

# **PRIMARY HEALTH CARE IN NEW ZEALAND: PROBLEMS AND POLICY APPROACHES**

Ross Barnett<sup>1</sup>  
Department of Geography  
University of Canterbury

Pauline Barnett  
Department of Public Health and General Practice  
Christchurch School of Medicine and Health Sciences

## **Abstract**

Primary health care in New Zealand has been funded by a partial fee-for-service payment from the state for consultations and pharmaceuticals, supplemented by substantial co-payments from patients. Despite some targeting according to income and high need, there have been inequalities in access, with poorer people and Māori often using services at rates less than might be expected given their high levels of need. New policies are directed towards changing both the funding and organisational arrangements through which primary health care is delivered. New primary health organisations will be formed by provider groups, including general practitioners, and will have high levels of community governance. The new organisations will be funded through capitation, with funding levels dependent on the level of deprivation of the area within which individuals reside. The problems of funding on this basis are discussed. The paper concludes that this fundamental shift in strategy has the potential to improve access, but that the risks inherent in the new systems will require careful monitoring.

## INTRODUCTION

After more than a decade of neoliberalism, which saw social and economic inequality substantially widen in New Zealand (Mowbray 2001, Howden-Chapman et al. 2000), there are now government initiatives to address the social consequences of past policies. Such initiatives parallel similar moves elsewhere in the developed world where the social costs of neoliberalism are also apparent (Coburn 2000). This has been

---

### <sup>1</sup> **Correspondence**

Associate Professor Ross Barnett, Department of Geography, University of Canterbury, Private Bag 4800, Christchurch, e-mail Ross.Barnett@canterbury.ac.nz. This paper was accepted for publication in April 2003.

particularly true in the health sector, where the growing socio-economic costs of inequality are becoming more fully understood (Wilkinson 1996, Macintyre 1997, Acheson 1998, Ministry of Health 2000b, 2002c). The policy context of health has changed dramatically, with governments now fostering co-operative over competitive models of service provision and seeing an increased focus on primary care as the key to overall improvements in service delivery and health (Moon and North 2000, National Health Committee 2000).

Within New Zealand, the New Zealand Health Strategy (Minister of Health 2001b) and the Primary Health Care Strategy (Minister of Health 2001c) are evidence of attempts to develop more equitable policies. The New Zealand Health Strategy, for example, anticipated new institutional arrangements and elected district health boards (DHBs) to implement these policies. Within the framework of DHBs the more recent Primary Health Care Strategy proposes new organisational structures, known as primary health organisations (PHOs), to address problems of access to services and a lack of co-ordination between providers. While DHBs are now fully established and the process of setting up PHOs well advanced, there is some uncertainty about how their equity goals are to be achieved.

This paper examines problems of access to primary care in New Zealand and discusses whether changes in the institutional and funding environment are likely to lead to greater equity in access to services. Following Starfield (1998), we define equity in terms of "equal treatment for equal need", such that systematic disparities in health and in the use of health services are reduced between more and less advantaged social groups. We primarily view differences in access as arising from socio-economic differences in wealth and pay less attention to geographic variations in access, which, undoubtedly, are also important (Joseph and Phillips 1984). In adopting such an approach, the paper has three specific objectives: (i) to determine the extent to which economic barriers to the use of primary health care services persist in New Zealand; (ii) to outline briefly current policy developments, in particular the development of primary health organisations (PHOs); and (iii) to assess how likely these are to address barriers to access within the wider context of health inequalities.

## ECONOMIC BARRIERS TO PRIMARY HEALTH CARE IN NEW ZEALAND

In New Zealand, as in many other developed countries, economic restructuring and the unravelling of the welfare state have contributed to a substantial increase in the incidence of poverty (Waldegrave et al. 1995, Jamieson 1998) and socio-economic differentials in health (Ministry of Health 2000b).

Since the advent of the Social Security legislation in 1938, primary medical services have been provided on a fee-for-service basis assisted by a universal system of

government subsidies. However, since subsidies did not cover the full cost of patient care, part-charges remained, sometimes approaching one-third of general practitioner (GP) costs (Brown and Crampton 1997). Initially, the consequences of this system of funding were relatively minor, with high levels of employment and economic prosperity during the years of the “long boom” permitting significantly higher levels of GP use by those on lower incomes (Davis 1985, 1986). However, later research suggested that while these patterns persisted throughout the 1970s, by the 1980s the positive class and ethnic differentials in utilisation appeared to have begun to diminish (Gribben 1992, Barnett and Kearns 1996).

Such trends seemed indicative of the increasing costs of care and the impacts of restructuring then being felt in the wider economy. The former were particularly evident in an increasing number of patients expressing dissatisfaction with doctors’ fees (Fergusson et al. 1989, Gribben 1993). Efforts by the Labour government (1984–90) to tackle growing disquiet over user charges relied on collaboration with the medical profession. This took the form of some tentative deregulatory moves and greater competition between providers aimed at restraining the growth of primary health care expenditure (Barnett and Kearns 1996). These moves, combined with attempts by government to negotiate formal contracts with GPs for higher state subsidies for patient care in return for restraints in the growth of fees, were largely resisted by GPs and expectations of lower fees were not realised. Another approach included support for a small number of trade union sponsored centres, but while lower fees resulted in improved access to care for some of the poor, the impact overall was minor (McGrath 1989).

