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GP Budget Holding: Scoring a Bullseye or Missing the Target?

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ABSTRACT

Health care expenditure has been increasing steadily for most developed countries over the last few decades, causing governments to increasingly look to organisational and financial reform of health systems. Although the structure and problems of the health care sector in each country may differ, with countries correspondingly adopting different reform agendas, there has been some element of commonality in reforms: that of (managed) competition. There has been some convergence towards the 'public contract model', where public financing of health care is combined with a system of contracts between providers and purchasers of care.

Of particular importance in such reforms has been the strengthening of primary care. General practitioners (GPs), and primary care physicians, as 'gatekeepers' to the health system, are increasingly being called upon to be accountable; not only for their patients' health but also for the wider resource implications of any treatments prescribed. In some countries this role has been formalised through GPs and primary care physicians being allocated set budgets to cover patient care. This approach, although differing slightly across countries, is generally referred to as "budget holding". This is manifest, for instance, through GP Fund holding in the United Kingdom (UK), Health Maintenance Organisations in the United States of America (USA) and Independent Practice Associations in New Zealand (NZ).

This paper examines: (i) what such budget holding seeks to achieve; (ii) the effectiveness of the budget holding experience to date in achieving these objectives; and (iii) factors which may facilitate and impede the success of budget holding.

It is concluded that the efficiency 'target' of budget holding is well in sight for the UK and USA. However, for NZ evidence suggests that the target may be missed altogether.

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1 Introduction

Health care expenditure has been increasing steadily for most developed countries over the last few decades (OECD 1994). Faced with this, governments have increasingly looked to organisational and financial reform of health systems. Although the structure and problems of the health care sector in each country may differ, with countries correspondingly adopting different reform agendas, there has been some element of commonality in reforms: that of (managed) competition. There has been some convergence towards the 'public contract model' where public financing of health care is combined with a system of contracts between providers and purchasers of care (Van de Ven 1996).

Of particular importance in such reforms has been the strengthening of primary care[1]. General practitioners (GPs), and primary care physicians, as 'gatekeepers' to the health system, are increasingly being called upon to be accountable; not only for their patients' health but also for the wider resource implications of any treatments prescribed. In some countries (for instance the United Kingdom (UK) and New Zealand (NZ)), this wider role has been formalised through GPs being allocated set budgets for their patients treatment. This approach is more generally known as "budget holding". Primary Care Physicians in the United States of America (USA) and Canada, through their Health Maintenance Organisations (HMOs) and Health Service Organisations (HSOs) also have budget holding responsibilities[2], while in Australia, budget holding (for GPs and

[1] Of course this is not to say that such reforms of managed competition require the introduction of budget holding for primary care. A notable exception to date is The Netherlands, and it would be interesting to consider the relative success of such reforms with and without budget holding for primary care as such a major feature.

[2] Note that although the USA does not have "GPs" as defined in the UK and NZ context, it does have primary care, or family, physicians, which undertake a similar role. Of relevance to this paper is that these physicians, as part of an HMO, have budget holding responsibilities and incentives very similar to those experienced in the UK and NZ. Indeed, the experience of the HMO was the inspiration for the development

other professionals as 'case-managers') is very much at the experimental stage through the Commonwealth Government's coordinated care initiative (Department of Health and Community Services 1995).

While the intricacies of budget holding differ between countries, some of the aims are broadly similar. The primary objective is to secure cost containment and efficiency improvements in health service provision, through the introduction of competitive market forces. Secondary, but nevertheless important, aims are to secure improvements in the quality of care delivered, and increase the degree of patient choice in their care.

The purpose of this paper is threefold. First, to identify the essential aims and expectations of the budget holding model at a primary care level. Second, to examine the evidence concerning the practical experience of budget holding in achieving these aims, within the UK, NZ and USA. Third, from this to identify factors which may have facilitated, and impeded, the budget holding experience to date.

2 Budget Holding in Principle

The concept of budget holding is relatively straight forward: GPs are allocated funds for selected services for a specific group of patients, and are responsible for how that budget might be spent on patient care (Macklin 1991, Miller and Booth 1995). Budget holding is based upon the concept of managed competition and the purchaser/provider split whereby GPs purchase health care for their patient population within a regulated framework (Enthoven 1978, 1989). As funds are allocated to GPs on an *ex-ante* basis and surpluses may be kept, budget holders are motivated to obtain services at the lowest cost and hence contribute to improving the efficiency of the overall health system. (Pritchard and Beilby 1996)

Although these basic principles of budget holding remain the same, different countries have adopted different approaches to implementation of the concept.

2.1 Budget Holding: A Cross Country Comparison

2.1.1 United Kingdom

At the core of the National Health Service (NHS) was the establishment of an internal market, separating the roles of purchasers and providers of health services (Department of Health (UK) 1989). This was achieved through the development of hospitals and associated services as independent trusts or providers, with the purchasing arm of their services delineated to District

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of GP budget holding in the UK. Thus, in this paper when referring to GP budget holding, we are in fact referring to wider primary care budget holding responsibilities, within which the primary care physician in an HMO structure will be found. For expediency, therefore, this paper refers to "GPs" as shorthand for all primary care physicians.

Health Authorities (DHAs) or General Practice Fund Holders (GPFHs). Provider trusts then enter into contracts to supply services to the DHAs or GPFHs, which purchase health care on behalf of their local populations (Drummond 1995, Woodward and Wilson 1994). Such reforms were, it was argued, to lead to enhanced service quality for patients, improved responsiveness of providers and extended decision making roles of GPs. Ultimately this was to result in a more 'primary care led' NHS, responsive to the patient and with incentives to consider the cost-effectiveness of care and how NHS would best be allocated to serve the needs of the population (Department of Health (UK) 1989, Lerner and Claxton 1994).

