

**The Reform of
Public Hospital Funding in Australia**

**Submission to the Senate Inquiry into
Public Hospital Funding:
Supplementary Submission**

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The Reform of Public Hospital Funding in Australia

Submission to the Senate Inquiry into Public Hospital Funding: Supplementary Submission

Introduction

In Working Paper 100 we have reproduced the Health Economics Unit's submission to the Senate Inquiry into Public Hospital Funding. In response to this submission the Unit received a number of questions for clarification. The present working paper is in response to these questions.

These comments were the basis of a public presentation to the Senate Community Affairs Reference Committee on March 23, 2000.

Senate Inquiry into Public Hospital Funding: Response to Questions

A. Options for Reorganising State and Commonwealth funding responsibilities (Terms of Reference D)

Why is it stated that the 'impact of duplication is small'?

If the Commonwealth Department of Health and Aged Care was entirely redundant – if there was 100 percent overlap with administrative tasks carried out by the States – then the saving in 1998/99 would have been \$288.667 million. (This represents the administrative cost of the Commonwealth Department in Canberra and its branches in each of the States). This represents about 0.6 percent of the national cost of health services or a little less than 1 percent of State plus Commonwealth Government expenditures. This sum is relatively trivial and yet it represents an absolute upper limit on the cost of administrative duplication. As duplication – if any – is clearly much less than 100 percent, the upper limit on possible administrative savings is correspondingly smaller.

While it is commonly alleged that there is a significant overlap between Commonwealth and State programs we are unaware of examples which support this allegation. Even if such overlap exists expenditures are either upon administration or patients. As noted above the maximum administrative savings from the elimination of overlap are very small. As it is unlikely that patients will be enrolled in both a Commonwealth and a State program, patient expenditures will be upon different patients and there will, therefore, be no overlap. It is for these reasons that we conclude that the allegations of duplication have been exaggerated. That is, possible areas of duplication are limited.

How could the significance of duplication and cost shifting between the two levels of government be quantified?

Common examples of cost shifting rewarded by current health funding arrangements include:

- Outpatient/emergency: costs shifted to private medical practice. (This shifts cost from the hospital and the State to the Commonwealth).
- Hospital pharmacy: costs shifted to private pharmacy (as above).
- Allied health: costs shifted to medical practitioners (State to the Commonwealth).
- Capped State programs: shifts costs to private doctor and the Commonwealth.
- Constrained public hospitals: shifts costs to private hospitals, to the community based services and to private medical services.
- Patient co-payments: shifts costs to private cost.

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- Early discharge: shifts costs to private medical practitioners.
 - Capped Commonwealth payments: shifts costs to State responsibilities, community and families (eg expenditure on mental health, aged care, dental health).
 - salary packaging reduces cost to public hospitals at expense of Commonwealth tax revenue

From the earlier discussion, the elimination of duplication in relation to management and administration could result in only minor savings. Some additional saving may be obtained through the economies of scale (if they exist), if overlapping State and Commonwealth patient programs were combined. However the savings must be of a small magnitude.

The greater problem is associated with cost shifting. Two questions could be asked here. First, how much cost shifting occurs; and second, what are the indirect effects of this upon service delivery and efficiency? It is important to note that the first of these, cost shifting per sé, does not represent an economic cost – a cost to the nation in terms of lost resources or lost services. Rather, it is a redistribution of costs between levels of government. Unless this impacts upon service delivery – the number, quality or mix of services, or cost of delivery, – patients will not be affected. The direct effects of cost shifting is primarily of concern to those responsible for meeting departmental budget targets. The true costs are the indirect impact upon the types and level of services made available and the effect upon the quality of government decision making.

Quantifying the magnitude of cost shifting is not an easy exercise as it requires legal determination of the responsibility of different governments for particular types of services. As patients are entitled to public outpatient and emergency care (a cost to the State) and also to the services of private doctors (a cost to the Commonwealth) there is no real way of determining whether or not a patient should have received a given service from one provider or the other. Only the change in cost shares over time may be quantified. In principle it is thus possible to estimate the expected magnitude of a State or Commonwealth expenditure (by comparison with a base year) and to compare it with the actual expenditure to ascertain likely cost shifting. Qualitative research could supplement this approach to determine typical cost shifting practices.

An alternative approach would be to investigate the incentive structures that reward cost shifting, and in the absence of adverse consequences seek to adjust health funding and delivery arrangements to reduce the rewards for cost shifting.

The indirect effects of cost shifting which generate true patient costs are difficult to quantify. A universally suitable methodology is not immediately apparent. It would need to be developed following a detailed review of the types of cost shifting and qualitative

research. One useful approach is to consider (a) the magnitude of the shift (as above) and (b) compare the services provided by the pre and post shift provider. A difference between this suggests (but does not conclusively prove) that cost shifting will have a real effect upon service delivery. For example, our research indicates that the likelihood of an intensive procedure (angiography or a revascularisation procedure) following admission to hospital with AMI (emergency heart attack) is twice as great if the hospital is private. Constraints upon public hospitals which create queues, sustains PHI and redirects patients from public to private hospitals will, in this case, increase the use of these intensive procedures and this represents a real and not simply a shifted cost.

Which tier of government should assume full financial responsibility?

