



# A RISKY BUSINESS: moving New Zealand towards a managed-care health system

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2002 saw perhaps the most fundamental change to New Zealand's primary healthcare system in the last seventy years: the New Zealand Primary Healthcare Strategy (NZPHCS). With this strategy, New Zealand moved to a system where the insurance role is vested in some 80 predominantly provider-owned PHOs – and where variation in patient demand within PHOs is managed by individual GPs who have become 'de facto' insurers.

Four years on from this historic change, Bronwyn Howell analyses some of the key issues that will determine the success of the new strategy.

In this monograph, she describes the complex interaction between healthcare markets and insurance that lies at the heart of the new arrangements. At issue is how the NZPHCS will manage the trade-off between patient costs and choice of provider, the power of providers to set fees, the interaction between ownership of PHOs and governance arrangements, and equity issues.

One of the key risks identified in Bronwyn's analysis is that the current 'interim' arrangements will become entrenched, requiring further legislative change to bring about the NZPHCS's vision of integrated care.

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# 1. The Birth of a Strategy

Capitation payments are not 'subsidies' for 'visits'. Capitation payments are made to a PHO on the basis of how many individuals it has on its books, irrespective of the number of visits.

In 2002, New Zealand's primary healthcare markets – defined as those community-based healthcare services where individuals make their first point of contact with a health provider when seeking treatment for an illness or injury – were fundamentally changed.

As part of a strategy intended to reduce health disparities between individuals and to improve health outcomes, the historic fee-for-service 'Section 88' government subsidies provided to reduce some individuals' costs of accessing general practitioner (GP) services were replaced by universal government-funded capitation payments. These capitation payments varied with the individual's age, ethnicity, gender, health state, and the population-based characteristics of the individual's chosen co-ordinating entity; and they were paid to newly formed service coordinating entities known as Primary Health Organisations (PHOs). The PHOs were charged with registering the individuals for whom they would receive capitation funds, and with entering into contracts with service providers (such as GPs, nurses, health workers, dieticians, and educators) to provide agreed primary healthcare services, as required, to the registered individuals.<sup>2</sup>

In addition, the government signalled its intention to substantially increase the quantity of taxpayer funds applied to primary healthcare, with the objective of substantially reducing the share of private expenditure in the sector. At between 60% and 70% of sector spending, private expenditure in New Zealand was substantially higher than in comparable countries such as the United Kingdom and Australia. \$1.7 billion was committed over 6 years to implement the strategy, with the additional spending representing a 43% increase in government spending on primary healthcare in the first three years alone.<sup>3</sup>

## The concept: a population-based approach

The strategy – the New Zealand Primary Healthcare Strategy (NZPHCS) – was heralded as a new approach to primary healthcare in New Zealand. It provided resources, contractual obligations and incentives for PHOs to provide integrated packages of care for individuals across provider types and across time. Capitation-based funding would provide financial incentives; geographically-based PHOs, formed within each of the 21 regional District Health Board (DHB) boundaries, would negotiate and administer the contracts. Regional specificity offered some assurance that the contracts entered into by the PHOs would be sensitive to the different

needs and preferences of individual communities. Relationships between PHOs and their registered individuals would also ensure that consistent information on each individual was maintained, so that all individuals could receive continuous and integrated care irrespective of the identities of the providers delivering the various services (see Figure 1).

Capitation-based funding was chosen because the historic fee-for-service 'Section 88' payments were deemed to create cost-related barriers to accessing primary healthcare, especially for low-income and chronically ill individuals<sup>4</sup> – even though higher subsidies were paid for low-income or high-use individuals,<sup>5</sup> and for high-priority populations such as children under 6 years of age.<sup>6</sup> The payment method was also thought to encourage a culture wherein primary healthcare was perceived as an intervention when illness occurred, rather than as a pivotal tool in encouraging preventive care and promoting wellness.

The change in payment incentives was seen as an important factor for reducing the incidence and impact of chronic illnesses such as diabetes and asthma, which were contributing disproportionately to observed health-outcome disparities between ethnic groups.<sup>7</sup> By being paid a fixed per-registrant fee, PHOs would face financial incentives to prioritise preventive and educational activities for all registered individuals. Devoting resources solely to treating only that subset of individuals who had actually fallen ill and sought treatment would cease, and long-term costs would reduce.<sup>8</sup>

Under 'Section 88', payments had been restricted to care provided by GPs, and patients were deterred from accessing other care providers (such as nurse practitioners, educators, physiotherapists, and alternative therapists). As these other services were not subsidised, they were available only to higher-income individuals. Furthermore, some of their benefits (such as education) accrued as a public good rather than a private one, so their provision was not explicitly remunerated. Consequently, fewer of the non-GP services were provided, even though their benefits were positive and would have been more efficacious than the subsidised GP services that were sought in their absence. By allowing PHOs the discretion to enter into contracts for a wide variety of service types, and to purchase 'public goods' on behalf of a constituent population, it was anticipated that the existing model of care would be replaced by a more broad-based model in which the PHO would integrate multi-provider care packages to ensure customised but

1 Eligibility was determined by age, family income, and health state.

2 Minister of Health. 2001. *The Primary Healthcare Strategy* (available online at [www.moh.govt.nz](http://www.moh.govt.nz); search under document name).

3 Martin Hefford, Peter Crampton and Jon Foley. 2005. 'Reducing disparities through primary care reform: the New Zealand experiment' *Health Policy* 72 pp9-23; and Consumers' Institute. 2005. *Healthy Fees*. 3 May (available online at [www.consumer.org.nz](http://www.consumer.org.nz); search under 'GP fees').

