
Richard Scotton
Professorial Fellow, Public Sector Management Institute, Monash University and Senior Research Associate of the National Centre for Health Program Evaluation.

May, 1991
ISSN 1038-9547
ISBN 1 875677 17 8
The Centre for Health Program Evaluation (CHPE) is a research and teaching organisation established in 1990 to:

- undertake academic and applied research into health programs, health systems and current policy issues;
- develop appropriate evaluation methodologies; and
- promote the teaching of health economics and health program evaluation, in order to increase the supply of trained specialists and to improve the level of understanding in the health community.

The Centre comprises two independent research units, the Health Economics Unit (HEU) which is part of the Faculty of Business and Economics at Monash University, and the Program Evaluation Unit (PEU) which is part of the Department of Public Health and Community Medicine at The University of Melbourne. The two units undertake their own individual work programs as well as collaborative research and teaching activities.

The views expressed in Centre publications are those of the author(s) and do not necessarily reflect the views of the Centre or its sponsors. Readers of publications are encouraged to contact the author(s) with comments, criticisms and suggestions.

A list of the Centre's papers is provided inside the back cover. Further information and copies of the papers may be obtained by contacting:

The Co-ordinator  
Centre for Health Program Evaluation  
PO Box 477  
West Heidelberg  Vic  3081, Australia  
**Telephone**  + 61 3 9496 4433/4434  **Facsimile**  + 61 3 9496 4424  
**E-mail**  CHPE@BusEco.monash.edu.au
ACKNOWLEDGMENTS

The Health Economics Unit of the CHPE receives core funding from the National Health and Medical Research Council and Monash University.

The Program Evaluation Unit of the CHPE is supported by The University of Melbourne.

Both units obtain supplementary funding through national competitive grants and contract research.

The research described in this paper is made possible through the support of these bodies.

AUTHOR(S) ACKNOWLEDGMENTS

Professor Scotton is an associate of the National Centre. Thanks are expressed to Professors Jeff Richardson and Professor Malcolm Brown for helpful discussions and comments.
Like most other OECD countries, Australia has achieved universal coverage and a substantial control of total health expenditures under a national health insurance program. Like them also, a major objective of health policy is to increase supply side efficiency, for which the relatively recent concepts of managed competition and diagnosis related groups (DRGs) constitute potentially useful tools. Their application in Australia has to take into account the complications of a dual system of health service provision and funding and a federal system of government with overlapping responsibilities of national and state governments in the public sector.

A proposal to extend the services covered by the public Medicare program and to include within it the option of private coverage by health plans, operating under managed competition conditions along the lines advocated by Enthoven, is described. Contracts for all hospital services would be in terms of DRGs and other output-related measures. As in the proposed Dutch program, the main source of revenue of the private health plans would be risk-related subsidies from a central fund. The potential for market failure resulting from "cream skimming" (deliberate risk selection) by health plans can be reduced to minimal proportions by incorporating measures of service use/health status in the subsidy formula, together with pro-competitive regulation and the continuing option of public coverage under Medicare for those who do not take the private option.
1 Introduction

Australia's experience with universal national health insurance dates back to 1975, when the Medibank program replaced the previous regime of subsidised private insurance. After a period of frequent amendment and final abolition in 1981, the national program was re-established under the title of Medicare in 1984. Since then, Australia's health insurance funding and insurance system has been broadly in the mainstream of most other developed countries, with some distinctive variations on the common theme.

National health insurance - the third stage

With the notable exception of the United States, most OECD countries have reached what could be described as the third stage in the development of national health insurance programs. Each of the stages can be described in terms of its primary objective (or problem) and the program modification by which the objective is achieved (or problem solved).

In the first stage, the primary objective was the removal of barriers - physical, and more particularly in developed countries, financial - to access to health services. The remedy, which was achieved in most countries by the early 1970's, took the form of national health and/or health insurance programs, funded in a manner affordable to all members of the population. Because of advances in medical knowledge and technology, and an economic environment which was congenial to growth in the use of resources in health care, the second stage was characterised by increases in health expenditures which outstripped
rates of overall economic growth. In the more subdued international economic climate of the 1980's, the principal objective became, within the context of the primary objective of equitable access, the control of health expenditures. This target, measured in terms of the percentage of GDP absorbed by health services, was generally achieved by increased stringency of public sector health budgets and hence constraint of prices, incomes and service provision.

Most of the OECD countries are now into the third stage, in which the providers and consumers of health services are painfully adjusting to a situation in which the demand for services is largely unchecked but the supply - at least in the public sector - is tightly constrained by budget ceilings. The resulting incentives, which bear on both provider and consumer decisions, are conducive to inefficient resource allocation of many kinds and, to the extent that publicly provided services are explicitly rationed, the access of disadvantaged consumers is disproportionately impaired. One response has been renewed assertiveness by political conservatives in citing the "problems" as evidence of the failure of government intervention in general and publicly run programs in particular, with deregulation and privatisation widely advanced as remedies.

In this context, it is worth recounting Wildavsky's (1979) description of problem solving in public policy development as a serial process, in which genuine problems are never solved finally, but are only replaced by others. He suggests (pp.58-60) that the proper test of the success of a policy is whether the new problems are preferable to their predecessors. A moment's reflection should reassure us that the third generation problems of countries with national health programs are preferable, in terms of interest and magnitude, to those of the predominantly private system of the United States, where failure to solve the problems of equitable access and mounting health expenditures has not been offset by superior performance in other respects such as system efficiency or health outcomes.

While Wildavsky's criterion helps to keep the third stage issues in perspective, symptoms of malaise emerging in many countries with developed national programs are evidence of significant new problems which have increased the preparedness of governments to contemplate structural change in health financing arrangements. In this context, raising system efficiency is widely seen as the only way of avoiding both the Scylla of privatised inequity and the Charybdis of increased public expenditure. On this view, the objective appropriate to the third stage of national health insurance should be, within the nested
constraints of equitable access and control of total health expenditures, to improve the efficiency with which health services are produced and used.

The broad trend in political ideology and economic policy in the 1980's has been in the direction of greater devolution of decision making through the wider use of prices in competitive or simulated market settings. Culyer (1990) argues that, while both equity and efficiency goals justify comprehensive government management of the demand for health services, supply side efficiency would be maximised by being left to a competitive market. It may also be observed that the increasing complexity of production processes, the pace of technological change and the explosive advance of information technology have deprived dirigiste regulation of much of the rationale which may have previously underpinned its use as the primary means of resource allocation in the health care sector.¹

The strategy of increasing system efficiency through market or market-like initiatives underlies reforms of the British and Dutch health funding arrangements which are currently in the implementation stage. (UK,1989; Netherlands,1988) The majority report of a judicial commission which investigated Israel's health system contains a rationale and recommendations which are remarkably similar to the Dutch program. (Chernichovsky,1991) Many other countries are showing interest in organisation and payment innovations designed to improve performance in their hospital systems.

**New concepts in health service funding**

The two conceptual advances which have underlain the thrust toward greater use of prices and competitive forces are Enthoven's "managed competition" proposal and the categorisation of hospital casemix by Fetter and his associates at Yale University, of which the best known product is the hospital inpatient classification known as diagnosis related groups (DRGs).

The "newness" of these concepts is relative, in the sense that they were originally presented in their developed forms more than ten years ago by Enthoven (1978) and Fetter

¹ Richardson (1987) sees the problem as resting not so much with regulation *per se*, but with the incoherence of past and present regulation, both with respect to its internal consistency as well as its objectives. This would not be the case with a broader regime of pro-competitive regulation.
et al. (1980), but they have been progressively developed and modified, by the authors and others, in the intervening period. While both concepts were formulated in the U.S.A., largely in response to problems specific to the American health system, they incorporate basic features which could be widely applicable, subject to appropriate modification, in many other developed countries.

Enthoven's concept of "managed competition" is based on a detailed critique of health care delivery and funding systems in the United States, which comes the closest (but not very close) of all countries to delegating health care resource allocation to unregulated markets. His starting point is that free markets between individual consumers and the providers of health insurance and health care cannot work, since they depart in too many ways " ...... from the conditions necessary for a market to produce an efficient outcome: pervasive uncertainty, great asymmetry of information, moral hazard, adverse selection, many not-truly-voluntary transactions, etc." (Enthoven, 1989, p. 59)

At the same time Enthoven is critical of the welfare losses and inequities resulting from the lack of incentives to efficiency in health systems run as public sector monopolies. His policy conclusion is that efficiency would be promoted by the imposition by government of conditions designed to minimise cost-shifting and promote cost containment - that is, to simulate the conditions, and hence secure the benefits, of a competitive market. He advocates a regime of what he terms "managed competition", involving the imposition of quite specific conditions on the operations of private agencies, as the means of achieving this. It may be noted that Enthoven's emphasis on external regulation as the means of ensuring the necessary conditions for competitive efficiency has substantially increased since his proposal first appeared. The regulatory conditions proposed in this paper for Australia are similar to those formulated by Enthoven, with modifications applicable to Australian conditions.