This difficult question cannot be answered authoritatively. While we note some of the arguments below the importance of many of these arguments is a matter of judgement and cannot be backed by empirical evidence. In these circumstances it is desirable that there should be a vigorous public debate in which the various arguments are subject to critical scrutiny. There has been no such debate and, indeed, no systematic discussion of this issue, of which we are aware, since the Issues Paper No 1 of the National Health Strategy (The Australian Health Jigsaw: Integration of Health Care Delivery 1991).

An additional reason for the complexity of this question is that a simple answer of the form 'the better tier of government is X' is itself misleading. It is not sensible to discuss the relative merits of a particular tier of government in abstract from the organisational detail – the particular model – which is envisaged. Thus, for example, a Commonwealth based scheme which incorporated all of the elements of Managed Competition described by Scotton represents a serious model for consideration. A Commonwealth based model in which federal bureaucrats made all decisions concerning local resource allocation would not be a serious contender.

Subject to these overriding caveats some of the relevant considerations are as follows.

It is arguable that a State-based scheme should be preferred as the States are closer to the point of service delivery. Devolving to smaller areas (small regions) is infeasible as the supply of well qualified health administrators is insufficient. This of course depends on the size of region, and for the larger states, two to five large regions may represent a preferred funding and delivery level. Thus the State (or larger region), is the compromise level of government between the remote Commonwealth and the excessively small region. The existence of seven State/Territory models, each with a degree of autonomy, will result in diversity and experimentation. Good ideas arising in one State may spread to others; benchmarking will become possible. Thus it is arguable that 'dynamic the likelihood of achieving maximum improvement through time – requires the diversity that would be provided through a State-based system.

In such a model the Commonwealth would still be required to ensure that certain minimum standards were met. This could be achieved by a Commonwealth/State agreement in which funds were earmarked to the satisfactory fulfilment of particular principles, as in the Canadian Medicare model. It would also be highly desirable for the Commonwealth to retain control of negotiations over fees and pharmaceutical prices. Without this, leap-frogging could occur which could cause the escalation of costs. A State-based system could retain the economies of scale achieved presently by the central processing of pharmaceutical and medical claims by the HIC by retaining the services of the HIC.

The arguments for a Commonwealth-based system have included the greater revenue base of the Commonwealth, the economies of scale and skill which may be obtained from a single and larger bureaucracy. A Commonwealth scheme would also minimise the likelihood of single States implementing foolish reforms. (This, of course, is the 'flip side' of the advantages arising from experimentation.) A Commonwealth scheme would need to decentralise many of the functions that required local knowledge. Since the Commonwealth is likely to negotiate both drug prices and medical fees it is desirable that they should also bear some of the financial consequences.

A consideration which is commonly spoken but seldom written down concerns the likely competence of departmental officers in both the Commonwealth and State models. It has been stated that there is a greater likelihood of less qualified and skilled bureaucrats in the State than in the Commonwealth model and that there have been historical episodes in which State bureaucracies have been 'moribund'. The counter argument is that while the probability of this affliction striking at the Commonwealth department may be lower its consequences would be much greater as it would affect the entire country but also be hard to detect as there would be no similar department for benchmarking its performance.

Finally it should be noted that the answer to this question depends, in part, upon an ideological (ethical) consideration. On balance, and for the reasons given above, a State-based model is more likely to produce divergent options for funding and delivery. However this could only occur if States were permitted to arrange their finance and delivery in different ways and this would mean that access to particular health services would differ across the country. When equity and equal access (to even an inferior service) are of paramount importance the State model would be rejected.

What is the impact of the GST upon the appropriate tier of government?

The GST largely neutralises the argument that the centralised, Commonwealth model is necessary because of their greater revenue base. While it is desirable that the States have greater flexibility it is also desirable that a degree of financial dependence upon the Commonwealth be retained. In any sensible State-based model the Commonwealth would still be required to ensure that agreed principles be satisfactorily implemented (ie

principles with respect to equity, access, breadth and quality of care). Some residual financial power of the Commonwealth would be desirable to ensure that these principles were implemented.

What are the benefits of the development of risk adjusted/weighted capitation models?

This is a highly complex issue and we have attached both a working paper and resume of the salient points from this working paper. Our unit is currently undertaking two research projects on the subject of capitation, methods and advantages.

How should the Coordinated Care Trials be broadened in scope?

There are several levels at which the trials could be broadened. One is to extend the targetable population beyond persons with complex chronic care needs to the full population of a region (as is the case with the Northern territory coordinated care trials). This would allow preventive services to become a larger part of the model. But a longer time frame would be required to test this type of model.

Another option for extension is to cover a more comprehensive range of services and include, for instance residential care, dental, disability services, etc. The reason for including residential care is compelling. If care coordination reduces admission to residential care facilities, the benefits of that should flow into the pool. The inclusion of residential care would also increase the size of the Pool as many of the chronically ill are also elderly, this is potentially a quantitatively important extension. Extension to other areas is desirable as the aim of breaking down program barriers and ensuring access to care which is appropriate to the health needs of the client group.