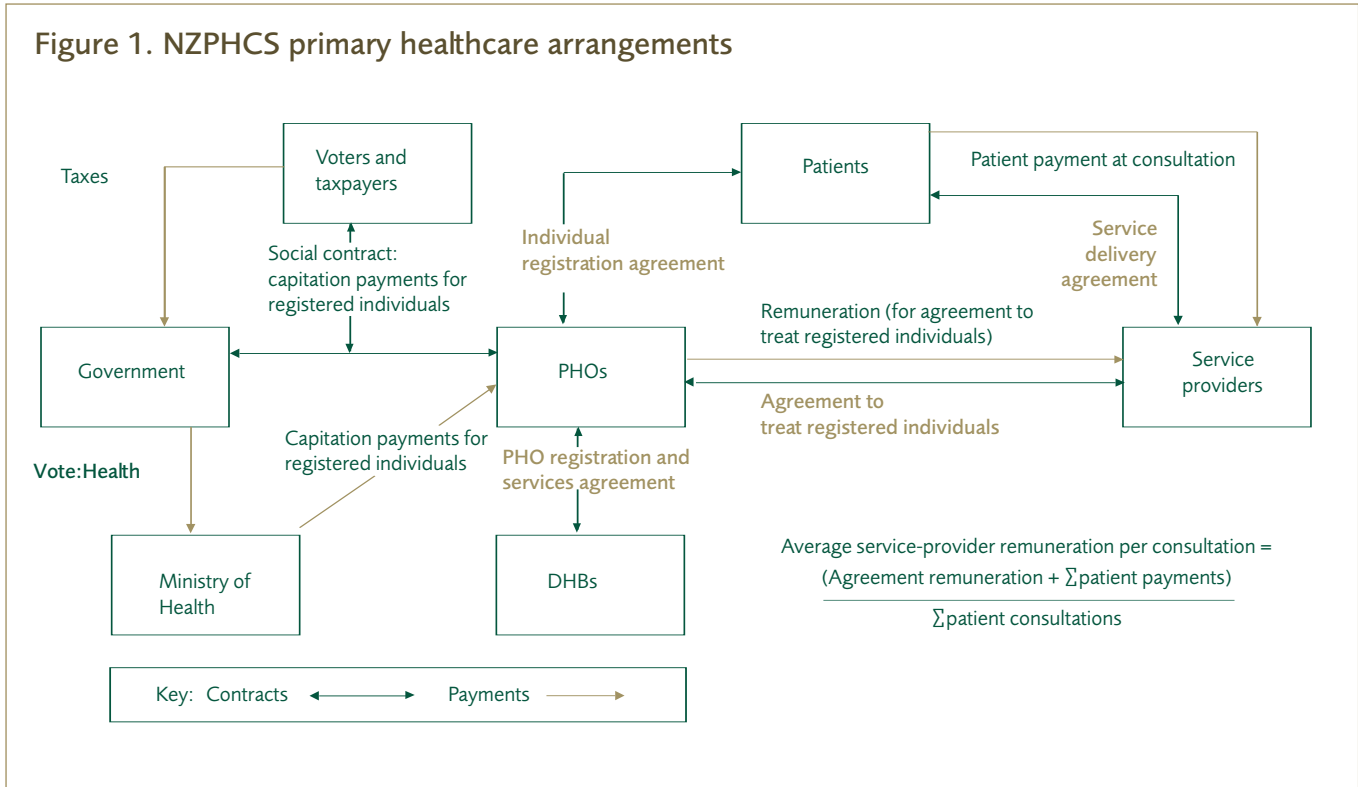
4 National Health Committee. 2000. *Improving Health for New Zealanders by Investing in Primary Care* (available online at [www.nhc.govt.nz/publications/improvinghealth.htm](http://www.nhc.govt.nz/publications/improvinghealth.htm)).

5 'Low income' was identified by an individual's Community Service Card (CSC); eligibility for a CSC was determined by income. 'High use' was identified by a High Use Health Card (HUHC); eligibility for a HUHC was determined by the number of GP visits (12 or more) in one year.

6 Kate Scott, John C Marwick and Peter R Crampton. 2003. 'Utilisation of general practitioner services in New Zealand and its relationship with income, ethnicity and government subsidy' *Health Services Management Research* 16(1) pp45-55.

7 Minister of Health. 2000. *The Future Shape of Primary Healthcare: A Discussion Document*. (available online at [www.moh.govt.nz](http://www.moh.govt.nz); search under document name).

**Figure 1. NZPHCS primary healthcare arrangements**



coordinated primary healthcare service delivery focused on individual and community needs.<sup>9</sup>

PHOs were pivotal to the implementation of the NZPHCS. They were required to be nonprofit entities 'to guard against public funds being diverted from health gain and health services to shareholder dividends',<sup>10</sup> and to be able to demonstrate that all contracted service providers and their constituent communities were represented in their decision-making. PHOs were also required to be transparent and accountable to the public about their use of public funds and the quality and effectiveness of the services they provided.<sup>11</sup>

Nonetheless, PHOs had complete freedom to enter into contracts of any form with providers of any professional discipline or any organisational or ownership form (including for-profit providers) in order to deliver on their NZPHCS obligations, which would be specified in contracts between the PHO and its respective DHB. Placing contractual coordination at the PHO level and having service-provider involvement in PHO governance was intended to facilitate the replacement of 'old isolated ways of working' with 'new collaborative models'.<sup>12</sup> The requirement for nonprofit structure and provider representation in decision-making was modelled on the structure and representation of a small group of community-oriented primary healthcare providers that had emerged over the 1990s. These providers, typically based around union healthcare centres and groups delivering care to specific geographic and ethnic communities, had been quite successful in increasing primary

healthcare access amongst those groups with poorer health outcomes.<sup>13</sup>

### In practice: some statistics

Since their introduction in July 2002, 81 PHOs have been formed.<sup>14</sup> These PHOs receive capitation payments on behalf of 95% of New Zealand's population, and range in size from 3,200 to 333,000 registrants.