The introduction of the Community Service Card (CSC) in 1992 had the potential to increase access by targeting increased levels of benefits according to income. However, the research from the 1990s indicates that the positive impacts of the introduction of the CSC were less than expected (Davis et al. 1994). Barnett and Kearns (1996), for example, in a study of the utilisation of two Auckland accident and medical centres, found that almost one-third of their respondents visited GPs less often than in previous years. This reduced use was largely attributed to changed financial circumstances arising from the effects of economic and welfare restructuring. Most of those reporting financial difficulties were of Māori or Pacific Island origin and 60% of this group, compared with only 24% of Pākehā respondents, mentioned that their changed economic circumstances had restricted their GP visits. Other evidence confirms these findings. Davis, Lay-Yee et al. (1997a, 1997b) found that, in contrast to the 1970s, GP utilisation rates for Māori and Pacific Island patients in the Waikato in 1992 were slightly lower than those for Pākehā patients. They also discovered no close correspondence between vulnerability to ill health (as judged by mortality rates) and levels of GP use. In fact, of six diagnostic conditions with high Māori mortality, in only two did Māori GP utilisation rates exceed those of non-Māori.

## Utilisation and Socio-Economic Status

Overall, more recent evidence on patterns of utilisation according to socio-economic status is mixed. The National Health Survey from 1996/97 (Ministry of Health 1999) reports that adults from low-income families or deprived neighbourhoods are more likely to have a high frequency of visits to GPs than are adults from higher-income families or more affluent areas. More local studies based on specific provider groups, however, provide evidence of low rates of GP use by less affluent groups in both South Auckland Gribben (1999) and Christchurch (Barnett et al. 2000, Barnett 2001). Barnett et al. (2000) compared patient utilisation at a GP practice where there was no charge to the patient with a control sample of low-income patients who attended practices charging co-payments. In the practices charging co-payments a large proportion of respondents reported delaying seeking care because of cost. In these practices levels of use were not related to need (self-assessed health status), whereas at the “free” practice there was an inverse relationship between income and consultation rates.

Similar findings are evident in a second study of the “survival strategies” adopted by the urban poor in Christchurch (Barnett 2001). Two surveys were undertaken, one of the health and health service concerns of clients of a large inner-city voluntary welfare agency, and another of the extent to which GPs’ surgeries in Christchurch aided lower-income patients in financial distress. The research came to six major conclusions.

1. As noted by Fergusson et al. (1989), patients continued to express high levels of dissatisfaction with GPs’ fees. The proportion of patients who considered the fee “too high” or “far too high” rose from 32.3% of those paying \$10–14 to 68.3% of those paying \$15–19 and to over 90% of those paying \$25 or more.
2. Patients, when faced with financial difficulties in obtaining care, adopted a variety of strategies, both active and passive, most commonly delaying seeking care, delaying obtaining medication, and seeking financial help from GPs. Almost half the respondents (49%) also indicated that they often put the needs of others first, the others in most cases being children aged 6–14. High rates of switching GPs also occurred: 31.8% of patients had changed their GPs because of cost and a further 19% were thinking of doing so.
3. Despite using a variety of “survival strategies”, considerable levels of unmet need remained. For example, persons in the poorest health (who rated their health as fair or poor), who had trouble paying fees, were less likely (odds ratio = 0.4) to have had two or more doctor’s visits in the preceding three months, compared with those reporting good/excellent health. By contrast, where fees were less of a barrier or never prevented a visit, the odds of a GP visit for those in need increased dramatically (odds ratio = 6.4 and 10.8, respectively).

4. There was evidence of geographical variation in the strategies adopted by patients and practices as well as in the effects of such strategies. For example, surgeries located in more deprived areas were much less flexible in the financial options they made available to patients (for example, use of deferred payment schemes). While they were more likely to charge lower fees than surgeries elsewhere, this was not sufficient to prevent high rates of patient mobility or result in a significant reduction in the level of unmet need.
5. Patients, even when they did not wish to do so, frequently changed their doctors, with reported rates of change being much higher than in studies elsewhere (Rice et al. 1992).
6. The continued presence of high levels of unmet need among a largely CSC population indicates that the targeted health benefit regime has been a relatively ineffective mechanism for improving access to care. The ineffectiveness of the card for improving access was only partly due to low uptake by those eligible or from any stigma attached to its use. Rather, it was due to the continued presence of significant co-payments, especially for adults, and the fact that, for deprived patients, any increased financial benefits derived from the CSC were simply overwhelmed by the high rates of poverty arising from a lack of affordable housing. This point was made by many respondents who had left the state rental sector for this reason. Quite clearly, the regressive impacts of the corporatisation of public housing and the introduction of market rents during the 1990s (Murphy 1999) simply negated the impact of better access to GPs arising from the introduction of the CSC. In this sense, the urban poor, despite the introduction of targeted primary care benefits, were no better off than before.

International evidence (Donelan et al. 1999, Schoen et al. 2000) provides a comparison for the above findings. Donelan et al. (1999), for example, present data from surveys of about 1,000 adults conducted in 1998 in each of five countries (New Zealand, Australia, Canada, the United Kingdom and the United States) to measure public satisfaction with health care. Interestingly, respondents in the United States and New Zealand were the most likely to report problems paying medical bills (18% and 15%), and similar proportions in both countries (17% and 15%) indicated that they did not fill a prescription in the last year because of financial problems. OECD data confirm that these two nations have the highest proportion of health spending paid out-of-pocket (Anderson and Poullier 1999). When respondents were asked about personal concerns about obtaining and paying for health services in the future, on four measures of worry (affording long-term care, affordability of care, availability of advanced care and hospital waiting times) the highest degree of worry was expressed by New Zealanders.

