Essentials of Health Economics

Part II (continued)—Financing health care

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Clearly there is much more to financing health care than money. The system of finance is superimposed on a complex set of relationships between doctors, patients, institutions such as hospitals and insurance agencies, and the community at large.

Patient demand

From the patients' point of view, the demand for health care is the result of a more fundamental demand for health itself. Health care is only one way of improving health; items such as diet, lifestyle, and education may also be important.¹ It may be more cost effective to improve health by inducing changes in these other factors and most medical practitioners are alert to this—such as the GP who suggested to one of the authors that his persistent stomach pains might be the result of too much "hurry, worry and curry." There are those who argue, with some justification, that these wider aspects of the promotion of good health (as opposed to the amelioration of sickness) have not been faced up to by successive ministers of health.²

Most financing studies are concerned with the use of the health services and the proportion of the total cost that the patient has to bear. If the money price at point of delivery of care is zero, will patients consume "too much" care? (Here "too much" would be defined as the consumption of care past the point where the benefit from the last unit of care is less than its opportunity cost to the community; this is a potential result of *moral hazard* as mentioned in the previous article. What happens to the demands of patients when a charge is made? Most of the information in this field comes from North America. Experiments have been conducted changing the level of *co-payment*; that is, the proportion of the cost borne by the patient. The most well-known of these is the experiment carried out by the Rand Corporation.³

The conflicting results of different studies mean that issues, such as the extent of the fall in demand, the *incidence* of any fall (does poor peoples' demand fall more than that of the rich?), and the *nature* of any fall (does co-payment discourage demand for preventive treatment more than curative treatment?) are still being debated. Even under a national health service care is not costless to the patient at the point of delivery. He may have to incur losses in time, forgo earnings, and spend money to obtain treatment.⁴

Supplier-induced demand

Another school of thought suggests that because of the agency relationship between doctor and patient demand can be best influenced by changing the incentives the supplier faces. Some of the best studies in this area have been carried out in Canada. Evans⁵ suggests that the type and amount of care provided is not solely a function of patient "need" but also relates to the physician's desire to achieve a target income. In the USA this *supplier-induced demand* hypothesis has been investigated as one facet of comparative studies of doctors working on a fee-for-service basis with those in prepaid group practices. (Prepaid group practices, such as health maintenance organisations, take an annual subscription from clients and then supply care free of charge in return. They are staffed by doctors on either a salaried or profit-sharing basis.) There is some evidence that the utilisation of certain services, such as hospital care, is lower with health maintenance organisations, although this does not go unchallenged.⁶ Some argue, for example, that the kind of person who signs up with a health maintenance organisation may have different attitudes to health and health care than someone who goes to a physician working on a fee-for-service basis. In addition, Scitovsky⁷ reports figures which do not show great differences in the utilisation of hospital care between the two types of practice, when they are both group practices. Furthermore, she suggests that the influences on levels of care may be more subtle than the desire to increase income and that the group practice form of organisation may itself have an influence on prescribing habits—that is, peer pressures may be important.

Whatever one's views on these matters, clearly an understanding of how the various incentives and disincentives affect professionals' behaviour under each system of financing and organising health care is crucial to the search for greater efficiency. The role of economists has been to point out these phenomena, to suggest options to policy makers, and as far as possible to estimate their likely impact.⁸⁻¹⁰ We shall return to this issue in later articles, since the question of incentives is one which has perhaps been less prominent in policy discussion in the NHS than in other systems. Where in the NHS is the incentive for the clinician to be more cost effective in the care that he gives?

Influence of institutions on financing

So far we have discussed the impact of financing on the people in the health care system, but it should be remembered that institutions sometimes have a personality too. For example, in the USA there has been considerable interest in the way hospitals behave. It is often suggested that in competing for the best physicians (and hence the revenue that those physicians' patients will bring in "hotel" charges) hospitals are overindulgent in the provision of diagnostic and treatment facilities. The result is that hospitals may often have a number of CT scanners

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within yards of each other, when any objective assessment of requirements would suggest that a single scanner would suffice. Also, if the rates of reimbursement by insurance agencies are based retrospectively on the actual costs incurred, there is no incentive for the hospital to be more efficient. These worries have led to a number of measures, sometimes inspired by economic analysis, to promote institutional efficiency.¹⁰