The key distinction between PHOs lies in the nature of their registered population base, which determines the capitation income received. PHOs with more than 50% of their registered capitation base exhibiting 'at risk' population-based characteristics<sup>15</sup> – known as Access PHOs – receive higher capitation subsidies for their entire registered population (including those not exhibiting the 'at risk' characteristics). The remainder – known as Interim PHOs – receive lower capitation payments for their entire registered population (including those who do exhibit the 'at risk' characteristics). However, the Interim PHOs receive higher capitation subsidies for their low-income CSC-holding registrants than they do for their non-CSC-holding registrants. A separate management fee, which varies with the number of registrants in the PHO, is paid to cover the administrative costs of the system. There is also a separately paid capitated fee for developing new initiatives that will increase access to services – this fee varies according to population-based characteristics in the PHO.

When announcing the NZPHCS, the Minister expressed the intention of gradually increasing

- 8 Peter Crampton, Frances Sutton and Jon Foley. 2003. 'Capitation funding of primary care services: principles and prospects' *Journal of the New Zealand Medical Association* 115(1155) p43 (available online at [www.nzma.org.nz/journal/115-1155/43/](http://www.nzma.org.nz/journal/115-1155/43/)).
- 9 Gregor Coster and Barry Gribben. 1999. *Primary Care Models for Delivering Population-Based Health Outcomes*. Discussion paper for the National Health Committee. August (available online at [www.nhc.govt.nz/publications/phc/phcmodels.html](http://www.nhc.govt.nz/publications/phc/phcmodels.html)).
- 10 Minister of Health. 2001. *op. cit.* p14.
- 11 *Ibid.* p5.
- 12 *Ibid.* p18.
- 13 Laurence Malcolm, Lyn Wright and Pauline Barnett. 1999. *The Development of Primary Care Organisations in New Zealand*. A review undertaken for The Treasury and the Ministry of Health. Wellington.
- 14 ([www.moh.govt.nz/moh.nsf/wpg\\_index/-Primary+Health+Care+Established+PHOs+by+DHB](http://www.moh.govt.nz/moh.nsf/wpg_index/-Primary+Health+Care+Established+PHOs+by+DHB))
- 15 'At risk' characteristics are: Maori or Pacific Island ethnicity; or living in an area assessed as decile 9 or 10 in the New Zealand Deprivation Index.

Interim PHO capitation payments as budgets allowed (using age as a distinguishing factor, and increasing payments first to the highest-using groups) in order to gradually eliminate any individual distinguishing characteristics based upon income. The intention was that the population-based characteristics of a PHO's registered patient base would become the sole determinants of allocating primary healthcare funding. Following strenuous submissions by the Independent Practitioners Association Council (IPAC) in 2002,<sup>16</sup> the original population-based funding formulae were augmented to include additional payments for

individuals with chronically poor health states (as indicated by having a HUHC). This amendment recognised the demands on available funding that were created by individuals because of their actual health state and that were unrelated to the presence or absence of 'at risk' population-based characteristics. As a further response, a new population-based funding package (CarePlus) was implemented in July 2004, with the intention that it would eventually replace individual characteristics such as the HUHC as a determinant of PHO funding.<sup>17</sup> The full range of subsidies for the 2004/05 financial year (July-June) is given in Table 1.

16 Independent Practitioners Association Council of New Zealand. 2002. *Options for Introducing New Primary Healthcare Funding* (available online at [www.nzdoctor.co.nz/IPAC%20funding%20report.PDF](http://www.nzdoctor.co.nz/IPAC%20funding%20report.PDF)).

17 ([www.moh.govt.nz/moh.nsf/wpg\\_Index/Publications-Care+Plus:+an+Overview](http://www.moh.govt.nz/moh.nsf/wpg_Index/Publications-Care+Plus:+an+Overview))