## Interplay of Material, Cultural and Geographic Factors

However, the presence of low levels of use in relation to need cannot be attributed to cost barriers alone, and quite obviously utilisation models indicate a complex interplay of material, cultural and geographic factors (Joseph and Phillips 1984). This is clearly illustrated in a survey of eight health centres providing services to Māori and low-income New Zealanders, where rates of GP utilisation were found to be substantially lower (from 37 to 74%) than the national average of 4.5 visits per capita in 1994/95 (Malcolm 1996). Given that the centres were set up to improve access to Māori and low-income populations and had significantly reduced the financial barriers compared with the average general practice, cost is clearly not the major factor in the very low rates of utilisation observed. In this case cultural expectations of the benefits (or lack of) from the services provided were equally as important.

This point is emphasised by Crampton et al.'s (2000) study of GP utilisation rates in "third sector" capitated primary care organisations, all members of the Health Care Aotearoa network serving lower-income populations with low or zero co-payments. Like Malcolm (1996), they found that GP utilisation rates overall in capitated practices were low, and much less than those in fee-for-service practices. However, in contrast to the findings of other studies, utilisation rates for Māori were higher than those for Pākehā for all age groups, reflecting the iwi base of several of the organisations and the importance of cultural as well as financial influences for utilisation (Crampton et al., 2000).

Geographic factors are also important in understanding levels of inequity in GP utilisation. Given the strong correlations between distance and patterns of use in both GP and hospital services (Haynes et al. 1999), it comes as no surprise that sub-optimal patterns of utilisation (in relation to need) are also locality specific and an outcome of the extent to which there is a "surplus" or "shortage" of GPs in an area. This is clearly demonstrated by Malcolm (1998b), who showed that there was 30% less expenditure on poorer populations (in this case in Mangere) than would be expected under the 1998 Health Funding Authority funding formula, compared with an unidentified "well-off" population which was up to 40% "over-funded". Such patterns reflect the long-documented shortages of GPs in such localities (Barnett and Newton 1977, Ministry of Health 2000a) and the effect of such barriers in limiting use. In contrast, supplier-induced demand in more wealthy areas with greater numbers of doctors (Barnett 1993) is potentially one reason why patients in such areas tend to receive more than their fair share of care, although there is still much debate over this issue (Davis et al. 2000).

## Implications for the Wider Health System

While most New Zealand research has focused on changing patterns of GP utilisation, there has, with some exceptions (Malcolm et al. 2000, Barnett and Lauer 2003), been

little concern with the wider health system implications of such trends, in particular the links between GP accessibility and hospitalisation. Barnett and Lauer (2003) found that admissions to Christchurch Hospital almost tripled during the 1990s and that admission rates, especially for acute, acute day patients, ambulatory care sensitive (ACS) patients and readmissions, became more socially polarised. There was a relationship between the level of readmission and average length of hospital stay (ALOS), suggesting that the reduction in ALOS may have been a contributory factor to the increased rate of readmission among the poor.

The increased social polarisation of hospital admissions would be expected if increased deprivation had led to an increased disease burden (Brown 1999), and especially if this had been compounded by problems of access to primary care. Such findings are consistent with studies of primary health care utilisation, which indicate continuing problems of access to primary care on the part of the poor, with reduced access leading to an increased frequency of admissions (Bindman et al. 1995). Friedman and Basu (2001) report similar findings, especially regarding the incidence of ACS admissions for children in three American states in 1994. There were substantial negative associations between the ACS rate and the availability of primary care services, and with the distance travelled to hospital and insurance coverage. These findings are similar to those of Haynes et al. (1999) in the UK and point to the importance of the availability of primary care resources in limiting hospitalisation.

### Conclusions from the Research Literature

In summary, the main conclusion derived from the research of the 1990s in New Zealand is that, despite the introduction of the CSC, economic barriers continue to prevent equitable access and sub-optimal rates of primary health care utilisation, including use of pharmaceuticals (Sutton and Crampton 2001). This under-utilisation has probably contributed to the substantial rise and increased social differentiation in hospitalisation rates. Jackson et al. (1998), studying the Northern region, estimated that if "avoidable hospitalisation" rates (that is, conditions that are normally easily treated with primary health care) of the lowest socio-economic group were reduced to that of the middle groups then a reduction of approximately 950 admissions would be achieved. This represents potential savings of \$2.2 million (based on average hospital costs). If all groups had had the same rate as individuals in the highest socio-economic group, this would have resulted in about 2,900 fewer admissions per year and savings of \$6.8 million in hospital costs.

New Zealand DHBs have, since 2001, been charged with developing a local health service that integrates both primary and secondary care. Problems of access and associated hospital costs, then, are a challenge to these new institutions, and it is to a discussion of such issues that we now turn.

## THE NEW INSTITUTIONAL CONTEXT: PRIMARY CARE ORGANISATIONS IN THE 1990s

The presence of social inequalities in GP access has been long standing and in part reflects the existence of fee-for-service and significant co-payments in general practice in New Zealand. Fee-for-service not only created barriers for patients, but provided little incentive for collaborative approaches by GPs or linkages with other parts of the health sector. However, during the 1990s, in response to the 1991 proposals for health reform, general practice underwent a fundamental reorganisation with the development of primary care organisations of various kinds.