While the adaptation of Enthoven's ideas to the circumstances of several countries has resulted in substantially different designs, they all share the central feature of a market in services, in which the suppliers of services face an independent demand side, consisting of cost-conscious intermediaries which contract as purchasers or negotiators on behalf of their clienteles and combine, arrange and market packages of services and/or entitlements to consumers. Culyer (1990, p. 26) has described the function of service providers as being " .... simply(!) to be cost-effective at meeting whatever contractual demands are placed on it
by the demand side”.

The organisational form which the intermediary purchasers/budget holders may take varies under different proposals from for-profit insurers through all the variants of HMO to purely public sector agencies. However, in order to strengthen the demand side, they would all undertake wider responsibilities for mediating between service providers and consumers than most private and many public insurers currently bear. The public sector version of Enthoven's system is epitomised in the UK National Health System reforms, in which the designated intermediaries - district health councils and large general practices - are driven to secure economies by government-imposed budgetary stringency. In the market version, "health plans" are motivated by competition for subscribers to contain health care costs and utilisation.

In both cases, the intermediaries are expected not only to control the cost of services but also to
"..... structure the market for individual choices so that consumers could make well-informed choices and ..... would be guided by correct signals to choose those suppliers that produce high-quality economical care." (Enthoven, 1989, p.59) The Dutch program and the majority Israeli report both opt for the replacement of non-competitive consumer interfaces with competing "health plans" on the "managed competition" model.

The other conceptual innovation which has had a major impact on health care financing policy has been the development of DRGs as a categorisation of acute inpatient casemix, with an enormous resulting enhancement of our capacity to measure hospital output. Since acute hospital care is by far the most costly component of health care - both in terms of unit costs and total expenditures - this constitutes a step forward whose potential can hardly be over-estimated. Only eight years before Fetter's group published their findings, an authoritative health economist wrote that "..... there appears to be no agreement, either on a conceptual or merely definitional level, among those who have most intensively studied the economics of hospitals, on what the most appropriate measure of output is, or should be". (Berki, 1972, p.44)

Fetter's concept of the hospital as a multi-product firm, with DRGs defining the inpatient product lines, has transformed the capacity of economists to measure efficiency in hospitals. For the first time it is becoming possible to make direct comparisons of cost and
productivity between hospitals of different type and proprietorship, and to use this information in the development of policy. Intensive work is now proceeding on the development of analogous classification systems for other components of institutional output, such as outpatient and non-acute inpatient care.

The prominence which DRGs have attained, both absolutely and relatively to a number of alternative casemix systems, is due to their adoption in 1983 by the United States government as the basis of a prospective payment system (PPS) for inpatient care provided to Medicare patients. Its use in this and other payment systems has resulted in a massive flow of funding for further research and development, and a number of governments at national and sub-national levels have embarked on programs designed to implement DRGs in their hospital funding and/or planning systems. In Australia, the pace of research and development has been greatly accelerated by the establishment in 1988, within the national Medicare funding arrangements, of a five-year Casemix Development Program, with a budgeted expenditure of $5 million per year. There is a possibility - yet to be supported by any formal government decision - that some element of hospital output will be included in the Medicare funding formula to operate from mid-1993.

Managed competition and casemix funding are both designed to improve the efficiency of health service delivery systems through the improved availability of cost data, the use of prices as one means of transmitting these data, and greater use of information derived from them in decision making. It might be regarded as puzzling that the two concepts have not been formally associated in most proposals for reform of health care funding, despite the implication that

(i) the response of service providers to rationally calculated administered prices (based on DRGs and other casemix measures) would be strengthened by exposing them to cost-conscious purchasers with substantial market power, and that

(ii) case payments would facilitate competitive contracting between health plans and hospitals, both with respect to product definition and risk sharing.

Enthoven has expressed little interest in DRGs in the context of "managed competition" except, by implication, with reference to their use for cost-control purposes by Kaiser Permanente. (1989,p.52) By the same token, the U.S. government has shown little interest
in managed competition, except for the limited option for Medicare beneficiaries to contract on a capitation basis with HMOs. In the Netherlands, neither the Dekker report (Netherlands, 1988, Part II) nor the government program which is largely based on its recommendations for managed competition envisages DRGs or any other form of case payment. Most proposals for the use of DRGs in payment for hospital care are couched in terms of administered prices or the incorporation of output as a factor in global grants, in the context of existing public funding arrangements.

It is only in the White Paper amendments to the U.K. National Health Service that the quasi-market approach and case payment have been formally associated, in order to facilitate contracts between District Health Councils and large group practices on the one hand, and potentially competing hospitals, outside the administrative control of the councils, on the other.

Given that acute hospital care would be the largest component of a managed insurer's costs, and that reducing the cost of inpatient services and substitution of lower cost modalities for inpatient treatment offer the greatest scope for savings, it is surprising that case payment has not been integrated more commonly into managed competition proposals. The efficiency gains which a vertically integrated HMO like Kaiser Permanente would obtain from cost reduction in its own hospitals, or District Health Councils from maximising the services provided out of fixed budgets, should also be attainable in systems in which competing health plans are motivated to act as cost-conscious purchasers of a range of substitutable services from competing suppliers.
2. THE AUSTRALIAN HEALTH SYSTEM

While there are sufficient international similarities in patterns of illness and medical technology to justify a close examination of other countries' experience, differences in history, culture and political styles and organisation are such that great care is necessary in determining which ideas and program components are transplantable and which are not. Even though the underlying problems of health care systems in different countries often turn out, on analysis, to be very similar, the feasible remedies may be largely determined by specific features of their health care systems and the broader societies in which they operate, which constitute opportunities for, or barriers to, structural change.

The broad outlines of the Australian health care system are similar to those of most other developed countries. Total health expenditures, as a proportion of gross domestic product, rose from 7.5 per cent in 1979/80 to 7.9 per cent in 1987/88. (AIH,1988 and 1990a) Both figures were about 10 per cent above the OECD average. The composition of 1986/87 recurrent expenditures, by type of service and source of funds, is shown in Table 1. Expenditure on hospitals comprised 43.6 per cent of the total, with medical services, pharmaceuticals and nursing homes the next largest categories. Governments contributed 70.5 per cent of the total (marginally below the OECD average), including 80.3 per cent of hospital, 85.5 percent of medical, 46.9 of pharmaceutical and 79.1 per cent of nursing home expenditures. Of the 29.5 per cent not paid by governments, private health insurers paid 11.2 per cent, statutory workers compensation and motor vehicle third party insurers 2.3 per cent, leaving 15.9 per cent to be met directly by individuals.

Distinctive features of the Australian system which are relevant to the design of health insurance and funding arrangements include the complex division of service delivery and financing between public and private sectors and, within the public sector, the uneasy balance of powers and functions between the Commonwealth and state levels of government. Against the broad background of a rising trend in the share of total health expenditure met from public budgets, the financing of health services has been a political and ideological battleground since 1945. The subsequent history has been featured by sharp policy shifts with each change of government, between predominantly public funding programs and other schemes designed to promote private insurance and the private provision of services.
Table 1: Australia: Total recurrent health expenditure 1986/87 ($A billion)

<table>
<thead>
<tr>
<th>Type of expenditure</th>
<th>Public Sector</th>
<th>Private Sector</th>
<th>All sources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>C’wth</td>
<td>State</td>
<td>Total</td>
</tr>
<tr>
<td>Institutional:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hospitals</td>
<td>1.56</td>
<td>5.27</td>
<td>6.83</td>
</tr>
<tr>
<td>nursing homes</td>
<td>1.22</td>
<td>0.08</td>
<td>1.30</td>
</tr>
<tr>
<td>other</td>
<td>0.10</td>
<td>0.13</td>
<td>0.23</td>
</tr>
<tr>
<td>Non-institutional:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>medical</td>
<td>2.96</td>
<td>2.96</td>
<td>0.04</td>
</tr>
<tr>
<td>dental</td>
<td>0.03</td>
<td>0.07</td>
<td>0.10</td>
</tr>
<tr>
<td>pharmaceutical</td>
<td>0.83</td>
<td>0.83</td>
<td>0.03</td>
</tr>
<tr>
<td>other</td>
<td>0.28</td>
<td>0.46</td>
<td>0.74</td>
</tr>
<tr>
<td>Other exps. *</td>
<td>0.50</td>
<td>0.26</td>
<td>0.76</td>
</tr>
<tr>
<td>All recurrent:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$ million</td>
<td>7.48</td>
<td>6.25</td>
<td>13.73</td>
</tr>
<tr>
<td>percentage</td>
<td>38.4</td>
<td>32.1</td>
<td>70.5</td>
</tr>
</tbody>
</table>

Note: * Health promotion and illness prevention, administration and research.