**Table 1. PHO types and annual capitation payments 2004/05**

Capitation payments (per registered person per year) <sup>1</sup>										
		Payment Type: GMS/Nurse <sup>2</sup>					Payment Type: Services to Improve Access <sup>3</sup>			
			Interim PHO <sup>4</sup>		Access PHO <sup>5</sup>		All			
			HUHC <sup>6</sup>		HUHC		Maori/Pacific		Non Maori/Pacific	
Age	Gender	CSC <sup>7</sup>	w/out	with	w/out	with	NZDI 1-4 <sup>8</sup>	NZDI 5 <sup>8</sup>	NZDI 1-4 <sup>8</sup>	NZDI 5 <sup>8</sup>
00-04	F	with	\$308.12	\$471.96	\$315.73	\$471.96	\$63.15	\$126.29	\$0.00	\$63.15
		w/out	\$308.12	\$471.96						
	M	with	\$327.88	\$471.96	\$332.42	\$471.96	\$66.48	\$132.97	\$0.00	\$66.48
		w/out	\$327.88	\$471.96						
05-14	F	with	\$79.33	\$302.61	\$99.94	\$302.61	\$19.99	\$39.98	\$0.00	\$19.99
		w/out	\$79.33	\$302.61						
	M	with	\$75.18	\$302.61	\$93.54	\$302.61	\$18.71	\$37.42	\$0.00	\$18.71
		w/out	\$75.18	\$302.61						
15-24	F	with	\$78.90	\$291.50	\$92.22	\$291.50	\$18.44	\$36.89	\$0.00	\$18.44
		w/out	\$36.09	\$291.50						
	M	with	\$42.38	\$291.50	\$50.75	\$291.50	\$10.15	\$20.30	\$0.00	\$10.15
		w/out	\$20.79	\$291.50						
25-44	F	with	\$72.61	\$291.50	\$81.04	\$291.50	\$16.21	\$32.41	\$0.00	\$16.21
		w/out	\$7.32	\$291.50						
	M	with	\$43.16	\$291.50	\$52.38	\$291.50	\$10.48	\$20.95	\$0.00	\$10.48
		w/out	\$5.91	\$291.50						
45-64	F	with	\$88.74	\$319.27	\$110.99	\$319.27	\$22.20	\$44.40	\$0.00	\$22.20
		w/out	\$12.22	\$319.27						
	M	with	\$67.96	\$319.27	\$82.90	\$319.27	\$16.58	\$33.16	\$0.00	\$16.58
		w/out	\$9.57	\$319.27						
65+	F	with	\$191.27	\$342.40	\$191.27	\$342.40	\$38.25	\$76.51	\$0.00	\$38.25
		w/out	\$191.27	\$342.40						
	M	with	\$164.95	\$342.40	\$164.95	\$342.40	\$32.99	\$65.98	\$0.00	\$32.99
		w/out	\$164.95	\$342.40						

**Capitation payments**

1 The figures in the Table exclude per-capita management fees, which are paid irrespective of Access or Interim status and are based upon PHO size. These per-capita management fees are:

- for PHOs with fewer than 75,000 registered individuals: \$9.61 per registered individual up to 20,000; and \$4.67 per registered individual thereafter
- for PHOs with more than 75,000 registered individuals: \$6.41 per registered individual for the first 20,000; \$5.83 per registered individual for the next 20,001 to 75,000; and \$5.25 per registered individual thereafter.

**Payment type**

2 GMS/Nurse: payment for services to be provided by GP or practice nurse. This is nominally based upon a notional

consultation 'subsidy' of \$36.40 for children under 6 and \$26 for all other population groups eligible for low- or reduced-cost access – thereby presuming on average 13 fully subsidised visits for a HUHC young child and 8.5 fully subsidised visits for other children; and 6.3 partially subsidised visits per annum for a 65+ man and 7.4 partially subsidised visits for a 65+ woman (or 3.3 and 3.8 fully subsidised visits for the 65+ man and 65+ woman, assuming a \$50 cost per visit).

3 Services to Improve Access: payment to develop access initiatives for high-needs populations (paid in addition to GMS/Nurse capitation payment).

**PHO type**

4 Interim PHOs: less than 50% of their registered population have Maori or Pacific Island ethnicity or are living in areas determined to be in NZDI deciles 9 or 10.

5 Access PHOs: more than 50% of their registered population have Maori or Pacific Island ethnicity or are living in areas determined to be in NZDI deciles 9 or 10.

**Individual characteristics**

6 HUHC: High User Health Card – identifies an individual making 12 or more GP visits a year.

7 CSC: Community Services Card – identifies low-income or beneficiary status of individual (relevant only to Interim PHOs).

**NZDI (New Zealand Deprivation Index classifications)**

8 1-4 represents deciles 1-8; 5 represents deciles 9-10.

Source: Ministry of Health.

## 2. A Managed-Care Model

In essence, the NZPHCS introduced a 'managed care' primary healthcare model to New Zealand. Managed healthcare models balance the costs of and demands for primary healthcare by applying a defined budget (set by capitation) to meet the health needs of a defined population. They utilise a combination of fiscal and practice-based strategies to meet their objectives. Fiscal strategies (including capitation payment of service providers, price-and-volume contracts, preferred-provider networks, and utilisation review) constrain the higher costs that typically attend fee-for-service subsidised systems by making service providers bear some of the financial risks that their decision-making invokes.<sup>18</sup> Practice-based strategies seek to 'reduce variability in medical care by identifying "best practices" and promoting adherence to guideline-based decision-making. This includes evaluating the appropriateness of services rendered and the level of care necessary to provide the services.'<sup>19</sup>

### Borrowing from both the United States and the United Kingdom

Managed care has become popular in the United States as a means of arresting very strong growth in healthcare spending driven by the historic fee-for-service insurance funding,<sup>20</sup> and in the United Kingdom as a means of making health services more responsive to local needs and priorities.<sup>21</sup> In the United States, managed care has competed with traditional indemnity-based insurance models and initially it proved very popular, especially in western and mid-western states. But its market share relative to other models is reducing from early highs, with approximately 25% of United States citizens enrolled in such schemes in 2003.<sup>22</sup> In the United Kingdom, the NHS<sup>23</sup> Primary Care Trusts (PCTs) provide all state-funded primary healthcare and are funded predominantly by capitation payments for defined populations.

The United States managed-care experience suggests that significant changes in practitioner behaviour have been achieved using very low-powered fiscal incentives.<sup>24</sup> Furthermore, significant changes have occurred in the organisation of the primary healthcare workforce, with formerly independent providers allying to form 'preferred provider networks' and even merging into large corporate firms, in order to more efficiently manage the significant financial risks associated with

capitation payment<sup>25</sup> and to reduce the transaction costs of negotiating contracts with the managed-care entities.<sup>26</sup> The Healthcare Financing Administration considers capitated primary healthcare physician groups to be at substantial financial risk if they have fewer than 25,000 registered patients.