Another option is to consider an alternative specification of the coordinated care model. For instance the Funds pooling represents an expensive aspect of the model, in terms of administrative and management costs and further experimentation with models which rely solely upon the (GP) case co-ordinator to re-allocate resources would be particularly interesting. In addition to administrative efficiencies such models permit the accessing of the full range of services.

In theory, therefore, such a model would have several potential advantages, both with respect to equity and access as well as efficiency. Careful consideration would need to be given to its further development and the opportunity for it to be applied to selected regions on a pilot basis, to test whether it is capable of implementation and its implications for health outcomes and the broader cost, health and wellbeing of the community.

B. How to Better Coordinate Funding and Services

Why is it argued that improvement in allocative efficiency is the greatest challenge facing Medicare?

‘Allocative efficiency’ refers to the allocation of resources to activities that will maximise social ‘benefits’ which, in the present context are usually equated with health gain. This contrasts with ‘technical efficiency’ which refers to the production of the same services at a lower cost. The scope for improving technical efficiency is relatively limited. Public hospitals – the largest part of the health sector – have been subject to budget caps of varying degrees of severity for almost two decades. While it is possible – probable – that further productivity gains can be extracted from hospitals this is likely to occur slowly and be of a modest order of magnitude. The likely benefits from privatisation have, at best, been oversold. These policies are not based upon evidence: we do not have domestic or overseas examples of major productivity gains through the privatisation of hospitals. Similarly the likelihood of major improvement in technical efficiency elsewhere in the health system is relatively small.

By contrast, evidence suggests that our present allocation of resources is highly arbitrary. This implies that major gains in health could be achieved by reallocating expenditures from where they are relatively ineffective to where they are more effective. The chief reasons for believing that there are very significant allocative inefficiencies are as follows:

- (i) There are very large and unexplained variations in the provision of services to populations even after standardising for age and sex. In an attachment, Victorian data are presented which show that there is typically a 400 to 600 percent variation in the use of well defined hospital procedures after standardising for age and sex. Our research has found that patients admitted to private hospitals with a heart attack are more than twice as likely to receive angiography or a revascularisation procedure than if they are admitted to a public hospital. Based upon medical criteria this suggests that either public hospitals are under-using or private hospitals over-using these procedures and an increase/decrease would improve the allocation of resources;
- (ii) A large proportion of the services delivered have not been properly evaluated. Both the US Office of Technology Assessment and the OECD have estimated that as few as 20 to 25 percent of procedures delivered have been evaluated in terms of their medical efficacy. Even fewer have been evaluated in terms of their cost effectiveness;
- (iii) Where the cost effectiveness of different procedures have been tested huge differences have been observed. For example, research by Leonie Segal at our Centre suggests that resources devoted to the primary prevention of diabetes are

likely to be significantly more cost effective than resources devoted to screening for diabetes. There are presently no interventions for primary prevention for the former, but there has been a recent Commonwealth funded initiative to promote early case finding.

A simple arithmetic example can illustrate the magnitude of the potential gains. The diabetes research suggests that primary prevention for NIDDM may cost less than \$2,000/life year saved, while screening is more likely to cost over \$20,000/life year saved. Drugs approved for inclusion on the PBS will normally cost up to \$40,000 per life year saved. For every \$40,000 redirected from a program that cost \$40,000/life year saved to one costing \$2,000/life year saved there will be a gain of 19 life years. By contrast with this 1900% improvement technical efficiency gains are more likely to be in the order of 5 to 10 percent.

The reason why these issues represent such a challenge to Medicare is that, as in most countries, medical practitioners are given almost complete medical autonomy to do what they personally judge to be best. This model of professional dominance has, however, resulted in the problems noted above. The elimination of variation will only be achieved when doctors adopt some form of clinical guideline. Ineffective procedures can only be eliminated by doctors accepting best practice medicine. Most controversially, cost effective medicine will only be achieved when doctors agree to protocols which take into account costs as well as medical benefits.

While a number of the Royal Colleges, and particularly the Royal College of Physicians, are investigating best practice and evidence based medicine the pace of reform is leisurely in relation to the importance of the issues. Further, the chief challenge will arise, not from the need to persuade the intellectual leaders of the profession of the need for reform but from the need to have these reforms translated into practice. At this point there is a major obstacle. Community spending on procedures generates doctor incomes. Those specialising in services which should be reduced will suffer a loss of income. The obvious difficulty that this presents is compounded by the fact that it is generally impossible to state with confidence that any particular patient should receive a particular treatment. The treatment of individuals is a matter of judgement. It is only when these individuals are summed in larger groupings that it is possible to say that, on average, procedures were probably over or under used.

What information is needed to establish the ideal allocation of health resources?

This is an enormous issue, requiring, inter alia, a health planning framework within which the information can be analysed. In summary, information required includes the following:

- (i) The effectiveness of alternative approaches to management and disease prevention. (Information of the effect of individual procedures or drugs is likely to

be insufficient). Unless we know the impact of services we cannot even begin to allocate resources sensibly. This also requires some understanding of normal disease progression under standard management. Australia, at present, has no systematic approach to this issue. Apart from the Cochrane Collaboration there is no systematic collection of this most basic information. But even this collaboration only collates published evidence, and is not generating evidence. The Commonwealth Department of Health appears to have disbanded the small group which attempted to monitor new technologies and their effectiveness.

