



Shifting to capitation in primary care: What might the impact be in New Zealand?

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Abstract

Primary medical care in New Zealand has traditionally been delivered by general practitioners and funded by a mix of fee-for-service government subsidies, user part-charges and private payments. In 1998, New Zealand's national purchaser of publicly-funded health care, the Health Funding Authority, proposed to pay health service organisations capitation fees per enrolled patient, as well as fees-for-service for immunisations and some performance-related payments. This article considers the implications, drawing on theory and research from New Zealand and elsewhere, of different methods for paying general practitioners and other primary care professionals. The main focus is on whether giving a greater emphasis to capitation will lead to a fairer distribution of resources and better access to services for those groups of people who are not well served by the current system.

Current funding arrangements for primary care in New Zealand

Primary medical care in New Zealand has traditionally been delivered by general practitioners (GPs). Today, most GPs are assisted by practice nurses. Since the early 1940s, the government has paid for such general medical services (GMS)

on a fee-for-service basis (as in Australia) with the fees only available for care delivered in person by the GP. GP pharmaceuticals and laboratory tests have also been funded using a fee-for-service payment mechanism.

Except for maternity care, many New Zealanders have always had to contribute to their own primary medical care costs. This contrasts with hospital care, which has mostly been free since the 1940s (Laugesen & Salmond 1994). GPs have fought hard with successive New Zealand governments to maintain patient contributions. They have also fought to reserve the right to set their own charges (as they see it) to protect the quality of care they can offer, thereby maintaining a professional relationship with patients (Baker 1998). Government subsidies for GP care had fallen as a proportion of costs over time. For example, by the 1960s, government subsidies met only one-third of GP charges (Royal Commission on Social Security in New Zealand 1972).

In 1992, the Government introduced an income-targeted community services card system, partly in response to the fact that the universal GMS subsidy had fallen so low. The population is now divided into two groups. Low-income adults currently receive a government subsidy for GP care (\$15 per visit – typically leaving the patient to pay \$15-\$20) and pharmaceuticals (patients pay \$3 per item on up to 20 items per family per annum). The low-income group includes single adults sharing accommodation with earnings up to almost \$18 000, couples earning up to \$28 000, couples with one child earning up to nearly \$33 000 and so on, up to six-person families earning just over \$47 000 (all amounts in NZ dollars).

There is also a high-user card for adults who have had at least 12 GP visits in the previous year. This provides the same level of subsidy as that available to the low-income group. The rest of the adult population receives no subsidies at all for GP care (typically paying between \$35 and \$45 per visit) but is entitled to subsidised pharmaceuticals (patients pay up to \$15 per item on up to 20 items per family per annum). In July 1997, the first coalition government in New Zealand introduced 'free' GP care for all children under six years old, with the government paying GPs \$32.50 per child consultation (although actual fees charged by some GPs are higher, with the result that part-charges continue to be payable).

In addition to the fee-for-service system, New Zealand governments have introduced special incentive payments for GPs in rural areas (Crampton & Brown 1998) and capitation funding for particular primary care organisations delivering care to low-income groups (Crampton 1999). Until the 1990s, however, these arrangements were few and far between. There is also a practice nurse subsidy scheme for all GPs who see any subsidised patients.

New Zealand's health care system underwent major changes in 1993 (Cumming & Salmond 1998; Ashton 1999). The roles of purchasing and provision were split and funding for all care was notionally amalgamated into a single purchasing budget that was initially deployed by four Regional Health Authorities. There is now one Health Funding Authority acting as the national purchaser.

One area where there has been significant but largely unplanned change as a result of these reforms is in primary care. Many previously independent GPs have volunteered to join GP-led Independent Practitioner Associations (IPAs), which now contract with the Health Funding Authority, largely to hold budgets for non-GMS services such as laboratory tests and GP pharmaceuticals. This contrasts with the situation before 1993 when many GPs would have nothing to do with formal contracts. The range of government-supported primary medical care providers has also been increasing. A group of 'third sector' primary health care organisations has been formed (such as Health Care Aotearoa) with the aim of promoting community-owned, population-based approaches to primary care (Crampton 1999). There are also now a number of so-called 'by-Maori, for-Maori' providers of a comprehensive range of primary health and related services (Malcolm et al. 1999). These non-IPA organisations tend to be funded either through block contracts or simple forms of capitation. However, there is no fair, national capitation system for all primary care organisations.