Contractual alliances between managed-care entities and providers in the United States have also led to the formation of large and vertically integrated chains, in which exclusive contracts bind providers to providing services to the clients of a single care manager. Competition for customers now occurs on the basis of the bundle of management and care-delivery services offered. From a customer perspective, the most noticeable change has been the restriction of practitioner choice, as patients must now select providers from those with whom the managed-care entity has an exclusive provision contract.<sup>27</sup>

Restriction in provider choice is traded off against the substantial reduction in premiums paid (the reduction being made possible by the providers' fiscal incentives to reduce service-delivery costs). But many individuals see only the reduction in choice, as employers typically select the scheme and pay the premiums on the individuals' behalf. This has led to a noticeable reduction in the level of trust between patients and service providers: there is a growing perception that contracted providers are acting principally as agents of the managed-care entity, in conflict with their traditional role as dedicated (and exclusive) agents of the patient.<sup>28</sup> Some analysts have attributed lack of patient choice of service provider as a principal reason for managed care's declining popularity.<sup>29</sup>

The United Kingdom's experience with managed care also suggests that patient choice of practitioner and service type matters.<sup>30</sup> However, direct comparisons between the United States, United Kingdom and New Zealand experiences are difficult to draw because of the different services provided and the different payment mechanisms employed. In the United Kingdom, patients make no out-of-pocket payments for NHS-funded services – unlike New Zealand where, even with NZPHCS increases in government expenditure, out-of-pocket expenses in primary care still amount to around 60% of sector spending, and have not reduced as fast as was expected when the strategy was put in place.<sup>31</sup>

18 David Dranove and Mark Satterthwaite. 2000. 'The Industrial Organisation of Healthcare Markets' Chapter 20 in A Culyer and J Newhouse (eds) *Handbook of Health Economics*. Elsevier. Amsterdam.

19 Patrick Asubonteng Rivers and Kai-Li Tsai. 2003. 'Managing costs and managing care' *International Journal of Healthcare Quality Assurance* 14(6/7) pp302-307.

20 James C Robinson. 2004a. 'Reinvention of health insurance in the consumer era' *Journal of the American Medical Association* 291(15) pp1880-1886.

21 Justin Keen, Donald Light and Nicholas Mays. 2001. *Public-Private Relations in Healthcare*. King's Fund. London.

22 Elizabeth Simpkin and Karen Janousek. 2003. 'Why are we without risk? The physician organization at the crossroads' *Journal of Healthcare Finance* 29(3) pp1-10.

23 National Health Service.

24 Ching-To Albert Ma and Thomas G McGuire. 2002. 'Network incentives in managed healthcare' *Journal of Economics and Management Strategy* 11(1) pp1-35.

25 Gerard F Anderson and Wendy E Weller. 1999. 'Methods of reducing the financial risk of physicians under capitation' *Archives of Family Medicine* 8(2) pp149-155.

26 James C Robinson. 2004b. 'The limits of prepaid group practice' Chapter 10 in AC Enthoven and LA Tollen *Towards a 21st Century Health System: the Contributions and Promise of Prepaid Group Practice*. Jossey Bass. San Francisco.

27 Robinson. 2004a. *op. cit.*

28 Anne Pereira and Steven Pearson. 2001. 'Patient attitudes toward physician financial incentives' *Archives of Internal Medicine* 161(10) pp1313-1317.

29 Audley Kao, Diane C Green, Alan M Zaslavsky, Jeffrey P Koplan, and Paul D Cleary. 1998. 'The relationship between method of physician payment and patient trust' *Journal of the American Medical Association* 290(19) pp1708-14.

30 Christopher Ham. 2004. *Reforming the NHS*. Presentation to the New Zealand Health Economists Meeting, Wellington. 3 November.

31 Minister of Health. 2004. *Cabinet Paper 2004: Primary Healthcare Strategy – Achieving Low Cost Access* (available online at [www.moh.govt.nz/moh.nsf/wpg\\_index/-Primary+Health+Care+Publications](http://www.moh.govt.nz/moh.nsf/wpg_index/-Primary+Health+Care+Publications)).

The US managed-care entity is clearly an insurer. Its ownership and commercial activities are explicitly separated from those of the service provider.

The United States funding arrangement, where employers pay premium subsidies to managed-care entities and patients may pay a part-payment when treatment is sought, bears more similarity to the New Zealand PHOs' government subsidies and patient co-payments.

However, unlike the United States, where patient payments are typically determined by the insurer or managed-care entity, New Zealand has its payment terms set by the service providers. Furthermore, unlike both the United Kingdom and the United States, New Zealand patients are not overtly restricted in their choice of practitioner (even though they are required to nominate a preferred provider). Indeed, the strategy explicitly reinforces freedom of patient choice.<sup>32</sup> The NZPHCS allows patients to seek care from any practitioner irrespective of PHO registration, invoking a 'clawback' adjustment to capitation payments reflecting the differences between capitation allocation and point-of-service delivery.

