

Private health insurance and the Pharmaceutical Benefits Scheme: how effective has recent government policy been?

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Abstract

The cost to government of the Pharmaceutical Benefits Scheme (PBS) is rising at over 10 per cent per annum. The government subsidy to Private Health Insurance (PHI) is about \$2.4 billion and rising. Despite this, the queues facing public patients — which were the primary justification for the assistance to PHI — do not appear to be shortening.

Against this backdrop, we seek to evaluate recent policies. It is shown that the reason commonly given for the support of PHI — the need to preserve the market share of private hospitals and relieve pressure upon public hospitals — is based upon a factually incorrect analysis of the hospital sector in the last decade. It is similarly true that the 'problem' of rising pharmaceutical expenditures has been exaggerated. The common element in both sets of policies is that they result in cost shifting from the public to the private purse and have little to do with the quality or quantity of health services.

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What is known about this topic?

Entrenched problems of upward pressure on total health costs, queuing for public sector health care and variable profitability for private insurers and providers have led to significant changes in policies affecting funding and access, with varying (and hotly debated) results.

What does this paper add?

Recent policies for private health insurance (PHI) and the Pharmaceutical Benefits Scheme (PBS) have shifted costs from the public to the private purse, with detrimental effects on equity and efficiency. The stated intentions of the policies have not been achieved, and have created perverse incentives and effects.

What are the implications for policymakers?

Policy changes affecting PHI and the PBS need to be assessed as part of a total health system in which unintended effects in other aspects of health care are more likely than not.

THIS ARTICLE is concerned with the two subsectors of the health system which have been the subject of recent and ongoing public debate: Private Health Insurance (PHI) and the Pharmaceutical Benefits Scheme (PBS). More specifically, it focuses upon two issues: (i) changes in PHI policy since 1998; and (ii) the overall performance of PHI and the PBS. The article does not attempt to identify and analyse the full range of reform options. Rather its more limited objective is to examine the widespread belief that both subsectors have had intractable problems which have required the remedial policies discussed.

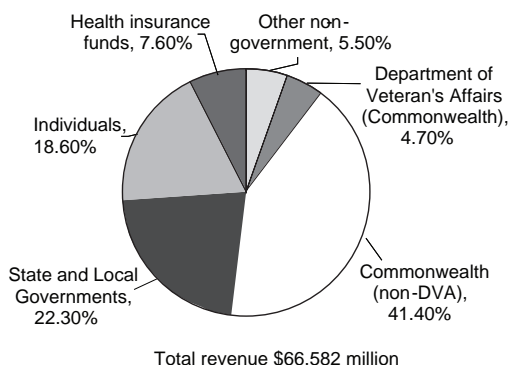
Our key theme is that neither PHI nor the pharmaceutical sector should be evaluated as isolated industries. It is, of course, desirable that

industries are efficient and it is possible to use standard criteria for assessing industry performance. However, both PHI and pharmaceuticals are components of a wider health system. Consequently, consideration of their performance must include an evaluation of their effect upon the wider health system and the extent to which they contribute to the achievement of health sector objectives. This caveat is important. It implies, for example, that the size of the subsidy or the absolute level of expenditure upon pharmaceuticals should not be an immediate concern if these arrangements generate net benefits. For instance, increased use of drugs may reduce health care costs elsewhere, and such expenditure may represent a cost-effective means of contributing to social objectives. Likewise, PHI is not simply a vehicle for the elimination of risk. Rather, it is a source of revenue for private hospital and other health services. The structure of health insurance creates incentives for particular behaviours, and the primary criterion for assessing PHI is its effect upon health system performance.

Furthermore, the analysis of both subsectors needs to be considered relative to the overall size of the health sector. PHI in 2001–02 contributed 10.5% of health sector revenue. This included 7.6% contributed by the private health funds plus 2.9% in premium rebates met by the Commonwealth (Box 1). In the same year, pharmaceuticals represented 13.5% of recurrent expenditures (Box 2). Given these magnitudes, an improvement in the efficiency of these subsectors could be offset by a small adverse effect upon the remainder of the health system.

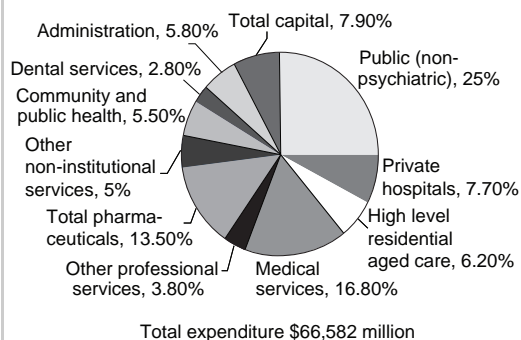
More generally, caution should be exercised in the evaluation of health system subsectors. The more meaningful task is the global evaluation of the health system of which Medicare — the system of universal financial cover for medical and hospital services and limited access to other health services — represents a central feature. Medicare is widely accepted as a positive feature of the Australian health system. As measured by Disability Adjusted Life Expectancy (DALES), Australia has the second best health outcome in the world (World Health Organization 2000). Using other

1 Sources of revenue 2001–02



Source: AIHW Health Expenditure Australia 2001–02, Figure 5; Table A4 (See AIHW 2003a)

2 Total health expenditures



Source: AIHW Health Expenditure Australia 2001–02, Figure 5; Table A4. (See AIHW 2003a)

countries as the benchmark, the expenditure on health care in Australia is almost exactly what would be expected for a country with our GDP. Medicare is popular. Even the most publicised of its problems — the length of hospital queues — does not appear to be excessive by international standards. For example, a recent report from the Organisation for Economic Co-operation and Development (OECD) found that the percentage of patients waiting more than 4 months for surgery in Australia is lower than in Canada, New Zealand and the UK but higher than in the USA (Siciliani & Hurst 2003).