- (ii) Information about the costs of alternative approaches to management and disease prevention, covering both the direct costs of the intervention and the downstream impact on the use and cost of health services. Without this information we cannot determine whether the health gains arising from services are the maximum gains that could be achieved with existing resources.
- (iii) Information on the behaviour of the health system. If we are to achieve a reallocation of services or to effect other changes we need to know the response of the health system to different policy levers.
- (iv) Objectives of the health sector. It is impossible to determine the ideal allocation of resources without knowing what it is that the community wishes. There is ample evidence that the community does not simply expect health maximisation. There are also a series of other ideologically driven (ethical) consideration. Most obviously there is a concern about health inequalities and access to services. The existence and the promotion of private health insurance indicates a desire to offer choice which, in turn, implies a different type of health service for different people. Just what differences are desired or would be tolerated has never been systematically explored in Australia. There is a large abstract literature on health and different views of social justice. Should disadvantaged groups get special emphasis? Should those in severe health states but with little chance of improvement nevertheless receive preferential treatment? Should we give extra weighting to the young, to those with dependents? To those who have not had a 'fair go', etc etc?

All of the issues listed above in (i) to (iii) are the subject matter of health services research and health economics.

Why do we argue that few conclusions can be drawn from overseas?

It would be more accurate to say that caution should be exercised in drawing conclusions from overseas and that overseas experience does not demonstrate that any particular model is unequivocally superior to others. The caveats arise, first, because of the obvious contextual differences arising from history, social institutions, etc. Secondly, however, overseas research is generally inconclusive even with respect to the country where experimentation has occurred. Neither Britain nor New Zealand carried out appropriate

research to establish the impact of their reforms and, particularly in the latter case, the reforms were never carried to fruition. Israel has established a purchaser-provider managed care system but again with no systematic research. Evidence from the USA is, as always, mixed. The Netherlands has employed highly competent researchers to track the effects of their reforms but the direction of reform has changed and, in respects stalled.

Despite these caveats a number of issues are illuminated even if the status of our knowledge is 'interesting and tentatively supported hypothesis' rather than 'established fact'. For example, the British reforms indicated the capacity to reallocate power within the medical profession; the New Zealand reforms have unleashed entrepreneurial energy amongst some groups of general practitioners; Dutch and US research indicate the importance and difficulty in estimating risk adjusted capitation rates for Managed Care of Managed Competition. US research clearly suggests the capacity of managed care to reduce certain types of costs. Contrary to the misinformation assiduously cultivated in Australia US research to date does not indicate serious and systematic adverse health effects associated with Managed Care. The implications of any of these findings for Australia, however, need cautious interpretation.

C. Impact of the Private Health Insurance Rebate

Why will the PHI subsidy have less effect on the hospital sector than a direct and similar payment to public hospitals at least in the short run?

Money directed to the public hospitals will be spent entirely on hospital care. By contrast much of the subsidy payment to private health insurance will be received by those who already have private health insurance and will not, therefore, alter the overall level of insurance or funds available for hospitals. (Some would be expected to upgrade the level of their insurance but this does not alter the basic conclusion).

This argument may be illustrated numerically. Suppose that the subsidy preserved PHI membership at 30 percent of the population and that it would have otherwise have dropped to 25 percent, ie of the 30 percent membership 25 percent would have retained PHI without subsidy and the net gain would be 5 percent, ie the ratio of old to new members would be 5:1. The subsidy would therefore be divided in the ratio 5:1, ie $\frac{1}{6}$ of the subsidy would be received by new members. However each new member spends 3.3 times the subsidy on PHI and this is obtained by the hospitals. The ratio of money flowing to old members versus PHI is now in the ratio 5:3.3; that is, for every \$5 of the subsidy 'lost' to old members only \$3.3 would be obtained by the hospitals. More would be 'lost' than gained. With this simple example the 'break even' where the subsidy achieved the same impact as directed payment would occur when the subsidy increased membership by approximately 7.5 percent of the population, for example, from 25 to 32.5 percent.

However this arithmetic is too generous to the subsidy. In 1996/97 only 60 percent of the funds obtained by PHI were spent in hospitals. Following through the arithmetic the 'break even' where the subsidy had the same impact on hospital expenditures as the direct payment would now occur when the subsidy increased the insured by 12.5 percentage points, for example, from 25 to 37.5 percent of the total population. In the short run this is very unlikely to occur and, consequently, the direct payment to the public hospital would achieve a greater impact on hospital spending.

If an increased use of private hospitals leads to an increase in the number of medical services per patient, as suggested by our research on AMI, then the impact of the PHI subsidy becomes less favourable from a global perspective. That is, Medicare spending on private medical services will be disproportionately increased. With the public hospital option, these increased funds could (in principle) have been used for hospital care.

Why is it unequivocally untrue that PHI or private hospitalisation are necessary for the viability of public hospitals?

This is discussed in the attached article to the *Medical Observer*. In essence with increased taxation public hospitals could expand either by buying private or by building new hospitals. Few developed nations have such a small public hospital system as Australia and the balance between the public and private sectors, in the long run is a matter of choice. As noted in the article, the expansion of private hospitals in the short run is likely to deprive public hospitals of limited medical staff and exacerbate, not ameliorate, problems facing the public system.

