

Health Care Reform: An International Perspective

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1. Introduction

The design of systems for health care finance and delivery is under review in many countries. A pervasive question is the appropriate role of government in achieving goals of efficiency and equity. Several countries appear to be converging on a common model, in which government plays a major role in assuring that insurance coverage is universal and affordable, but with competition in the provision of insurance and of medical care, in order to stimulate efficiency and provider responsiveness to consumer preferences.

The thesis of this article is that assuring universal coverage requires government intervention. However the goals of efficiency in resource allocation to medical care are more likely to be met if the insurance coverage is provided through competing private health plans, rather than a public insurer, with or without supplementary coverage. Efficient control of moral hazard requires putting providers at risk for costs. But since providers are thereby also exposed to exogenous risk, efficient risk pooling requires reinsurance for providers. Competing systems that integrate both insurance and health care delivery functions offer the best prospects for efficient trade-off between the twin goals of efficient risk spreading and control of excess use.

In this article, Section 2 outlines the main features that make medical care different from most other goods and services. Drawing on this analysis, Section 3 outlines the necessary role of government in a competitive approach to health care system design. Section 4 discusses problems with the current US health care system, and hence why it does not provide valid

evidence of the potential performance of a well-designed market-based system. Section 5 extends the comparison to private insurance as it existed in Australia before the introduction of the single public insurer for basic services in 1975. The concluding section reviews common criticisms of market-based approaches to health care, drawing on theory and evidence from several countries.

2. Why is Medical Care Different?

The characteristics that distinguish medical care from other goods and services have been extensively discussed (for example, Arrow 1963; Culyer 1971; Pauly 1978). Here we summarise the main points that are relevant to the organisation and financing of medical care.

Whilst uncertainty about the value of medical treatments is pervasive, more of a concern is that information is often asymmetric. This holds between doctors, patients and insurers. Since doctors have a financial stake in their advice, the design of contracts and payment mechanisms to induce (second best) efficient provider behaviour is critical.

Asymmetric information also undermines the efficient provision of health insurance, which is subject to both moral hazard and adverse selection. Patient co-payments can constrain moral hazard, but their efficient use for major illness is limited because of the trade-off with financial protection (Zeckhauser 1970).¹ The practical importance of adverse selection remains an empirical question. In the United States, the use of group insurance purchased through the workplace may be a device to avoid adverse selection, but tax advantages and

scale economies are also important. Evidence suggesting that adverse selection is a factor in markets for individual and small group coverage, includes the prevalence of restrictions on coverage for pre-existing conditions.

Under systems of private insurance, individuals with low income or chronic, costly diseases may find actuarially fair premiums unaffordable. To the extent that medical care generates consumption externalities, either because of communicable diseases or more general merit good² concerns, most societies wish to assure that all citizens have access to basic medical care. Most developed countries achieve this through systems of subsidised insurance such that everyone, regardless of income, can afford to pay for medical care.

To assure that insurance coverage is universal, and to administer the taxes and subsidies required to make it affordable, government intervention is necessary. In addition, if health insurance markets are subject to adverse selection, making insurance compulsory may be Pareto improving (Dahlby 1981). However, for addressing the problem of moral hazard, government has no advantage over private insurers. On the contrary, empirical evidence suggests that private insurers operating in competitive markets are more likely to have the information and incentives necessary for (second best) efficient control of moral hazard. This is discussed further below.

3. A Competitive Approach to Universal Coverage

We assume that the goals of health care system design are to assure universal coverage, with reasonable efficiency (subject to the information constraints), and equity in financing and in service availability. Efficiency includes both production and consumption efficiency. We define equity to mean that a basic level of medical care and financial protection is available to everyone, with non-regressive financing. Individuals who wish to purchase more comprehensive coverage may freely do so but without additional public subsidy.

In such a system, the essential functions of government are three:³

- (i) To require everyone to obtain the basic coverage (an individual mandate). Mandatory basic benefits should reflect willingness to spend on medical care for oneself and for others. Coverage may be obtained through employment, other groups or individually.
- (ii) To assure that the mandatory coverage is affordable for low income and high-risk individuals. This can be done through a system of refundable tax credits or vouchers that are related to income (inversely) and to expected cost of coverage, and are administered through existing tax and welfare agencies. These subsidies should be fixed irrespective of the level of coverage actually purchased.
- (iii) To implement the minimum regulation of insurance markets necessary to assure coverage availability. These regulations include a requirement that policies be guaranteed renewable at class rates for a limited period (say three years), with limits on restrictions for pre-existing conditions. Thus, should a person contract a high-cost medical condition, the policy could not be cancelled or restricted, and could not be surcharged for a limited period. Community rating within classes, mandatory open enrolment, and a reinsurance facility may be useful to ensure access and affordability for high risks, depending on the extent of direct risk-related subsidies. Provision of information to consumers about the plans available in the market could also be useful, including information on premiums, cost-control strategies and outcomes, to the extent that such information is reliable and cost-justified.