Source: (AIH, 1990a, Table 9)

Public and private sectors: a mixed health market

A dual system of public and private health care provision and funding is one of the enduring themes in the Australian health care system. The blend with respect to service delivery has some of the features of both British and North American systems, but has a number of features common to neither.

General practitioner and specialist medical services are provided primarily by private practitioners on a fee-for-service basis, except in public hospitals, where services to outpatients and public inpatients are provided by a mixture of salaried and visiting doctors. Dental services are overwhelmingly provided by private practitioners, and pharmaceutical
drugs are mostly distributed through retail pharmacies. Nursing homes and hostels for the aged are predominantly operated by the private sector (non-profit agencies and for profit proprietors) but the main source of revenue - as for medical services and prescription drugs - is derived from Commonwealth government cash benefits.

As in Europe, the provision of hospital facilities is dominated by public hospitals. They account for about 76% of beds and 78% of admissions and are responsible for all teaching and the great majority of accident, emergency and superspecialty services. A feature of the Australian public hospital system is that it provides for the treatment of public and private patients, as two separate categories, to whom different contractual conditions apply. In the case of public patients, the hospital is responsible for the provision of medical services: payment of doctors is undertaken by the hospital, and billing of patients by doctors is prohibited. Private patients, on the other hand, contract with medical practitioners in private practice for their inpatient care in the same way as for their care in other settings, and this aspect of the hospital system resembles North American rather than British precedents.

The current composition of bed days in Australian hospitals is about 56% public, and 41% private, with about half of the private days occurring in public hospitals. With the exception of a small number of federal veterans' hospitals, the public hospitals are operated by state governments. There are considerable interstate differences in the proportions of public and private beds, which partly reflect the metropolitan/rural population mix and long standing policies of state governments on such issues as availability of private beds, conditions governing access to public and/or private status, fees charged, and the terms on which medical staff are engaged and remunerated. The interstate differences in hospital capacity and organisation add an extra dimension of complexity to the problems associated with the introduction of DRG-based payment for hospital services in Australia.

Public and private hospitals differ in many respects, such as geographical location, availability of specialist facilities, the availability and support of salaried medical officers and other ancillary staff, and the fact that inpatient care delivered by a public hospital generally contains components not provided by private hospitals, such as drugs, diagnostic services,

2 The missing proportion (3%) consists almost entirely of days paid for by motor and workers compensation insurers.
and the services of ancillary health professionals. On the other hand, limited availability of public beds results in waiting periods of varying length for non-urgent cases.

Consequently, the choice between care as a public or private patient and, if the latter, whether in a public or private hospital, is a function of many factors. However, since all the options are highly substitutable in clinical terms, and since physical accessibility to the various settings is available to the great majority of Australians who live in state capitals and provincial urban cities, economic factors such as cost to consumers, net income and clinical freedom of medical practitioners, are extremely important in determining choices exercised by patients and their medical advisers. The need to take account of the sensitivity to price differentials of demand for the different settings of hospital care, and of the financial, economic and political consequences of changing them, is another complicating factor in the design of any system of funding hospital care in Australia.

Commonwealth and state government powers and functions

Overlaps in the formal legislative powers and actual responsibilities of the Commonwealth and state governments are the source of many complexities and frictions in the Australian health care system.

Until 1946 the Commonwealth government had no explicit powers over hospital and medical services and exerted little influence on health policy. In that year a constitutional referendum conferred power to legislate with respect (inter alia) to "pharmaceutical, sickness and hospital benefits, medical and dental services". This power has underpinned legislation for cash benefit programs to pay for doctors’ services, prescribed drugs and nursing homes, and has enabled the Commonwealth government by statute, regulation and subsidy to dictate the structure of private health insurance.

The powers and functions actually exercised by the Commonwealth government are not derived exclusively from specific constitutional authority. Major extensions of the Commonwealth role have flowed from its power under Section 96 to "grant financial assistance to any state on such terms and conditions as the Parliament thinks fit". One result has been the most extreme vertical fiscal unbalance in any federal country, in which the states have been excluded from many types of taxation and made financially dependent on conditional revenue grants. This has been the means by which the Commonwealth government has been able to impose programs and policies outside the
scope of its explicit powers. In 1988/89 about half of all Commonwealth payments to the states took the form of specific purpose grants, of which the largest component was hospital funding grants (HFGs). These grants constitute the Commonwealth government's formal contribution to state public hospitals which provide care to beneficiaries under the Commonwealth government's national health insurance program, and their continuance is conditional on the states conforming to specified standards of service provision and financial access.

The shares of the two levels of government in hospital expenditure are virtually impossible to disentangle, since the States receive Commonwealth funding for hospitals both in the form of specific purpose HFGs and an imputed share of untied financial assistance grants (FAGs). The significance of HFGs can only be appreciated in the context of the combined total of HFGs and FAGs, for two reasons. First, in recent years modest real growth factors in HFGs have been more than offset by real reductions in the total amount of FAGs: total grants to the states for all purposes have fallen by 13.6% in real terms since 1984/85, and this has clearly affected their capacity to finance public hospitals. Secondly, the Commonwealth Grants Commission, in its assessment of state governments' general revenue and expenditure needs, has elected to treat HFGs by the "inclusion" method, that is, to redistribute them between the states in accordance with the general needs formula. The result is that HFGs are actually distributed without reference either to hospital output or to the impact of Medicare on the demand for state-provided services.

A final point to be made about Commonwealth payments is that, while nearly all the HFGs are subject to equalisation, outlays for similar purposes effected in the form of cash benefits to persons are not, even though in many cases they may relate to the same or similar services and are paid to the same providers. Cash benefits paid to or for patients resident in any state are determined by the volume of services used, so that, for example, the per capita distribution of medical and pharmaceutical benefits to the residents of the various states may differ substantially from the "needs-based" relativities.

It may be argued that, since the Commonwealth government has assumed control of policies on hospital provision and access, general financial assistance grants are no longer the appropriate form of Commonwealth government contribution to the costs. On this view it would be preferable for the Commonwealth government to contract with the states for the provision of hospital services under Medicare, in a manner similar to its arrangements with
private providers for medical, pharmaceutical, and nursing home services, without being subject to equalisation.

**Australian Medicare**

The current Australian national health insurance program, entitled Medicare, was introduced in 1984, following an eight-year period of instability, during which its predecessor, "Medibank", was progressively dismantled. (Sax, 1984, chs. 5 and 6) Public opinion polls attesting to the growing popularity of the program and a changing climate of opinion among politicians and health policy makers suggest that, while it may be modified, it is likely to continue as the central feature of a national health insurance program in Australia.

Medicare provides medical and hospital entitlements to the whole population, and is funded out of general government revenues plus a 1.25 per cent levy on individual taxable incomes over $5,400.³ Medical benefits for privately provided medical services are analogous to those of the Canadian provinces, being paid at rates ranging from 85 to 100 per cent of fees listed on the Medicare schedule.⁴ About 58 per cent of services are direct billed to Medicare at no charge to the patient but the Commonwealth government is inhibited by constitutional barriers and electoral considerations from prohibiting over-schedule billing of patients for non-direct billed services. The average level of extra-billing (i.e. above the fees in the Medicare schedule) for patient-billed services has risen only from 2.6 to 13 per cent since 1984/85, but the excess amounts which patients can be required to meet from their own pockets can be quite large in individual cases. (Deeble, 1991, p. 48)

Medicare hospital benefits take the form of an entitlement to free care as an outpatient or as a **public** inpatient. The covered services are provided by state public hospitals, under

---

³ Medicare does not include other universal federal programs, including nursing home and pharmaceutical benefit programs, which are also financed out of general revenue. In addition states provide extensive mental health, community health, elderly care, maternal, child and school health programs outside Medicare, at little or no cost to users. Some of these are partly Commonwealth funded under various grant programs.