Proposals for change

In 1998, the Health Funding Authority signalled further change in primary health care by outlining a vision of a more proactive, population-focused approach to primary care, emphasising prevention, based around what it called primary health service organisations (PHSOs). Individual New Zealanders would enrol with the PHSO of their choice, which would become responsible for managing their primary health care. Most PHSOs would manage general practice and population-based health services (for example, immunisation, screening and so on). They would be paid a capitation fee per enrolled patient, as well as fees-for-service for immunisations and some performance-related payments. Some PHSOs might also hold budgets for laboratory tests and GP pharmaceuticals. In the Health Funding Authority's proposals, user part-charges for those with community services cards, and full private payments for GP care for those without cards, were to continue.

The Health Funding Authority argued that this approach would:

- distribute primary health care resources more fairly
- reduce variability in practice between providers and across regions
- increase flexibility and diversity in the mix of skills used to deliver primary care services, and
- promote higher quality care for individual consumers, as well as population 'health gain', by facilitating performance measurement (Health Funding Authority 1998).

Others have seen the change as an opportunity for a stronger emphasis on health promotion and disease prevention. The change is also a way of widening the choices, beyond GP care, that people have in the type of care which can be subsidised (Coster & Gribben 1999; Crampton 1999; Crengle 1999).

The aim of this article is to consider the implications of this sort of scheme. The main focus is on whether a greater emphasis on capitation will lead to a fairer distribution of resources and better access to services for some groups of people not well served by the current system. First we discuss the possible effects of capitation in New Zealand in contrast to the current mainly fee-for-service approach. We then consider whether the gains in the distribution of resources are likely to be achieved, drawing on research from New Zealand and overseas.

Fee-for-service in New Zealand

The current effects of fee-for-service in primary care in New Zealand are similar to those we would expect in theory (see Table 1). One effect, for example, is that fee-for-service limits payments to particular providers. As a result, many services provided by GPs may be more cost-effectively or appropriately provided by other professionals (especially nurses) or through a primary health care team. GP consultations are also often quite short, perhaps because fee-for-service encourages GPs to fit in as many patients per session as possible. One likely consequence is that GPs focus on less complex cases than they might otherwise. For example, there are relatively low rates of primary mental health care visits in New Zealand (McAvoy et al. 1994).

Crengle notes that the system also provides no incentive for practitioners to provide extended consultations for Maoris or for people with multiple or complex problems. Indeed, GPs may require people to visit more than once to complete the clinical process – this may not suit the patient and ends up costing the patient more, not only in terms of user charges, but also in terms of time and travel costs (Crengle 1999). Furthermore, although the current primary care funding system is not solely responsible, it does not appear to be effective in raising immunisation rates. The overall rate of child immunisation is currently only 63% (Ministry of Health 1998).

In many other countries there has been a similar allocation of primary care funding to particular providers, usually GPs. The distribution of many other related health care resources – such as use of GP pharmaceuticals, laboratory tests and hospital services – is therefore largely determined by the choices GPs make about where to practise. For a long time New Zealand has had an uneven distribution of GPs (Health Benefits Review 1986; Performance Management Unit 1998). There have been particular difficulties in attracting GPs to rural areas, but also to some urban areas where health needs are greater than average and the patients' ability to pay is lower than average (Health Benefits Review 1986). Following on from this, there are also variations in expenditure on primary care between different areas and sub-groups in the population (Malcolm & Clayton 1988; Malcolm 1996). Fee-for-service payments encourage GPs to locate in areas where they can ensure a sufficient number of visits. In New Zealand this is reinforced by user part-charges for people with community services cards and, for people without cards, full private payments for GP care.

Table 1: Theoretical effects of fee-for-service payments**Incentives for efficiency**

- Income is based on how many services are provided. Providers who deliver more care get paid more. This may encourage over-servicing by (for example) encouraging people to come for more services or visits than necessary.⁽ⁱ⁾
- Fees that are tagged to specific providers (for example, GPs) are likely to discourage the use of alternative, and possibly more cost-effective, providers (for example, nurses or counsellors), thereby limiting team work.
- Whether or not the approach promotes health gain is dependent on the services covered and the level and structure of the fees paid. For example, low payments for effective services may discourage provision of those services; high fees for ineffective services may encourage provision of those services (current New Zealand subsidies do not specify what takes place at a GP visit).