4. Why the United States Is Not A Well-Designed Market System

The current US health care system does not exemplify such a well-designed market-based approach for several reasons.

Tax subsidy to employer contributions. Employer contributions to health insurance are

tax-exempt to employees. This implies an open-ended subsidy to employer-provided insurance, at a rate equal to the employee's marginal tax rate. Including all federal and state income and payroll taxes, the average marginal rate is over 30 per cent and exceeds 50 per cent for those in top tax brackets. This tax exclusion violates equity and undermines efficiency. It costs the government over \$60 billion in foregone tax revenues, but does little to make coverage affordable to low income families, who face low marginal tax rates, and those who are ineligible for employer-sponsored coverage.⁴ Because the subsidy is open-ended and applies to premiums but not co-payments, it encourages comprehensive coverage and undermines the demand for policies with strong controls on moral hazard. This in turn fuels demand for health care, including quality-enhancing technologies, while making consumers indifferent to costs.

No individual mandate and incentives to free-ride. Obtaining insurance is voluntary and roughly 15 per cent of the population lack formal insurance coverage. This may be a rational strategy, given the availability of free care. Public hospitals cannot withhold care, regardless of ability to pay, and not-for-profit hospitals are expected to provide charity care as a condition of their tax-exempt status. In addition, the public means-tested program Medicaid has a spend-down provision such that even those with income above the eligibility threshold can qualify if they incur large medical expenses. This acts as catastrophic insurance with an income-related deductible: it provides protection from medical expense beyond a threshold which depends on one's income.

Given these sources of free care, free-riding may be a rational strategy: the premium for private insurance reflects the full cost of care, whereas the benefit is only the marginal improvement in protection and quality, over and above that available under public programs and free care. This Samaritan's dilemma may make it optimal to require everyone to obtain insurance.

State-mandated benefits. Virtually all states require that insurers include certain benefits in all health insurance policies. These benefits in-

clude substance abuse treatment, in-vitro fertilisation, chiropractic care etc., and are typically instigated by providers. The effect is to raise the cost of basic coverage and reduce the number of people willing to buy coverage.

Public programs. The design of the two public programs, Medicare for the elderly and Medicaid for certain low-income families, has contributed to cost inflation for private plans for several reasons. Prior to 1983, the use of cost-based reimbursement of hospitals encouraged hospitals to compete on quality rather than cost, contributing to the proliferation of high-tech equipment, often underutilised. More recently, the very low rates of reimbursement paid by public payers, particularly Medicaid, has allegedly led to cost shifting to private payers. Its extent, however, is debatable.⁵

Insurance regulation. State regulation of insurance is not designed to address problems of adverse selection. In particular, there is no requirement for limited guaranteed renewability and no mandate for universal coverage, although this would eliminate extreme adverse selection since low-risks could not drop out of the market.

Thus the widely cited problems of the current US system—the highest health care spending per capita of any country, while 15 per cent of the population lack formal insurance—are not intrinsic to market-based approaches. Rather, they reflect some perverse tax and regulatory policies, while other necessary policies are absent.

Similarly, the common observation that high US spending buys little improvement in health as judged by its poor performance in measures of infant mortality, mistakenly infers causation from correlation. Infant mortality rates reflect reporting differences and lifestyle factors, as well as medical care. The major cause of high US infant mortality rates is high frequency of low birthweight births, which are attributable primarily to social factors, including poor nutrition and substance abuse in subgroups of the population. Conditional on birthweight, US survival rates compare very favourably, which reflects the high intensity and quality of neonatal care. Whether spending on lifestyle modification rather than treatment would be more

cost-effective is a separate issue. The point here is that simple mortality rates, that do not control for other relevant factors, cannot accurately measure the marginal product of medical care.