Another crucial point is the role played by the so-called "third-party payers," such as private insurance companies or the government in the case of national insurance schemes (for example, Canada) and public provision (for example, Britain). Clearly, whatever the organisation of health care, the third-party payer can have a profound influence on the amount and type of care given. For example, it is possible to control which procedures are allowable for reimbursement under the insurance scheme or the total amount by which health care costs are permitted to rise in a given year. Again, whether it is better to achieve these aims by stimulating competition between insurers or by government regulation is debatable.¹¹ The weight of evidence seems to suggest that the escalation of costs is less of a problem in the more centralised systems like the NHS.¹²

In the USA the government is subject to open-ended commitments through the third-party intermediary system. Contributions by employers to employee health insurance premiums, no matter how large, are not counted as taxable income to the employee. This means that, say, \$100 of extra health insurance benefits are worth more than an extra \$100 in wages and that the government is paying more on behalf of those who choose more costly systems of care.¹³ This is supported by evidence from Canada where the share of gross national product spent on health care fell from 7.4% (in 1971) to 7.1% (in 1976) in the five years after national health insurance was introduced.¹⁴

Performance of health care systems

The original question posed by economists was, Would a system based more on market principles lead to more efficient delivery of health care? Clearly, because of the nature of the "commodity" health care, the market is not a panacea for efficiency and that no system, whether public or private, will automatically lead to efficient provision of care. Depending on the type of system adopted possible measures can be proposed to encourage efficiency, such as having a clear mechanism for establishing priorities, giving consumers and providers the right kind of incentives, and assessing the costs and benefits of alternative patterns of care. These measures are discussed in later articles.

If no system is necessarily more efficient than another, what can we say about their other attributes? Firstly, public and private systems ration care in quite different ways. The private system rations care by ability to pay, which in practice means the ability to secure adequate insurance cover. Since in the USA health insurance is primarily linked to employment, the provision of health care can be seen as a reward for participation in the labour market.¹⁵ Under the public system there is still a need for rationing, since there are not enough health care resources to meet every need. In Britain rationing is achieved by knowledge, time, and energy and, above all, the ability to wait. Removal of the price barrier does not guarantee an equitable distribution of care, and even under a public system positive steps need to be undertaken to promote equity.¹⁶

Secondly, a private system inevitably leads to more decentralised decision making. This makes control of overall expenditure harder and social priorities more difficult to enforce.¹⁷ On the other hand, it probably does result in a wider range of treatment practices, the more rapid diffusion of new technologies (both good and bad), and more choice for those patients who can afford it. Thus, the choice of method of financing health care is primarily an ideological one and will

always remain so; but the study of financing systems from an economic viewpoint yields important insights which can be used to improve the efficiency of delivery of health care, whatever the system.

Part III of the series will be published next week.

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What is chelation therapy for arteriosclerosis?

Chelation therapy is the repeated intravenous administration of a chelating agent such as disodium ethylenediaminetetra-acetic acid (EDTA), the chief objective being to promote the removal of calcium from atheromatous plaques. Experimental work in animals has shown that this objective can be achieved by EDTA¹ and other chelating agents² but that there is no acceptable evidence that chelation therapy with EDTA is effective in treating human atherosclerosis.³ Furthermore, the drug has a wide range of undesirable side effects including hypocalcaemia, bone marrow depression, and renal damage.—G THOMPSON, consultant physician, London.

¹ Walker FM, Wilson CW, Kaman RL. The effects of EDTA chelation therapy on plaque calcium and plasma lipoproteins in atherosclerotic rabbits. *Fed Proc* 1979;**38**:1047.

² Hollander W, Prusty S, Nagraj S, Kirkpatrick B, Paddock J, Colombo M. Comparative effects of catenab (PHB) and dichloromethylene diphosphonate (Cl₂MDP) on the development of atherosclerosis in the cynomolgus monkey. *Atherosclerosis* 1978;**31**:307-25.

³ EDTA chelation therapy for arteriosclerotic heart disease. *Medical Letter on Drugs and Therapeutics* 1981;**23**:51.