Practices for fund holding status were selected from applicants by Regional Health Authorities (RHAs), although day-to-day operational responsibilities are co-ordinated through the Family Health Service Authorities (FHSAs). The 'first wave' of fund holders in 1991/92 were required to have a list size of no less than 9000 (this was later reduced to 7000 by the 'third wave' in 1993/94 with smaller practices allowed to group together).

The scope of services covered by fund holders has generally expanded, and by 1995 covered a wide range of services.[3] Some services were excluded to minimise the possibility of risk selection ('cream-skimming'), such as emergency admissions to hospitals, major conditions, chronic care and any expenditure for a given patient which exceeded £5000. There are also a limited number of fundholders which are now responsible for total costs of care (British Audit Commission 1995). Budgets were set according to historical levels of spending achieved in the previous year; although there have been refinements to this process and FHSAs now use a mixture of historical activity and capitation methods.

2.1.2 New Zealand

In July 1991, the Minister of Health announced a major restructuring of the NZ health system (Upton 1991). This reform had four major components: the separation of purchasing and providing functions which had previously been performed by the 14 area health boards; the creation of new health service providers, Crown Health Enterprises (CHEs), which were a more commercially oriented derivation of the previous area health boards; the creation of new health service purchasers (four regional health authorities which were responsible for the purchase of all personal health services through contracts with public and private providers); and the creation of non-government purchasing agents (health care plans) to compete with the regional health authorities (Gibbs, Fraser and Scott 1988, Upton 1991).

Budget holding is developing rapidly in NZ with over half of all its GPs now involved in some form of budget holding arrangements (Ministry of Health 1996). However, budget holding is evolving somewhat differently to its UK counterpart as independent practice associations (IPAs) and other

[3] This include: a defined list of hospital services, some community health services (eg district nursing, health visiting and community mental services), direct access services (eg physiotherapy), tests and investigations provided on an outpatient basis (eg X-rays), practice prescribed pharmaceutical and appliances, and non-medical staff, such as receptionists, employed by the practice.

umbrella organisations typically act as budget holders rather than individual practices. IPAs range in size from between 10 to 330 practice members, with the average size being approximately 40 (McAvoy and Ashton 1997, forthcoming). Importantly, membership of the IPAs are not restricted to GPs with specialists, midwives and other health professionals involved. Although budgets at present generally are restricted to pharmaceuticals and laboratory tests, several IPAs have begun to extend their budgets to cover other services. (Malcolm and Powell 1996)

The NZ experience also differs to the UK as the majority of GPs within IPAs are paid by RHAs on a fee-for-service (FFS) basis, and the populations for which IPAs serve are not enrolled (Jacobs and Barnett 1996). Additionally, no formal guidelines have been released specifying central elements of the process. For instance, the minimum size of budget holders, the services covered by the budget and the distribution and use of surpluses, and the management of risk are all subject to individual negotiation with the RHAs. (McAvoy and Ashton 1997, forthcoming)

2.1.3 The United States of America

In 1993/94, the Clinton administration attempted a comprehensive restructuring of the health system. The reforms could be described as 'managed competition within a global budget' and were similar to the Dutch reform package in that a core health benefit package would be available to all Americans (Scotton 1995).[4] It was proposed that competing insurers would have to accept all who insured with them, thereby creating greater incentives for increased quality of care and more effective cost control (White 1995).

Although the reforms did not get Congressional approval, it is the USA's ongoing experience with the (population based) HMOs which is of interest to this paper. The term HMO has been applied to a wide variety of organisations, ranging from vertically integrated delivery systems which employ their own medical staff to virtually integrated structures in which the coordination of services is achieved through contract (Robinson and Casalino 1996). In particular, HMOs have been an integral part of the 'managed care revolution' which is currently sweeping across the USA (Reinhardt 1996, Roseman 1996).

Although structures of HMOs vary enormously, they have a common set of budget holding incentives, which broadly correspond with those incentives found in the UK and NZ systems. In general, an HMO provides its enrolled members with a comprehensive list of health care services for a fixed periodic payment that is independent of the member's actual use of services. The HMO assumes the financial risk for provision of services on a prospective basis and, therefore, integrates the functions of insurance and the provision of medical services. (Enthoven 1978). The role of the primary care physician (analogous to the GP) in the HMO is to act as a case manager or gatekeeper who has the responsibility for coordinating patient care within budgetary constraints. Practices or physicians participating in many HMOs receive monthly capitation

[4] In the USA, there has been no universal coverage. The majority of citizens opt for private health insurance (either taken out individually or, more commonly, as part of their employment), with the elderly and poor covered by Medicare and Medicaid respectively.

payments which form the basis of their budget holding responsibilities.[5] Physicians are encouraged to provide cost-effective care through limiting over-servicing as, ultimately, they will have a share in the organisation's net income. The architects of GP fundholding in the UK have explicitly referred to the experience of HMOs as a source of inspiration behind this reform agenda for primary care (Navarro 1991).

HMOs have grown rapidly and by 1993 approximately 22.5% of the population with private health insurance were covered (EBRI 1995).[6] This increase in coverage has resulted from the increasing realisation by employers that the HMOs in many cases offer more cost-effective care (Reinhardt 1996).

2.2 Differences and Similarities Between Countries

The brief review of the current state of play in the three countries with respect to their budget holding initiatives highlight key differences in their approach to the reform of primary care.