5. Australian Voluntary Health Insurance 1952 to 1975

Like the current US system, the Australian voluntary private health insurance system, that preceded the universal public system introduced in 1975, had some perverse features and lacked other necessary features of a well-designed competitive system for achieving universal coverage.

First, insurance was not compulsory. Insurers remained exposed to adverse selection, which probably explains the existence of restrictions based on pre-existing conditions, at least until 1970.

Second, the structure of public subsidies in the form of bed-day subsidies to hospitals undermined incentives to buy private insurance. Hospitals were required to charge the lowest fees to means-tested patients, while other patients were charged higher fees but received free choice of doctor. This means-tested free or subsidised care constituted a form of public catastrophic insurance with an income-related deductible. Hence, it undermined incentives to purchase insurance, particularly for low income individuals.

In 1952 the general Commonwealth bed-day subsidy was augmented by an additional per diem subsidy for those who purchased insurance. Although intended to encourage the purchase of insurance, conditioning the additional subsidy on such purchase may simply lead to an increase in fees, utilisation and hence the total cost of medical care, gross of premiums.⁶ As in the United States, the availability of subsidised care may have undermined demand for private insurance.

Assuming a positive income elasticity of demand for medical care, for those above the means test threshold, the subsidy was regressive, offering greater absolute benefits to higher income individuals. Moreover, the tax deductibility of health insurance premiums and

out-of-pocket medical expenses offered a higher rate of subsidy to higher income individuals (Scotton 1967). Not surprisingly, an estimated 15 per cent of the population remained without coverage and others had only shallow coverage. As in the United States, the uninsured were disproportionately in low income brackets.

Insurers were heavily regulated, including requirements to offer uniform benefit structures and uniform, community-rated premiums. The evidence of substantial non-price competition (Scotton 1968) suggests that the regulated rate levels exceeded levels necessary to yield a competitive return on an efficient structure of costs. Any incentive to compete by developing innovative strategies to control moral hazard, such as payment per case or capitation, was undermined by the tax subsidy and by the tying of public subsidies to per diem forms of reimbursement.

In summary, the voluntary insurance system in Australia, as in the United States, performed poorly because of bad design. Both lack a mandate for universal coverage, a system of income-related subsidies, and appropriate regulation of private insurers. Neither therefore provides evidence of how a well-designed private system for achieving universal coverage might operate.

6. Discussion

Both a pure public monopoly system like Canada's and Australia's current mixed system, with a public base supplemented by private insurance, are unlikely to achieve either consumption or production efficiency in health insurance and medical care. Principal-agent theory suggests that, given the importance of asymmetric information, the second best efficient form of health insurance contract includes some transfer of risk to providers and possibly direct controls. Consistent with this, under increasingly strong competitive pressures, insurers in the United States are supplementing patient co-payment with a range of 'managed care' strategies that are often associated with health maintenance organisations (HMOs) but are also used by other insurers.

The common feature of managed care strategies is that the insurer is no longer a passive payer. Rather, direct controls and reimbursement systems are designed to give providers incentives to control insurance-induced overuse. For ambulatory care, for example, insurers may contract only with preferred 'cost-effective' providers, selected on the basis of discounted fees, acceptable quality and agreement to adhere to pre-specified treatment protocols. Providers outside the network cannot be reimbursed or only with higher patient co-payment. Capitation reimbursement, which pays the provider a fixed amount per patient per month to cover designated services, puts the provider at risk for the designated services. The broader the range of services included in the capitation, the more comprehensive are incentives for efficient substitution among medical inputs and for the control of costs. Whereas with fee-for-service reimbursement, additional services generate additional net revenue, the capitated provider who performs additional services incurs costs but no additional revenue.⁷ Because capitated doctors must compete for patients, capitation may provide a better mix of cost and quality than either fee-for-service or salary.

For hospital care, the increasingly widely used strategy is payment based on a fixed fee per admission, adjusted for casemix (known as DRGs), rather than a per diem, per service or cost basis. Payment per admission creates incentives to reduce inputs per admission, reduce length of stay and increase number of cases treated. For example, the introduction of admission-based payments has contributed to the elimination of hospital waiting lists in Sweden. However without controls, it may result in cost shifting to ambulatory services. Managed care insurers that retain per diem payment systems use other strategies, including utilisation review prior to and concurrently during the hospital admission.

