler 1998, 2003, 2007; Connelly and Brown 2006). However, Vaithianathan (2004) has argued that private health insurers have circumvented the adverse-selection effect of community rating through plan design (for example, by offering policies with more exclusions that are cheaper and have more appeal to the young and healthy).



all, the current system of subsidies within the Australian PHI market has not been able to tackle the problem of adverse selection, which appears to be a constant threat to the stability of the Australian PHI market.

### Political and regulatory instability

There have been many changes in the regulatory environment for PHI over the last few decades. As a result, private health insurers are subject to a considerable degree of sovereign risk.<sup>10</sup> For example, while the current 30 per cent *ad valorem* subsidy for private health insurance appears to have bi-partisan support in the Commonwealth Parliament, a change in this policy by the government could affect the financial positions of private health insurers. Another example is the announcement by the government in May 2008 of its intention to increase the income thresholds at which liability for the Medicare levy surcharge commenced from \$50 000 per annum for singles and \$100 000 per annum for families to \$100 000 and \$150 000 respectively. The share price for NIB (a private health insurer that demutualised in late 2007) fell over a few days from around \$0.92 before the announcement to \$0.70 after the announcement, and fell further to around \$0.56 over the following five to six weeks.<sup>11</sup> On 16 October 2008, the Federal Parliament passed legislation to set the MLS threshold to \$70 000 per annum for singles and \$140 000 for couples.<sup>12</sup> More recently, in the 2009–10 Federal Budget, the government proposed as a savings measure, justified by the contingent budgetary constraints imposed by the GFC, to means-test the rebate. At the same time, it proposed to progressively increase the MLS from 1 per cent to 1.5 per cent for those in the highest income bracket who do not have PHI.<sup>13</sup>

In sum, the current system of subsidies for duplicate PHI does not seem to achieve the main policy goals of PHI in Australia, such as to decrease the financial pressure on the public scheme and to increase the affordability and fairness in access to healthcare services for everyone. It also appears to leave unsolved several problems such as over-insurance, high-transaction costs, cost-shifting, perverse incentives with respect to waiting times, and adverse selection. Therefore, we conclude that if affordable access to healthcare services is guaranteed by the tax-financed public health insurance scheme (Medicare), subsidising PHI is *unnecessary* to achieve an affordable access to (the coverage of) healthcare services already covered by Medicare, and also *disproportionate* because it creates instability and inefficiencies in the market.

---

10 In the current context, 'sovereign risk' refers to the risk that government will use its power to change the regulatory environment and thereby affect the financial position of private health insurers.

11 Share price data from Australian Stock Exchange (<http://www.asx.com.au>).

12 Medicare Levy Surcharge Thresholds Bill No. 2, 2008.

13 For a detailed description of these proposed measures and their effects on PHI demand we refer to Robson *et al.* (2010) and to a report by Access Economics (2009).



## Subsidising private health insurance in Australia: How?

Notwithstanding the arguments in the section above, if subsidies are to be provided for PHI in Australia, what strategies for subsidising PHI can be used and what are the economic characteristics of each? Following van de Ven and Schut (2007), we consider four different strategies:

- Risk-adjusted premium subsidies
- Premium-based subsidies
- Premium-rate restrictions
- Excess-loss compensation.

### Risk-adjusted premium subsidies

Risk-adjusted premium subsidies are determined so as to reflect an individual's expected healthcare expenses over the time period covered by the insurance contract (for example, one year). The risk adjusters most commonly employed are age and health status. The subsidies may be paid to either the consumer or the insurer.<sup>14</sup> This strategy rates highly in terms of achieving affordability of PHI because higher risks receive commensurately higher subsidies. This will provide considerable financial protection against high premiums as long as the risk adjusters used to set the subsidies reflect the risk factors used by insurers to set premiums. It also rates highly in terms of efficiency. Consumers will pay 100 per cent of the premium variation between insurers at the margin, providing strong incentives to them to shop around and to insurers to compete on premiums. It also improves efficiency by providing insurance against the risk of becoming a high risk.<sup>15</sup> Incentives for risk selection are also minimised, again conditional on the same risk adjusters being used in setting premiums and subsidies. There may be problems, however, in determining risk-adjusted subsidies for very high-risk individuals with rare conditions, for whom it is technically difficult to predict health expenditures with an acceptable degree of accuracy.