First, the structure of budget holders. For instance, in the USA some budget holders through their HMOs have been incorporated into vertically integrated structures, whereby primary and secondary providers are contained within the single organisation. In contrast, in the UK budget holders are very much independent entities at 'arms length' from providers, while in NZ the organisational model differs again. Here, through their IPAs, GPs 'cluster' together and operate through an umbrella organisation to maximise their purchasing capacity.

Second, the types of services upon which GPs can spend their budgets. In the UK budget holders can use their dedicated budgets to purchase a range of hospital and community services, to pay for prescribed drugs as well as expenditure on non-medical practice staff (British Audit Commission 1995). This contrasts with the USA where physicians participating in HMOs have wider responsibilities including primary care provision, authorisation of hospital admissions and coordination of care by both referral specialists and emergency care (Taylor 1989). In NZ budget holding responsibilities are narrow, limited to pharmaceuticals and laboratory services (Kerr *et al* 1996, Jacobs and Barnett 1996).

Third, method of funding budget holders. While some budget holders are funded on a capitation basis (a set amount per patient), there is no consistency concerning how these budgets should be defined. In the UK budget holders have traditionally been primarily paid on a historical 'capitation' basis, although there is currently research into how this method can be refined (Dixon 1994, Dixon *et al* 1994, Maynard 1994). In the USA, although capitation is widely used as a basis for funding HMOs, physicians may be paid in different ways (eg FFS, or salary with a profit-share

[5] This is particularly common in California where HMOs contract with large medical groups that are paid through capitation and are responsible for managing a full spectrum of medical services.

[6] This corresponds with 33% and 44.2% of the privately insured population who receive cover through indemnity plans and preferred provider organisations (PPO) respectively.

arrangement) (Taylor 1989). In comparison, GPs in NZ are paid on a FFS basis although there is an expressed desire for payment by capitation (Malcolm and Powell 1996).

Fourth, how population groups are assigned to budget holders. The population served may be defined geographically, although there may be some other group characteristic (such as employment group) or defined segment of the population. For example, HMOs were originally established to provide health cover for workers in the mining industry, although this role has now been extended to incorporate other industries as well as workers covered through the Medicaid scheme. Historically, UK population groups have been defined by geographical area, although there is now increased consumer freedom in choice of GP (Gervas *et al* 1994).

Fifth, the patient list size of budget holding populations. In the USA, HMOs with patient lists of 60,000 are viewed as 'small', whilst in the UK budget holders with lists of 9,000 patients are considered 'large'. In NZ, there are no policy guidelines on size (Jacobs and Barnett 1996, Malcolm and Powell 1996). The size of the patient list has implications for the financial viability of the budget holder. For instance, research had indicated that HMOs are at risk if patient lists are less than 50,000, and US experience has demonstrated that a number of chronically-ill patients requiring extensive hospital surgery could bankrupt a HMO in a year (Glennerster *et al* 1994, Weiner and Ferris 1990). In the UK, this led to the development of 'stop-loss' arrangements where certain kinds of chronic care are to remain the responsibility of the State and expenditure per patient is capped at a maximum amount (£5000).

Despite these differences, the budget holding models encompass a common set of incentives which affect the GP decision making process. These are discussed in the following sections.

3 Objectives of Budget Holding

Although cost-containment under the guise of 'efficiency' is considered a major objective of budget holding reforms, secondary but nevertheless important aims include increasing quality of care and patient choice/empowerment. These objectives are briefly discussed below and the following section considers evidence for each of the countries discussed with respect to the level of achievement of these objectives

3.1 Cost-Containment and Efficiency

Much health reform has been introduced as a means to curtail any increase in health expenditure, the most significant of which are the secondary and tertiary care sectors. However, since the majority of episodes of care begin with the GP, they have an important influence on subsequent, overall, resource use. The primary motivation for reform in some cases is to extend the role of primary care in order to reduce reliance on more expensive inpatient and specialist care, and to reduce waiting lists (OECD 1994). In other cases, the main objective is to curb unnecessary interventions and excessive billing practices (Welch *et al* 1993). Through making GPs more accountable for their health care decisions by introducing budgetary control, budget holding aims

to achieve improvements in 'efficiency'. What is meant by efficiency in this context is therefore key, and can be considered at two levels commonly described in economics.

First, technical efficiency. This is the level that much of the impact of budget holding is aimed to improve, largely through cost-containment. In this sense, many of the reforms imply that cost will be reduced, or prevented from increasing, but that the quality and outcomes of care will not be reduced. Such technical efficiency is postulated to be improved by providing GPs with an incentive to 'shop-around' for services (rather than being restricted to services from a single provider). Cost-effective care is encouraged as providers have an incentive to be responsive through the threat of GPs taking their business elsewhere. This occurs in most cases through a competitive bidding or contracting system (Kirkup and Donaldson 1994). However, the efficacy of this process is dependent on the relative bargaining strengths of market participants, the number of competitors in the market, the degree of collusion and the extent of information available upon which decisions can be made.

Second, allocative efficiency. Here, the impact of reforms are concerned with what services, and how much of these services, are provided. Budget holding assumes an increased emphasis on 'what services are being provided to whom' rather than the prevailing focus on where the service is, or has been, provided (Macklin 1991, Street 1994). For instance, budget holders can contract with different hospitals for the provision of elective surgery or can substitute between different types of services (in-patient or home care), providing opportunities to better address the needs of their patient population.

Through making GPs more accountable for their health care decisions by introducing financial incentives for cost-effective care, the budget holding schemes aims to encourage greater accountability for any care prescribed. No longer are GPs primarily responsible for managing the health care that their patients receive but they are also responsible for managing the costs that stem from such decisions.