The most significant similarity between the United Kingdom and the New Zealand managed-care models lies in the ownership and governance structures. Both New Zealand's PHOs and the United Kingdom's PCTs are required to be nonprofit entities and to have both community and provider representation in their decision-making. Whilst investigation into the efficacy of the United Kingdom governance structures is still in its preliminary stages, early evidence points to substantial governance costs (arising from the lack of governance experience amongst the community appointees) and to communication difficulties between the predominantly male provider representatives and the predominantly female community representatives (arising from their very disparate backgrounds, interests and motivations for involvement). These factors have led to considerable tensions between the two groups – and these tensions have hampered

the ability of the PCT boards to make timely strategic decisions.<sup>33</sup>

Governance issues have not presented significant problems in the United States, because of the clear commercial separation of care-management activities and service-delivery activities that arises from the explicit commercial separation of the managed-care entity (which is an insurance entity with different ownership and commercial activities from those of the service providers). Such distinctions are less clear in the New Zealand and United Kingdom, where government is the implicit insurer and various aspects of the insurer role have been separately delegated via legislative and contractual arrangements. Moreover, in the publicly funded New Zealand and United Kingdom systems, government involvement as subsidiser, regulator, policymaker, and legislator has meant that the relationships between PHOs/PCTs, registered individuals and the government may carry many additional dimensions over and above the commercial imperatives of insurance, care-management and care-delivery provision. For example, the political expectation that New Zealand practitioners will charge different co-payments for patients in different government-determined payment categories creates a mechanism for socially motivated wealth-transfer, in addition to the wealth-transfers already being effected by the tax system.<sup>34</sup>

### The best of both systems?

Whilst the New Zealand implementation has been lauded as embodying the 'best' of both systems,<sup>35</sup> the real test will come in how it addresses the worst elements that have emerged from each system – principally the trade-off between patient costs and provider choice, and the costs and implications arising from sector ownership, governance and organisation of interaction.

<sup>32</sup> Minister of Health. 2001. (See footnote 2).

<sup>33</sup> J Smith and N Goodwin. 2002. *Developing effective commissioning by primary care trusts: lessons from the research evidence*. Discussion paper DP38. Health Services Management Centre, University of Birmingham.

<sup>34</sup> Bronwyn Howell. 2005. *Restructuring Primary Healthcare Markets in New Zealand: Financial Risk, Competition, Innovation and Governance Implications*. Institute for the Study of Competition and Regulation. Wellington (available online at [www.iscr.org.nz/documents/primaryhealthcaremarkets.pdf](http://www.iscr.org.nz/documents/primaryhealthcaremarkets.pdf)).

<sup>35</sup> Martin Hefford, Peter Crampton and Jon Foley. 2005 (see footnote 3).

### 3. Some Economics of Healthcare Markets

Healthcare markets differ from markets for many other products and services because the product 'healthcare' has some different economic characteristics. These characteristics, originally articulated by Nobel Laureate Kenneth Arrow in his landmark 1963 paper on the economics of healthcare,<sup>36</sup> have resulted in a number of features that distinguish healthcare markets from those for other products – namely the intertwining of healthcare and insurance markets, and significant information asymmetries between patients and providers.

#### Insurance: a matter of trade-offs

Arrow demonstrates that insurance (risk management) reduces the uncertainty (demand uncertainty) that individuals face about being able to afford healthcare if and when they fall ill. All individuals seeking insurance cover pay a regular premium into an insurance fund, and the fund pays a treatment subsidy in respect of those individuals who fall ill and therefore need healthcare. The principal task of the insurance fund manager is to 'balance' the premium income with benefit payments. This involves trading off the interests of two groups of individuals: Group A (*all* insured individuals), who prefer to pay low premiums for the

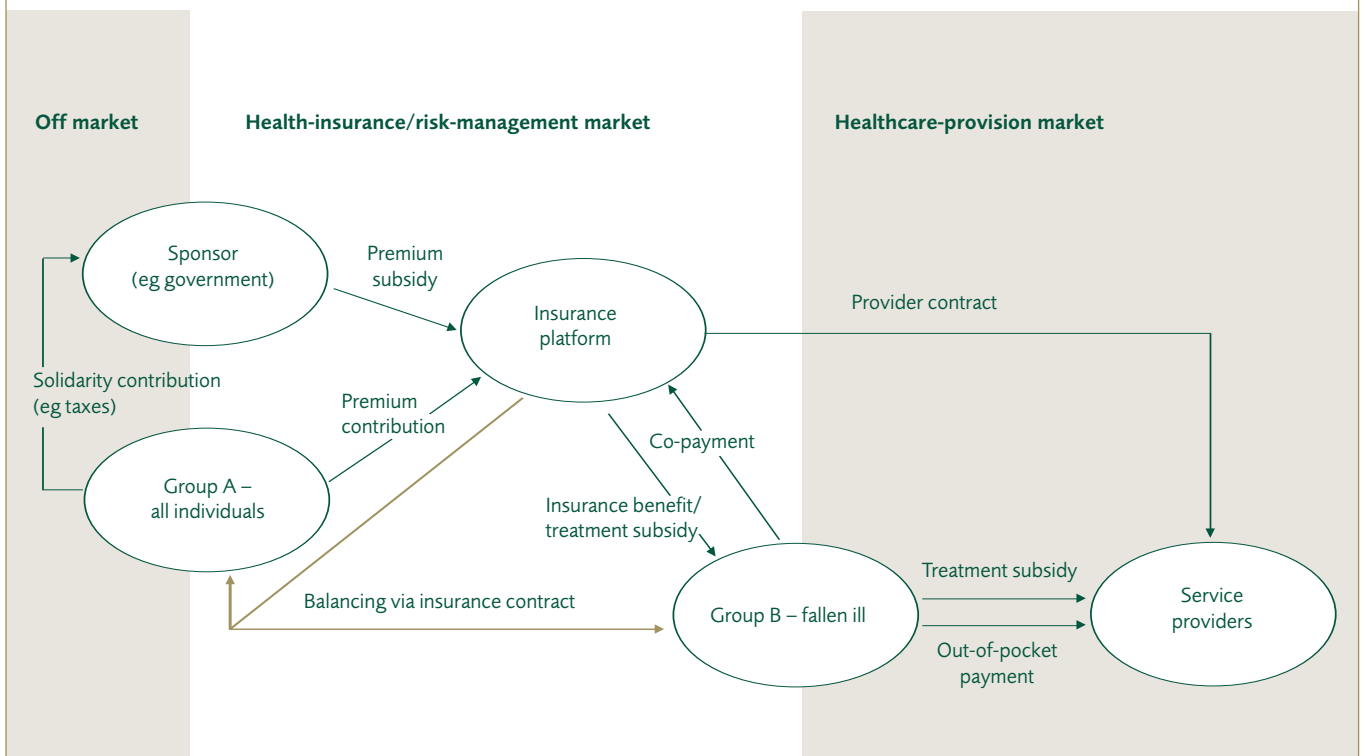
assurance that they can access an acceptable level of treatment if and when they fall ill; and Group B (those insured individuals who have fallen ill), who prefer that the insurance fund pays as much as possible of the costs of the best available treatments. Insurance is thus the 'upstream' component of a two-part health system; the 'downstream' component is the provision of healthcare to Group B individuals (albeit subsidised by the provision of insurance benefits). These relationships are illustrated in Figure 2.