3 Recurrent expenditures, source and application of funds (\$ billions)

Year	Total recurrent expenditure on healthcare	Hospital expenditure by type of hospital		Expenditures funded by		
		Public	Private	Government	PHI gross* (net)	Individuals
1989–90 (a)	26.8	8.2	1.7	18.3	3.1	4.4
1997–98 (b)	44.0	12.8	3.7	30.0	4.4*	7.6
2001–02 (c)	66.6	16.7	5.1	45.5	7.0 (5.1)	12.5
Percent change						
89/90–97/98	64.2	56.1	117.6	63.9	41.9	72.7
97/98–01/02	51.4	30.5	37.8	51.7	59.1 (15.9)	64.5
89/90–01/02	148.5	103.7	200.0	148.6	125.8 (64.5)	184.1

Source: AIHW Health Expenditure Bulletin, (a) AIHW 1994, (b) AIHW 2001, (c) AIHW 2003a

*\$7.0 billion = gross revenue of which premium rebate paid by the Commonwealth was \$1,950 million

Sources of revenue (total health sector)

The importance of international comparisons should not, however, be overdrawn. Virtually every health system has problems and it is clear that Australia, like most other countries, could significantly improve the operation of the health system. A number of general options for health system reform are discussed briefly in the final section below.

Private health insurance

There is a widely accepted story about the events leading to PHI policy initiatives introduced since the late 1990s, which says: that because of the existence of a 'free' alternative — public hospital care — the membership of PHI continued to decline throughout the 1990s; that this led to a decreasing use of private hospitals which, in turn, put pressure on public hospitals and that this was the reason for the increasing length of hospital queues and the resulting 'crisis' in Medicare. A plausible solution to this problem was, therefore, to halt and reverse the decline in PHI membership. This sequence of events and conclusion are simple, logically consistent, but for the most part, wrong.

Public v private expenditure in the '90s

The evidence unambiguously contradicts this view of events. Some of the relevant evidence is presented in Box 3 and Box 4. Between 1989–90 and

4 Private hospital services as a percentage of total public and private hospital activity

	Separations	Bed Days
1985–86	25.9%	21.9%
1989–90	26.7%	22.0%
1995–96	30.8%	26.3%
1997–98	32.0%	26.6%
1999–00	34.3%	28.1%
Change 85/86–97/98	23.6%	21.5%
85/86–99/00	+ 32.4%	+ 28.3%

Source: Duckett 2000; AIHW 2000

1997–98 (the final full year before the introduction of legislation to promote PHI) private hospital expenditure funded by PHI *rose* by 41.9%. Private hospitals' expenditures *increased* by 117.6% — more than double the rate of growth of public hospital expenditures. From 1985–86 to 1997–98 private hospitals *increased* their share of hospital separations from 25.9% to 32.0% — that is, private hospitals increased their share of separations by 23.6%. This evidence unambiguously contradicts the explanation commonly given for public hospital queuing. Rather, queuing has occurred in public hospitals for two main reasons. First, there is a shortage of some specialists. Sec-

ondly, State governments have imposed severe budgetary limits on their hospitals. For example, between 1991–92 and 1994–95, Victoria's budget for public acute hospital care *fell* by 8% in nominal terms. This was despite a 12% increase in unit costs per separation. Across Australia, between 1990–91 and 1996–97 state government expenditure on public hospitals increased by 2.4% per annum in nominal terms, representing a fall in constant dollars (AIHW 1999).

The evidence suggests that the mix of policies to support private health insurance was not designed to avert 'the collapse of the public system'. The purpose must be found elsewhere, for instance to preserve or expand PHI as a social objective in itself.