3.2 Other Objectives

While improvements in efficiency are a key aim of the budget holding model, improvements in service quality and empowering consumers also have a high priority. For instance, through making budget holders compete for patient enrolments, and providing patients with greater ability to choose between budget holders, services, it was argued, should become more patient (client) oriented (Jones *et al* 1995). As budget holders are able to contract with different service providers, greater scope for choice lends greater opportunities for improvement in patient service quality as the GP can withdraw support if deficient service is received.

Additionally, for most systems prior to reforms, providers were not faced with incentives to attract patients and provide quality of care as 'the money did not follow the patient'. In this situation, provider interests dominated health care services. The needs and demands of the consumer had little impact as they had little power in determining what should, or should not, be produced (van

de Ven 1996). The introduction of budget holding aims to change this 'provider oriented' balance and to 'empower' the individual in health care choices.

The consumer is empowered as, theoretically, providers are no longer solely responsible for deciding what health services are produced, when and of what quality. The budget holding model allows the GP to influence what health services are produced (and what quality) through their ability to organise contracts for service provision. The ability of the individual to choose to whom their custom goes in terms of primary care, with the GPs budget dependent upon attracting these individuals, gives them power in influencing what the GP purchases.

4 Evidence

The budget holding model is difficult to assess as different countries are at different stages with their budget holding initiatives and there have been no broad, economy wide, reviews of these reforms. Nonetheless, most experiences are at sufficient maturity to establish some tentative conclusions about how certain objectives have been met. This section reviews the evidence concerning this and the subsequent section utilises this evidence in suggesting which parts have facilitated and which have impeded the success of the budget holding initiatives.

4.1 Cost-Containment/Efficiency

Evidence is mixed concerning the success of budget holding in containing costs. In the UK and NZ it is difficult to assess accurately whether costs have been contained as a large part of health expenditure has been dedicated to the implementation of each country's version of budget holding (McAvoy and Ashton 1997 forthcoming). For example, in the UK, while total gross expenditure on the NHS between 1990–91 and 1996–97 increased by nearly 15%, part of the reason for this growth can be attributed to expansion of the fundholding scheme, where budgets rose from around £400 million in 1991/2 to £2.8 billion by 1994/5 (8% of all hospital and community health expenditure (British Audit Commission 1995)).[7]

In the USA, the expansion of HMOs and managed care more generally, has been central to achieving cost-containment (Reinhardt 1996, Rosenman 1995). After exponential growth in the 1980s, health care premiums paid by businesses and government have now stabilised and there are reports that many are decreasing (Reinhardt 1996). Additionally, national health spending as a proportion of GNP in the USA has now 'stabilised' and the current level of spending is lower than that which was predicted for 1994 (15 per cent of GNP) (USA Congressional Budget Office 1993, Reinhardt 1996). There is also much evidence suggesting that HMOs reduce costs substantially as compared with other forms of treatment (Enthoven 1993, Manning *et al* 1984, Luft *et al* 1978). Indeed, the highest penetration of HMOs in areas such as California, Massachusetts and Florida is not unexpected as it is in these areas where per-capita health spending under FFS

[7] Fundholding budgets include hospital and community care, prescribing and expenditure for practice staff.

methods of remuneration have been significantly above the national average. (Robinson and Casalino 1995, Reinhardt 1996)

However, while budget holding models can lead to cost-containment, in NZ and the UK there is widespread acknowledgement that additional administrative and operating costs are created for both purchasers and providers (Ashton 1993, Corney 1994, Howie *et al* 1993, Petchy 1995, Andrews 1995). For example, in the UK, Petchy (1995) documented that operating costs amounted to 3.5% of the total fundholding budget, Corney (1994) outlined that fundholders faced 'considerable' administration costs while Howie *et al* (1994) indicated that these administrative responsibilities have reduced clinical activities for doctors. In NZ the administrative workload for GPs has been increased by the lack of enrolled populations (Jacobs and Barnett 1996).

These extra costs have not been limited to budget holders. For Health Authorities in the UK and NZ, for example, reconciling budgets, auditing expenditure and monitoring the scheme's operations are activities which all involve significant costs. Additionally, transaction costs are increased through providers contracting with an increasing number of small purchasers (Ashton 1993, Coulter 1995).

This contrasts with the USA where different 'cost concerns' are emerging. Some commentators (eg Luft 1995, Reinhardt 1996) believe that the pace of cost-cutting is occurring too quickly and that quality of care may be jeopardised. Additionally, there is some evidence to suggest that HMOs are operating as risk brokers rather than the providers of more efficient care (Reinhardt 1996).

Nevertheless, important areas where efficiency improvements were predicted to occur as a result of budget holding reforms were through changes in prescribing, in hospital use and referrals, as well as in the contracting process itself. These are briefly discussed below.

4.1.1 Prescribing

In the UK, it is apparent that there have been considerable savings in prescription costs which have been achieved through a switch to generic drugs (Bradlow and Coulter 1993, Maxwell, Heany, Howie and Noble 1993, Wilson, Buchan and Walley 1995, Crump, Panton, Drummond, Marchment and Hawkes 1995). Wilson *et al* (1995) was also able to demonstrate that containment of prescribing costs by fundholders was achieved not only through a switch to cheaper drugs, but also through reductions in volume.[8] This, according to Gilligan (1991), is a more difficult option than changing what to prescribe. In NZ it is the explicit aim of the RHAs to curb expenditure by GPs on pharmaceuticals. Although there is as yet no available evidence on this, one may suggest that, based on the UK experience (providing the incentives prior to the reforms for the two countries were the same), cost savings could be achieved through a switch to generic drugs.