Effects on patient care

- Fee-for-service payments may encourage providers to fit in as many visits or services as possible within a day, resulting in very short visits.
- Fee-for-service payments may encourage providers to deliver some care themselves rather than referring to others.
- Providers may prefer not to provide high-cost or time-consuming services if they believe the fees for such services are too low. This may adversely affect quality of care.

Population-based approach

- Fee-for-service does not require population registration, making it difficult to take a population-based approach.
- Payments tagged to specific providers (for example, GPs or midwives) may reduce team work, reduce flexibility in the delivery of services and discourage health promotion (if separate, high fees are not paid for health promotion).

Health expenditures

- Total expenditure is demand-driven (that is, dependent on the number of services and visits). This makes it harder for funders to keep health funding within a budget. Fee-for-service can also lead to more expenditure than desirable because providers earn more revenue by providing more services.
- Where there are a number of fee levels, fee-for-service may encourage providers to charge the highest fee possible or to provide more complex care than is really needed.

Equity

- Fee-for-service may encourage providers to locate in areas with a higher population, in order to ensure a sufficient number of visits.⁽ⁱⁱ⁾
- Providers may prefer not to provide high-cost or time-consuming services if they believe the fees for such services are too low. This may adversely affect the health care provided to certain groups of people.⁽ⁱⁱⁱ⁾
- People who require frequent care ought not to be discouraged by the provider from obtaining that care because the provider receives a fee for each service or visit (unless significant co-payments exist, as in New Zealand).

Administration

- Fee-for-service requires the description of services and the negotiation of fees. These need to keep pace with rising costs in order to ensure a fair revenue is paid to providers and to ensure that a quality service can be provided.
- Fee-for-service requires that utilisation information be collected, in order to pay for each service. Such information allows monitoring of utilisation.

Notes: (i) Incentives to provide too many services can be reduced by using expenditure targets and caps which are not used in New Zealand.

(ii) Incentives to locate in main centres may be reinforced by incentives to locate in wealthier areas where user charges are a significant part of a provider's income, as they are in New Zealand.

(iii) Fee-per-case payments have similar effects. In addition, they may encourage providers to keep the number of services delivered for each case down. This may ensure an appropriate level of service, or it may result in people receiving fewer, lower quality services than is desirable.

There is also plenty of evidence in New Zealand to suggest that particular high-need/morbidity groups have low utilisation of primary care services. For example, Maori have lower rates of utilisation of primary care than would seem appropriate given their relatively poor health status (Malcolm 1996; Davis et al. 1997; Gribben 1999). They also appear to have higher rates of secondary care utilisation, which may well be connected to their lower use of primary care (Pomare et al. 1995). One study found that families with four or more people who were all dependent on government benefits had more money spent on them in total than families with four or more people where the adults were in paid employment. Although the families dependent on government benefits had a lower expenditure on primary care, their imputed secondary care costs were high enough to outweigh their lower expenditures on primary care (Dovey 1992). Again, the existence of user part-charges for people with community services cards and full private payments for GP care for those without cards, partly explains these features. However, cultural factors also play a part (Pomare et al. 1995; Durie 1998).

What changes might capitation bring about?

Table 2 sets out some of the possible effects of a move to capitation. In theory, a move to capitation will alter the incentives faced by New Zealand GPs, other primary care professionals and PHSOs. It will no longer be as easy for practitioners to increase revenue by increasing the number of units of service delivered. This will allow purchasers to make better forecasts of expenditure. The ability to negotiate service contracts (rather than resources automatically flowing to certain services and people, following certain types of interaction) will allow for more explicit choices to be made about where to put new resources. Primary care providers will have greater incentives to control the amount and cost of services delivered, to work with other health professionals (who may deliver care more cost-effectively), and to pay more attention to health promotion and disease prevention, in order to keep the number of visits down.

Yet the research evidence to support theoretical claims that such changes will happen is relatively scarce. A number of research issues are relevant to this. The first is whether primary care providers change the way they work if their method of remuneration changes. The second is whether the changes that occur will be more cost-effective than the previous arrangements.