Pressure on public hospitals has not been due to an increase in the demand for their services as a proportion of total demand but a result of budget caps.

Hospital utilisation and expenditure data show the percent of admissions to private hospitals rising in the last decade and the public hospital expenditures declining in proportional terms.

Specifically, private hospitals in 1996-97 accounted for 22.1% of all hospital expenditure, up from 15.6% in 1989-90. Expenditure on public hospitals has increased by an average 3.2%pa over the period 1989-90 to 1996-97 while expenditure on private hospitals has increased by 8.4% pa over the same period. It is not possible to argue that the demand pressure on the public hospital sector is due to a shift in demand from the private hospital sector.

D. Conclusion: Why are the issues discussed above not better understood?

Why are there such deficits in our understanding of how to obtain maximum benefit from the health system?

Health services and health economics research – the subject matter of these comments – are very poorly financed in Australia.

Money for biomedical research should not be confused with health services/health economics research. The two areas represent almost separate ‘industries’. Biomedical research targets the creation of new ‘products’; interventions, procedures, drugs which will reduce mortality and improve the quality of life. Unlike other ‘product’ innovation the record to date is that technological change in the health sector increases rather than decreases costs and results in the provision of increasingly marginal products as judged by ‘cost effectiveness’ – the cost of achieving more and better health.

Health services/health economics research is more analogous to the ‘consumer satisfaction’ end of the spectrum and addresses the question ‘How can we provide the best health to patients and the population in exchange for their direct or indirect expenditures from the “products” that are available?’ Setting aside biomedical research we have a \$48 billion industry with virtually no dedicated and secure funding for independent enquiry into the cost effectiveness of our health services and their delivery. This is despite the knowledge that technologies already ‘in the pipeline’ have the capacity to increase future costs dramatically.

This is a situation of quite stupendous foolishness which could not find a counterpart in a private sector enterprise concerned with the cost effectiveness of its product or its own long run survival. The ongoing record in Australia (and elsewhere) is of a series of ad hoc reforms which, with adequate research capacity should have been implemented earlier. It is the neglect of this part of the health services and insurance industries which explains the unsatisfactory state of private health insurance before the Melbourne Institute independently funded research into the industry in the late 1960’s. It explains why our hospitals remained financial and behavioural black boxes until US innovations were imported to provide for product measurement and the internal tracking of resources. It is why the misallocation of resources in Australia remains largely undocumented while policy is diverted into areas of doubtful significance and it is why ideas such as the coordination of different services was again imported rather than home grown. It is why there is no adequate repository of the most basic information necessary for the sensible operation of the industry; viz, the cost effectiveness of the different procedures which may be employed.

Appendix 1

Where will the dollars come from: An economist's perspective on health sector reform

Article for the Medical Observer, 7 April 2000

It was once remarked that crises are such a universal feature of health systems that there would probably be something very wrong with a system that was not in crisis! The quip is only partly facetious. There are so many interests and ideologies active in the health sector that conflict is an unsurprising outcome. Most obviously, provider incomes represent patient or government expenditures. Capped spending means capped incomes and this is not a formula for harmony between the major players. For this reason, those loosely described as 'economic rationalists' should pause for thought when they find their prescription of market driven restraint enthusiastically endorsed by those whose incomes would fall if their model of market behaviour bore any resemblance to the medical marketplace.

Using international experience as the benchmark, Australia's Medicare does not do too badly whether judged by the cost and outcome of the health system or by the intensity of the ongoing 'crisis'. While Medicare self-evidently provides a large volume of high quality services it is seldom out of the news, with calls for more or less government intervention or for more or less reliance on the private sector. The quality of the public debate, however, has been disappointing as it has been dominated by a number of myths some of which have been consciously propagated by self-seeking interest groups. Cobbling together a number of these myths would result in the following composite 'folklore'.

'Medicare has been efficient and equitable. However, because of aging and technology we are – or soon will be – unable to afford the full range of medical services. In particular, their cost is so great that governments cannot afford to pay for them and must therefore pass responsibility for a large part of the medical bill back to the private sector which is, anyway, more efficient in the production of health and other services. We must also shore-up or expand private health insurance and private hospitalisation in order to free up resources in public hospitals for use by those who cannot afford private health insurance. Sustaining the private sector is therefore necessary for the continued existence of Medicare and to ensure social justice for the poor.'

While there is a great deal that we do not know about the health system it is possible to say that most of the beliefs and assumptions built into this passage are misleading or unambiguously false.

There are neither technical nor economic reasons why we should not increase health care expenditures if it provided good value for money. The US spends about twice as much per capita

as Australia and, before the rapid expansion of Managed Care, was contemplating a future expenditure of at least double this again; that is, per person expenditures four items greater than in Australia. This would not 'bankrupt the nation'. Rather, it would mean a significant reduction in the growth of goods and services available for other purposes. But, if we obtained greater value from health services than from these other options then it would clearly be rational to expand the health sector. For example, if it was possible to ensure a high quality life for every citizen until the age of 120 then few would question the wisdom of spending 30 to 40 percent of our ever expanding GDP on the health services that were bestowing such a massive benefit. The real issue here is not the capacity of the economy to sustain such expenditures. It can. The real issue is whether or not we get such benefits from additional health services or, indeed, whether or not we are getting benefits from a large number of services currently provided.