Although evidence suggests there have been considerable cost savings on pharmaceuticals in the UK, it remains to be seen whether these savings will be maintained over time. This is because first wave fund holders were not typical of practices in general (they were more affluent and had many partners) and some practices strategically delayed entry into the scheme in order to maximise their budgets (Wilson *et al* 1995, Crump *et al* 1995). Although the savings made suggest that previous prescribing patterns were inefficient; this cannot be stated conclusively as reducing costs does not *necessarily* increase efficiency.

For the USA, there is little available evidence on pharmaceutical resource use by HMOs. However, Hillman *et al* (1989) has commented more generally that 'the financial constraints found in HMOs encourage parsimonious use of health care resources' (p. 86). Likewise, evidence suggests that HMOs use fewer procedures, tests or treatments that were expensive or had less costly alternatives than indemnity plans (Miller and Luft 1994). While neither of these studies focused specifically on pharmaceuticals, they do suggest that 'less rather than more' prescriptions *might* be given and that resource use in HMOs tends towards less costly alternatives, which may include a switch to generic drugs). However, this cannot be stated categorically, and indeed may not even be expected as HMOs primarily save on hospital costs.

Nevertheless, in all countries assessed, there is evidence to suggest that the incentives created by budget holding are causing GPs to more carefully consider the available options for prescribing, which should contribute to improved efficiency in health care.

4.1.2 Utilisation of Hospital Services

[8] The authors of this study further concluded that the changes in prescribing occurred in response to joining the fundholding scheme, rather than a continuation of historical trends.

Much early evidence on the performance of HMOs in the USA comes from the Rand Health Insurance Experiment (RHIE).[9] Results from the RHIE suggest that use of outpatient services, including primary care physicians, was similar amongst people receiving care through HMOs and people on the 'free care' insurance plan. However, expenditure in the HMO was 72% of that in the free-care insurance group, with the main difference being attributed to a less markedly intensive hospital form of care. (Manning *et al* 1984, Manning *et al* 1987, Donaldson and Gerard 1989) More recent studies have indicated that HMOs not only have lower hospital admission rates, but also shorter lengths of stay than indemnity plans (Miller and Luft 1994, Christianson *et al* 1995). These reductions in length of stay occurred as HMOs were able to: review procedures more quickly than indemnity plans, contracts obtained by HMOs put pressure on hospitals to discharge HMO plan patients expediently, and HMO financial incentives encouraged the discharging of patients earlier (Miller and Luft 1994).

In commenting more generally on the USA experience, it is apparent that HMOs have decreased both hospital admissions and length of stay. In particular, reductions in length of stay suggest efficiency improvements as alternative methods of treatment (which encourage less utilisation of hospital procedures) are being encouraged. However, it is difficult to assess whether these are in reality efficiency improvements or whether they are the result of excessive cost-cutting endeavours. Hillman (1989) comments that the development of powerful financial tools by HMOs to encourage physicians to limit services and costs prompted Congress to prohibit HMOs that participate in Medicare from paying physicians in ways that encourage reductions in medical services.

In the UK, assessment of whether hospital utilisation rates have been reduced is achieved mainly through analysis of referral rates. Early studies in the UK did not demonstrate great changes in referral patterns (Coulter and Bradlow 1993). This effect could be explained by the actions of the RHAs, which attempted to manage the market and maintain a 'steady state' in the first year of the reforms (Coulter and Bradlow 1993, Corney 1994). Despite this, there is (limited) evidence that the patterns of referral has changed, which may indicate improved cost-effectiveness (Whynes and Reed 1994 and Mahon, Wilkin and Whitehouse 1994). However, it is difficult to identify whether these patterns are a result of fundholding or a reflection of historical patterns. Others have commented that fundholding GPs have little reason to change referral habits given that fundholding budgets are based on past levels of referral (Glennerster *et al* 1994).

Nevertheless, the potential for technical efficiency improvements in the UK is dependent on a number of factors, one of the most important being the number of hospitals with which fundholders may contract (Kronick, Goodman, Wennberg and Wagner 1993, Jacobs and Burnett 1996). For instance, in rural areas there may not be great choice in the number of providers, and patients may be unwilling to travel (see Mahon, Wilkin and Whitehouse 1994). Similar problems exist in NZ (Malcolm and Powell 1996). However, while greater choice may lead to the potential

[9] This study involved the random allocation of 8000 people to health insurance plans, including an HMO and an insurance plan which provided 'free' care.

for technical efficiency improvements, the ultimate efficacy of the contracting process (discussed below) is also a prime determinant. Additionally, greater choice may also lead improvements in allocative efficiency as there is scope to address patients' needs more effectively through organising services which were not provided previously.

4.1.3 Contracting

In the USA, the specification of contacts between hospitals and HMOs has been important for achieving significant cost savings (Miller and Luft 1994). Some of the nation's first HMOs were founded in Minnesota's twin cities of Minneapolis and St. Paul and much analysis of the effect of HMOs in this region have been studied over time. Initial studies (Kralewski *et al* 1982, Feldman and Dowd 1986, Luft *et al* 1986) did not find compelling evidence that hospital costs had been contained by competition among HMOs. However, later analysis (Feldman *et al* 1990) found that the pattern of HMO/hospital relations had started to change. For instance, evidence was presented that HMOs (particularly staff and network HMOs) were beginning to concentrate their patients at certain hospitals and that price (through contracting) played an important part in determining what hospital was to be used.[10]

Likewise, in NZ and the UK the contracting process for IPAs and GPFHs has been seen as an important mechanism for achieving technical efficiency gains. However, the contracting arrangements have differed between these two nations, with GPFHs contracting with providers of health services, while IPAs have developed contracts with RHAs (particularly in regard to the financing of pharmaceuticals and the organisation of laboratory services). The NZ experience is similar to that of the contracts developed by first wave fundholders in the UK, whereby laboratory and consultant services were focused upon.