---

14 In most countries, risk-adjusted subsidies are paid directly to the insurer (see van de Ven and Ellis 2000; van de Ven and Schut 2008).

15 The premium for an insurance contract is guaranteed only for the period of the contract (for example, one year). Upon renewal, the premium may change so that if a consumer's health status has deteriorated and they become a high risk then they will pay a higher premium.

## Premium-based subsidies

Premium-based subsidies may be simpler to administer than risk-adjusted subsidies but may not achieve affordability of PHI for high risks if they subsidise only a set proportion of the premium. They also provide less incentive for consumers to shop around between insurers because consumers are less price sensitive at the margin (for example, consumers do not bear 100 per cent of any premium difference between competing insurers). An additional source of inefficiency arises from the subsidisation of premium differences between insurers regardless of the source of that difference, potentially leading to premium inflation. Premium differences between insurers may reflect inefficiencies that should not attract a subsidy (that is, misallocation of subsidies). Finally, they do not directly counter incentives insurers may have for risk selection, particularly if premium rate restrictions are also imposed on insurers.

## Premium-rate restrictions

Premium-rate restrictions encompass regulations such as community rating, restrictions on the use of certain risk factors such as genetic test information, and rate banding whereby the range of variation in insurance premiums between different risks is restricted.<sup>16</sup> These regulations do not, in and of themselves, entail any direct subsidy of private health insurance from a third party such as government. They can, however, result in internal implicit cross-subsidies within an insured pool, from low risks who pay more than actuarially fair premiums to high risks for whom the opposite is true. While such restrictions may appear to improve affordability, insurers can, to a greater or lesser extent, potentially circumvent them. For example, community rating on a 'per insurer per product' basis leaves open the possibility that insurers will circumvent the regulation through plan design, offering plans with exclusions at lower premiums that will be more attractive to low risks, and plans with fewer, if any, exclusions at higher premiums that will be more attractive to high risks. Premium-rate restrictions score poorly with regard to efficiency as risk-averse low risks who would be prepared to purchase insurance at actuarially unfair premiums may find the premiums too unfair and not purchase cover. They also score poorly with respect to selection, providing incentives for insurers to avoid providing cover for high risks who give rise to predictable losses ('lemon dropping') and to compete on plan design as just discussed.<sup>17</sup>

---

16 Community rating can be regarded as an extreme form of rate banding where premium variation between different risks is constrained to zero.

17 The term 'lemon dropping' connotes the opposite behaviour to 'cherry picking', the latter referring to incentives for insurers to actively enrol low risks which, under rate restrictions, generate predictable profits. It is discussed in more detail in van de Ven and Schut (2007), who ascribe the intellectual origin of the term to Victor Fuchs.

## Excess-loss compensation

Excess-loss compensation is usually adopted as a complement to premium-rate restrictions. Notwithstanding the behavioural incentives for insurers under rate restrictions to engage in selection and secure a pool of individuals with a favourable risk profile, insurers may still incur losses if the exogenous composition of their risk pool results in an unfavourable risk profile (that is, too many individuals for whom premiums are lower than the actuarially fair amount). These excess losses can be mitigated by arranging for compensation to be paid from other insurers who experience excess profits. While excess-loss compensation reduces the incentive for selection by insurers, the design of the scheme must be such that it does not create perverse incentives for insurers by over-compensating them for excess losses.

Generally, there is no one strategy that dominates all others when appraised against the criteria of affordability, efficiency and selection (Table 2), as all involve some trade-off between the three criteria. The strategy or combination of strategies, selected by policymakers will then depend upon the relative weight attached to each criterion. However, it can be argued that risk-adjusted premium subsidies are the preferred strategy. This is because, to the extent that all relevant risks are included and both insurers and the 'sponsor' (government) use the same set of risk adjusters, there will be less need to rely on complementary strategies and the resulting trade-off between the three criteria will be less severe.<sup>18</sup> Current private healthcare financing arrangements in Australia rely on a blend of premium-based subsidies (the 30–40 per cent rebate for PHI premiums), premium-rate restrictions (community rating) and excess-loss compensation for insurers (the risk-equalisation scheme, formerly known as the reinsurance scheme) but place no reliance on *ex-ante* risk-adjusted subsidies. The foregoing arguments suggest that the affordability, efficiency and selection criteria may be met by switching to a system of risk-adjusted subsidies for PHI. At the same time, the community-rating regulation could be removed, as the risk-adjusted subsidies should substantially lessen the differences in net premiums faced by consumers. If it is thought that the resulting differences in net premiums are too wide to be socially acceptable, a rate-banding regulation could be introduced which would constrain the ratio of the highest to the lowest premium charged by any insurer net of the subsidy (for example, a high/low premium ratio of 10:1). The major advantages of this approach are reduced incentives for selection and cream-skimming by insurers; less adverse selection by consumers (high risks buying PHI and low risks avoiding it); PHI becomes more attractive for low risks (because of their lower premium); and increased