The dominant form of primary care organisation has been the independent practitioner association (IPA), with over 80% of all GPs becoming members by 1999 (Malcolm et al. 1999). IPAs are professional collectives, owned and governed by their GP members, and while many have developed service and integrated care initiatives, the initial impetus for their formation was largely reactionary. They were concerned mainly with protecting the status of general practice and becoming a more effective negotiating body with regional purchasers, rather than with issues of access to care (Barnett 2003, Barnett et al. 1998, Malcolm 1998a). An alternative to IPAs has been the development of the important, if numerically less significant, "third sector" provider network (Crampton et al. 2001). These organisations rely on a community and multidisciplinary governance model and have goals related to improving access and serving disadvantaged groups.

## THE PRIMARY HEALTH ORGANISATION MODEL

The formation of primary care organisations, both practitioner and community based, created new frameworks for service delivery and an environment for change without which the government's proposals for PHOs would not have been feasible. In promulgating PHOs, however, the government's policy discourse appeared to downplay IPAs, instead endorsing a community-orientated model along the lines of third sector organisations as the preferred vehicle to achieve its policy ends (Minister of Health 2001b). Given the emphasis on equity of access it is not surprising that the PHOs are to be broad-based organisations composed of various primary care providers, such as iwi groups, midwives and non-government organisations, in addition to GPs. The new organisations are envisaged as being locally based, with population funding and having a particularly important role in the development of public health initiatives. Partnership is expected with Māori, and, where relevant, Pacific communities and community representation on the governance board is required. No single provider group must be seen to dominate (Minister of Health 2001a).



A key prerequisite for PHO status is a register of the enrolled population in order to permit the application of the capitation funding formula (Ministry of Health 2002). The new "low-cost access" formula encourages the formation of PHOs in areas of high health need. For a PHO to qualify under this formula, half its enrolees will either be Māori and/or Pacific people or be drawn largely from areas of high deprivation (deprivation quintile five, or NZDep 9–10). The additional funding will allow all enrolees to be charged low co-payments, or to access free care, making the CSC redundant. For PHOs enrolling people from less deprived areas an "interim formula" will apply until sufficient funding is available for all PHOs to be on the low-cost formula (Ministry of Health 2002a).

The interim formula will use the same variables as the low-cost access formula (age, gender, ethnicity, deprivation and High User Health Card status), but with an additional weighting for CSC status. It is envisaged that, starting in 2003/04, the per capita amounts in the interim formula will be progressively raised to the levels of the low-cost access formula with the eventual phasing out of the CSC within the next 10 years. At the same time the threshold for the low-cost access formula will gradually be reduced to encompass a greater number of practices and PHOs. In addition, funding pharmaceutical and laboratory tests through PHOs will be based on a needs-based formula. Significant additional health funding (\$410 million over three years) is progressively being made available to fund improved access through both the interim and access formulas and to provide additional funds for new services – a powerful inducement for providers to establish PHOs. New primary health care funding is expected to rise from \$50 million in 2002/03 to \$195 million in 2004/05 and will be allocated via DHBs as new PHOs are approved and established. Additional funds will be available from 2003/04 to support access to pharmaceuticals (Ministry of Health 2003).

## IMPLEMENTING PRIMARY HEALTH ORGANISATIONS

The formation of PHOs has been stimulated by the availability of funds to assist with their establishment. Two pilot PHOs were established in July 2002 in South Auckland, and these were joined by a further four in October 2002, with a total of 34 established by 1 April 2003, covering 25% of the population. Of these 34 PHOs, 22 are funded under the low-cost access formula, thus reducing the financial barriers to access for all enrolees.

A number of IPAs and practices from within IPAs have become involved in PHOs, an interesting development as the national organisation representing IPAs, the IPA Council of New Zealand (IPAC), had been strongly critical of the access and interim funding proposals (IPAC 2002). Criticisms were based on the inevitability of temporary local inequities of access for PHO and non-PHO patients in local areas, the competitive edge that GPs in PHOs will have in attracting patients compared with non-PHO doctors, and concerns over the lack of effective targeting for specific high health needs.

Throughout the implementation period there has been an uneasy relationship between the Minister of Health and GPs, who are represented by IPAC and the New Zealand Medical Association. IPAC referred to the funding model as “flawed and unfair” and strongly promoted an alternative based on more individualised needs-based funding (IPAC 2002). The Minister initially rejected IPAC’s overtures but subsequently agreed to test the proposals in selected areas, but without compromising her full support for the existing formula.

Although PHOs are not all geographically based, and there may be several PHOs covering similar areas, they nevertheless represent a much stronger orientation to locality-based primary health care. This represents a fundamental shift in both the organisation and funding of primary care in New Zealand, a strategy that is not entirely without problems. In the following discussion we briefly outline some of the potential benefits as well as the major challenges likely to arise from adopting a PHO-based targeted approach to addressing equity and access issues in primary health care.

### Potential Benefits

Three potential benefits are likely to flow from the implementation of PHOs and the introduction of more explicit equity objectives in the delivery of primary health care. There are likely to be improvements in population health, reductions in hospital use and greater empowerment for both co-operating providers and involved consumers. While the introduction of capitation, in itself, is no guarantee of improved access and population health, there is evidence that countries or areas with a strong primary health care orientation and fewer barriers to access have more positive health outcomes (Shi 1994, Shi 1997, Vogel and Ackermann 1998). Starfield (1985, 1996), for instance, has shown that countries with a stronger primary health care infrastructure have better health outcomes than countries that do not, and that this is true particularly in countries where services are delivered by multidisciplinary teams.