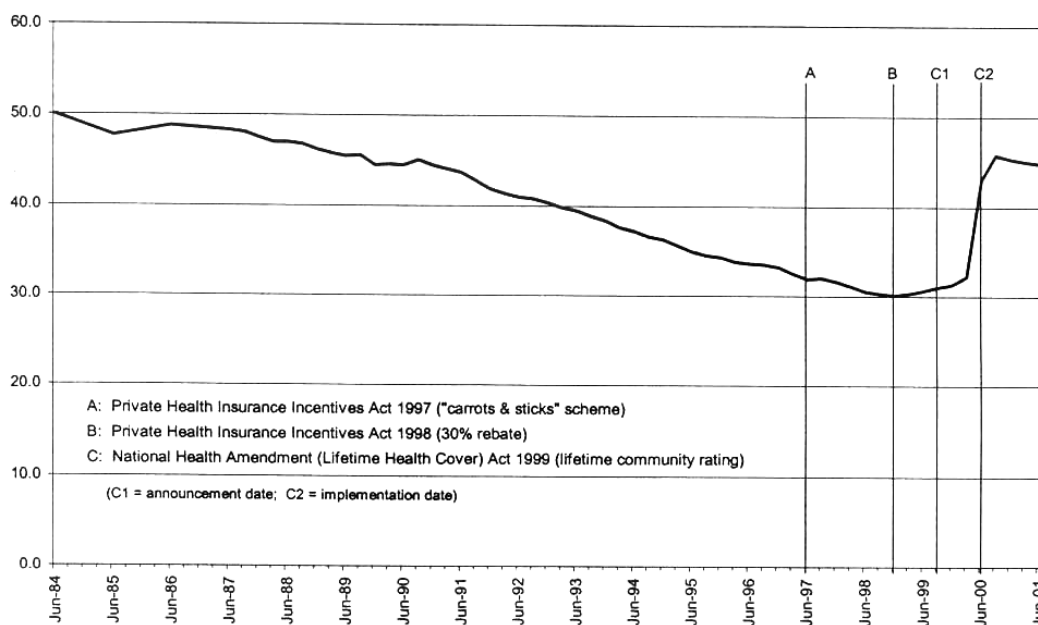
PHI policy changes

In the past seven years there have been four main policy changes with respect to PHI: (i) in July 1997 the Private Health Insurance Incentives Scheme

(PHIIS) introduced limited tax subsidies for low income households; ii) tax penalties for high income individuals and families — those with incomes above \$50,000 and \$100,000, respectively — who failed to purchase PHI; (iii) in January 1999 the tax subsidy was replaced by a '30% rebate' for all PHI premiums irrespective of the recipient's income; and (iv) in September 1999 'Lifetime Community Rating' was announced to become effective from July 2000. For those purchasing PHI before the age of 30 and maintaining PHI there is now a lifetime discount on the insurance premium. The discount is reduced by 2% per annum for each year beyond the age of 30 at which a person purchases PHI. These policies were supported by a high profile publicly funded advertising campaign encouraging private health insurance membership.

As shown in Box 5, between 1998 and 2001, PHI membership increased from 30% to 45%. In his analysis of this, Butler (2001) argues that the

5 Percentage of population covered by a hospital insurance table, Australia June 1984 to June 2001



Source: Butler 2001. Reproduced with permission from Black Swan Press, WA.

PHIIS had little or no impact; that the 30% rebate probably increased membership from 30% to 32%, and that almost all of the increase from 32% to 45% coverage of the population was attributable to the introduction of lifetime tables. There is usually a time lag between the introduction of financial incentives and their full effect, and there is likely to be a synergistic relationship between the 30% subsidy and the change to lifetime rating. Consequently, the effects of the 30% subsidy may be greater than the first year impact. Deeble (2002) also highlights the central role of the publicly funded publicity campaign to promote PHI in the large increase in membership. There is little doubt that the combined effect of these policies has been spectacularly successful in encouraging greater uptake of private health insurance.

Changes to Medicare

Amendments introduced in June 2004 to medical insurance under Medicare create two important 'structural' changes. First, there is now a two tier payment schedule in which medical benefits paid to GPs for services to pensioner or health card holders and children attract an additional \$5.00/visit or \$7.50/visit for GPs located in selected areas. Secondly there is now reimbursement of 80% of family and singles medical expenditures once they reach a defined safety-net, which is presently \$700 and \$300 for families and singles, respectively. In recent years health funds have also been able to insure medical gap payments. These changes move the Medicare system to one that is more like a 'safety-net' scheme, providing

particular support to low income households, rather than one modelled on a concept of universal cover, under which access to services is based primarily on need.

These changes are likely to result in higher medical fees and higher costs of health care. This is already seen in relation to medical gap insurance introduced in August 2000. Insurance payments on medical services above the schedule fee have risen from \$7 million in 1998 to \$125 million in 2000–01 (on some 4 million services) and \$330 million in 2002–03 (on just under 11 million services) (PHIAC 2003, fig. 25, p. 29). These payments are still rising. The government is now making a substantial contribution to fees charged above schedule rates. This occurs, firstly, because of the 30% rebate on PHI premiums which then finance members with gap insurance for inpatient fees. This subsidy amounted to about \$100 million in 2002–03. Secondly, there is now a direct payment to persons who qualify under the new safety net provisions for non-inpatient services.

Impact of the changes

The full impact of these changes on the demand for private health insurance is unclear. As noted above, there is likely to be a time lag between the initial and final effects.