In an 'ideal' insurance fund, the insurer will use population-based information to determine the likely costs of Group B's illnesses, and will apportion these costs across all of Group A by setting the premium charge. The apportionment may be equal (community rating), or based on measures of the projected likelihood of a given individual falling ill and causing costs (individual-risk rating), or a combination of the two.

In respect of actual payment of treatment benefits, it does not matter to the insurer which Group A individuals actually fall ill and become Group B individuals – what matters is the ability to predict total costs as accurately as possible in order to ensure sufficient funds are available to pay for the

<sup>36</sup> Kenneth Arrow. 1963. 'Uncertainty and the economics of medical care' *American Economic Review* 53(5) pp941-73.

Figure 2. Healthcare systems



In a general sense, it doesn't matter to the insurer which particular individuals fall ill. What matters is to predict total costs as accurately as possible. But ... who falls ill, and what they fall ill with, matter crucially in premium- and benefit-setting.

necessary treatments. In principle, the more individuals in the scheme, the more accurate will be the use of population-based projections to assess likely costs, as the variations between historic averages and actual costs will on average be smaller. Consequently, the costs of 'balancing the books' by borrowing to cover deficits (that is, the cost of risk management) will be less when the number of Group A individuals is larger.

But the identity of Group B individuals, the likelihood of specific Group A individuals becoming Group B individuals in the future, and the specific illnesses they will likely develop all matter crucially when the trade-offs between the two groups are undertaken. These trade-offs involve setting premium charges, determining the size of benefits paid, and identifying the individuals, treatment types and illnesses for which benefits will be paid (that is, rationing benefits amongst specific individuals, illnesses, or care provided by specific provider-types). The insurance function therefore determines 'equity' between specific individuals in both the allocation of benefits and the allocation of cost burden. For example, does the insurer allocate benefits so that all equally ill individuals receive the same benefits, irrespective of the premiums paid? And how does the insurer determine the proportion of the premium payment that is community-rated (favouring treating all individuals ex ante as equal, irrespective of the individual's assessed health state) and the proportion that is risk-rated (based upon projected individual differences in future cost-causing behaviour)?

The 'balancing' role of the insurer is further complicated in many instances by the presence of premium subsidies paid by a 'sponsor' (such as the government or an employer). The premium subsidy is distinct from the treatment subsidy, as the former is paid for Group A individuals and the latter for Group B individuals (see Figure 2). Where transactions occur outside of the insurance arrangements (for example, where a Group A individual pays taxes to the government in order to fund premium subsidies), the 'balancing' of interests must also take these interactions into consideration.

The insurance fund may be a stand-alone organisation (either private or government-owned) that charges premiums to all individuals and pays benefits to ill individuals or their care providers. Or it may be a vertically integrated government entity that derives income from taxation and either pays benefits or provides care directly (via government-owned healthcare facilities). In both cases, the

fundamental insurance role is unchanged – but in the latter case the relationships are implicit, as the government entity pays both the premium subsidies and the treatment subsidies as internal transactions. In all cases, the insurance 'balancing' will determine both the efficiency and the equity outcomes of the system.

### **Some consequences of health insurance**

The presence of subsidised health insurance increases individuals' access to and utilisation of healthcare (compared with a self-insurance system, where neither insurance nor other subsidies are present). However, the presence of insurance creates additional problems that must be addressed by the 'balancing contracts' that the insurer manages.

#### **Over-consumption**

As a consequence of treatment subsidies, Group B individuals no longer pay the full costs of their care, and so will be likely to consume more care than necessary. For example, they may seek subsidised medical care (or even reassurance) for minor ailments, when they could pursue unsubsidised treatments that are in total less costly. Or their care providers, knowing that insurance pays for the treatments, may order more tests or provide higher-quality care than is necessary to effect a cure. To recoup these additional costs, insurers must either increase the premiums charged or reduce the generosity of benefits paid.

Patient co-payments are one way of ensuring that the costs of inefficient over-consumption are at least partially borne by those who cause them. If patients face a charge each time they seek treatment, then the tendency towards over-consumption will be curbed and the increased premium burden on Group A individuals (or their premium subsidisers) will be less. However, co-payments are a blunt instrument: they also impose costs on the genuinely ill, who are not necessarily over-consuming and who may not, in the presence of co-payments, be able to afford sufficient care to fully recover.