⁴ For in-hospital services to private patients, Medicare pays only 75 per cent of the scheduled fee, but the remaining 25 per cent is made up by private insurance.
five-year Medicare agreements, which set down the amounts of Commonwealth funding through HFGs and the conditions of eligibility and access. In practice, access to services is contingent on availability and rationing has in some cases resulted in lengthy waiting periods for admission, principally for elective treatment in metropolitan hospitals. Whatever the level of federal grants, the state governments retain the residual responsibility for public hospital funding. Financial stringency has limited the capacity of state public hospitals to meet demand: in many cases the hospitals' only response to cuts in the real value of their global budgets has been to close beds.

Between 1982/83 and 1988/89 public hospital bed days declined at an average annual rate of 0.9 per cent in total, and 2.4 per cent in per capita terms. The decline was partly due to reduced lengths of stay and the figures of patients treated tell a somewhat different story. Over the same period total separations increased at an average rate of 1.2 per cent and per capita separations remained almost constant. The extent to which these figures reflected availability of public care varies considerably between states: the proportions of public bed days ranged from 64.1 per cent in New South Wales to 83.0 per cent in Queensland in 1988/89. (AIH, 1990b, p.9)

**Private health insurance under Medicare**

Tightly regulated private health insurance, operated by registered non-profit organisations, has been an aspect of Australian health care funding since 1952. Its significance has waxed and waned in accordance with the level of public subsidies directed through it and the availability of competing public benefits and entitlements. Private insurance coverage peaked in the early 1970's, fell sharply with the introduction of Medibank in 1975, recovered subsequently as Medibank was dismantled, and dropped back again in 1983/84 when the current Medicare program was implemented.

Under Medicare, private health insurance is purchased to supplement the benefits available under the national program. Its main function is to allow people to be treated in hospital by their own private doctors, and/or to be able to bypass the queues for elective services. Although the insurers have expanded their coverage of "ancillary" services, their mainstay
is coverage of the fees charged to private patients in public and private hospitals.\textsuperscript{5}

Private insurers’ “basic” (minimum) tables fully cover the fees charged for standard accommodation in public hospitals and they offer a range of supplementary tables directed to the generally higher levels of charges by private hospitals. However, only a few of the highest tables meet the full costs of the more expensive private hospitals, so that many private patients of private hospitals are left with substantial out-of-pocket costs. The financial incentives on most insured patients would clearly be to seek care in a public rather than a private hospital.

The key condition imposed on private health insurers, which is the basis of the regulatory structure, is community rating of premiums.\textsuperscript{6} This is interpreted as offering open entry at all times (with limited restrictions on payment of benefits for pre-existing conditions), and charging the same premium to all single subscribers and uniform family contributions (to cover all members) at twice the single rate. These premiums incorporate powerful incentives to adverse selection by consumers and risk shifting by insurers. Although the regulatory regime has substantially protected consumers from the more obvious forms of cream skimming, there are significantly lower levels of coverage among low risk groups.

Adverse selection, whose direct impact is compounded by consequent increases in premium rates, is only one of the reasons for the decline in private health insurance which has continued throughout the life of Medicare. The others include population turnover, the erosion of old habits and the progressive elimination of the remaining Commonwealth subsidies to private hospitals and private insurance. The proportion of the population with basic table coverage declined from 48.9 per cent in the September quarter, 1984 (six months after the introduction of Medicare) to 44.4 per cent in the December quarter, 1989. Rates of insurance vary between states, broadly in line with the availability of public beds, the extremes in December 1989 being 53.9 per cent in Victoria and 34.3 per cent in

\textsuperscript{5} As in Canada, private health insurers are not permitted to cover medical services - i.e. no above-schedule insurance is permitted - except that, in Australia, they are required to supplement Medicare benefits for services provided to private inpatients, up to the 100 per cent of fees in the Medicare schedule.

\textsuperscript{6} In this context, it should be explained that health insurance is offered on an individual basis only. Employers have no role in the system, except to the extent that they may agree to meet insurance or health care costs as part of remuneration packages for managerial staff.
Queensland. The decline, which is continuing in all states, is largely kept in check by fears of long delays in securing free public care, which govern the amount which people are prepared to pay to secure preferred access. This is at best a precarious basis for equilibrium.

**Funding problems and alternatives**

The Australian system provides many examples of overlaps and lack of articulation between service programs in the Commonwealth government, state government and private sectors. The lack of coherence is compounded by distortions in the funding arrangements. The deficiencies include:

(i) the relative absence of financial incentives to substitute less costly alternative modes of treatment for inpatient care. Australian admission rates are among the world's highest, partly reflecting failure of the system to communicate appropriate signals.

(ii) bias in favour of public hospital, as compared with private hospital, care. Quite apart from the inducement to public care which is inherent in Medicare, there are substantial incentives for private patients to prefer treatment in public hospitals.

(iii) the provision of substitutable services through different programs and funded from different sources. Present price and subsidy arrangements are an overlapping patchwork, which provide many opportunities and incentives to shift costs between the public/private sectors as well as across Commonwealth/state government boundaries.

(iv) the benefit and premium structures of the private health insurance system, which minimise its capacity and motivation to contain costs.

This list is an Australian version of the deficiencies portrayed by Enthoven as the inevitable outcomes of unmanaged health care markets and/or monopoly systems of health service provision and funding, exacerbated by disorderly interfaces between public and private sectors and between the two levels of government. The outcomes which have attracted public attention include waiting lists in public hospitals, declining private insurance coverage, inequity between the privately insured and non-insured, and intense financial
pressures on state governments and public hospitals.

Some of these problems can be associated directly with Medicare, others are due to increasing stringency in Commonwealth government outlays while others are the more or less inevitable concomitants of structural features of the Australian system which preceded Medicare and have not been much affected by it. Some simply reflect the universal problem of scarce resources and burgeoning ends.

The severity and causes of the diversely perceived problems have engendered a number of proposals for change, some of them quite radical. They have included the application of means tests to exclude the majority of the population from free hospital care and hence to expand the private sector massively (Freebairn et al., 1987; AMA, 1989; several ephemeral proposals by opposition parties), emulation of the Canadian system by making all patients private (or public?) (AMA, 1989; Butler, 1990) and the transfer of all responsibility for health to a single level of government - with both Commonwealth and state governments being suggested as the prospective recipient.

For its part, the Commonwealth government has until recently emphasised the substantial benefits conferred by Medicare and has tended to dismiss criticisms of it as unsupported by hard evidence or unduly influenced by ideology and/or self interest. Certainly, the comparative stability which has prevailed since the implementation of Medicare in 1984 has been preferable to the succession of ill-considered amendments which characterised the previous seven years. (Sax, 1984) Amendments to Medicare have been slight and incremental, many of them being influenced by financial and political agendas unrelated to the health system. The implementation in 1988 of the Casemix Development Program was one of the few pointers to significant change, as is the recent instigation by the Minister for Community Services and Health of a wide-ranging review of national health strategy, with terms of reference which explicitly contemplate structural reform of health insurance and funding.

Most of the radical proposals for change are outside the limits of feasibility, either because they breach the equity and access objectives bound up in the principle of universality, are inconsistent with effective constraint on total health expenditures, involve unacceptable increases in public sector outlays, or are at odds with the relatively stable political consensus about federal checks and balances and individual choice between private and
public sources of care. For the foreseeable future, the practical options for Australia are confined to programs characterised by a universal and substantially publicly financed medical and hospital program, availability at "reasonable" cost of private options involving choice of doctor, and the continuation of a significant contribution of funds from private sources.

This prescription does not narrow the range of options unduly. Indeed, with the exception of the perceived need to "lock in" private funding, it would apply to most OECD countries. However, it tends to confine the practicable options for reform of Medicare to the following:

(a) incremental amendment of the present program, involving one or more of
   (i) introduction of casemix-adjusted output measures into the funding arrangements for public and/or private hospitals; (Scotton and Owens, 1990, chs. 8 and 9)
   (ii) extension of the range of benefits (and the possibilities for efficient substitution) by incorporating into Medicare other programs such as pharmaceutical benefits and post-acute domiciliary care;
   (iii) some expansion of public funding to reduce waiting times at selected critical points and to upgrade public hospital capital; and/or
   (iv) adjustments to private insurance tables and greater use of copayments and deductibles to level the playing field between private and public sectors.

(b) substantial restructuring of incentives and linkages by the implementation of "managed competition" in a form appropriate to Australian conditions. This would include all or most of the changes listed under (a).