Table 2: Theoretical effects of capitation payments**Incentives for efficiency**

- Income is based on how many people are enrolled, on adjustments made for population/individual characteristics (for example, age, gender or disability) and on the relative costs of providing services to these populations. Capitation may provide incentives to enrol many people.
- Capitation should encourage providers to control the amount and cost of services delivered.
- Capitation may encourage under-servicing (that is, providing fewer services or lower quality services than is desirable) because providers are not paid any additional revenue if they deliver more care.
- Capitation should encourage the use of cheaper (and perhaps more cost-effective) providers (for example, nurses or counsellors).
- Payment is based on registrations, not visits, providing more flexibility in the resources that can be used to deliver care and in the ways in which services can be delivered.
- Capitation may encourage health gain by encouraging providers to keep the population well, resulting in the need for less care overall. This may not happen if people regularly switch between providers or are quite mobile.

Effects on patient care

- Capitation may encourage PHSOs to deliver fewer services because they do not receive more revenue for more care.
- It may encourage PHSOs to refer on to other providers. The narrower the range of services included within the capitation payment, the more likely this might be.
- Visits may be short or quality of care low where there is no incentive to treat someone, or if a PHSO enrolls more people than it can provide adequate care for, or if it refers to other providers⁽ⁱ⁾

Population-based approach

- Capitation requires population registration, which may encourage a population-based approach.
- It provides the flexibility to encourage team work, flexibility in the delivery of services and incentives to keep people healthy.

Health expenditure

- Total expenditure is dependent on the number of people enrolled and the population characteristics. Overall expenditure is more predictable than fee-for-service.
- Total expenditure changes as the population size and composition changes.

Equity

- Capitation may encourage providers to locate in more populated areas where there are fewer providers, in order to ensure a sufficient number of enrollees.
- People requiring frequent care or high-cost care might be discouraged because the provider receives a set amount for each person registered. Some people may have difficulty finding a provider willing to care for them. Adjustments for population/individual characteristics and higher costs may reduce this incentive.
- Payments can be more closely related to the needs of the population than is possible under fee-for-service.

Administration

- Capitation requires people to register with a provider, for registers to be kept reliable and up-to-date, and for information on population characteristics (such as age, gender etc) to be noted. This becomes complex if people are very mobile or frequently switch between providers.
- Capitation payments require (needs-adjusted) capitation rates to be set/negotiated.
- Capitation does not necessarily require utilisation information to be collected, though such information is an important way of monitoring provider behaviour.
- With competition for enrollees, this approach will require monitoring of whether particular groups of people are discouraged from enrolling, as well as a strong regulatory structure to ensure competition works to promote both efficiency and equity (Cumming 1999).

Note: (i) Incentives to control the amount and cost of services provided may be reduced where providers can charge whatever fees they wish in the form of user charges and if they can charge non-subsidised people whatever they wish. Both of these are permitted at present in New Zealand.

Scott and Hall (1995) reviewed the evidence on financial incentives and GP services. They noted the lack of robust evidence about the effects of different approaches. Their survey covered three types of financial incentives:

- changes in the level of remuneration
- changes in the method of remuneration, and
- the effects of special payments.

The research evidence suggested that one-off reductions in fee-for-service remuneration levels *do* lead to increases in patient utilisation and service intensity as providers attempt to compensate for income reductions, while small annual changes may not. Studies of the effects of special payments on GP behaviour indicated that GPs might take advantage of the opportunities they offered to increase their incomes, but that no studies had adequately controlled for other confounding factors such as seasonal effects, ongoing trends or the effects of other policies, such as utilisation review or non-financial incentives.

Only one study has directly compared fee-for-service and capitation for primary care services (Krasnik et al. 1990). The authors researched a change in Copenhagen from fully-capitated payment to payment based partly on capitation and partly on fee-for-service (unfortunately not the transition New Zealand is contemplating). Physicians could make extra money from face-to-face consultations, telephone consultations, repeat prescriptions and home visits; and from certain services such as cervical smears, removal of wax from ears, blood tests and so on. The provision of services that generated extra fees increased substantially following the change. Furthermore, there was a large decrease in referrals to specialists and hospitals: the doctors reduced referrals to specialists by one in four and referrals to hospitals by one in three. There was also evidence to suggest that the GPs increased the services from which they earned more per minute (Krasnik et al. 1990).