In evaluating the UK experience, there is little evidence to suggest that technical efficiency has improved, due, primarily to the unavailability of information in the market. Nevertheless, the shift from block to cost and volume contracting (which occurred between first and third fundholding waves) should serve to increase efficiency. A shift to cost and volume contracting provides purchasers with greater control over what is produced while encouraging providers to deliver more cost-effective care (Appleby *et al* 1993). However, the informational requirements are extensive, and with current (limited) information on treatment cost-effectiveness this process is far from ideal (Maynard 1994, Ferguson 1996). In addition, the degree of efficiency improvement is dependent on the relative power of transacting participants (Maynard 1994), although evidence to date suggests that the GPs may have the upper hand, particularly through the threat of exit (Glennerster *et al* 1994).

While it is too early to evaluate the NZ contracting experience, considerable frustration has been expressed by IPAs about the lack of progress towards achieving budget holding contracts

[10] However, there is evidence to suggest that in the 1980s all hospitals faced declines in discharge and length-of-stay across virtually all types of services, although Dowd (1986) was able to demonstrate that 33-85% of the decline in hospital admissions in the twin cities from 1977–82 could be attributed to the effect of HMOs.

(Jacobs and Barnett 1996, Malcolm and Powell 1996). In particular, the contracting environment has been confrontational rather than competitive as IPAs and RHAs appear to have divergent goals (McAvoy and Ashton 1997 forthcoming). IPAs are primarily concerned with achieving better health outcomes for their patients while IPAs are more interested in securing cost-containment (in particular through containing FFS driven expenditure). Malcolm and Powell (1996) comment specifically:

> *'... many IPAs [state] that, in their view, the primary goal of the RHAs was controlling the cost of health services in their regions rather than improving the health status of their populations.' (p. 186)*

From evidence to date, it appears that efficiency improvements will be difficult with such divergent goals. This is likely to be compounded by a general reluctance of GPs to accept financial responsibility or to share in part of the budgetary risk (Otago Bioethics Research Centre 1994, Baker 1995). A lack of financial risk-sharing implies that GPs no longer have the link between the decisions they make concerning health care with the financial viability of their budget. There will be little incentive to provide the most cost-effective care possible in this system. At this stage, it is postulated that wider technical efficiency gains will be difficult to achieve and maintain over time, given the current emphasis on FFS payment to practicing IPAs and a lack of financial risk sharing.

4.2 Quality of Care

In assessing 'outcomes', two components have been considered as important in assessing the effectiveness of budget holding: quality of care and equity.

For NZ, at present there is little available evidence on the quality of care aspects of budget holding (Jacobs and Barnett 1996) while for the UK, empirical evidence (Whitehead 1994, Whynes and Reed 1994 and Dowell *et al* 1995) and anecdotal evidence (Bain 1994) suggest cautionary acceptance that from both patients' and GPs' perspectives, quality in the procedural aspects of health provision have improved. For instance, improved communication between GPs and providers of health care services, shorter waiting times and improvements in access to radiology and pathology services (Whitehead 1994). However, most analyses have centred on non-clinical aspects, and a further deficiency of analyses to date is that rarely were patients views solicited (Whitehead 1994). There is also likely to be wide discrepancies in what GPs view as a quality experience compared to patients (Haigh Smith and Armstrong 1989, Steven and Douglas 1988).

In contrast, most quality of care analysis in the USA has concentrated on the difference in health outcomes between FFS and HMO treatment. The majority of research has concluded that enrollees in both HMOs and FFS plans receive roughly comparable quality of care according to process and outcome measures (Christianson *et al* 1992, Lurie *et al* 1992, Wisner 1992,

Moscovice *et al* 1993, Lurie *et al* 1994, Miller and Luft 1994 Davis *et al* 1995,).[11] There is also evidence to suggest that HMO enrollees are more satisfied with their plan's cost, paper work and coverage of preventative care than those in FFS arrangements (Davis *et al* 1995). However, despite little difference in outcome measures, Miller and Luft (1994) have suggested that monitoring of health outcome performances in HMOs is crucial. Specifically:

> *'The fact that HMO enrollees were less satisfied with quality of care and physician-patient interactions but more satisfied with costs compared with indemnity plan enrollees suggests that, for some HMO enrollees, HMO plan cost advantages outweighed perceived problems with quality and physician-patient interactions'. (Miller and Luft 1994, p. 1517)*

4.2.1 Equity

Different countries' have highlighted different equity concerns. The UK experience has demonstrated that there is limited evidence of greater inequities created through fundholding than previously existed (Glennerster *et al* 1994). In particular, the potential for inequity between fundholders versus non-fundholders appears to have been controlled though government responsibility for patients requiring more than £5000 in secondary care. This compares to NZ where reforms are at a too early stage to make definite conclusions about equity. However, some commentators have suggested that the government has failed to properly debate the appropriate definition of equity in the provision of health care and this will present difficulties in evaluating the success of reforms. (Borrem and Maynard 1994)

In contrast, in the USA there is concern that with the increased spread of the HMO/managed care movement, people from disadvantaged backgrounds will be worse off. For instance, as the shift in health provision moves to purchasers, more 'fat' will be squeezed out of the system and this leaves less room for providers of health care to cross-subsidise their services for the poor and uninsured (Reinhardt 1996). However, this is more a result of a health system which does not provide universal access to health care rather than the HMO growth restricting access *per se* to disadvantaged groups.