While the policies to date have successfully increased the membership of PHI, they have created some arrangements which may be unique in the world. As individual and family incomes rise above the tax penalty threshold, the effective price of PHI (direct price less subsidy less surcharge

6 PHI expenditure and revenue

	Population coverage	PHI contribution income (\$billion)	Hospital benefits paid through PHI funds* (\$billion)
1998	30.1%	4.8	3.02
2001	44.9%	7.1	4.09*
Increase (percentage points)	14.8	2.3	0.92
	(= 49.2%)		

Source: PHIAC Annual Reports (PHIAC 2002; PHIAC 2003)

* Includes private and public hospital benefits, nursing home type, medical gap up to and beyond the schedule fee, and listed prostheses.

avoided) falls and quickly becomes negative — individuals and families are effectively paid to purchase the product — they are left with a higher net income if insurance is purchased! And the higher the income, the greater the benefit. However (perversely negating some of the apparent unfairness of a negative price), people who use their private health insurance may be substantially out of pocket in a way that does not happen if they rely on the public health system. The financial risk is greater with, than without, private health insurance, if it is used! The tax penalty upon high-income earners is also unusual as judged against normal practice for industry support. It is analogous to a scheme for promoting the Australian automobile industry by taxing high-income earners who fail to buy an Australian car, or, as pointed out by Smith (2001), it is analogous to a tax on high-income families with children who do not use private schools. The conflation of an incentive scheme with income taxation creates a highly irregular and possibly unique set of incentives — the antithesis of microeconomic reform, which seeks to minimise the social consequences of taxation.

The third and most successful policy to encourage PHI, the adjustment to lifetime rating, also has a bizarre dimension. Insurance is normally intended to reduce the anxiety associated with risk; in the present context, the risk of needing private health care and being unable to pay for it without insurance. Before the introduction of lifetime policies, this anxiety probably related to uncertainty facing individuals and families about their need for medical care in the next 2 to 5 years. But the introduction of lifetime tables means that families must now consider the next 20 to 30 years, and the success of the policy is almost certainly due to the fact that it increases the very thing which insurance is intended to reduce, namely, anxiety associated with the future. The publicly funded publicity campaign exploited this insecurity.

As shown in Box 3 between 1989–90 and 2001–02 there was a significant increase (184.1%) in out-of-pocket expenditures on health. This exceeds the 148.5% increase in overall health-sector expenditures, and, consequently, over this

7 PHI areas of expenditure and subsidy 2001–02

	Expenditures 2001–02*		Pro rata allocation of subsidy
	\$billion	%	
Total recurrent	5.09	100.0	2.2
Hospitals	2.73	53.7	1.2
Medical†	0.43	8.5	0.19
Other professional	0.35	14.1	0.31
Drugs/appliance/other	0.41		
Dental	0.68	13.4	0.29
Admin	0.52	10.2	0.22

* Health Expenditure Bulletin 2001–02 (AIHW 2003a) fig. 11.

† Included under hospital table by PHIAC (2002)

period the overall insurance against health care costs (as defined in AIHW publications)¹ deteriorated. That is, despite the policy initiatives and the accompanying subsidies, the public was left with risk and greater out-of-pocket expenditures. An alternative policy to assist the public hospital system to meet community demand — the purported objective of the subsidies regarding private health insurance — would have been to increase public hospital expenditures by an amount equal to the subsidy.

Using this alternative policy as a benchmark, the subsidy to PHI is not an efficient policy. As shown in Box 6, PHI revenues increased from \$4.8 billion to \$7.1 billion between 1998 and 2001. However hospital benefits paid by PHI rose by only \$0.9 billion (\$1.07 billion less \$150 million for payments for medical services above the schedule fee which is a straight income transfer). As the government subsidy in 2001 via the rebate on private health insurance was about \$2.1 billion, this means that, at most, 43% of it flowed through to additional hospital expenditures. The full cost of

¹ The AIHW health expenditures data include some items which cannot be insured, such as non-prescription pharmaceuticals.

8 Ratio of likelihood of receiving a service following admission to private and public hospitals after acute myocardial infarction, 1995–97

	Private patients in private hospitals : Public patients in public hospitals		Private patients in public hospitals : Public patients in public hospitals	
	Angiography	Revascularisation	Angiography	Revascularisation
Within 14 days				
Men	2.20	3.43	1.77	1.53
Women	2.27	3.86	1.57	1.81
Within 3 months				
Men	2.24	3.43	1.53	1.23
Women	2.28	3.34	1.49	1.32

Source: Robertson & Richardson 2000

the different policy measures in 2001 might be considered to be closer to \$3.4 billion (Segal 2004a)², which would imply only 26% of the total subsidy was spent on hospitals. Most of the remainder was spent on activities which are outside the public national health scheme.

Alternatively, considering the allocation of private health insurance funds by sector as reported by the AIHW (2003a), if the subsidy is allocated according to reported expenditure to these other activities, then only 54% of it would be spent on hospitals (public and private); 8.5% would be spent on medical services, 13.4% on allied health and dental and 10.2% on administration (Box 7). Some of the additional payments resulted in additional income to providers, rather than additional services to patients.

The impact of the PHI policies on public hospitals has not been properly analysed. There are, however, grounds for believing that it may also have been perverse. The presumption that an increase in the number of private hospital patients (associated with the increase in PHI membership) would reduce the 'pressure' upon public hospitals and decrease queuing for public hospital services is not necessarily correct. Queues depend upon the

balance between supply and demand. While it is true that a transfer of patients from the public to the private sector will reduce the demand for public services, a transfer of doctors between the sectors to meet this demand will decrease the supply of doctors for public patients, thus potentially reducing access in that sector. This will be exacerbated where private health insurance is associated with a net increase in the total use of hospital services — not a mere transfer of demand.