In a unique United Kingdom trial, dentists in primary care were randomly allocated between fee-for-service and capitation for the care of children. It was found that children treated by dentists being paid by capitation had fewer fillings and more untreated diseased teeth but similar disease levels compared to children treated under fee-for-service. The researchers concluded that there was no evidence of systematic neglect, just fewer treatments, amongst the capitated group. The researchers also found that the capitation system allowed dentists more clinical freedom. There was some evidence of increased preventive advice, but the impact of this on dental health remained unclear at the end of the three-year study (Holloway et al. 1990; Lennon et al. 1990).

One small New Zealand study *has* looked at differences in service delivery between capitated and fee-for-service general medical services in a single group practice. Seddon, Reinken and Daldy (1985) followed the progress of the Otumoetai Health Centre in the Bay of Plenty when it changed from fee-for-service to capitation in 1979. The practice had previously faced a shortage of doctors and had begun to employ practice nurses to deliver care, but had received no funding for the practice nurses. The staff

felt that the fee-for-service system inappropriately rewarded curative and not preventive services. It was also felt that capitation would provide a more regular flow of income and eliminate the administration required to claim the GMS benefit.

The study looked at the three years following the change, but could not include a complete before-and-after analysis. The study did not show that more preventive care was provided, as might have been predicted. The authors put this down to the conservative style of primary medical care at the health centre, with staff continuing to feel the need to deliver (and people continuing to expect) curative care. There was also no evidence of a change in accident and emergency utilisation, referrals to specialists or admissions to hospital, unlike the Danish study noted above – though rates for each were lower than for other local practices before the shift to capitation. No data were collected on health status changes.

The authors concluded that there were few overall changes in the activities of the Centre in the years following the change in reimbursement method but that the shift to capitation did ease cash flow. This suggested that relatively parsimonious patterns of medical care had already been established before the change and that the lower costs for Otumoetai than for other practices might be explained by the style of care. It is plainly impossible to generalise from a single case study but the Otumoetai experience draws attention to the possibility that the effects of changes in the payment regime may vary depending on the scope for altered behaviour before the intervention.

There is no research on how changing payment methods in primary care affects the quality of care provided (Rice 1998) or health outcomes (Kristiansen & Mooney 1993). Therefore it is extremely difficult to determine the relative impact on efficiency of fee-for-service or capitation approaches empirically. Alternative payment approaches affect the services which providers actually deliver. A major difficulty in determining whether one payment approach is more efficient than another is in knowing whether the services delivered are an efficient use of resources. For example, if it is believed that providers, among other things, seek to maximise profits or income then in theory fee-for-service will encourage providers to deliver more care than is strictly necessary. However, as it is difficult to identify the right level of care, it is also difficult to determine if providers being paid fee-for-service do provide more care than is 'necessary'. In the United Kingdom, there is a growing tendency for physiotherapy, counselling, consultant outreach services and minor surgery to be performed in GP surgeries, the last also being encouraged by relatively new fees-for-service (Godber et al. 1997). Yet we know very little about whether such services represent a more cost-effective use of resources than usual hospital care. What evidence there is shows ambiguous results (Godber et al. 1997). If such services are more cost-effective (and they may well be in particular settings, but not in others) then funding mechanisms that encourage the development of those services might improve the efficiency with which resources are used. If such services are not cost-effective then such funding mechanisms will not improve efficiency, no matter what they might do for equity.

A further potential benefit from capitation in New Zealand is a move towards the provision of more health promotion and disease prevention services. Yet the evidence about whether capitation will encourage such services is also scarce. In particular, the move in the United Kingdom to fee-for-service payment for health promotion (Whynes & Baines 1998) suggests that capitation *per se* may not always be sufficient on its own to encourage adequate investment in health promotion services. The impact of capitation on such activities may be 'crowded out' by the demand for consultations initiated by sick patients which, in turn, is likely to be related to the number and characteristics of patients for whom the practice team or individual practitioner has responsibility.

There is, however, some evidence about the differences between fee-for-service and capitation from the United States in terms of quality of care, health outcomes and health promotion services. In the United States so-called 'managed care' organisations are paid on a capitation basis for providing a comprehensive range of services (not just primary care). After reviewing the evidence on managed care, Robinson and Steiner (1998) argued that managed care does seem to be able to deliver a less intensive service (fewer and shorter hospitalisations), with perhaps more doctor visits and more preventive care, but without damaging health outcomes. However, in some cases, access to care appears worse for managed care populations; managed care does not necessarily lead to better care, and may lead to worse outcomes for some conditions (for example, depression); and vulnerable populations are not necessarily better served than they are under fee-for-service medicine. As Miller and Luft (1997) noted, '...HMOs produce better, the same, and worse quality of care, depending on the particular organization and particular disease'. Furthermore, although managed care is associated with more preventive care, such as screening tests, examinations and advice on preventive health behaviour, service levels were described as low under both managed care and fee-for-service care for low-income women and children (Robinson & Steiner 1998).