It is also unambiguously false that present or future spending could not be carried out by the government, although this, of course, would probably involve greater taxation. There is once again, however, no technical or economic constraint on this option. At present the Australian government spends less on the health sector – our private sector is larger – than in most comparable countries. (About 32 percent of Australia's expenditure is private which contrasts with the 10 to 20 percent which is the norm in the OECD). Further, taxation as a percentage of the GDP is the fifth lowest in the OECD after Mexico, Turkey, the USA and Japan and there is no known relationship between the overall level of taxation and the performance or growth of the economy. There is, however, a relationship between government spending and the size of the health sector: greater government expenditures are associated with smaller health sectors, perhaps implying the greater ability of governments to control spending in this highly complex market. None of this implies that governments should be spending more. Like the size of the health sector this is again a matter of social choice.

Perhaps the most intuitively appealing of the unambiguously false health care myths is the argument that we must remove wealthy patients from the public hospital system to free up its resources for those who cannot afford private health insurance. (There is probably no other myth that has been so assiduously cultivated by vested interests). Hospital queues are entirely a product of budget constraints. Indeed, while queues were lengthening public wards were being closed across the country, and this is not a symptom of inadequate physical capacity. Larger budgets could have, at any time, eliminated excess queuing and almost certainly accelerated the decline in private health insurance. (Whether or not this queuing was defensible is a complex issue involving the demonstrable need in the 1980's to improve hospital efficiency in the long-run). If we had chosen, as a nation, to expand the relative size of the public hospital sector this would have been (is) possible in the short-run or in the long-run by purchasing private hospitals or building new ones.

Perversely, where the supply of specialists is limited the transfer of the wealthy to the private hospital sector may reduce, not increase, access by public patients. Our research at the Health Economics Unit has shown that, following hospital admission with AMI, there is more than twice the likelihood of a patient receiving angiography or a revascularisation procedure if they are

admitted to a private rather than a public hospital. To the extent that this finding is general, the transfer of patients from public to private hospitals will be accompanied by a more than proportional transfer of medical resources – doctors. That is, public hospitals will lose in the short-run, irreplaceable specialist capacity more rapidly than they lose patients. This will exacerbate, not ameliorate the problems facing the public sector and accelerate the creation of a two-tier health system in which (for better or worse) private patients are treated more intensively.

There are two other popular myths in the earlier passage. First, the almost universal belief that aging drives health care costs arises from a logical error. It is, of course, true that the elderly spend more on health services than the young at any point in time. This does not imply that more must be spent by an aging population. This view is based upon the implicit, but wrong, belief that there is an immutable nexus between age and spending and that each illness requires a known level of medical resources. Nothing could be further from the truth. Health care systems are characterised by dramatic variations in the way in which different populations are treated. Our research into fifteen well-defined hospital procedures in Victoria shows that, after standardising for age and sex, the rate of which people in different statistical local areas receive these procedures varies, typically, from 400 to 600 percent and the (statistical) variance in these rates typically exceeds the expected variance after allowing for age sex differences by a factor of 5 rising to a factor of 45 (ie 4,500 percent of the expectation) in the case of colonoscopy. These and similar results indicate that the population's capacity to absorb services is extraordinarily 'spongy'. The result of this is that, to a very large extent, the population adjusts to the volume of services that are available and this is determined, not by the age structure, but by historical factors and current government policy. Thus these factors largely determine total spending and the demographic structure distributes *the available service at any point in time*. Unsurprisingly we have found that there is little or no relationship between the demographic structure and the use of services across Australia, medical spending between Western countries or spending through time by Western countries.

Finally, for a policy which has cost many millions of dollars to plan and implement the desirability of privatising hospitals is based upon a remarkably small – almost non-existent – body of empirical evidence. No good Australian studies suggest the greater technical efficiency of private hospitals nor is there a wealth of such studies overseas. Rather, belief in the superiority of privatised institutions is supported primarily by economic theory and by a large number of examples from other industries where private provision has been more efficient than public sector provision. However, this literature is sufficiently mixed in its results (with plentiful examples of unfavourable experiences with privatisation), that pursuing this option would be expected to take low priority as compared with, for example, inquiry and policy with respect to the large scale misallocation of resources implied by the small area variation in service delivery.

These small area statistics also call into question the widespread belief that Medicare is fair and efficient. It is probably true that the problem of small area variation characterises all health systems but the inequity and inefficiency of other schemes does not exonerate the failure of Medicare to tackle these problems more vigorously. Those without access to high quality

services do not suffer and die contented in the knowledge that people in other countries suffer or die because of a similar misallocation of resources. Our policy failure in this respect is not less serious because others have also neglected the issue.