18 See van de Ven and Schut (2007) for a fuller exposition of this argument.

incentives for efficiency for both the consumers (because then they are fully price sensitive at the margin) and for insurers (who are confronted with price-conscious consumers).

**Table 2: Affordability, efficiency and selection under different strategies to make individual health insurance affordable for high risks in a competitive insurance market with open enrolment**

Strategy	Affordability	Efficiency	Selection
Risk-adjusted premium subsidies (or risk equalisation)	Can significantly improve affordability as risk-adjusted subsidy should substantially reduce variations in net premiums paid by insured	<ul style="list-style-type: none"> <li>• Consumers pay 100 per cent of the premium variation between insurers at the margin, giving them incentive to shop around and insurers incentive to compete on premiums</li> <li>• Provides insurance against the risk of becoming a high risk</li> <li>• Depending on risk factors used by insurers, may be some reduction in the incentive for efficiency; for example, if insurers use 'prior costs' as a risk factor</li> </ul>	No incentive for selection if insurers charge risk-rated premiums
Premium-based subsidies	Improves affordability but high risks may still face large premiums	<ul style="list-style-type: none"> <li>• Reduction in incentive for consumers to shop around for the lowest premium</li> <li>• Over-insurance resulting in additional moral hazard</li> <li>• Misallocation of subsidies as all causes of premium variation are subsidised</li> </ul>	No incentive for selection if insurers charge risk-rated premiums
Premium-rate restrictions (for example, community rating)	Can significantly improve affordability particularly with community rating but competition in plan design may offset this to some degree	Low-risk consumers who are risk averse may be priced out of the market by premiums which are too actuarially unfair	Strong incentives for selection as different risk groups will have predictable losses and profits, in turn inducing instability in the insurance market
Excess-loss compensation	Can improve affordability if third party (for example, government) pays a subsidy directly into the Subsidy Fund	Can reduce incentives for efficiency if insurers with high costs due to inefficiency rather than the mix of risks are 'rewarded'	Reduces selection incentives for insurers if excess losses are not over-compensated

## Subsidising private health insurance in Australia: How to proceed?

How might Australia change the design of the public/private mix in health financing to address the problems identified with the current arrangements and implement a system of risk-adjusted subsidies for PHI? This section outlines a series of reforms which, taken together, would achieve this goal. These include eliminating duplicate coverage by allowing 'opting out' of Medicare, the role of risk-adjusted subsidies, regulation, and the administrative machinery under this option.

### Eliminating duplicate coverage by allowing opting out with risk-adjusted subsidies

In reviewing healthcare financing arrangements in Australia, this paper has argued that, although there are various economic and country-specific arguments for subsidising PHI, the present design of the system leads to duplicate coverage by private and public hospital insurance. This duplication arises because, whether PHI is purchased or not, full cover under the public scheme is retained. Individuals who purchase PHI are therefore insured twice against the cost of a hospital episode. At the point of use, treatment will be obtained in either a private hospital or a public hospital, but not both. Consequently, for any particular episode of hospitalisation, only one of the two insurance policies will be used to cover the cost of the hospital component of their treatment.<sup>19</sup> Duplication arises because the individual cannot transfer their entitlement under either insurance policy to the other. For example, a person with PHI who received treatment in a private hospital cannot transfer the cost of the episode that they otherwise would have had in a public hospital to offset against the cost of the private hospital episode. This structure is likely to be inefficient because, as neatly stated by Ergas (2008, emphasis in original), all contribute to a public pool and have access to public provision; however, the insured are not able to shift the avoided cost of their public use over to private use. Hence, if they want to use private facilities, they face the full cost of these, rather than 'full cost *minus* avoided cost to public sector of displaced use'. Removing this duplication in coverage requires that either the role of PHI be reduced to a purely supplemental role, or it be increased so as to be fully substitutable for public health insurance. In considering the latter option in this paper, it is important to note that the