Public insurers appear to be less able or willing than private insurers to implement these managed care strategies. In most countries with public (Canada, Australia) or quasi-public (Germany, Japan) insurance, doctors are paid fee-for-service and patients have free choice of doctor, as is preferred by the medical profes-

sion. Reducing fee levels is the main strategy for controlling costs.⁸ But since regulators can regulate fees but not services provided, reduction in fee per visit leads to unbundling of comprehensive visits into more frequent, shorter visits and separate billing for ancillary services such as laboratory tests. To counteract increasing volume, payers in Germany, Japan, Quebec and the Medicare program in the United States have established an inverse relation between fee levels and volume: if volume increases 10 per cent, fees are reduced 10 per cent.

Fee and volume controls constrain total budget costs, but probably lead to higher total real resource costs. The proliferation of short visits increases patient travel and waiting time, even if total doctor/patient contact time remains unchanged. For example, in Japan the average visit lasts roughly five minutes, and the average Japanese makes twelve doctor visits per year. In the United States where fees are less controlled, the average visit length is 15 minutes and patients on average make four visits per year. Total doctor/patient contact time is the same in both countries, but patient time costs are almost three times higher in Japan, assuming that travel and waiting time are invariant with length of visit. Comparisons of budget costs thus provide a biased measure of total resource costs of medical care in the two countries.

Use by public payers of selective contracting and comprehensive capitation is limited. It is more common in the US public programs where the pluralistic insurance market offers alternative customers for providers. However, offering patients a choice of capitated provider or insurer recreates problems of adverse selection and risk-rating, which are eliminated in a tax-financed, public monopoly system. For example, the US Medicare program offers beneficiaries the option of enrolling in a capitated HMO as an alternative to standard fee-for-service Medicare. The inability of Medicare to accurately risk-adjust the capitation payments made to the HMOs has led to incentives for cream skimming by the HMOs and a net increase in total budget costs for Medicare. Thus in the absence of accurate risk-rating, public payers cannot use comprehensive capitation to

control costs in the way that private insurers do.

The United Kingdom's system of fundholding GPs illustrates the limits on the ability of a public payer to put providers at risk through comprehensive capitation, in order to control costs and encourage efficient service mix. GPs were originally capitated only for their own primary care services. Obstacles to patient switching, and hence weak competitive pressures, led to concerns over low quality of care for patients and weak incentives to conserve costs that were not included in the capitation payment. The 1989 reforms permitted GPs in large practices to become fundholders. These fundholders are paid a more comprehensive capitation, including drugs and minor surgery; they also contract for hospital services on behalf of their enrolled patients.

Compared to a comprehensive HMO, these fundholding GP groups have a small patient pool and responsibility for only a subset of costs. Major in-patient care is excluded from the capitation and there is a stop loss (limit on out-of-pocket costs) on total costs borne by the group. The basic problem is that, because of imperfect information, the insurer cannot distinguish high costs caused by exogenous patient conditions from high costs caused by moral hazard. A capitated provider therefore bears the exogenous risk of enrolling a very sick patient, as well as the moral hazard-induced 'endogenous' risk, which is not really risk. Individual providers are not efficient bearers of exogenous risk. The greater the variance of the exogenous risk in the patient population and the less accurately the capitation payments are adjusted for this risk,⁹ the lower is the optimal stop loss and the more limited is the range of services that can be included in the individual provider's capitation. But such limits, like any insurance, undermine provider incentives to conserve, which is the purpose of the capitation. Thus capitation of providers, like patient co-payment, entails a trade-off between incentives and risk-spreading.

However private insurers can be capitated for the full range of services and the total cost of patient care. They in turn can supplement partial capitation of individual providers with

other strategies—protocols, monitoring and incentives—to control overuse of services for which, in the interest of optimal risk allocation, providers and patients have full insurance. Public payers use less fine-tuned strategies, if any, to control overuse of fully insured services, possibly because the government lacks the information and expertise to micromanage the delivery of medical care, and it would be politically unacceptable.¹⁰ By contrast, private insurers specialise in such functions and only survive in business if they perform them in ways that are acceptable to patients and providers.

These strategies used by private insurers account for a significant part of their higher administrative expense, relative to public insurers. The higher reported administrative expense is frequently cited as a reason for preferring public monopoly insurance schemes to private insurance. In fact the converse is closer to the truth, as long as private insurers are permitted to compete on price and form of insurance, and are subject only to the minimum necessary regulation to ensure solvency and availability. Since competing insurers must charge premiums sufficient to cover costs, their incentive is to incur administrative expense only to the extent that policyholders are willing to pay for the additional services through higher premiums. Thus in competitive insurance markets, there is a presumption that administrative expenditures reflect the cost of providing valued services, not pure waste (Danzon 1992). For US insurers, the largest component of overhead cost is expenditure to control moral hazard. The hidden but real offsetting benefit is reduction in the deadweight loss (excess of cost over benefits) from insurance-induced overutilisation of medical care.