Strong primary health care also has an added advantage of potentially reducing hospital admissions. This is an important objective in New Zealand given high levels of hospital spending (as a percentage of total health care spending) compared with other countries in the OECD (Anderson 1998) and high levels of ASC admissions (Jackson and Tobias 2001). There is, of course, no simple relationship between access to primary care and rates of hospital admission (Ricketts et al. 2001). However, evidence from the United States (Roemer et al. 1975, Bindman et al. 1995, Friedman and Basu 2001) suggests that the reduction of cost barriers is likely to lead to lower rates of ACS admissions. Similarly, in New Zealand a number of studies have shown significant decline in hospitalisation following the removal of patient charges for GP consultations (Moffat and Scott 1997, Dovey 2002). If enrolment in PHOs leads to greater continuity of care, especially given frequent changes of doctor by very deprived patients

(Malcolm 1998b, Barnett 2001), then fewer hospitalisations are likely (Weiss and Blustein 1996). However, while it is expected that PHO development will lower rates of admission, there will be a need for careful monitoring of trends in admission of patients from PHO and non-PHO practices.

Thirdly, the development of PHOs with a greater community emphasis has the potential to increase social empowerment among disadvantaged populations. This is significant because cultural as well as economic barriers influence the use of services. While some IPAs have attempted to enlarge their community focus, the delivery of more community-oriented services has been more characteristic of "third sector" providers. In addition, given the aim of PHOs to foster broader links between a variety of organisations, the potential for a more holistic and social model of health is created. This may play a role in improving not only access to services but also other social conditions that lead to inequalities in health.

### The Challenges and Risks

Among the many potential problems of PHO development we identify four issues of concern: problems of targeting according to place of residence, problems in the use of multiple needs-based formulas, possible inappropriate use of services, and the prospect of conflict between PHO and IPA models.

With respect to targeting, the funding formula for PHOs uses the characteristics of the areas in which people live, not the attributes of individuals themselves, as the basis for calculating funding levels. Such an approach presents three possible problems. First, many individuals who are not deprived live in poorer neighbourhoods (Barnett 2000). Area deprivation (even when measured at the meshblock level), therefore, may not necessarily be an accurate measure of individual deprivation. Second, the degree to which deprivation is concentrated or dispersed is also an issue (Fieldhouse and Tye 1996). Where deprivation is spatially concentrated, PHOs are more likely to qualify for the low-cost access formula and draw most of their patients from deprived areas. However, even if this is the case, it is still likely that greater numbers of deprived people will live outside such areas than within them (Eyles 1979, Powell and Moon 2001, Blakely and Pearce 2002). On the other hand, if deprived persons are spatially dispersed then PHOs may be financially disadvantaged because area deprivation scores will under-represent the individual level of deprivation. Third, since some PHOs will comprise a diverse and geographically dispersed set of member organisations and clientele with special needs, in such cases it will be more difficult for PHOs to focus on local social and environmental contextual factors which also influence population health (Macintyre et al. 2002). However, given that PHOs are not themselves specifically area-based they may have some difficulty in doing this.

The second challenge, the use of two need-based formulas to fund PHOs, is difficult and not usual in policy terms. Benefits to patients will vary depending on the composition of their PHO overall, with access formula PHOs being able to provide greater benefits than those with interim formula funding, thus providing additional, if temporary, funding differentials. The robustness of the formulas in reflecting differential need becomes particularly important. For example, while the inclusion of ethnicity in the low-cost access formula can be easily justified, application of the formula may be problematic to many deprived communities without significant concentrations of Māori or Pacific peoples. Much the same criticism was levelled at the early application of the Jarman Index in the United Kingdom, resulting in regional modifications in its application (Moore 1995).

Third, while the government asserts that any inequities created by the use of two formulas may be temporary, this has the potential to distort utilisation and lead to inappropriate use of services. While deprived patients will benefit if they are enrolled in PHOs, if their PHO is funded under the interim formula they will benefit less than equally (or less) deprived people in access-funded PHOs. In access-funded PHOs less deprived patients will also receive privileged access and so inappropriate use of services may result. There is mixed evidence over the extent to which this might occur. In Wanganui, for instance, following the introduction of free GP visits for under-six-year-olds, rates of GP utilisation among non-CSC holders exceeded those of CSC holders by over 11 to 1 (Moffat and Scott 1997). Similar findings are evident in Northern Ireland where, following the introduction of geographically based targeting in the early 1990s, GP workloads showed little relation to area deprivation (Moore 1995). On the other hand, Dovey's work indicates that since the introduction of the Free Child Health Care Scheme in 1997 the increase in GP consultations was most profound among infants in the lowest socio-economic group (Dovey et al. 1999, Dovey 2002). While the development of PHOs will undoubtedly increase government spending on primary care, the extent to which this occurs will, in part, depend upon two things: the extent to which capitation provides an incentive to PHOs to control unnecessary utilisation on the part of their more affluent enrollees, and the degree to which individual fee-for-service providers within PHOs respond to such pressures (Raymont and Cumming 2003).