Box 8 presents some of the limited evidence relevant to this issue. It shows that privately insured patients admitted to private hospitals after a heart attack are two to four times more likely to receive an intensive procedure (angiography, revascularisation) than those admitted as public patients to a public hospital. This implies that an expansion of private health insurance and private provision will increase the number of these procedures, which will require a disproportionate transfer of doctors from the public to the private sectors. If this pattern were generally true then the expansion of the private hospital system would increase, not decrease, excess demand and queuing in the public sector. This scenario is plausible. Doctors have a strong financial incentive to deliver services in the more highly rewarded, fee-for-service private sector than in the salaried or sessional public sector.

In short, this analysis suggests that while the policies to support PHI have been successful in expanding the uptake of PHI, this has been a costly

2 This estimate includes the cost of the exemption from the Medicare surcharge; the cost of the 30% rebate (part of which was used to fund ancillary services and higher medical fees); and additional medical and pharmaceutical costs due to higher service use.

way of channelling resources into the hospital sector and has had little, and possibly a perverse, effect on access to public hospitals.

As previously concluded by Segal (2004a and 2004b), the inefficiency of the policies supporting PHI highlight the urgency of a public dialogue concerning the role for private health insurance within the Australian health care system and the meaning of the commitment to universal cover. This might, legitimately, be interpreted as a commitment to maintain a safety net with a *relatively* small contribution from the government for other patients (the liberal/libertarian interpretation). Alternatively, the commitment may be to remove health and health care from the economic reward system to a greater extent than implied by the previous social philosophy, and to achieve fairness in the financing of health care through the tax system (a communitarian ethic commonly labelled 'solidarity' in many European countries). Public dialogue is needed because the position along the liberal-communitarian spectrum which best reflects Australian values cannot be determined only by the technical analyses of health service researchers.

Pharmaceutical Benefits Scheme (PBS)

Health care card holders pay the first \$3.60 towards the cost of prescription pharmaceuticals listed on the PBS, while other Australians pay the full price when it is less than \$22.40, and up to \$22.40 on more expensive prescriptions, with the remainder being met by 'Medicare'. After a 'safety-net' level of expenditure has been reached in a financial year, the price drops to zero for health care card holders and \$3.60 for others. There have been no recent changes in the basic structure or operation of the Scheme (apart from small periodic changes to the copayment threshold). However, as discussed below, there may have been a significant shift in the performance of the PBS.

Australian expenditure on pharmaceuticals

While it is true that the cost of pharmaceuticals in Australia is rising rapidly, it is not high by international standards. In 1998, only six of the 25 OECD countries listed in Box 9 spent less of

9 Pharmaceuticals and other medical non-durables as a percentage of total expenditure on health, OECD countries, 1998

	1998		1998
Australia	11.4	Japan	16.8
Belgium	16.1	Korea	13.8
Canada	15.0	Luxembourg	12.3
Czech Republic	25.5	Netherlands	10.8
Denmark	9.2	New Zealand	14.4
Finland	14.6	Norway	9.1
France	22.0	Portugal	25.8
Germany	12.7	Spain	20.5
Greece	14.7	Sweden	12.8
Hungary	26.6	Switzerland	7.6
Iceland	15.5	UK	16.3
Ireland	9.9	USA	10.1
Italy	21.9		

Source: OECD 2002

their health care budget on pharmaceuticals than Australia. (Although there are differences in the scope of the health sector in each country, which confounds this comparison).

From an historical perspective, a period of rapidly increasing drug expenditures is not unusual. In the last 45 years, drug expenditures rose by 10% or more per annum on 30 occasions, and by more than 20% on 10 occasions (Harvey 2002). Despite this, expenditure on pharmaceuticals fell as a percentage of total health expenditures from 24.8% to 12.4% between 1960–61 and 1999–2000 (Butler 1999; AIHW 2003a). Over the last decade, expenditure on pharmaceuticals has, however, risen consistently, increasing its share of health expenditures from 9.4% in 1991–92 to 14.7% in 2001–02. There is no structural or economic reason why this percentage could not or should not further increase or fall. The appropriate percentage depends on the cost effectiveness of drugs compared with the cost effectiveness of other means of improving the health of the community. The relevant question is, therefore, whether or not the PBS is run

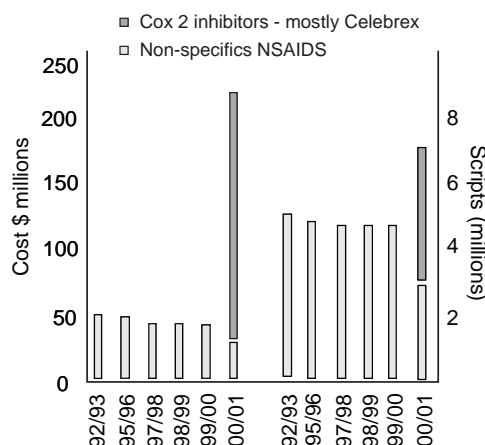
efficiently and whether it encourages the optimal mix of health services.