Government decisions on these issues will be influenced partly by ideological considerations, partly by judgments about the extent to which the problems warrant structural change ("if it ain't broke, don't fix it") and partly by assessment of which approach is more likely to provide an effective remedy to the perceived problems.

The remainder of this article is directed to the last of these options. It consists mainly of the formulation and analysis of a "managed competition" option to operate within the framework of the Medicare program, the objectives of which would be to control costs through incentives to increased efficiency, to extend consumer choice and to establish a
systematic nexus between the public and private sectors in both health service delivery and funding.

3. MEDICARE WITH A PRIVATE OPTION

It needs to be emphasised that the proposed scheme is designed to widen the options available within the existing Medicare program and not in any way to contract its benefits. In particular, universal access to the public benefits currently provided, and income-related funding through Medicare levies and the general taxation system, would not be disturbed. In fact, it would involve the incorporation of pharmaceutical benefits and coverage of post-acute domiciliary care into Medicare and transfer to the Health Insurance Commission (the Commonwealth agency which administers Medicare medical benefits) of responsibility for Commonwealth government payments to public hospitals.

The central feature of the proposal is to offer an additional range of choice within Medicare concerning the way in which its beneficiaries may take their entitlements, and to permit private agencies to administer the benefits available under some of the options. Entitled persons could elect to have their Medicare benefits provided by registered health plans, to whom the Health Insurance Commission would pay premium subsidies related to the expected cost of benefits incurred by their subscribers. To be eligible for these subsidies the plans would have to meet a variety of conditions, mainly relating to benefit tables and enrolment, modelled on those formulated by Enthoven. The main details of the proposal are outlined in the remainder of this section.
Benefit conditions

The conditions governing benefits payable by health plans would be along the following lines:

(i) All tables to cover a comprehensive range of services/benefits, consisting at least of all services listed in the Medicare benefits schedule, all in-patient and outpatient services provided by public hospitals and a defined range of private hospitals and, if these are included in Medicare, all pharmaceutical benefits. In addition, coverage should include certain other in-hospital and after-care services to private hospital patients, of a kind normally available to public hospital inpatients. The purpose of this condition and the next is to prevent cost-shifting to the public sector and to encourage cost-effective substitution.

(ii) Plans to be liable for charges designed to meet the full cost of all services - whether public or private - used by their subscribers. This would include all services currently provided free or at reduced cost by public hospitals to public and private patients. It is envisaged that hospital services would be paid for on the basis of casemix adjusted episodes, and other items by fee-for-service or other appropriate cost-related formulae.

(iii) For items other than private medical services, all tables would be required to meet the total cost of covered services, subject only to deductibles and copayments expressed as fixed dollar amounts (i.e. not percentage coinsurances) and clearly specified in contracts. The purpose of this condition is to minimise the passing on to patients of extra-billed costs; this would maximise the financial protection available to patients and strengthen incentives to plans to minimise prices paid and control utilisation.

(iv) For private medical services, in the absence of a formal accord with the Australian Medical Association, there is currently no viable alternative to the present system of limiting Medicare benefits to amounts specified in an official schedule, and making any extra-billed amounts uninsurable.7 It is proposed that the same constraint be

---

7 The reason is that the relevant section of the constitution contains an explicit prohibition on
imposed on benefits paid under private plans. However, in order to promote the formation of HMOs and other prepaid organisations, health plans would be encouraged to provide or contract for the provision of medical services, within analogous cost constraints, on a non-fee-for-service basis. Plans would be free to apply global deductibles to medical benefits and services provided.

(v) Maximum limits would be prescribed for deductibles and copayments. While subsidisation of poor risks would be undermined by exposure of patients to substantial cost-sharing, a modest annual deductible of (say) up to $250 across all services, and copayments of up to $200 on each hospital inpatient episode would have important revenue implications and a marginal impact on some consumption decisions, without threatening the financial solvency of families.⁸

(vi) To minimise their capacity to systematically select good risks and exclude bad risks, health plans would be required to keep their membership open to all persons wishing to enrol or to maintain their enrolment. Any exceptions to the open enrolment rule - such as geographic location or community of interest - would need to be limited to criteria unrelated to risk. However, it would be desirable to prescribe minimum periods for enrolment and notice of withdrawal in order to reduce administrative costs arising from frequent or frivolous transfers.

(vii) In order to facilitate comparison by consumers and to prevent selective manipulation of benefit packages, plans should be required to offer standard tables covering a specified range of services. Standardisation could extend, as recommended by Enthoven, to fixing uniform deductibles and copayments in standard tables, or could

---

⁸ These amounts are less than analogous excesses on household and car insurance. They constitute tradeoffs for widening of coverage (i.e. for private hospital care) which individuals might reasonably choose to make. Those not wishing to make them would be free to buy out of them by paying an additional premium, while those not prepared or wishing to pay either price for private hospital coverage would be under no pressure under this proposal to opt for coverage by a private plan at all.
be relaxed to the extent of allowing health plans to set their own rates, at any level up to the prescribed ceilings. The benefits of freer competition would have to be set against the increased scope for risk selection. All additional (i.e. above standard) benefits relating to services covered in standard tables should take the form of supplements to those tables.

**Case payment for hospital care**

It is an essential component of managed competition - as of Enthoven's "internal market" proposal for totally public funding systems - that budget holders contract with hospitals for the supply of services to their covered populations on a basis in which the hospitals compete actively with each other. Especially in the context of multiple purchasers and sellers, workable competition would be enhanced by a pricing structure for the various hospital products which facilitated price competition.

The use of case mix adjusted episodes as the basis of payment for health care has much to recommend it on efficiency grounds. Episodes of care are much nearer to the output end of the process than individual services or bed days and the social benefits of health care are much more closely aligned to the number of patients treated than to cost and volume of inputs applied to their treatment, such as the number of days they spend in hospital. The great benefit of defining payment units in terms of output is that, as in other areas of production, there is an inherent incentive to choose the most cost-effective level and mix of inputs: in other words, a direct incentive to productive efficiency.

The most obvious application of this form of payment is to hospital inpatient care, for several reasons. First, it is the most expensive treatment setting, both in terms of unit costs as compared with alternative settings and in terms of total health expenditures, so that the potential efficiency gains are relatively large. Secondly, the inpatient episode is relatively easily definable in terms of established payment and patient record procedures. Thirdly, a workable set of inpatient case mix categories, in the form of DRGs has operated effectively for some years in US Medicare and in all-payer systems in the Veterans' Administration and some American states.

The author and Helen Owens have recently published a monograph setting out several
options for case payment in Australia under the existing Medicare arrangements. (Scotton and Owens, 1990) Reflecting the need to accommodate Commonwealth, state and private sector roles in hospital funding and operation and the public/private dichotomy of patient status within the public hospitals, the preferred option involves a blend of individual case payments and global budget grants. The remuneration formulae for various components of hospital output have been designed with the objectives of eliminating revenue differentials associated with the treatment of public and private patients in public hospitals and of levelling the playing field for private patients between public and private hospitals.

In addition to the obvious incentive to efficiency inherent in hospital reimbursement being tied to output, case payment has two other advantages directly linked to the objectives of this health insurance proposal:

(i) case mix-categorised episodes are the only units in terms of which effective cost comparisons can be made between public and private hospitals, and

(ii) the risks assumed by the health plans would be rendered more manageable by imposing the financial risks arising from extra length of stay and other treatment costs on hospitals, which are in the best position to monitor and control them. The health plans would only have to be concerned with admission criteria and prices, which are the only variables over which they could reasonably be expected to exercise any control.

**Income of the health plans**

It is a necessary condition for efficient allocation that the prices of substitutable products reflect their costs of production. In the case of an insurance market, this involves premiums approximating the expected costs incurred by persons belonging to each group whose average experience can be reliably estimated, since the purpose of insurance, strictly speaking, is to pool the random losses within risk groups rather than undertake cross-subsidisation between them. Risk rating of premiums is a feature of unregulated insurance markets, but risk-rated individual health insurance premiums are at odds with the social policy objective of redistribution in favour of those who by reason of age and/or chronic ill-health have a high probability of heavy use of health services.
One way of achieving this redistribution has been to legislate uniform premiums, and there is a strong commitment in Australia to community rating of health insurance contributions charged by private insurers. This has resulted in distortion of prices which presents insurers with gross incentives to risk selection, to the point that cost containment and efficient resource use become insignificant factors in their underwriting results.\(^9\)

Under monopoly public schemes such as the British NHS, Canadian provincial plans and Australian Medicare the insurance and subsidy functions are merged and automatically undertaken jointly. If a private sector component is to achieve the efficiency outcomes which are its primary justification it is necessary to find a way to integrate public subsidies between risk groups and risk-rated private insurance premiums. The transfer of cross-subsidisation from health plans and service providers to independent "sponsors" is a central thrust of Enthoven's (1988) managed competition scheme for the United States. Even in this proposal, with its heavy emphasis on the role of the private sector, government agencies are designated as the largest sponsors. In countries with national health programs it seems inevitable that, in order to ensure that revenue received by the plans reflects the expected costs incurred by individuals in the various risk categories, a substantial share of that revenue would have to consist of risk-rated public subsidies.