Finally, while the Primary Health Care Strategy has given political prominence to PHO development, it needs to build on the significant advances made by IPAs since the mid-1990s in promoting population health and in managing the use of pharmaceuticals and laboratory tests (Malcolm et al. 1999). IPAs, however, were less successful in dealing with equity issues (Ministry of Health 2002d), and although governments and funders since the mid-1990s have tried to address this, the continued concentration of doctors, and subsequent over-servicing (Malcolm 1998a) in more affluent areas has led to significant increases in costs (Barnett 1993). At the same time "shortages" in poorer

areas limit the achievement of equity objectives (Ministry of Health 2000d). The implication is that limiting or removing co-payments for care through PHOs is, in itself, unlikely to produce greater equity if significant geographic barriers to the use of services remain (Haynes et al. 1999). Furthermore, the current presence of two systems of financing and care (PHOs and IPAs), even in the short term, is likely to create local differences in access for persons of similar need and maybe create inequities for practitioners, which may influence supply and distribution in unknown ways. The way in which medical practice is incorporated into PHOs, avoiding polarisation and factionalism, will be an important prerequisite for attaining equity objectives (Greater Wellington Health Trust 2002).

## CONCLUSION

The development of the Primary Health Care Strategy and the recent move toward the development of PHOs in New Zealand has the potential to improve equity of access to care, reduce unnecessary hospitalisation and improve overall population health. It represents a fundamental shift in national primary health care policy away from an individual to a population focus (although this has been emerging among primary care organisations for some time), and from fee-for-service to a funding approach stressing capitation with reduced co-payments, with inter-regional distribution of funds based on population need. The potential is for a fairer system of primary health care where services will be more freely available to those in need.

However, improved equity of access may be difficult to achieve, given the problems and risks in developing PHOs. In New Zealand these include fragmentation of providers, inadequate attention to the regional sensitivity of allocation formulas, concern over the extent to which funding should be based on individuals or areas, and the extent to which full participation of both providers and the public is secured. Given the significant additional investment by the government, PHOs will need to demonstrate not only fairer access to primary care reductions in health inequalities, but also improvements in population health overall.

## REFERENCES

- Acheson, D. (1998) *Independent Inquiry into Inequalities in Health Report*, Her Majesty's Stationery Office, London.
- Anderson, G.F. (1998) *Multinational Comparisons of Health Care, Expenditures, Coverage and Outcomes*, The Commonwealth Fund, New York.
- Anderson, G.F. and J.-P. Poullier (1999) "Health spending, access, and outcomes: trends in industrialised countries" *Health Affairs*, 18:178-192.

- Barnett, J.R. (1993) "Does the geographic distribution of physicians reflect market failure? An examination of the New Zealand experience, 1981-87" *Environment and Planning A*, 25: 827-846.
- Barnett, J.R. (2000) "Does place of residence matter? Contextual effects and smoking in Christchurch" *New Zealand Medical Journal*, 113: 433-435.
- Barnett, J.R. (2001) "Coping with the costs of primary care?: Household and locational variations in the survival strategies of the urban poor" *Health and Place*, 7:141-157.
- Barnett, J.R., P. Barnett and R.A. Kearns (1998) "Declining professional dominance?: Trends in the proletarianisation of primary care in New Zealand" *Social Science and Medicine*, 46:193-207.
- Barnett, J.R., P. Coyle and R. Kearns (2000) "Holes in the safety net?: Assessing the effects of targeted benefits upon the health care utilisation of poor New Zealanders" *Health and Social Care in the Community*, 8:1-13.
- Barnett, J.R. and R.A. Kearns (1996) "Shopping around?: Consumerism and the use of private accident and medical clinics in Auckland, New Zealand" *Environment and Planning A*, 28:1053-1075.
- Barnett, J.R. and G. Lauer (2003) "Urban deprivation and public hospital admissions in Christchurch, New Zealand, 1990-97" *Health and Social Care in the Community*, 11(4):299-313.
- Barnett, J.R. and P. Newton (1977) "Intra-urban disparities in the provision of primary care: an examination of three urban areas" *Australia and New Zealand Journal of Sociology*, 13: 60-68.
- Barnett, P. (2003) "Into the unknown: the experience and membership of independent practitioner associations" *New Zealand Medical Journal*, 116:1171, <http://www.nzma.org.nz/journal/116-1171/416/>
- Bindman, A., K. Grumbach, D. Osmond, M. Komaromy and K. Vranzian (1995) "Preventable hospitalisations and access to health care" *Journal of the American Medical Association*, 264:305-311.
- Blakely, T. and N. Pearce (2002) "Socio-economic position is more than just NZDep" *New Zealand Medical Journal*, 115: 109-111.
- Brown, M.C. (1999) "Policy-induced changes in Māori mortality patterns in the New Zealand economic reform period" *Health Economics*, 8: 127-136.
- Brown, M.C. and P. Crampton (1997) "New Zealand policy strategies concerning the funding of general practitioner care" *Health Policy*, 41: 87-104.
- Coburn, D. (2000) "Income inequality, social cohesion and the health status of populations: The role of neoliberalism" *Social Science and Medicine*, 51: 135-146.
- Crampton, P., A. Dowell and A. Woodward (2001) "Third sector primary care for vulnerable populations" *Social Science and Medicine*, 53: 1491-1502.
- Crampton, P., A. Dowell, A. Woodward and C. Salmond (2000) "Utilisation rates in capitated primary care centres serving low income populations" *New Zealand Medical Journal*, 113: 436-438.