---

19 The 'hospital component' here refers to the charges levied by the hospital, as distinct from the charges levied by the doctor. For private patients with PHI, coverage of charges levied by doctors is split between private and public health insurance according to whether the policy is a 'no gap' or 'known gap' policy or a 'no agreement' policy. Under the first two, PHI will cover some or all of the gap between the public insurance (Medicare) rebate for the doctor's service and the fee charged.

30–40 per cent subsidy does provide some redress for the duplication problem. However, it fails to solve the problem because the subsidy is less than 100 per cent *and* full coverage under Medicare is compulsorily retained. This suggests that an ‘opt-out’ option with full portability of a 100 per cent subsidy between private and public insurers will remove the duplication — individuals would be covered by either PHI or Medicare but not both, and would contribute to only one insurer. Universal coverage would be maintained as health insurance would be compulsory, but individuals would have a choice of public or private insurer (that is, ‘Medicare/PHI choice’).

Following on from the argument outlined earlier, the subsidy to be received by an individual choosing to opt out of Medicare would be risk-adjusted. Under the opt-out option, it would be set at the expected value of publicly funded health expenditures over the relevant time period (for example, the next year), for all services deemed to be covered by the scheme. For illustrative purposes, Figure 1 shows a set of risk-adjusted annual subsidies for PHI using relative per-capita benefits paid by private health insurers by five-year age groups as the risk adjusters. These weights are applied to the mean per-capita publicly funded health expenditure on all hospitals, medical services and drugs in Australia in 2006–07 (\$2273). The subsidies range from a few hundred dollars for children, up to nearly \$11 000 for the elderly. The illustrative subsidies in Figure 1 adjust risk for age only, and variation in age captures only a part of the variation in health expenditures between individuals. As van de Ven and Ellis (2000: 759) point out: ‘... risk-adjusted premiums can easily differ by a factor of ten or more for demographic risk factors such as age, and factors of 100 or more once health status is also taken into account.’ Even adjusting only for age, the ratio of the highest to the lowest risk-adjusted subsidy in Figure 1 is 50:1.

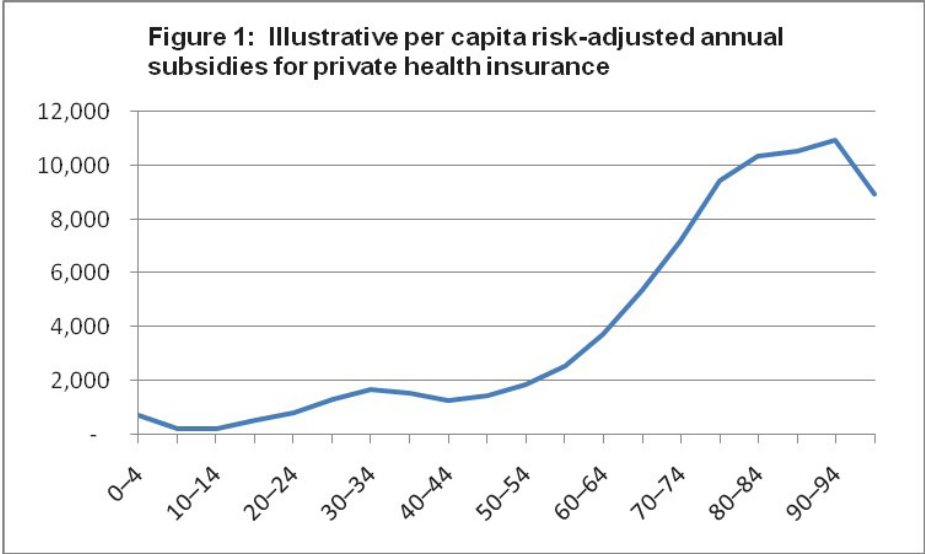


Table 3 provides a calculation of illustrative risk-adjusted subsidies for PHI.