One program which operates on this basis is US Medicare, under which beneficiaries may contract for their care with health maintenance organisations (HMOs). Medicare pays the HMOs 95 per cent of the expected cost of individual beneficiaries taking this option, based on the average per capita cost (AAPCC) of fee-for-service payments in the areas in which the relevant HMOs are located. About 1.6 million persons, or 5 per cent of Medicare beneficiaries, were enrolled in HMO programs in 1988. (ProPAC, 1988, p.107)

The most relevant precedent for Australia is the national health insurance program currently being implemented in the Netherlands, under which comprehensive coverage of the whole population is to be undertaken by competing insurers, operating under a regime of regulated competition. Some 80 to 85 per cent of the costs are to be met from a 4.2 per

\(^9\) The impact on underwriting experience of differences in the age composition of contributors is partly offset by a statutory reinsurance pool, through which the costs incurred by the elderly are redistributed over all insurers. However, this form of reinsurance greatly dilutes any incentive on the part of individual insurers to monitor and control costs incurred by their contributors.
cent levy on individual incomes and the remainder by flat-rate premiums charged and collected by insurers. The central fund will pay the proceeds of levies to insurers on a risk-related formula such that the subsidy plus flat rate premium will be as close as possible to the average expected cost of persons in each of the risk groups defined in the formula.

In the managed competition option for Australia, it is proposed that the Health Insurance Commission would pay to the health plans, in respect of each person enrolled by them, a monthly premium subsidy related to the estimated average cost of Medicare benefits payable to persons in the relevant risk group. As in the Dutch scheme, it is proposed that the relativities in the subsidy be weighted slightly in favour of the high-risk groups, so as to reduce or eliminate risk rating in the supplementary standard table premiums paid directly by subscribers. The premium subsidy for persons in each risk class would be calculated by applying the formula to the average subsidy plus a notional standard premium, and deducting the uniform notional premium from the resulting per capita figures.

Risk-rated premium subsidies would not merely minimise incentives operating on plans to select good risks, but would positively induce them to enrol people in higher risk groups in order to obtain a reasonable share of premium revenue. The impact of the subsidies on Commonwealth outlays would be almost neutral since their incidence would correspond very closely to the costs of Medicare benefits which would have been payable to the same people if they had not taken the private insurance option.

**Components of the premium subsidy formula**

Detailed analysis of risk factors underlying differences in health service use has been stimulated by experience of US Medicare capitation arrangements and the Netherlands proposal. The purpose has been to establish the extent to which variations in the individual health care costs are random and the extent to which they are systematically related to factors which are more or less readily available and which are known, or knowable, by the parties to the insurance contract. The most obvious of such factors are age, sex, location, social security/insurance entitlement and health status.

There are consistent and very wide differences in the per capita health service use of people of different age and sex. The estimated Australian relativities shown in Figure 1 reveal an eightfold variation between the experience of lowest and highest cost groups.
These figures illustrate the extent of the gap between community-rated and risk-rated premiums, and the strength of the distorting incentives incorporated in community rating.

Age and sex are the primary factors in the Medicare AAPCC and the proposed Netherlands formula. In addition, both incorporate beneficiary location (to reflect structural differences in health care costs associated with existing differences in levels of supply and/or health care prices and factor costs) and measures of beneficiary status (Medicare) or insurance status (Netherlands), which could reflect either benefit margins in favour of disadvantaged persons which are to be preserved or adverse selection in the respective populations. These criteria have the advantages of ready availability and lack of manipulability.
Figure 1: Per capita medical and hospital costs, by age groups (years)
(population average = 1)

Source: Scotton (1990, Table 1)

The reasons for including cost differences associated with location in the US Medicare and proposed Dutch formulae do not apply in Australia, as they are largely the result of factors under the control of state governments. Appropriate incentives to cost containment would be presented by allowing cost differences to be reflected, as at present, in interstate premium differentials, rather than establishing a premium structure which cross-subsidised the insured residents of higher-cost states.

Health status can be expected a priori to be a relatively powerful predictor of individuals' health service use and cost. This expectation is confirmed by empirical analyses of actual and potential capitation formulae in the United States and Netherlands. (Newhouse, 1986; Newhouse et al., 1989; Ash et al., 1989; Anderson et al., 1990; Van Vliet and Van de Ven, 1990) There is general agreement in the literature that the simple formulae used in Medicare and proposed for the Dutch program, which do not adjust for individual health status or service use, leave scope for very large returns to risk discrimination or "cream skimming". In fact, the analyses indicate that the demographic and location factors in the AAPCC and Dutch formulae explain only 1.6 to 2.6 per cent of total variation in the covered expenditures of individuals, compared with the 14 per cent which is the estimated maximum.
which is capable of prediction.\textsuperscript{10}

The results of the most relevant studies relating to health status and health service use factors are summarised in Table 2. Although allowance has to be made for some lack of comparability in the data and explanatory variables, the general impression is that the findings are broadly similar, the main exception being that the percentages of variance explained are somewhat lower in the US studies. The most direct indicator of health status differences is prior use of services: addition of the previous year's cost to the demographic variables raises the variance explained to between 6.5 and 8.5 per cent. This factor would be readily obtainable once a program was operational but some of its explanatory power would reflect use of services unrelated to health status. Such "discretionary" utilisation should not be compensated for in the capitation formula. Direct measurement of health status was also a significant predictor. Van Vliet and Van de Ven (1990) found a combination of health status indicators and other adjusters which accounted for 11.4 per cent of the total variance (about 75 per cent of the estimated maximum).

There is little doubt that, in the longer term, competitive efficiency among health plans would depend on incorporation in the capitation formula of a measure of individual health status, such as the diagnostic cost groups (DCGs) proposed by Ash et al. (1989) or the "payment amount for capitated systems" (PACS) described more recently by Anderson et al. (1990). As compared with prior year's costs, measures of this kind have the advantage of non-manipulability but would involve considerable information costs and take some time to implement. Van Vliet and van de Ven conclude that, because of the potential for cream skimming which would otherwise be present, the Dutch scheme should commence with a formula incorporating prior year's cost, but that "for the more distant future, the formula should be expanded with indicators of chronic health status .... ".

While this would also be an appropriate prescription for an Australian managed competition plan, fragmentation of funding and service provision means that cost data pertaining to individuals would not be available until experience from the first year's operation of a

\textsuperscript{10} That is to say, the remaining 86 per cent of variation in individual expenditures is random. (Newhouse et al., 1989; Van Vliet and Van de Ven, 1990)
comprehensive scheme had been digested. In the short term there might be no alternative to starting the managed competition option
Table 2: Explanation of variance in individual health costs (% $R^2$)

<table>
<thead>
<tr>
<th>Explanatory factors incorporated</th>
<th>Netherlands (a)</th>
<th>US Medicare</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sample 1 (b)</td>
<td>Sample 2 (c)</td>
</tr>
<tr>
<td>Estimated maximum explicable</td>
<td>13.8</td>
<td>13.8</td>
</tr>
<tr>
<td>1. Demographic variables (ASLIC or AAPCC only (d): age, sex, location, and insurance coverage/benefit status</td>
<td>2.4</td>
<td>2.6</td>
</tr>
<tr>
<td>ASLIC2 (e)</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>2. Demographic &amp; prior cost/use: ASLIC2 (d) and total prior year's cost</td>
<td>7.1</td>
<td></td>
</tr>
<tr>
<td>ASLIC2/AAPCC and multiple measures of prior year's use</td>
<td>7.4</td>
<td>6.4</td>
</tr>
<tr>
<td>3. Demographic factors and DCGs: AAPCC and original DCGs (5 groups)</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>AAPCC and revised DCGs (4 groups)</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>4. Demographic and health status: ASLIC2/AAPCC and multiple measures of health status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- excluding subjective</td>
<td>7.7</td>
<td>4.2</td>
</tr>
<tr>
<td>- including subjective</td>
<td>10.9</td>
<td>4.6</td>
</tr>
<tr>
<td>5. Demographic, health status and prior use: as in (4) plus multiple measure of health status</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8.7</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
(a) From Van Vliet and Van de Ven, 1990
(b) Longitudinal sample from Silver Cross health insurance plan (health status measures not recorded)
(c) Sample from national health interview survey 1981/82 (prior cost/use data not available)
(d) "ASLIC" (age, sex, location insurance coverage) refers to the capitation formula proposed for the Dutch national insurance plan
"AAPCC" (adjusted average per capita cost) is the formula for capitation payments to HMOs under US Medicare
(e) "ASLIC2" is the same as ASLIC, but includes an additional variable in the insurance coverage factor. (Anderson et al., 1990, note to table 5.1)
using a formula incorporating only age, sex and social security status, calculated on the basis of the best estimates available. It should be possible to improve the relativities and extend the formula to include prior use in the second and third years of operation, with the further step of including DCGs or other measures of health status being taken some time later.