[11] However, others have indicated in some instances HMO plan enrollees are receiving less than adequate care (see Clement *et al* 1992, Retchin *et al* 1992, Brown *et al* 1993).

4.3 Patient Choice/Empowerment

In the UK, experience suggests that incentives created through budget holding have allowed greater GP choice to be made in the provision of services, although evidence of whether or not consumers have been 'empowered' through this process is not well developed (Mahon *et al* 1994, Glennerster *et al* 1994). Nonetheless, the fact that GPs now have greater opportunities to contract with different providers suggests that there are greater incentives for ensuring that consumer needs and demands are satisfied to a wider extent than previously (Bowie and Harris 1994). Indeed, Pritchard and Beilby (1996) have commented that one of the reasons for enthusiasm about the scheme is due to the increased power of GPs to improve the health of patients, particularly through greater choice of secondary health-care providers. However, in contrast, it has also been suggested that market behaviour may actually lead to **reductions** in patient choice. For instance, the merger of GPs into substantial purchasing consortia (covering over 200,000 patients) restricts the available choice of GP (Maynard 1994). At present it is impossible to draw any definitive conclusions, and further research is urgently required.

In contrast to the UK, in the USA evidence is more definitive about the empowerment of the purchasers of health care at the expense of the providers (Inglehart 1994, Rosenman 1996). This 'transfer of control' has been achieved through the burgeoning HMO and, more generally, managed care industry and in particular, by two factors. First, the large pools of 'insured lives' with which the HMOs can use as effective bargaining tools to secure 'steep price concessions', and second the strict adherence to guidelines for those practitioners providing care (Reinhardt 1996).

However, while there can be no doubt that the 'balance of power' in the USA has shifted to those who purchase care, the evidence is mixed about whether the consumer has been 'empowered' in the process. Cost rather than quality of care has become the dominant criterion for many HMOs (Rosenman 1996) and HMO clinical practice guidelines tend to be 'for profit' motives rather than the patients' best interests (Reinhardt 1996). Despite this, there is little evidence that treatment outcomes have deteriorated (Fihn 1995) and while many doctors feel angst at the 'deterioration of care', most patients remain 'satisfied' as long as they do not have to change doctors (Inglehart 1995). Rosenman (1996) comments that:

> *'There has been so much 'fat' in health servicing that restrictions have not yet started to cut the muscle which would cripple care quality.' (p. 33)*

In NZ, evidence suggests that the opposite scenario is occurring, with the purchasers of health care (the IPAs) being severely restricted by the 'power' of the RHAs. McAvoy and Ashton (1997 forthcoming) claim that the relationship between the RHAs and IPAs are developing more along the lines of a 'master-servant' relationship rather than towards a partnership working together to achieve the common objective of improving the health of the population. In such a situation, it is not clear that consumer interests will be enhanced.

5 Impediments/Facilitators

There is evidence available to suggest that for both the UK and USA many of the aims of budget holding are being met. In contrast, the NZ experience to date does not seem to support many of the aims, although evidence is not well defined. Needless to say, each country's experiences have been either impeded or facilitated by a variety of factors and it is the aim of this section to briefly explore how these factors contribute or detract from the successful accomplishment of budget holding objectives.

5.1 Financial Risk

The success or otherwise of budget holding initiatives is dependent on the level of financial 'risk' for which the budget holding GP is responsible. However, it is not clear that the most efficient outcomes possible have been encouraged, as some countries (notably the UK and NZ) have removed some risk responsibilities from budget holders. For instance, in the UK, the fundholders' responsibilities for chronically ill patients have been capped at expenditure levels of £5000. While to some extent this limits the ability for cream-skimming, it also ameliorates incentives for cost-effective care. The existence of this £5000 threshold level, may in some instances (eg for the chronically ill) negate cost-effective use of resources.

For NZ, the literature suggests that IPAs are given almost no financial responsibility in the sharing of risk. Most risk is borne by the RHAs, and given that for many GPs, payment is by FFS, it is not clear how any efficiency improvements will stem from these arrangements. Indeed, the budget holding model which has been developed does not suggest that individual GPs are responsible for patient budgets. This provides few incentives for overall efficiency improvements.

5.2 Registration/Enrolment

The success of a budget holding scheme is also dependent upon having a defined population for which the GP is responsible. This leads to numerous benefits. For instance, in the USA the sheer 'weight' of the HMOs having large pools of insured enrollees have proved to be a powerful tool in securing cost-effective care from secondary providers. Additionally, having an enrolled population encourages greater 'continuity of care' and evidence suggests that the preventative care approaches by HMOs have proved popular with enrollees (Davis *et al* 1995). Likewise, in the UK the 'threat of sanction' has been useful for fundholders as an effective bargaining tool in securing favourable negotiation terms with hospitals (Glennerster *et al* 1994). This 'sanction' comes from the 'force of numbers' and thus enrolment is an important pre-requisite to enhance the negotiating strengths of budget holders. This effectively shifts the balance of power from providers back to the purchasers.

In contrast, the NZ experience documents the emergence of a subservient relationship of IPAs. There is little evidence to suggest that GPs have been 'empowered' and an impediment to this has been an absence of enrolled populations for each GP. However, Malcolm and Powell (1996) document that a clear majority of IPAs favour a movement towards a system of enrolment (and

capitation payment). This would go some way to addressing the current lack of empowerment from which IPAs are suffering.