Redistributing resources in New Zealand via capitation

Could the proposed Health Funding Authority changes lead to improvements in access (which is valued in its own right) and, ultimately, health status for vulnerable groups? Improvements in access and health status for vulnerable groups depend on a number of factors, not the least of which is whether we wish to promote financial or clinical equity – the latter being patient equality of opportunity to receive treatment due to the equal propensity of GPs to refer or prescribe when faced with a similarly symptomatic patient (Bevan 1998; Smith 1999).

In New Zealand, capitation is likely to lead to the redistribution of resources from areas which currently have high numbers of visits, prescriptions and laboratory tests relative to their population size and 'needs', to those with a low number of visits, prescriptions and laboratory tests relative to population size and 'needs'. Capitation is thus likely to lead to a redistribution of resources to GPs and other primary care providers who

support Maori, poorer and rural communities. Although a move to capitation may make the distribution of financial resources more even, thus allowing additional resources for providers who serve more vulnerable populations to improve service delivery, it is unlikely that clinical equity, as defined above, will improve without additional specific measures.

There are a number of likely reasons for this. First, primary care providers may continue to locate themselves in the more wealthy and populous areas. User part-charges (for those with community services cards) and privately financed fee-for-service primary care (for those without cards) may continue to make up an important part of providers' incomes, depending on how any changes are financed. Hence, a move to capitation alone may not change the incentives influencing where providers choose to locate. It would have to be accompanied by wider changes to subsidies (for example, the complete removal of user part-charges and privately financed fee-for-service primary care or a much greater needs weighting given to practices which locate in certain areas).

Second, access by poorer populations to primary care will be directly affected by the continued existence of user part-charges and largely private financing of GP care. The move to capitation *per se* does not alter this, though it could be linked to parallel changes to subsidy arrangements. Attempts by PHSOs to provide improved care to vulnerable populations may be totally undermined by such user charges.

Third, capitation's potential benefits in terms of encouraging PHSOs to keep their populations healthy may also be undermined by the continued existence of the same user part-charges and private fee-for-service payments (Coster and Gribben 1999) because PHSOs would continue to receive income each time someone visits. The preventive health benefits of capitation will also be less likely if New Zealanders frequently move or change their doctor or PHSO.

Fourth, those delivering care to some groups may face higher costs than others. For example, Crengle (1999) argues that kaupapa Maori services which use tikanga Maori in the delivery of care (services in which Maori philosophies and cultural norms play a large part in service delivery) are more costly than delivering other primary care services. Delivering care in rural areas is also likely to cost more than delivering care in urban areas.

In addition, if a 'flat rate' capitation payment is used, this will not provide incentives to PHSOs to encourage people with higher levels of need (for example, for longer visits or more pharmaceuticals) to register with them. Adverse selection may also cause some problems in New Zealand. Adverse selection occurs where people with higher health care needs choose to sign up with particular PHSOs rather than others. They might do this because a PHSO has a good reputation for caring for people with such needs. This may place financial pressure on PHSOs which have 'needier' populations and make it harder for them to deliver good quality care to all those registered with them.

If there is more competition between PHSOs, 'cream-skimming' may also be a problem. Cream skimming might occur where PHSOs try to find ways to encourage healthier people to sign up with them, at the same time discouraging those with greater needs. PHSOs may do this because it is likely to be financially rewarding to select people with fewer health needs. Were a flat capitation rate to be used, cream-skimming might become a problem. Cream-skimming has been found to offer the potential for large profits in both the United States and even the United Kingdom, at least in theory (Newhouse et al. 1989; van Vliet & van de Ven 1992; Matsaganis & Glennerster 1994; van de Ven et al. 1994). It is, however, very difficult to prove that this is occurring. There is anecdotal and research evidence that cream-skimming occurs frequently in the United States, but little more than anecdotal evidence of its occurrence in the United Kingdom. The United Kingdom experience in relation to GP fundholding is, in part, explained by researchers as a result of:

- generous budgets for GP fundholders
- GPs not being at personal financial risk
- stop-loss provisions (Le Grand, Mays et al. 1997)
- the use of historical budgets rather than pure capitation rates to set budgets (Audit Commission 1996), and
- lack of direct competition between GP fundholders for patients.