**Table 3: Calculation of illustrative risk-adjusted subsidies for PHI in Australia**

Age group	Total benefits paid (\$) (1)	No of persons covered (2)	Per capita benefits paid (\$) (3)	Per capita benefits paid relative to mean (4)	Risk-adjusted subsidy (5)
0-4	36,750,305	545,920	37	0.32	71
5-9	10,540,186	557,469	19	0.09	205
10-14	12,355,770	593,684	21	0.10	226
15-19	31,993,156	635,297	50	0.24	547
20-24	36,889,257	494,799	75	0.36	809
25-29	55,585,980	468,160	119	0.57	1,289
30-34	96,111,573	623,034	154	0.74	1,675
35-39	101,927,593	723,309	141	0.67	1,530
40-44	81,374,180	708,284	115	0.55	1,247
45-49	101,873,198	778,804	131	0.62	1,420
50-54	130,675,822	762,717	171	0.82	1,860
55-59	172,682,646	733,975	235	1.12	2,554
60-64	216,952,205	631,510	344	1.64	3,729
65-69	211,786,434	428,562	494	2.36	5,365
70-74	205,785,067	311,185	661	3.16	7,179
75-79	215,479,511	248,302	868	4.14	9,421
80-84	161,897,549	169,922	953	4.55	10,343
85-89	77,541,318	79,771	972	4.64	10,552
90-94	31,163,102	30,893	1009	4.82	10,950
95 +	6,916,468	8,382	825	3.94	8,958
All age groups	1,996,281,322	9,533,979	209		

Column (1) is the total benefits paid by registered private health funds in Australia for hospital treatment, and medical services and prostheses associated with hospital treatment, in the June Quarter 2008 (PHIAC 2008b, Part 3).

Column (2) is the number of persons covered by PHI in Australia in the June Quarter 2008 (PHIAC 2008a).

Column (3) = column (1) ÷ column (2).

Column (4) = column (3) ÷ mean per capita benefits paid across all age groups (\$209).

Column (5) is column (4) multiplied by \$2,273 which is the per capita publicly funded health expenditure on all hospitals, medical services and drugs in 2006-07 (AIHW 2008, Tables A3, I2).



In return for the risk-adjusted subsidy, insurers would have to cover *all* healthcare expenses of their insured, including services provided to patients in a public hospital. Both public and private hospitals would charge fees for patients with PHI, those fees being covered by the insurer.

## Regulation

If the risk-adjusted subsidies accounted for most of the variation in expected health expenditures between individuals, premium-rate restrictions on private health insurers would be unnecessary as there would be little or no basis for insurers to charge different net premiums to different individuals. However, to the extent that risk adjustment in the subsidies is less than perfect, an incentive exists for insurers to improve upon the degree of risk differentiation by finding additional risk adjusters to use in premium setting. While community rating might not be necessary to remove this incentive, a rate-banding regulation may be needed to constrain the differentiation in net premiums within socially acceptable bounds.<sup>20</sup> Regulation would be required to enforce a minimum benefits package, or basic package, that must be available from every insurer. This would be necessary to prevent insurers carving out various services and including them only in supplementary packages that would then be sold for an additional premium. If the reforms suggested here were to be adopted, it is envisaged that the open-enrolment requirement would be retained for the basic package. However, the risk-adjusted subsidies should reduce the need for insurers to require reinsurance against the exogenous risk of having a poor risk profile. Hence, in contrast to the existing system, no reinsurance or claims-equalisation system would be needed. For supplementary packages, open enrolment would not be required and insurers would be allowed to risk-rate premiums for these packages. The outcome under this market arrangement would need to be monitored for, as Enthoven and van de Ven (2007: 2423) warn, ‘... the existence of supplemental insurance with risk rating and without open enrolment may leave too large an opportunity for insurers to profit from risk selection’, both in the basic and supplementary health insurance markets.<sup>21</sup>

## Administrative machinery

A regulatory body such as the Private Health Insurance Administration Council (PHIAC) would be necessary to enforce the regulations imposed on insurers and also undertake a prudential regulation role. PHIAC may also act

---

20 It is interesting to note that in the recent Dutch reforms, which incorporate risk-adjusted premiums and require all individuals to purchase their health insurance from a private health insurer, a community-rating regulation continues to be imposed. See Enthoven and van de Ven (2007).