- Davis, P. (1985) "Office encounters in general practice in the Hamilton Health District 1: social class patterns among employed males" *New Zealand Medical Journal*, 98:789-792.
- Davis, P. (1986) "Office encounters in general practice in the Hamilton Health District 3: Social class patterns among females" *New Zealand Medical Journal*, 99: 573-576.
- Davis, P., B. Gribben, R. Lay-Yee and B. McAvoy (1994) "The impact of the new subsidy regime in general practice in New Zealand" *Health Policy*, 29:113-125.
- Davis, P., B. Gribben, A. Scott and R. Lay-Yee (2000) "The supply hypothesis and medical practice variation in primary care: Testing economic and clinical models of inter-practitioner variation" *Social Science and Medicine*, 50:407-418.
- Davis, P., R. Lay-Yee, S. Maingay and B. Gribben (1997a) "Patterns of general practitioner usage among Pacific people: indicative results from the Waikato medical care survey 1991-92" *New Zealand Medical Journal*, 110:335-336.
- Davis, P., R. Lay-Yee, O. Sinclair and B. Gribben (1997b) "Māori/non-Māori patterns of contact, expressed morbidity and resource use in general practice: data from the Waikato medical care survey 1991-1992" *New Zealand Medical Journal*, 100:390-392.
- Donelan, K., R.J. Blendon, C. Schoen, K. Davis and K. Binns (1999) "The cost of health system change: Public discontent in five nations" *Health Affairs*, 18: 206-216.
- Dovey, S. (2002) "The Free Child Health Care Scheme: Implications for New Zealand General Practice" PhD Thesis, University of Otago, Dunedin.
- Dovey, S., L. Morton and M. Tilyard (1999) "What is happening to primary health care access for young children? Evaluation of the Free Child Health Care Scheme" *Children's Issues*, 3:18-22.
- Eyles, J. (1979) "Area-based policies for the inner city: context, problems, and prospects" in D.T. Herbert and D.M. Smith (eds.) *Social Problems and the City: Geographical Perspectives*, Oxford University Press, Oxford.
- Fergusson, D.M., L.J. Horwood and F.T. Shannon (1989) "Patient perceptions of general practitioner fees" *New Zealand Medical Journal*, 102:286-288.
- Fieldhouse, E.A. and R. Tye (1996) "Deprived people or deprived places? Exploring the ecological fallacy in studies of deprivation with the Samples of Anonymised Records" *Environment and Planning A*, 28:237-259.
- Friedman, B. and J. Basu (2001) "Health insurance, primary care, and preventable hospitalisation of children in a large state" *American Journal of Managed Care*, 7:473-481.
- Greater Wellington Health Trust (2002) *Developing a Primary Health Organisation for Greater Wellington – A View from the Greater Wellington Health Trust*, Greater Wellington Health Trust, Wellington.
- Gribben, B. (1992) "Do access factors affect utilisation of general practitioners in South Auckland" *New Zealand Medical Journal*, 105:453-455.
- Gribben, B. (1993) "Satisfaction with access to general practitioner services in South Auckland" *New Zealand Medical Journal*, 106:360-362.

- Gribben, B. (1999) "Ethnicity and resource use in general practice in West Auckland: Experience in practice" *Healthcare Review – Online* 1: March 1999, [http://www.enigma.co.nz/eip\\_articles/9903/vol1no1\\_001.htm](http://www.enigma.co.nz/eip_articles/9903/vol1no1_001.htm)
- Haynes, R., G. Bentham, A. Lovett and S. Gale (1999) "Effects of distances to hospital and GP surgery on hospital inpatient episodes, controlling for needs and provision" *Social Science and Medicine*, 49:425-433.
- Howden-Chapman, P., T. Blakely, A.J. Blaiklock and C. Kiro (2000) "Closing the health gap" *New Zealand Medical Journal*, 113:301-302.
- IPAC (IPA Council of New Zealand) (2002) *Options for Introducing New Primary Care Funding*, IPAC, Wellington
- Jackson, G., L. Kelsall, A. Parr and D. Papa (1998) *Socio-economic Inequalities in Health Care North Health*, Auckland.
- Jackson, G. and M. Tobias (2001) "Potentially avoidable hospitalisations in New Zealand, 1989-98" *Australian and New Zealand Journal of Public Health*, 25: 212-221.
- Jamieson, K. (1998) *Poverty and Hardship in Christchurch*, Christchurch City Council, Christchurch.
- Joseph, A.E. and D. Phillips (1984) *Accessibility and Utilisation: Geographical Perspectives on Health Care Delivery*, Harper and Row, London.
- Macintyre, S. (1997) "The Black Report and beyond – What are the issues?" *Social Science and Medicine*, 44:723-745.
- Macintyre, S., A. Ellaway and S. Cummins (2002) "Place effects on health: How can we conceptualise, operationalise and measure them?" *Social Science and Medicine*, 55:125-139.
- Malcolm, L. (1996) "Inequities in access to and utilisation of primary medical services for Māori and low income New Zealanders" *New Zealand Medical Journal*, 109: 356-358.
- Malcolm, L. (1998a) "Capitated primary care: policy, problems and prospects" *Health Manager*, 5: 7-9.
- Malcolm, L. (1998b) *Primary Care Utilisation and Expenditure in the Auckland Subregions*, Health Funding Authority, Auckland.
- Malcolm, L. (1998c) "Towards general practice-led integrated healthcare in New Zealand" *Medical Journal of Australia*, 169: 147-150.
- Malcolm, L., L. Wright and P. Barnett (1999) *The Development of Primary Care Organisations in New Zealand*, Ministry of Health, Wellington.
- Malcolm, L., L. Wright and S. Carson (2000) "Integrating primary and secondary care: The case of Christchurch South Health Centre" *New Zealand Medical Journal*, 113: 514-517.
- McGrath, F. (1989) *The Union Health Centres Initiatives: An Evaluation*, Department of Health (Health Services Research and Development Unit), Wellington.
- Minister of Health (2001a) *Minimum Requirements for Primary Health Organisations*, Minister of Health, Wellington.