Regulating cost of pharmaceuticals

Since the 1980s economists have been quicker to identify regulatory failure than regulatory success. Thus, for example, despite the *prima facie* evidence that the Commonwealth Government Pharmaceutical Pricing Authority had been, for a number of years, highly successful in their price negotiations with pharmaceutical companies, few have noted this fact and the Industry Commission (1996) was sparing in its praise. The relative low expenditure on pharmaceuticals in Australia as noted in Box 9 has been primarily the result of the vigorous use of monopsonistic power by Australia's health authorities, which drove down the price of the pharmaceuticals it subsidised to a level just over 50% of the average price in other countries (Industry Commission 1996). The Pricing Authority uses information provided by the Pharmaceutical Benefits Advisory Committee (PBAC) (and other sources) in their negotiations, which since 1993 have been informed by economic evaluation of drugs by companies seeking to have these listed on the PBS. The Australian regulation which prescribes a detailed methodological protocol was the first such requirement in the world. Similar legislation was subsequently passed in Canada, New Zealand and the United Kingdom.

The likely effect of this requirement on price and use of pharmaceuticals is difficult to establish. The submission of a cost effectiveness analysis does not, in itself, increase the government's negotiating power. While it may discourage listing on the PBS of the least cost effective drugs (denying access to government subsidy for these drugs) and encourage companies to reduce the price of some drugs to increase the chance of listing on the schedule, it could potentially allow an increase in the price of highly cost effective drugs. Furthermore, an open-ended pharmaceutical budget is likely to encourage an excessive use of pharmaceuticals relative to other modalities which face capped budgets. The negotiated price of more recent drugs has been closer to the world average price, which may reflect either less effective bargaining by the pricing

10 Cost and scripts for NSAIDs



Source: Segal, Day & Chapman 2002, based on data provided by the Pharmaceutical Branch, Commonwealth Department of Health and Ageing

authority, or learning by those purchasing drugs in other countries who have observed the lower Australian prices.

The regulatory framework for pharmaceuticals now has four separate and separately administered components. First, drugs are examined for safety and efficacy by the Therapeutic Goods Administration and, when successful, drugs are registered. Secondly, if a company wishes to seek listing on the PBS, an economic evaluation is prepared and submitted by the company to the Pharmaceutical Benefits Advisory Committee (PBAC), which examines the costs and benefits of the drug and recommends rejection or adoption. Thirdly, the Pharmaceutical Pricing Authority recommends a price to the Commonwealth Minister for Health which normally becomes the listed price. All prescription drugs (those on the PBS) are dispensed by regulated pharmacists, who receive a regulated fee, but may vary the charge to the consumer. As noted above, consumers face a copayment dependent on their pension status.

Is the PBS a success?

In principle, the present framework appears sound in relation to the allocation of a drug

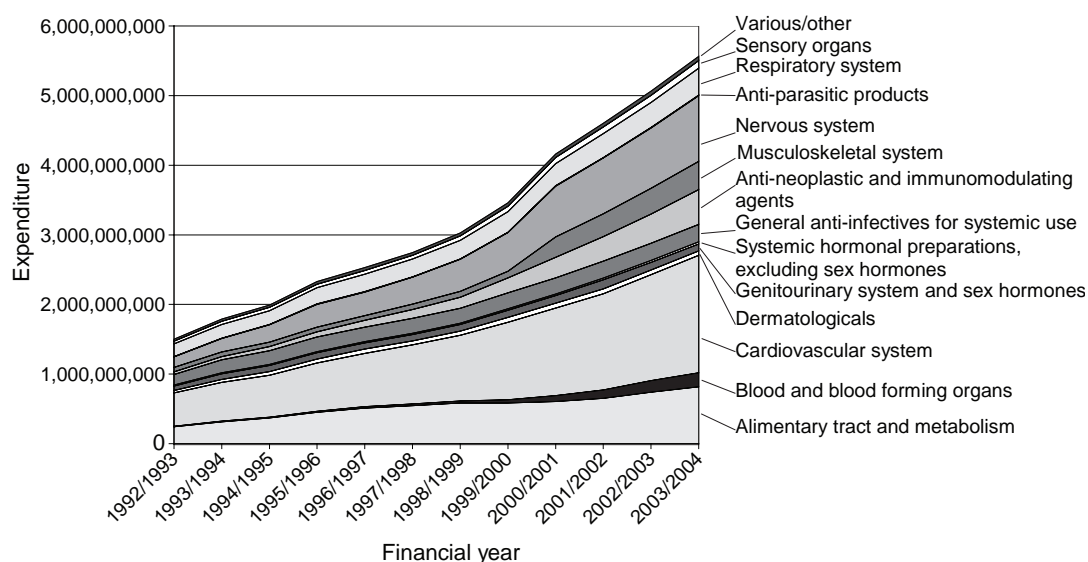
budget. It combines rigorous economic evaluation with a capacity for authorities to exercise discretion at all stages. A retrospective analysis of 355 consecutive submissions to the PBAC between January 1991 and January 1996 indicated that the PBAC normally rejected drugs with a cost per life year, or per QALY (Quality Adjusted Life Year), greater than \$76 000 and were unlikely to reject drugs where the cost per life year (or per QALY) was less than \$42,000 (George, Harris & Mitchell 2001). Between these two values the result was uncertain depending upon specific contextual factors.