21 See Paolucci *et al.* (2007) for an analysis of supplementary health insurance as a tool for risk selection in mandatory basic health insurance markets in five European countries.

as the administrative body responsible for implementing and refining the risk-adjustment formula, and managing the transfer of risk-adjusted subsidies across insurers of an individual's choice, given its experience with administering and managing the reinsurance (that is, so-called risk equalisation) scheme. Given its role in the current provision of the 30–40 per cent subsidy to PHI, Medicare Australia could also be an alternative administrative body. The private health insurance ombudsman would be retained and continue to perform the same role as under the present scheme.

## Conclusion and discussion

The current public/private mix in healthcare financing in Australia appears to leave unsolved several problems such as over-insurance, high transaction costs, cost-shifting and perverse incentives with respect to waiting times. It also does not seem to be able to achieve a number of policy goals such as to decrease the financial pressure on the public scheme and to increase the affordability and fairness in access to healthcare services for everyone. The main source of these problems can be attributed to the large extent of duplication between public (Medicare) and private (PHI) financing of healthcare services.

In this paper we propose to introduce consumers' choice of health plan, according to which public (Medicare) and private insurers compete with each other and act as the prudent buyer of care. In this paper, we focus on the latter. This proposal is inspired by the arguments of Scotton (1990, 1995) for 'Transferable Medicare entitlements', and is reflected in the proposal made by the National Health and Hospital Reform Commission final report (NHHRC 2009) labelled 'Medicare Select'.<sup>22</sup> The crucial element of this option compared to the current design of healthcare financing is that it removes duplication of coverage by allowing individuals to choose to either be enrolled with Medicare or to opt out of it. As previously discussed, an important component within the context of this option is to introduce an *ex-ante* risk-equalisation scheme to substitute for the 30–40 per cent premium rebate and the *ex-post* claims-equalisation scheme. The risk-based capitation proposal put forward in 2003 provides a basis for the design of the *ex-ante* risk-equalisation scheme. In short, risk-based capitation advocates the introduction of an age–gender risk-adjustment formula similar to the Irish model prior to July 2007 (Gale 2007; Paolucci 2008; Armstrong and Paolucci 2009; Paolucci and Shmueli 2011). Such a proposal could be taken forward and improved by introducing sophisticated risk-adjustment models that implement risk factors like Diagnostic Cost Groups (DCGs) and Pharmaceutical

---

<sup>22</sup> A description and discussion of 'Medicare Select' can be found in Hall (2010), and an economic appraisal of a potential pathway for its implementation in Australia in Ergas *et al.* (2010).

Cost Groups (PCGs), which have proven in other countries (The Netherlands, for example) to be accurate predictors of health status (van de Ven *et al.* 2007). The claims-equalisation scheme could be redesigned to function purely as an excess-loss compensation scheme complementary to the best available risk-equalisation scheme (that is, above a certain threshold, \$50 000) but this would depend on the type of services included in the basic package (for example, yes/no long-term care).

## References

- Access Economics 2009, 'Impact of Means-testing the PHI Rebate and Changing MLS Parameters'. Available at: <http://accesseconomics.com.au/publicationsreports>; accessed 20 February 2010.
- Australian Institute of Health and Welfare (AIHW) 2010, *Health Expenditure Australia 2008–09*, Health and Welfare Expenditure Series No.42, Cat. No. HWE 51, AIHW, Canberra, December.
- Biggs, A. and Buckmaster, L. 2007, 'Private Health Insurance Bill 2006', *Bills Digest*, No.81, 8 February, Parliament of Australia, Department of Parliamentary Services, Canberra.
- Brown, H. S., III, and Connelly, L. B. 2005, 'Lifetime cover in private insurance markets', *International Journal of Health Care Finance and Economics* 5(1): 75–88.
- Butler, J. R. G. 1998, 'Health Expenditure' in Mooney, G. H. and Scotton, R. B. (eds), *Economics and Australian Health Policy*, Allen & Unwin, Sydney: 40–71.
- 2002, 'Policy change and private health insurance: Did the cheapest policy do the trick?' *Australian Health Review* 25(6): 33–41.
- 2003, 'Adverse selection, genetic testing and life insurance — lessons from health insurance in Australia', *Agenda* 10(1): 73–89.
- 2007, 'Adverse selection in Australian private health insurance: recent trends', presentation to the ACERH Research Forum on Health Care Financing and Private Health Insurance: International Experience and Recent Australian Trends, 24 September, Canberra. Available at: [http://www.acerh.edu.au/research\\_forums.php](http://www.acerh.edu.au/research_forums.php).