5.3 Budget Payments

How the budget is derived is also an important determinant on the ultimate efficiency of budget holding. While most budget holders (except NZ) are paid on a capitation basis, there is little consensus on how this should be defined. In the UK fundholding GPs have been paid on a historical capitation basis and evidence suggests that this has been an impediment to efficiency improvements. For instance, some commentators have documented that fundholders specifically delayed entering the scheme until their levels of activity were 'artificially inflated', such that a more generous budget would be given (Crump *et al* 1995). Additionally, the setting of budgets on the basis of historical activity levels and referral patterns rather than risk-adjusted capitation formulae has mollified to some extent the scope for increased efficiency improvements (Powell *et al* 1997, forthcoming).

In the USA, although capitation is widely used as the basis of funding for HMOs, physicians themselves may be paid in different ways. For instance, some are paid on the basis of FFS and for physicians in these scenarios the incentive to minimise 'over servicing' comes through adherence to strict guidelines concerning practice. Additionally, in HMOs physicians are often given performance related pay bonuses (ie some derivation of profit sharing) so there is an incentive to provide the most cost-effective care. However, the USA experience has also documented that there are concerns that HMOs engage in cream-skimming (Donaldson and Gerard 1989). Like the British experience, this suggests that risk-adjusted formulae are important in overcoming this.

The different models applied by the USA and UK suggest that there are different ways of setting budgets (and ultimately reimbursing GPs). However, both UK and USA experience is problematic, although further research is under way to refine the process (Dixon 1994, Dixon *et al* 1994, Maynard 1994, Martin, Rice and Smith 1997).

5.4 Information

The amount and type of information available is important in allowing budget holders to secure efficiency gains. In both the UK and NZ, a significant impediment in the facilitation of an effective contracting environment has been a lack of useful information. For instance, there is a general paucity of information concerning what is cost-effective care and this places purchasers at a relative disadvantage. Additionally, there are suggestions that hospitals are able to manipulate the contracting process as they have better knowledge concerning the costs of providing treatment, than do budget holding GPs (Walker and Craig 1994). However, there is also evidence to suggest that poor hospital records which are not well reconciled towards identifying costs, presenting a significant information asymmetry to hospitals themselves (Maynard 1994).

A further information deficiency in NZ has been the lack of information concerning the development of contracting guidelines. The NZ Government has provided little guidance towards

either purchasers or providers on how to prepare and negotiate contracts and this has resulted in the development of 'secrecy, lack of cooperation and an enormous duplication of effort and unnecessary expenditure on contract development'. (McAvoy and Ashton 1997, forthcoming p. 6)

Given that many of the efficiency gains of the budget holding process are achieved through the contracting process, this necessitates good information requirements.

5.5 Efficiency vs Cost-Containment

As more and more developed countries face tighter fiscal climates, the value of each dollar allocated to health will be increasingly questioned. Governments around the world are looking towards containing this potential increase in health care costs and often cost-containment policies become the agenda for reform. There is a danger that the budget holding 'movement' will be hijacked by that reform agenda plan. The HMO and managed care movement in the USA provides a useful example. While this movement has been widely applauded for containing costs (Reinhart 1996, Rosenman 1995) there is concern that this cost-containment goal can go to far (Miller and Luft 1994). There is a need for governments and reformers to keep the 'spirit' of budget holding in mind. That is, an aim to promote efficiency by containing costs but also by ensuring that quality is not compromised in the process.

There is no definitive evidence to suggest that, either in the UK or USA, 'quality of care' has suffered, or that patients are dissatisfied with these new trends in health care. However, Muller and Luft (1994) have made an important point in that for some individuals, receiving less costly care through their HMO is viewed as a greater priority rather than securing better quality outcomes. This perhaps suggests a greater role for government or other agencies to more effectively monitor and develop better health outcomes performance indicators.

6 Conclusions

Evidence suggests that the efficiency target of budget holding is in sight for most countries which have undertaken reforms in this direction. However, it is clear that different countries have had different experiences, and a variety of impediments and facilitators have been identified.

For the UK, fundholding is progressing towards the target although concerns have been expressed that efficiency improvements are somewhat hindered through recourse to historical levels of funding, other 'stop-loss' initiatives and information deficiencies associated with the contracting process. There is evidence to suggest that purchasers of health care have been 'empowered', although evidence is patchy about whether quality of care has improved for patients. Likewise, it is not clear whether costs have been contained as official data is clouded by increasing levels of GP participation in the scheme. Overall, the fundholding arrow is well honed and moving steadily towards the efficiency target. It remains to be seen whether the 'New Labour' government will cause the arrow to veer off course or whether its trajectory will be further refined.

For the USA, budget holding through the wider HMO system has been important for securing overall cost containment objectives. Much effort has been spent refining the budget holding arrow and some of its more elaborate and unnecessary health care feathers have been well and truly pruned. The main danger for the system at present is that this obsession with feather trimming may go too far, and this may serve to impede the aerodynamic movement of the arrow in its search for the efficiency target.

For NZ, although the target is well in sight, unfortunately the arrow is likely to fall short of the target altogether. There is evidence to suggest that none of the efficiency incentives of budget holding will be realised through the NZ setting, until budget holders are given greater financial responsibilities and a move to capitated, enrolled, populations is undertaken. At present, the arrow is having problems finding the efficiency target as the RHAs are constantly moving it to suit their objectives.

In conclusion, a bullseye has not been achieved by any country, but the arrows may be on target. For many countries it is too early to make definitive statements about where on the efficiency target the budget holding arrows are heading, but certainly for the UK and the USA the right direction is being taken. While the arrow has only recently been thrown for NZ and while it is difficult at this stage to make definitive conclusions, the evidence to date suggests that further refinements are warranted otherwise the target may be missed altogether.

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