The incremental cost-effectiveness ratio is determined by the chosen comparator, and this is normally a drug already listed on the PBS. There is no requirement that the comparator be the next best alternative across the full range of competing modalities. For instance, lifestyle interventions may substitute for some drugs, but we are unaware of any examples of the use of a lifestyle program as the comparator in the evaluation of a drug. The PBAC model is therefore flawed, at least relative to a theoretical best practice, as it permits the inclu-

sion of drugs when non-drug therapies may be more cost effective. While it is difficult to judge the importance of this problem in practice, the decision process should be modified to ensure allocative efficiency between drug expenditures and all other modalities.

The framework does not guarantee successful regulation for three other reasons. First, it is possible that the market for a particular drug might be significantly greater than anticipated, either due to an underestimate of the defined user group, or because the drug is used for conditions other than those covered in the company submission. If the drug is still cost effective across the wider market, then this result indicates greater than anticipated net benefits. Otherwise, current regulation allows inappropriate usage. Price/volume discounts (price falls as volume rises) can in theory be negotiated under the current scheme, to limit the effects of an unexpected increase in total cost, but it will not ensure targeting to those with greatest capacity to benefit. If high expenditure on 'cost effective' pharmaceuticals creates a global budgetary problem for government then the threshold at which a drug is

II PBS expenditure from 1992-93 to 2003-04



Source: Health Insurance Commission 2004 (annual data)

accepted may be incrementally reduced until a satisfactory budget outcome is achieved.

The second problem is that, as with any regulatory process, the regulators may be 'captured'. The highly publicised experience with the anti-inflammatory drug Celebrex is consistent with (but does not 'prove') the hypothesis of regulatory capture. As reported in *The Age* (Davies 2001) the PBAC recommended that Celebrex be priced at \$1.00 per day with a halving of the price once an agreed number of scripts had been issued. Despite this recommendation, the government adopted a price 20% higher and with no price/quantity discount agreement. Announcing the listing of Celebrex, Health Minister Dr Michael Wooldridge foreshadowed expenditures of \$54 million per annum. In the event, realised expenditure was nearly \$200 million in the first full year of listing (2000–01). As shown in Box 10, this caused a dramatic increase in the national bill for non-steroidal anti-inflammatory drugs. Adding to the *prima facie* evidence of capture, three of the members of the PBAC publicly expressed concern over the growing political influence of the drug industry, which now has a representative on the five member pricing authority.

Regulatory capture cannot, however, satisfactorily explain the ten-year trend in pharmaceutical expenditures. These are shown in Box 11 which indicates a significant growth, not simply in drugs of the musculoskeletal system (which includes Celebrex) but a growth in all drug categories, particularly those of the cardiovascular system. The figure suggests that increasing expenditures have been driven by new, higher cost technologies, possibly facilitated by the open-ended drug budget, and an evaluation framework that does not seek comparison with other modalities. The cost push from new high cost drugs is likely to continue as biotechnology and research into the human genome is translated into a new generation of pharmaceuticals.

A third weakness in the PBS system, alluded to above, is its reliance upon doctors to prescribe drugs appropriately, and only for the indications and patient population enrolled in the clinical trials. Even when the indication is precisely specified, for instance in terms of a nominated serum

cholesterol level, it is possible for doctors to prescribe drugs when the patient profile suggests that the drug is not 'cost effective' in that application.

A range of quality assurance programs have been developed and implemented to address this problem or, more broadly, to improve the prescribing patterns of medical practitioners. These have often been introduced as part of disease specific strategies, for example to improve the management of diabetes or heart disease, or reduce iatrogenic illness in the elderly. A concerted nation-wide effort on this front may be warranted, although it would be difficult to quantify the expected benefits and costs.

The provision of additional resources to the PBAC to allow the re-examination of currently listed drugs and particularly to target those with rapid expenditure growth would be a sensible strategy to monitor the appropriateness of prevailing prescription patterns. The process might result in a revision of indications for use and possibly the delisting of drugs (or a price reduction) where the benefit is lower because of its use by a wider patient group.

The government's main response to rising drug expenditures has been to increase copayments. This will reduce expenditures (Richardson 1991). However the primary effect is to cost shift from the government to the private purse, and reduce use by those on low incomes who do not have a health care card. The available evidence does not support the view that patients discriminate between effective and ineffective therapies (Newhouse & The Insurance Experiment Group 1993; Lohr 1986). There is evidence suggesting that copayments will result in patients ceasing to buy life-saving drugs such as anti-hypertensive agents (as hypertension is asymptomatic) but continuing to purchase drugs with immediate, less serious but noticeable effects (Reeder & Nelson 1985). To achieve a discriminating reduction in drug use requires doctors to assess options and to provide patients with the relevant information. There is, however, little evidence that this is achieved by increasing copayments.

More generally, so long as financial incentives are perverse or indiscriminate, improvement in performance will be limited. Doctors can and should

be provided with information about best practice and this should reflect relative costs as well as benefits. To the extent that most effective care is also most cost-effective this should improve the performance of the sector. However, where effectiveness and cost-effectiveness do not coincide, doctors would be expected (because of their training and as agents for their patients) to prescribe the most effective drug, irrespective of the 'cost to the government'.