- 2008, 'New Hospital Financing System for Australia', presentation to the Canberra Branch of The Economic Society of Australia, 13 August, Canberra. Available at: <http://www.acerh.edu.au/news2008.php>.
- 2010, 'New Opportunities in Health Financing and Governance', Policy Forum: Reforming the Health System, *The Australian Economic Review* 43(1): 71–6.
- Connelly, L. B. and Brown, H. S., III, 2006, 'Lifetime subsidies in Australian private health insurance markets with community rating', *Geneva Papers on Risk and Insurance — Issues and Practice* 31(4): 705–19.
- Cutler, D. M. 2002, 'Equality, Efficiency, and Market Fundamentals: The Dynamics of International Medical Care Reform', *Journal of Economic Literature* 40(3): 881–906.
- Department of Health and Aged Care 2000, *The Australian Health Care System: An Outline*, Financing and Analysis Branch Commonwealth Department of Health and Aged Care, Canberra, September.
- Enthoven, A. C. and van de Ven, W. P. M. M. 2007, 'Going Dutch — managed-competition health insurance in the Netherlands', *New England Journal of Medicine* 357(24): 2421–23.
- Ergas, H. 2008, 'Discussion', public seminar on Sustainable Funding for Australia's Future Health Care sponsored by the Menzies Centre for Health Policy and the Australian Centre for Economic Research on Health, Australian National University, 9 September. Available at: [http://www.menzieshealthpolicy.edu.au/MCHP\\_V3/site/events.php](http://www.menzieshealthpolicy.edu.au/MCHP_V3/site/events.php).
- Ergas, H., Paolucci, F. and Stoelwinder, J. 2010, "'Medicare Select": A Pathway Towards Competition Between Private And Public Health Funds In Australia'.
- Gale, A. P. 2007, 'One Price Fits All: A Review of Community Rated Private Health Insurance', Paper prepared and presented to the Institute of Actuaries of Australia Biennial Convention, 23–27 September, Christchurch, New Zealand.
- Hall, J., De Abreu, Lourenco R., and Viney, R. 1999, 'Carrots and sticks — the fall and fall of private health insurance in Australia' (editorial), *Health Economics* 8(8): 653–60.
- 2010, 'Medicare Select: A Bold Reform?' Policy Forum: Reforming the Health System, *The Australian Economic Review* 43(1): 63–70.

- Lu, M. and Savage, E. 2006, 'Do financial incentives for supplementary private health insurance reduce pressure on the public system? Evidence from Australia', CHERE Working Paper 2006/11, Centre for Health Economics Research and Evaluation (CHERE), University of Technology Sydney, August.
- Macintosh, A. 2007, 'Using cheap private health insurance to avoid the Medicare Levy Surcharge: What is the cost to taxpayers?' Research Paper No. 46, The Australia Institute, Canberra, July.
- Medicare Levy Surcharge Thresholds Bill No. 2, 2008, The Federal Parliament of Australia.
- Moorin, R. E. and Holman, C. D. J. 2006, 'Modelling changes in the determinants of PHI utilisation in Western Australia across five healthcare policy eras between 1981 and 2001', *Health Policy* 81: 183–94.
- 2006, 'Does federal health care policy influence switching between the public and private sectors in individuals?' *Health Policy*, 8 October: 284–95.
- Morrisey, M. A. 1993, 'Cost Shifting: New Myths, Old Confusion, and Enduring Reality', *Health Affairs*, 8 October, W3-489–W3-491 (Web exclusive).
- National Health and Hospitals Reform Commission 2009, *A Healthier Future for All Australians: Final Report*, Commonwealth of Australia.
- Newhouse, J. P. 1996, 'Reimbursing health insurers and health providers: efficiency in production versus selection', *Journal of Economic Literature* 34(3): 1236–63.
- Organization for Economic Cooperation and Development (OECD) 2004, *Private Health Insurance in OECD Countries*, The OECD Health Project, Paris, France.
- Paolucci, F., den Exter, A. and van de Ven, W. P. M. M. 2006, 'Solidarity in competitive health insurance markets: analysing the relevant EC legal framework', *Health Economics, Policy and Law* 1(2): 107–26.
- Paolucci, F., Schut, F. T., Beck, K., Van de Voorden, C., Gress, S. and Zmora, I. 2007, 'Supplementary health insurance as a tool for risk selection in mandatory basic health insurance markets', *Health Economics, Policy and Law* 2(2): 173–92.
- Paolucci, F. 2008, 'Risk equalisation in voluntary health insurance markets: the case of Australia', a presentation to ACERH Research Forum on Risk Equalisation in Health Insurance Markets, The Australian National University, 10 June, Canberra. Available at: [http://www.acerh.edu.au/research\\_forums.php](http://www.acerh.edu.au/research_forums.php).