By contrast, monopoly public insurers that are not subject to market constraints face weaker incentives for efficient control of costs. They typically use cruder strategies—including regulated fees for doctors and global budgets for hospitals—that lead to higher patient time costs, queues for hospital care and forgone patient wellbeing and productivity. These costs of patient time and forgone wellbeing are real social costs, but are hidden and do not appear in insurer accounting statements.

Similarly, whereas private insurers incur monetised costs to collect premiums and maintain capital reserves, public insurers use tax-based financing and hold minimal if any reserves. The deadweight costs of tax-based financing, which have been estimated for the United States at 17c to 50c per dollar of tax revenue raised (Ballard, Shoven & Whalley 1985) and 23c to 65c per dollar (AUS) for Australia (Findlay & Jones 1982), do not appear on the balance sheets of public insurers.

The argument that competition forces private insurers to invest efficiently in overhead functions may not apply to private insurers that offer only supplemental coverage and are heavily regulated with respect to form of cover and premiums, as are private insurers in Australia. If premium regulation forecloses price competition, and prices are regulated above competitive levels, this creates incentives for non-price competition that may be of little value to consumers. The widespread purchase of supplemental insurance, despite these potential inefficiencies, may reflect the fact that supplemental insurance offers benefits that exceed the cost of billed services, if some of the costs are shifted to the public system. This can occur even if gap insurance is not permitted, since supplementary insurance tends to increase use of all complementary services, including some that are paid for by the public program. If on balance, services covered through supplemental insurance are complements rather than substitutes to those covered in the public program, those who purchase supplemental cover at actuarially fair rates in effect receive a subsidy from the public system.

In summary, public insurance has no advantage over private insurance in achieving equity in financing. A system of refundable tax credits can be designed to achieve any desired sharing of the burden of financing compulsory universal private insurance. Public insurers are at a relative disadvantage in controlling moral hazard, for the reasons discussed above. Although they report lower administrative costs, this comparison based on accounting costs omits hidden costs of public systems. Private insurers that compete on price and quality have incentives to incur administrative expense only to

the extent that policyholders value the additional services.

Although public insurers have an advantage in avoiding adverse selection, this advantage erodes if they offer consumers the choice of opting out into either private insurance, competing sickness funds (as in the Netherlands) or to providers paid a comprehensive capitation. Most public monopoly or compulsory sickness fund systems are moving to offer consumers more choice among insurers and providers, in order to make providers more consumer-sensitive, thereby increasing production and consumption efficiency. As this proceeds, the logic for moving to a system of integrated competing private health plans, with incentives for efficient risk pooling and control of moral hazard, becomes overwhelming.

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Endnotes

1. Experience rating, which is used to deter moral hazard in other lines of insurance such as automobile liability, is not widely used in individual health insurance contracts, presumably because imperfect information precludes accurate distinction between exogenous risk and moral hazard.
2. Medical care is a merit good if individuals get satisfaction from knowing that everyone in the society has access to basic care.
3. For more detail, see Pauly, Danzon, Feldstein and Hoff (1991).
4. Individual premium contributions by the self-employed have recently been made 25 per cent tax deductible.
5. In simple models of profit-maximisation, a reduction in price paid by one group of customers leads to a lower, not higher, price charged to other customers. However cost-shifting is consistent with models of not-for-profit behaviour subject to a budget constraint, depending on the hospital's objective function (Dranove 1988).

6. Higher rates of subsidy for hospital care than for doctors and drugs distort incentives for efficient substitution of services.

7. The incentive may be to provide too little rather than too much care, unless constrained by the need to compete for patients and payer contracts. Outcomes reporting becomes more important, to facilitate informed contracting by insurers and informed choice by consumers.

8. Australia and Japan also use co-payments.

9. So far, the UK National Health Service has not attempted to risk-adjust the capitation payments made to fundholding GPs, but need for such adjustment is recognised.

10. Provider profiling is used in Canada, Japan and Australia to identify extreme outliers in the provider population, but such screens are crude.

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