The evidence cited above concerning the two levels of treatment of AMI patients clearly indicates that there is a – possibly inevitable – trade-off between ‘choice’ – the right to buy supplementary insurance, quicker and possibly better medical care – and the egalitarian goal of universal access to the same package of high quality services. Just how we are to trade-off the legitimate demand for choice against the equally compelling argument for social justice in the health sector is a challenge which has received comparatively little attention. To the contrary, most discussions of health sector reform present a preferred solution as the only option. Unsurprisingly this is commonly an option which serves a particular ideological or financial interest but neglects to mention this fact. For example Medical Savings Accounts have recently been suggested as a means of mobilising private sector funds. Tax concessions would encourage savings accounts which could only be used for health care. The option is presented as a way of overcoming the problem (‘impossibility’) of governments meeting the rising health bill. As previously noted, however, this problem arises only if the community is persuaded that taxation should not rise in order to pay for medical spending. More to the point, the option would have profound effects – inevitably ignored – upon the distribution of income and power. Those with greatest income could place the largest amounts into their accounts and, because the accounts would be earmarked to their personal use, the cross subsidy from the wealthy healthy to the poor sick would cease and with it one of the ideological foundations of most national health insurance schemes. The financial relationship between the tax payer/patient and doctor would now exclude the government except for the financing of welfare recipients. From the available evidence this would place power overwhelmingly in the hands of doctors and remove the most effective constraint upon spending (provider incomes), ie government budgeting and regulatory controls. A similar effect occurs, to a lesser extent, with the promotion of private health insurance.

On the other side of the ideological divide, proponents of Medicare in its present form seldom recognise the arguments for choice or the argument based upon horizontal equity for the subsidisation of the those who are likely to use, on average, fewer Medicare services because of their purchase of private health insurance.

As individuals we may attach greater or lesser importance to the various issues arising from the health care debate; but as commentators, the omission of options and legitimate arguments is misleading and buries the important role of ethical debate.

How then are we to finance future health services? The simple answer is that we do not know. But this is not because the nation or the government cannot afford health services. They can. But whether or not they do is a matter of choice and the choices are broad. Health care provision may be public or private to a greater or lesser extent. The scope of the services delivered by the public sector may be more or less inclusive. Evidently there are numerous paths which the health sector could follow and which we choose depends, firstly, upon a number of technical-economic

relationships which we do not at present understand very well, – how efficient and effective are different services? How cost effective are they? To what extent can we substitute low cost for high cost procedures? What is the affect of different incentives upon providers and patients? How can we improve access? How can we and should we respond to the challenge of small area variations? To what extent does an expansion of the private sector deplete the public sector of the best quality human services?

In addition to these technical questions there are also choices involving values and ideologies. To what extent should we sacrifice individual choice to achieve other aspects of social justice? In the longer term, which are the core services which should be provided collectively? Should we treat the life of one group (for example the aged) differently? Should we give additional assistance to those who are already disadvantaged – Aboriginals, the disabled, those with illnesses or disabilities which are less amenable to medical treatment, those who have particularly shocking illnesses? Should we give greater attention to those requiring heroic and emergency care?

These ideological issues have generally been hidden in the public debate and yet it is the inter-play of our ideologically (ethically) driven objectives with the technical constraints of the system which should be the engine for change.

Appendix 2

Resumé: Risk adjusted/weighted capitation and hospital funding

It is possible to define some basic, common, principles of public hospital funding which apply in most countries:

- Hospital funding mechanisms should reflect the objectives of the health system, which should in turn reflect the objectives of society.
- Efficiency and equity objectives should be central considerations, with a strong emphasis on population health and health outcomes.
- Incentives arising from funding mechanisms should promote the achievement of the objectives of the health system.
- Mechanisms should be based on scientific evidence, and the role of judgement should be explicit.

The first of these principles is one which few countries have begun to address in a systematic manner. To many, the objectives of the health system may seem obvious: that it is to maximise health and cure ill health. But research indicates that it is not nearly as simple as this, and there are a range of objectives relating to health, economics, and social justice. A relative lack of understanding about societies' values and objectives has led to the defacto development of objectives by health system bureaucrats and service providers which are believed to be related to societal goals. Of the objectives proposed by health systems across the world, the two prime considerations are efficiency (both technical and allocative) and equity (generally in terms of equal access for equal need).

Hospital funding in Australia has received a mixed response at Federal and State levels in the design of funding systems based on the pursuit of efficiency and equity goals.

1 Federal Level Funding

At the Federal level, the Health Care Agreements between Federal and State/Territory governments have paid only limited attention to the objectives of the funding arrangements. Instead, debate has focussed largely on the size of the relative contribution of the different levels of government to the hospital sector. In the latest Victorian Agreement several key objectives are listed at the outset but none relate directly to efficiency or equity. Whilst the Agreement later includes efficiency and equity considerations under national health policy, it becomes difficult to link efficiency and equity goals to some of the financial details of the Agreement.

The financial details of the Agreement set out a base grant for the first year of its operation and a range of adjustment factors for the subsequent four years. The estimation of the base grant is pivotal in determining future funding levels and is based on a combination of past levels of utilisation, estimates of population and its age and sex composition, and political negotiation. The

Agreement also includes an adjustment for the subsequent four years which adjusts the base grant for changes in populations and their age and sex make-up. At this level, funding mechanisms are in need of some scrutiny.