4. PERSPECTIVES ON COMPETITION

Sharpening competition

Subject to the conditions set out above, health plans would be free to offer a very wide range of supplementary and other tables to those enrolled with them. Supplementary benefits might be expected primarily to take the form of coverage of additional services and/or reduced cost-sharing. There would also be scope for carefully-designed "less than standard" tables, offering discounted premiums, under which subscribers could opt for restricted or controlled access to particular providers through HMO, preferred provider (PPO) or other arrangements likely to involve reduced service costs. One of the benefits of devolving coverage to private plans, as compared with maintaining a monolithic public program, is that it is possible to allow private agencies to offer tables which did not necessarily cover the services of all providers and which could involve a variety of administrative constraints on the use of selected services. To the extent that consumers contracted into such tables, the purchasers' bargaining power could be substantially increased.

With the exception of the regulatory conditions outlined above, the only constraints on freedom of contract between plans, consumers and service providers should be those incorporated in general trade practices legislation. In the event of collusion to inhibit the operation of competition on the supply side, it could be necessary, as in the United States, to take action under restrictive practices legislation. It would also be proposed that, subject only to prudential financial requirements and to demonstration of capacity to supply

11 "Social security status" would eventually reflect cost differentials associated with differences in the relative need for services by beneficiaries. The relevant data are unlikely to be available at the outset of the program, so that in the short term the only cost differences incorporated would be those arising from reduced copayments and deductibles payable by them.
promised benefits, any organisation (public or private) to be able to operate a health plan. The purpose of open entry would of course be to maintain competitive pressures on existing health plans and future entrants to the industry.

One of the effects of risk-rating, as compared with community rating, would be to reduce the exposure of health plans to large deviations from average industry experience, since premiums from all classes of contributors would correlate more closely than at present with the cost of benefits paid to them. One result would be a reduced requirement for reserves, not only from month to month, but also over the longer term, when outgoings could rise substantially as the result of an ageing membership. Another result would be to reduce the minimum scale at which a health plan could be viable. Under community rating, the number of persons covered has to be very large (in order to increase the likelihood of claims experience converging to the mean), and there is currently a strong trend to concentration, to the point of incipient monopoly in some markets. With risk rating, elimination of the principal factors causing systematic variation would greatly reduce the minimum viable scale of operation and hence lower barriers to entry.

The potential benefits from the proposed arrangements could be substantial. On the one hand there would be no sacrifice of universal coverage or equity (defined in terms of transfers related to health service use and income), since those who did not opt for private coverage would continue to receive Medicare benefits exactly as at present. On the other hand, the private sector would introduce elements of diversity and decentralised decision making which could be conducive to innovation and other benefits in the form of wider choice and lower costs. Consumers would be able to elect for alternatives to current Medicare benefits offering access to private hospital care, at predetermined levels of cost-sharing, on more advantageous financial terms than are now available. Competition should encourage health plans to minimise all components of their costs, and the competitive incentives would be transmitted through to health service providers.

**Competition and cost control**

The arguments relating to the effect of managed competition on health care costs are of two kinds. The first relates to **unit costs**. A major part of the case for managed competition rests on the proposition that it will increase efficiency, both in the sense of productive efficiency - i.e. by reducing the real costs of producing particular services
especially those produced by hospitals) - and of allocative efficiency, in the sense of economising on the consumption of health services, including the substitution of lower cost for higher cost interventions. The key incentives in these processes would be prepaid capitation payments to insurers, covering the widest possible spectrum of services, and supported by payment of providers by partial capitation or by other output-related formulae conducive to cost minimisation.

One obvious criticism of the proposal is that no serious attempt has been made - except for increasing the possibility of HMO and PPO type organisations - to change the financial incentives applying to doctors, whose influence on health service utilisation is as great in Australia as in other countries. The reason is that fee-for-service remuneration is so deeply entrenched in private medical practice that there is no workable alternative, for the foreseeable future, to leaving existing medical benefit arrangements, including the present exposure of patients to cost sharing, largely undisturbed. In fact, to the extent that standard tables offered by health plans are likely to include copayments and deductibles which do not currently feature in Medicare, cost-sharing of medical expenses may be significantly increased. At the same time, universal entitlement to public hospital care would protect patients against major medical expenses and constrain private medical fees.

The principal impetus to cost control would be through the financial incentives on health plans and hospitals to control utilisation, inputs and prices paid. Private health plans would be in a better position than monopoly government agencies to adopt innovative utilisation review and second opinion programs, and to contract with subscribers and providers for low cost regimes of care. Since these programs would involve an expansion of the gatekeeper role of doctors, and would achieve savings by the substitution of medical counselling and community care for high cost inputs, they should attract support from the medical profession.

The second aspect of cost control relates to total expenditures. The control of total expenditures was designated in the initial section as one of the environmental constraints within which the objective of supply side efficiency has to be pursued. Its achievement in most countries in the 1980s is largely due to the more rigorous application of global budget constraints through the public sector, which has been made possible through the increasing centralisation of funding sources in the hands of government. At first glance, the managed competition proposal appears to cut across this condition, by increasing the role of the
private sector. However, the overall financial responsibility of the public sector would not be diminished. The reduction in direct public outlays on Medicare and pharmaceutical benefits, some of which are doubtfully amenable to control, would be offset by increased constraints on use and unit cost of private services resulting from improved financial incentives. At the same time the capping arrangements proposed for case payments to fund hospital services to public patients would effectively maintain the present budget constraint on the main component of public care.
A unique aspect of the Australian proposal is that the existence of the public Medicare program would provide an additional stimulus to health plans and other private sector agencies to contain costs. Their failure to do so would force increases in their supplementary premiums and erode their share of the market. It might even be feasible for the Commonwealth government, within limits, to reinforce this incentive by setting per capita cost targets for health plans and varying the level of premium subsidies inversely to the level of costs achieved.

All these features - operating in the context of comprehensive incentives to lower unit costs - could be expected to result in continued containment of total health expenditures. At the same time the point should be made that containment of total expenditures is not an end in itself but has been employed as a coarse method of raising efficiency in a system characterised by widespread market failure. To the extent that the market failure can be remedied by managed competition, centralised capping should be less critical to the maintenance of total expenditures at socially affordable levels.

Some reference needs to be made to administrative costs, which are inevitably higher in a pluralistic system than in a monopoly public program. Evans (1988, p.18) has estimated the additional costs of the US health system, compared with that of Canada, at one half of one per cent of GDP. Given that Australian health costs already include a substantial private insurance component, the prospective costs of managed competition would be considerably less than this figure. Deeble (1990) has suggested a figure of up to $300 million, or 0.1 per cent of GDP. Even this may be on the high side, since it may over-estimate the economies of scale under current technology. It is also likely that a significant proportion of the transfer from public to "private" transactions would take place within the Health Insurance Commission.

The key issue is whether the additional administrative costs - which in the Australian context may be modest - would be outweighed by the benefits arising from more efficient resource allocation. From the point of view of equity, it may be observed that the additional costs would be borne by those taking the private option, who would presumably place a higher value on the consumption benefits.

**Competition, cream skimming and efficiency**
The potential of managed competition to result in increased efficiency depends critically on reducing the opportunities of health plans to engage in selection of preferred risks within premium categories to the point at which the costs outweigh the benefits. Unless this can be achieved, the case for a competitive approach is fatally weakened, and there are many in Australia who would agree with Deeble's (1990) view that, given the past record of private health insurers in Australia, they would still find ways under a managed competition regime to shift costs rather than seek real efficiency gains.