- 2011, 'Health financing and insurance: options for design' in Frech, H., Zweifel, E. and Springer, P. (series eds), *Developments in Health Economics and Public Policy*.
- Paolucci, F. and Shmueli, A. 2011, 'The Introduction of Ex-ante Risk Equalisation in the Australian Private Health Insurance Market: A First Step', *Agenda* 18(2) Special Health Issue.
- Pauly, M. V. 1992, 'Risk variation and fallback insurers in universal coverage insurance plans', *Inquiry* 29(2): 137–47.
- Parliament of Australia 2007, *Private Health Insurance Act 2007*, No. 31 of 2007 as amended, Canberra, April.
- Private Health Insurance Administration Council (PHIAC) 2007, *Operations of the Private Health Insurers: Annual Report 2006–07*, PHIAC, Canberra.
- 2008a, *Hospital Treatment Coverage*, PHIAC, Canberra. Downloaded from <http://www.phiac.gov.au>, figures taken from membershipall.xls.
- 2008b, *PHIAC A: All States*, PHIAC, Canberra. Downloaded from <http://www.phiac.gov.au>.
- Robson, A., Ergas, H. and Paolucci, F. 2010, 'The Analytics of the Australian Private Health Insurance Rebate and the Medicare Levy Surcharge', *Agenda* 18(2) Special Health Issue.
- Rothschild, M. and Stiglitz, J. 1976, 'Equilibrium in competitive insurance markets: An essay on the economics of imperfect information', *Quarterly Journal of Economics* 90(4): 629–49.
- Schut, F. T. 1995, 'Competition in the Dutch health care sector', dissertation, Erasmus University, Rotterdam.
- Scotton, R. B. 1990, 'Integrating Medicare with private health insurance: The best of both worlds?' in C. Selby Smith (ed.), *Economics and Health 1989: Proceedings of the Eleventh Australian Conference of Health Economists*, Public Sector Management Institute, Monash University, Melbourne.
- 1995, 'Managed Competition: issues for Australia', *Australian Health Review* 18(1): 82–104.
- The Treasury 2008, *Tax Expenditures Statement 2007*, Commonwealth of Australia, Canberra.
- Vaithianathan, R. 2004, 'A critique of the private health insurance regulations', *Australian Economic Review* 37(3): 257–70.

- van de Ven, W. P. M. M. and Ellis, R. P. 2000, 'Risk adjustment in competitive health plan markets' in Culyer, A. J. and Newhouse, J. P. (eds), *Handbook of Health Economics* 1A, Elsevier, Amsterdam: 755–845.
- van de Ven, W. P. M. M., van Vliet, R. C. J. A., Schut, F. T. and van Barneveld, E. M. 2000, 'Access to coverage for high-risk consumers in a competitive individual health insurance market: via premium rate restrictions or risk-adjusted premium subsidies?' *Journal of Health Economics* 19(3): 311–39.
- van de Ven, W. P. M. M. and Schut, F. T. 2007, 'Risk equalization in an individual health insurance market: the only escape from the trade-off between affordability, efficiency and selection', paper prepared for FRESH-thinking. Available at: <http://fresh-thinking.org/publications/pubs.htm>.
- 2008, 'Universal mandatory health insurance in The Netherlands: A model for the United States?' *Health Affairs* 27(3): 771–81.
- Wilson, C. 1977, 'A model of insurance markets with incomplete information', *Journal of Economic Theory* 16(2): 167–207.