Funding health services on the basis of past utilisation has long been recognised as a source of significant inequities and inefficiencies in health service provision. Areas which have historically high levels of utilisation are rewarded with increased levels of funding in the future. Some of these patterns of high use reflect historical decisions about the location of health services which were largely unrelated to the health care needs of the population. It is then both inefficient and inequitable to reward these areas with more funding in the future because health services were easily accessible and therefore highly used in the past. The interrelationship between health service use, needs, and availability is highly complex, but sound methods to untangle the relationships have largely been overlooked in the latest Agreements.

Furthermore, the age and sex weighted population approach only provides a very limited adjustment for differences in the relative needs for health services of the different State and Territory populations. This approach omits consideration of differences in health care needs due to factors over and above age and sex. There is a wealth of evidence from Australia and overseas which shows health care needs are affected by morbidity, mortality, and socioeconomic factors. Yet, in developing a weighted capitation approach the Agreements appear once again to have overlooked a large body of evidence on the development of such models. The response to this criticism has been the equalisation process where States and Territories can negotiate for additional payments through the Commonwealth Grants. Equalisation payments are based on selected proxy indicators for health care needs in different regions. Whilst this process may result in funding more closely related to need, the process and choice of indicators of need is largely ad hoc and arbitrary, lacks scientific rigour and is far from transparent resulting in significant potential for poor accountability. Moreover, there is no guarantee that additional revenues obtained in this way will end up in the hospitals budget.

2 State Level Funding

At the State level, the goals of efficiency and equity have been more explicitly addressed. The development of casemix funding in Victoria, and its subsequent adoption by several other health departments, signalled a clear emphasis on technical efficiency in hospital funding arrangements. To this end, experiences in Victoria have been very positive. The New South Wales approach of using a weighted capitation formula is, by contrast, based explicitly in equity considerations, and has involved some significant advances in the development of needs based funding mechanisms. Two main issues have arisen from this parting of the ways in the objectives of funding in different States and Territories.

First, the autonomy of health departments in developing funding mechanisms may promote innovation in the development of new funding methods, but may also result in a significant duplication of effort. Funding mechanism design inherently raises a wide range of technical,

bureaucratic and political issues that are better dealt with cooperatively, rather than by different groups in relative isolation. As a result, there has been some evidence of national initiatives in the development of casemix funding and collaboration between State and Territory health departments.

More importantly, the divergence in approaches raises a question about the relevance of the approaches across the Australian population as a whole. With casemix funding justified largely by efficiency goals, and weighted capitation justified largely by equity considerations, what of the values and objectives of the populations of different States and Territories? It seems rather extreme to suggest that the people of Albury and Wodonga have such different standpoints on health services that they would support the different approaches taken by their relevant health departments. It appears extremely likely that the Australian population as a whole would support a mix of efficiency and equity considerations. A reconciliation of approaches should be fundamental to the development of hospital funding mechanisms for two reasons.

Firstly, whilst State and Territory health departments are in the best position to determine the health service needs of their population, the funding of health services should reflect the values of the whole Australian population. A common strategy for the development of funding based on both efficiency and equity considerations should better reflect the goals of the national population which pays for them. Secondly, neither casemix nor weighted capitation represents the final word in the achievement of allocative efficiency and equity goals. A combination of the approaches is more powerful than each in isolation.

Funds could be allocated by health departments on the basis of weighted capitation to purchasing agencies. These purchasing agencies could then procure services from provider organisations using casemix prices and information on the relative cost-effectiveness of services. This would mean the introduction of a purchaser-provider or managed competition model health service organisation. Alternatively - where State or Territory health departments do not wish to devolve budgets - spending could be determined by casemix throughput targets for providers based on a combination of predictions of future use from weighted capitation models and cost-effectiveness information. In both the above ways the desirable properties of casemix and weighted capitation could be combined. Concentration on a single funding approach in isolation may be inefficient and inequitable. In particular, use of casemix funding with historically determined throughput targets will result in gross inequalities in access to services.

Summary Points

- We know very little about society's objectives in relation to the health system, yet health is consistently the most salient issue for the public at the ballot box. If hospital funding arrangements are to pursue societal goals in relation to efficiency, equity and other issues then research is required to establish what society wants.

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- Current funding arrangements have represented very mixed responses to equity and efficiency goals, with significant evidence of persistent inequities and inefficiencies in the public hospital sector. Urgent research is required into the extent of these inequities and inefficiencies. In particular, there have been fewer attempts to provide evidence on equity and access in Australian hospital services than in almost any other OECD country. Yet, access to hospital services appears to be uppermost in the range of health issues in the public's mind.
 - Federal funding arrangements are largely ad hoc, arbitrary, lacking in scientific rigour, and lack transparency. A large body of evidence and scientific techniques for risk/needs adjusting capitation payments has developed in the last 30 years. Federal funding arrangements have persistently overlooked these methods, even though they are used in the vast majority of developed countries around the world. As a result, Federal funding arrangements may have perpetuated inequalities and inefficiencies in hospital funding, contrary to stated policy goals under Medicare. Federal funding arrangements are in need of urgent scrutiny, and should be developed using sound scientific methods to promote equity and efficiency.
 - State funding arrangements show a higher degree of scientific rigour, but imply vastly different societal objectives. These objectives and alternative funding models require reconciliation, as it is implausible to suggest that the different standpoints adopted by State/Territory Health Departments actually reflect societal preferences.