A further explanation could be related to professional codes of ethics. On the other hand, although medical ethics may offer a '...powerful defence against cream skimming...reliance on medical ethics alone would be ill-advised' (Glennerster et al. 1994).

The likely effects of successful cream-skimming include:

- higher overall expenditure, and pressure for additional expenditure, in order to improve access for some groups
- inequities in access to a broad range of services and quality of care, particularly for vulnerable groups
- diminished incentives for technical efficiency and cost-effectiveness, as cream-skimming may be more profitable than promoting efficiency and cost-effectiveness, and
- high levels of profit for some providers while others struggle, due to the uneven distribution of people who cost more to care for (Cumming 1999).

However, these effects can be mitigated by various forms of risk-sharing such as 'stop-loss' arrangements which operate when a patient's costs exceed some pre-determined threshold over a defined period.

Adequate redistribution of resources is heavily dependent on how any capitation formula takes account of relative need between populations. There are a number of ways in which cream-skimming can be discouraged. A strong regulatory structure which aims

to ensure providers take on all people who sign up with them is extremely important, as are risk adjustments which compensate for a higher or lower than average risk (Cumming 1999). Any redistribution of resources to vulnerable groups through capitation may affect the care offered to groups which already have higher rates of utilisation and expenditures. Although there is much concern over variations in practice (and hence expenditures under fee-for-service), there is continued uncertainty over whether such variations exist as a result of differences in need or differences in practice by providers (Bevan 1998). If a key goal is to reallocate resources to improve access for vulnerable groups, then others will face diminishing resources (or a slower rate of growth of resources). This may be fairer, and may lead to reductions in health disparities, but it may also cause political problems in implementing change. The possibility of undesirable changes in utilisation suggests the need to monitor changes in the delivery of care carefully (for all population groups) and be prepared to be flexible when it comes to setting capitation budgets (Smith 1999).

Conclusions

The (albeit limited) empirical evidence suggests the need to remain cautious about the automatic benefits of simply moving to capitation, unaccompanied by any other changes in New Zealand primary care. Nevertheless, a move to funding PHSOs via capitation, by pooling the funding for enrolled patients rather than funding individual practitioners, stands a reasonable likelihood of leading to:

- the development of a more population-based approach to health care, as a result of clarifying which people an organisation is responsible for, and enabling a mix of health professional skills and innovative approaches to be used in providing care to that population (that is, an improvement in quality), and
- an improvement in the distribution of resources towards those PHSOs which deliver care to population groups which currently have fewer visits and lower service utilisation per head of population in relation to their needs (that is, an improvement in equity).

These potential benefits would seem to suggest that a move to capitation would be worthwhile on balance – particularly bearing in mind that many vulnerable groups are not served well by the current fee-for-service system. Indeed, there are descriptive data which suggest that a move to capitation may increase the chances of a population-based approach to health developing in New Zealand (Starfield 1998). However, research evidence shows that fee-for-service may still have a useful complementary role to play in encouraging the delivery of particular services. It also shows that a move to capitation for primary care services alone (compared with fee-for-service) may discourage the delivery of services in primary care (especially those where referrals to secondary care are possible, thereby shifting costs). Hence, there is interest in PHSOs being allocated a wider capitation budget including some, or all, secondary care services. Funding approaches which cap referred services (either via capitation or budget-holding) support

this conclusion (see, for example, Le Grand et al. 1997; Robinson & Steiner 1998). This suggests the need for clarity about the services which PHSOs should provide and the continued use of fee-for-service to promote specific types of under-provided services. In addition, changes in practice may take time.

In summary, there is no guarantee that capitation will achieve all the benefits desired in the New Zealand context. At the very least, the proposed move should lead to a better distribution of resources towards those needy population groups which currently have low rates of primary care utilisation and expenditure (provided there is a move away from historically-determined payment levels towards needs-adjusted capitation in some guise), even if the current system of user part-charges remains in place.

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Note

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