The possible forms of "cream skimming", the potential profits to be derived from its practice and methods of reducing it to a level consistent with workable competition have been comprehensively analysed by Van de Ven and Van Vliet (1990). They have extended and tightened Enthoven's double-barrelled approach based on

1. a subsidy structure which includes adjusters for as many as practicable of the risk factors which have a predictable bearing on costs and which could be known to potential insurers, and

2. a regime of regulation, relating to contract terms, enrolment procedures and performance monitoring, designed to minimise the opportunities for, and raise the costs of, risk selection.

The importance of including indicators of health status in the premium structure has been dealt with in a previous section. An alternative approach to reduction of cream skimming - which would lend itself to use as an interim measure - would be to allow some form of risk sharing, in which some of the costs of specified patients or services would be met by Medicare (and deducted from the premium subsidy pool). Cost sharing could take many forms. Van de Ven and Van Vliet make the novel suggestion that insurers might even be accorded the option, within limits, of nominating which risks would be shared with the central fund - with the consequential benefit of providing information which could subsequently be used in premium setting. However their longer term objective would be to minimise cost sharing and to develop measures of health status, rather than use or cost, as the health-related adjusters in the capitation formula.

---

12 A 50-50 blend of capitation and service fees is advocated by Newhouse (1990) as the means of minimising welfare losses in a system of administered prices, with specific reference to US Medicare reimbursement of HMOs.
While forcefully highlighting the problems presented by risk selection, Van de Ven and Van Vliet are confident of the practicability of a premium structure and regime of pro-competitive regulation which would reduce risk selection to minimal levels. It may be noted that, in the proposed Australian context, the two arms of anti-cream skimming policy would be supplemented by a third, in the form of public sector provision of coverage and services. In Enthoven’s proposal for the USA and the projected Dutch program, all consumers would be required to enrol with competitive health plans. In these circumstances, equity and efficiency objective would depend entirely on the collective, if not the individual, performance of private agencies. In the proposal for Australia, private coverage would be optional, so that consumers with fears of discrimination - justified or otherwise - would be able to avoid it by retaining their public Medicare entitlements.

The concurrent operation of a wholly public program would also mean that the government, as financier of the central fund, might have less reason to be concerned about the adequacy of coverage of poor risks by the private health plans. If, by the design of insurers or the choice of insureds, the private health plans achieved a better mix of risks than Medicare, it would be able to compensate by adjusting the level of premium subsidies to reflect the relative risk composition of public and private plans. It would not be difficult to arrange sample surveys of privately and publicly covered persons on which such adjustments could be based.

5. SUMMARY AND CONCLUSION

The broad conclusion of this paper is that incorporation into the current Medicare program of a managed competition option constitutes a policy initiative which is capable of improving the efficiency of the Australian health care system without prejudicing other key objectives of equity and control of total expenditures.

While Enthoven’s concept of managed competition has been shown to be capable of adaptation to the health care systems of many countries, some features of the Australian system - notably the extent of the private sector and the overlapping of federal and state government functions and responsibilities within the public sector, and the lack of systematic articulation between the various elements, pose distinctive problems in the design of payment and funding arrangements. In addition, it is no less necessary than
elsewhere to take into account the ideological underpinnings and political realities which
determine what is achievable in practice, even if this involves some sacrifice of conceptual
coherence.

The resulting prescription, as presented in this paper, is a complex hybrid of public
framework and competitive dynamics, which redefines some aspects of the roles of all the
participants. It is difficult to characterise in terms of current nationalisation/privatisation
stereotypes. The proposal to consolidate and extend the range of services covered by
Medicare and to incorporate private insurance formally within it can be seen as increasing
the scope and solidarity of the public program. On the other hand, devolution of the
coverage of more than half and perhaps as many as two thirds of the population to private
health plans may be seen as a major program of privatisation, with the premium subsidies
capable of being interpreted as a type of voucher system.

However, the funding shifts are not even as distinct as this may indicate. The shares of
original public and private sector funding - i.e. government budgets on the one hand and
private insurance contributions and out-of-pocket payments by patients on the other - will
depend on consumer responses, but would be unlikely to change much from the present
69:31 ratio. It is possible - depending on government policies on cost-sharing - that the
proportion of out-of-pocket payments in the private sources would increase, but the
decrease in transfers from non-service users to users would be substantially offset by
increased transfers from low to high users resulting from the shift in out-of-pocket costs
from unrecouped excesses to up-front deductibles.

The replacement of large proportions of current Medicare and pharmaceutical benefits by
premium subsidies would considerably increase the share of health expenditures met by -
and hopefully under the influence of - health plans outside the budget sector. However,
while these health plans have been described up to now as "private", there is no
suggestion that the right to conduct health plans should be confined to organisations
disassociated from government. On the contrary, the reduction in minimum scale would
facilitate the formation of HMOs by local, area and state governments and it would be
expected that Medibank Private, which is operated by the Health Insurance Commission,
would not only remain the largest single insurer but could be encouraged to be a
pacesetter in innovation of new forms of delivery. It should also be kept in mind that private
health plan funding is not locked into private sector service provision: in particular, the
extent to which private hospitals' share of the market increased (or decreased) would depend on their competitiveness. It is not proposed that people opting for "private" coverage by health plans should be inhibited in any way from obtaining treatment, as private or public patients, in public hospitals. It is possible that increased funding through health plans could increase the volume of care provided by public hospitals.

Finally, since one of the central purposes of managed competition would be to encourage substitution, the objective would be to achieve extensive and thoroughgoing structural change on the supply side. The financial incentives are designed especially to affect acute inpatient care, with pressure to reduce costs by the elimination of excess capacity, and its replacement by facilities for outpatient and less acute long term care. These incentives could be expected to exert considerable pressure for the restructuring of output and capacity within the private sector.

The managed competition program outlined in this paper has several potential advantages over the alternatives. Above all, it constitutes a rational strategy for microeconomic reform in a major area of the post-industrial economy, which - partly for the want of usable measures of hospital output - has not hitherto been susceptible to rational economic management. Given the clouded outlook for the Australian economy in the medium term, the improvement in supply side efficiency in the health service sector may not only be a significant contributor to improved performance in the economy as a whole, but may provide a basis for maintenance of a vital component of the social security system which may otherwise come under threat.

Secondly, it provides a potential bridge between the two ideological strands in Australian health policy - redistributive/welfarist and freedom of choice through the public/private dualism - which have been the source of policy and program instability for decades. The political turbulence which this has engendered has deflected attention from the many real problems presented by technological, environmental and demographic change. An end to the divisions which have resulted in periodic dislocation of health insurance and funding structures would be a major bonus.

It might be argued that the potential of procompetitive regulation and risk-rated premium subsidies to produce workable competition has not yet been established to the extent which would justify the implementation of a program incorporating them. On the other
hand, there is a growing feeling that the present combination of ceilings on public hospital budgets and declining private insurance coverage is corroding both efficiency and access. Structural changes to Medicare are bound to be on the main agenda of the government's enquiry into the National Health Strategy, and it can be expected that some form of managed competition and case payment for hospital services will be considered as significant policy options.


Australian Institute of Health (1990a), *Australian Health Expenditure to 1987-88*. Health Expenditure Information Bulletin No. 4, Canberra

Australian Institute of Health (1990b), *Australian Hospital Expenditure and Utilisation 1982-83 to 1988-89*. Health Expenditure Information Bulletin No. 5, Canberra


the Second World Congress on Health Economics, University of Zurich


Deeble, J. (1991), *Medical Services through Medicare*. National Health Strategy, Background Paper No. 2, Department of Community Services and Health, Canberra


Fetter, R.B. et al. (1980), "Case mix definition by diagnosis related groups", *Medical Care*, Vol no 18, February Supplement, 1- 53


Newhouse, J.P. (1990), *Pricing and imperfections in the medical care marketplace*. Keynote paper presented at the Second World Congress on Health Economics, University of Zurich


Scotton, R.B. (1990), "Integrating Medicare with Private Health Insurance: The Best of Both

Scotton, R.B. and Owens, H.J. (1990), *Case Payment in Australian Hospitals: Issues and Options*. Public Sector Management Institute, Monash University, Melbourne


Van de Ven, W.P.M.M. and Van Vliet, R.C.G.A. (10-14 September 1990), *How can we prevent cream skimming in a competitive health insurance market? - the great challenge for the 90s*. Keynote paper presented at the Second World Congress on Health Economics, University of Zurich