- Minister of Health (2001b) *The New Zealand Health Strategy*, Minister of Health, Wellington.
- Minister of Health (2001c) *The Primary Health Care Strategy*, Minister of Health, Wellington.
- Ministry of Health (1999) *Taking the Pulse: The 1996/97 New Zealand Health Survey*, Ministry of Health, Wellington.
- Ministry of Health (2000a) *Porirua City Health and Disability Report and Plan*, Ministry of Health, Wellington.
- Ministry of Health (2000b) *Social Inequalities in Health: New Zealand 1999*, Ministry of Health, Wellington.
- Ministry of Health (2002a) *Establishing Enrolment Requirements for Primary Health Organisations*, Ministry of Health, Wellington.
- Ministry of Health (2002b) *Primary Health Organisations Funding (Draft)*, Ministry of Health, Wellington, [www.nzdoctor.co.nz/fullstory/july03-phof.html](http://www.nzdoctor.co.nz/fullstory/july03-phof.html)
- Ministry of Health (2002c) *Reducing Inequalities in Health*, Ministry of Health, Wellington.
- Ministry of Health (2002d) *Referred Services Management: Building Towards Equity, Quality and Better Health Outcomes*, Ministry of Health, Wellington.
- Ministry of Health (2003) *Primary Health Care Strategy Implementation – Q&As*, Ministry of Health, Wellington, <http://www.moh.govt.nz>
- Moffat, H. and D. Scott (1997) *Evaluation of Progressive Health Incorporated's Service Initiatives*, Central Health, Wellington.
- Moon, G. and N. North (2000) *Policy and Place: General Medical Practice in the United Kingdom*, Macmillan, Basingstoke.
- Moore, A.J. (1995) "Deprivation payments in general practice: Some spatial issues in resource allocation in the UK" *Health and Place*, 1:121-126.
- Mowbray, M. (2001) *Distributions and Disparity: New Zealand Household Incomes*, Ministry of Social Policy, Wellington.
- Murphy, L. (1999) "Housing policy" in J. Boston, P. Dalziel and S. St John (eds.) *Redesigning the Welfare State in New Zealand*, Oxford University Press, Auckland.
- National Health Committee (2000) *Improving Health for New Zealanders by Investing in Primary Care*, National Health Committee, Wellington.
- Powell, M. and G. Moon (2001) "Health Action Zones: The 'third way' of a new area-based policy?" *Health and Social Care in the Community*, 9:43-50.
- Raymont, A. and J. Cumming (2003) "New Zealand's primary health care strategy: What are the costs and how likely are the benefits?" *New Zealand Medical Journal* 116(1173), <http://www.nzmq.org.nz/journal/116-1173/416/>
- Rice, T., L. Nelson and D.C. Colby (1992) "Will Medicare beneficiaries switch physicians? A test of economic competition" *Journal of Health Politics, Policy and Law*, 17:3-24.

- Ricketts, T.C., R. Randolph, H.A. Howard, D. Pathman and T. Carey (2001) "Hospitalisation rates as indicators of access to primary care" *Health and Place*, 7:27-38.
- Roemer, M., C. Hopkins, L. Cart and F. Gartside (1975) "Co-payments for ambulatory care: Penny wise and pound foolish" *Medical Care*, 13:457-466.
- Schoen, C., K. Davis, C. DesRoches, K. Donelan, R. Blendon and E. Strumpf (2000) *Equity in Health Care Across Five Nations: Summary Findings From An International Health Policy Survey*, The Commonwealth Fund, New York.
- Shi, L. (1994) "Primary care, speciality care and life chances" *International Journal of Health Services*, 24:431-458.
- Shi, L. (1997) "Health care spending, delivery, and outcome in developed countries: A cross-national comparison" *American Journal of Medical Quality*, 12:83-93.
- Starfield, B. (1985) *Effectiveness of Medical Care: Validating Clinical Wisdom*, John Hopkins University Press, Baltimore.
- Starfield, B. (1996) "Public health and primary care: a framework for proposed linkages" *American Journal of Public Health*, 86:1365-1369.
- Starfield, B. (1998) *Primary Care: Balancing Health Needs, Services and Technology*, Oxford University Press, New York.
- Sutton, F. and P. Crampton (2001) "The community services card: does it make a difference to pharmaceutical utilisation?" *New Zealand Medical Journal*, 114: 206-208.
- Vogel, R.L. and R.J. Ackermann (1998) "Is primary care physician supply correlated with health outcomes" *International Journal of Health Services*, 28:183-196.
- Waldegrave, C., R.J. Stephens and P. Frater (1995) *Most Recent Findings of the New Zealand Poverty Measurement Project*, The Family Centre, Lower Hutt.
- Weiss, L.J. and J. Blustein (1996) "Faithful patients: the effects of long-term physician-patient relationships on the costs and use of health care by older Americans" *American Journal of Public Health*, 86:1699-1700.
- Wilkinson, R.J. (1996) *Unhealthy Societies – The Afflictions of Inequality*, Routledge, London.