One possible solution to the problem of perverse incentives for over-prescription of drugs is to restructure the payment system so that pharmaceuticals are treated as an input into the production of a service, that is, to 'bundle' pharmaceuticals with the doctor's consultation. Experience in the UK, US and New Zealand suggests that the provision of a pharmaceutical budget to a 'GP Budget Holder' may reduce the number of prescriptions. While there are potential concerns associated with quality assurance there is mixed evidence in this regard (Segal, Donato et al. 2002).

Broader budget holding, including the entire health budget, is increasingly being adopted in health systems around the world (in the form of managed care in the USA, primary care groups in the UK, Regional Health Boards in New Zealand, managed care/managed competition across much of continental Europe). There is a growing view that this represents an interesting option for Australia (Scotton 1999, 2002; Richardson 1999; Segal, Donato et al. 2002). Funds pooling for health and aged care has recently been recommended in a review of the Tasmanian Hospital System (Richardson, Boyages et al. 2004).

Discussion

The two sectors discussed in this article — private health insurance and pharmaceuticals — face various problems which have not been satisfactorily resolved by recent policy developments, and which may well have been exacerbated. PHI is an inefficient and possibly counter-productive vehicle for increasing public hospital capacity. There is also concern with the increasing costs to government of open-ended subsidies and rising

PHI premiums. In relation to the pharmaceutical sector there is concern about the rate of increase of expenditures and the failure to compare pharmaceuticals with other modalities.

There are two common elements in the recent and proposed changes to PHI and the PBS. First, the issues are primarily about the distribution of income and not about the quality or quantity of health care. PHI does not increase the performance of the public sector, but through the large government subsidy it does transfer income from the general tax payer to private providers (hospitals and medical specialists and private insurers) and higher income earners. As the wealthy have a greater percentage uptake of PHI than the less wealthy, the subsidy is directed disproportionately to the wealthy (most of whom could not have been encouraged to purchase PHI as they already had it before the introduction of the 30% rebate.) Likewise, copayments have a modest effect upon total demand. The effect of any increase in copayments is primarily upon poorer households. The main effect of the copayment is to shift cost from the government to the patient.

The second common element in these problems is that the appropriate solution requires an understanding of social objectives which does not, at present, exist. Is the objective to redistribute income and to increase the role of the private sector? Does the public support these objectives? The public debate is confused or irrelevant if the real and purported objectives differ. Controversy also arises when groups with different interests or ideologies diagnose the problem in different ways with recommended solutions reflecting alternative views about objectives.

Can subsidies to private health insurers or private medical specialists, private hospitals and the wealthy be justified if these are the real objectives of recent policy (as is inferred by the effect of policy)? If the community believes that access to health care should depend, at least in part, upon a person's capacity and willingness to pay, rather than health care need, then the answer may be "Yes". The private sector offers a degree of choice, which may be desirable, but whether this objective should be pursued at the expense of some people's

perceptions of fairness is a matter for government to decide, preferably taking into account the views of the community. An important caveat is that private expenditures should not have a negative impact upon the public sector by, for example, driving up medical prices (incomes) or draining the public sector of the best doctors. If this occurs, the government must balance the benefits of choice and the right to purchase private care against the adverse effects upon the public sector.

At best, the measures taken to encourage PHI represent a lost opportunity for industry reform — for invigorating private health insurers and goading them into the sort of entrepreneurial activities which economic theory and proponents of the market argue will occur in the private sector but which, to date, have been almost totally absent from PHI. Rather than a dynamic force which seeks to implement innovative forms of health care, care coordination and information systems, Australia's PHI, with a few exceptions, has simply underwritten provider incomes and adopted the passive role of funds transfer agent. Recent policy has reinforced the message that this role is appropriate and that health insurers will be protected if their product does not prove to be attractive.

In the case of the Pharmaceutical Benefits Scheme the unknown elements are the willingness of the Australian population to collectively finance health services, and the allocative inefficiency caused by the uneven funding arrangements between pharmaceuticals — with open-ended funding — and alternative modalities. Rising expenditures *per se* do not represent a 'problem'. Rather, the issues are, first, whether or not particular drugs to particular patients are cost effective (ie, benefits exceed the threshold cost that society is willing to pay) and, secondly, what the social willingness to pay is, which should then be applied consistently across all modalities

In the absence of information on the social willingness to pay for health care there are likely to be two default judgements. The first is that the country cannot afford higher health care expenditures. However, the desirability of health care expenditures depends, unambiguously, upon the benefits which they bestow. Secondly, it may be judged that governments cannot afford the bill for

health care. This is an incorrect statement of what is technically possible, particularly in Australia, which has a *relatively* small government health sector and relatively low taxes. The relevant issue is whether or not health expenditures are financed collectively under a universal insurance system involving a cross subsidy from the healthy and the wealthy to the unhealthy and the poor or more individualistically, thereby avoiding the redistribution of income to the relatively poor and sick. The balance between public and private financing is both a social-political as well as an economic decision. The evidence demonstrates inefficiencies of the current policies in relation to PHI and the PBS, suggesting change is required. However, the optimal policy should also be informed by an understanding of population preferences, an empirical question which might be addressed by social scientists. To date, the empirical research has not been carried out.

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