Alternatively, the insurer may be able to reduce costs by inducing care providers not to over-treat. This is typically achieved by the insurer entering into a separate contract with the patient's chosen provider that places some constraints upon how the provider will be remunerated for services paid from the patient's insurance benefit. These supply-side



cost-sharing contracts make the provider responsible for some of the provider-controlled costs that lead to over-consumption. If providers' profits are reduced when they make inappropriate costly decisions, then they have an incentive to make fewer such decisions. Typical supply-side cost-sharing instruments include utilisation review, price-and-volume payments, and capitation-payment regimes.

Utilisation reviews typically involve a claw-back of payments from the provider if too many or overly-costly inappropriate treatments have been ordered. Price and volume contracts pay providers a fixed amount for a defined number of specified treatments based upon pre-determined 'best practice' acceptable costs (for example, \$X for Y hip-replacement surgeries). If the provider chooses more-costly treatment options, then profitability drops. Capitation-payment regimes are used extensively in primary care and are based upon 'fixing' a proportion of the provider's income, making it independent of the number of treatments delivered. Typical capitation-payment regimes consist of both a fixed payment per period per patient 'on the books' (capitation) and a variable component per consultation provided. The greater the proportion of the provider's income that is fixed, the greater the impact on provider profits from ordering overly-costly treatments or from scheduling unnecessary visits, and the greater the incentives the provider faces to offer preventive treatments that reduce the likelihood of the patient making future visits (which are costly to the provider).

However, care must be taken when setting the fixed and variable proportions of capitation-payment regimes. If the fixed component is too high, and the demand for visits is influenced by factors outside the provider's control (such as random increases in demand arising from an unpreventable epidemic, or the 'bad luck' of having a higher-than-average number of high-need individuals on their books), then the cost-saving incentives may be too acute. Providers may make losses even though they adopt best practice – and, in order to lower total costs and maintain financial viability, they may respond by reducing the quality of care below an acceptable level. Empirical evidence from the United States shows that considerable behavioural changes occur when very-low-powered provider incentives are employed (that is, only a small proportion of a provider's income is fixed). This suggests that individual provider costs are strongly influenced by many factors over which the provider has no

control.<sup>37</sup> Furthermore, the 'optimal' capitation formula will vary substantially amongst providers, depending upon the differences in the underlying health states of their patients.

In practice, a combination of patient co-payments and provider supply-side cost-sharing contracts has been shown to offer the best chance of achieving an optimal balancing of the system.<sup>38</sup> This, however, requires the insurer to be able to manage all aspects of the payments for both Group A and Group B individuals and for their service providers – that is, the insurer must manage the setting of all premium charges, all provider remuneration and all patient co-payments.<sup>39</sup> Optimal balancing will not be possible if, for example, the provider can arbitrarily charge the patient an out-of-pocket fee and the insurer has neither knowledge of, nor the power to determine, its size.

### **Using private information to manipulate 'the system'**

The ability of an insurer to 'balance' contracts optimally amongst all sector participants requires knowledge of a given individual's likely future consumption of care – that is, some assessment of an individual's health state. If falling ill was truly random, then there would be no way of predicting future costs for a given individual, and individual health state would be irrelevant. However, studies suggest that only around 75% to 80% of the variability in patients' health costs is random, with the best predictor of the remaining 20% to 25% being an individual's past consumption of healthcare.<sup>40</sup> Thus, some knowledge of individual characteristics will assist insurers in predicting which Group A individuals will be more likely to become Group B individuals in any period, enabling more accurate trade-offs between specific Group A and Group B individuals to be made.

However, if likely high-consuming individuals can conceal their likely greater costs, then they will pay lower premiums than is efficient – which makes it necessary to charge higher premiums to all individuals. This means low-cost individuals who can confirm their low-cost type<sup>41</sup> have an incentive to join an insurance scheme that excludes individuals who cannot offer credible proof of their cost type, and that has lower premium costs. The outcome is a bifurcation between high-cost high-risk insurance pools and low-cost low-risk insurance pools – and, at worst, some high-cost individuals becoming 'uninsurable' by any scheme. Furthermore, profit-maximising insurers with access to both population-

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37 Ching-To Albert Ma and Thomas G McGuire. 2002 (see footnote 24).

38 *Ibid.*

39 Martin Gaynor, Deborah Haas-Wilson and William Vogt. 2001. 'Are invisible hands good hands? Moral hazard, competition, and the second-best in health care markets' *Journal of Political Economy* 108(5) pp992-1005.

40 Other characteristics such as age, gender, ethnicity and income provide additional predictability, but are less significant than past consumption. See: James C Robinson. 2004. 'Reinvention of health insurance in the consumer era' *Journal of the American Medical Association* 291(15) pp1880-1886.

41 For example, their claims history might show a low volume of claims, or they may be willing to pay high co-payments.

To achieve optimal balancing of the system, the insurer must manage the setting of all premium charges, all provider remuneration, and all patient co-payments. Optimal balancing will not be possible if the provider can arbitrarily charge the patient an out-of-pocket fee.

based and individual information can use their greater knowledge about the likelihood of a given individual falling ill to charge premiums higher than the level of risk borne, thereby extracting profits in excess of a fair return. For example, a fund manager may know that the pool being managed is of lower risk than the total population, but may charge premiums as if the pool risk is average, thereby receiving premiums in excess of costs.

Behaviour that leads to such separation of risk pools is known as 'cream-skimming'. As 'cream-skimming' impinges upon the pursuit of both efficiency and equity, in many jurisdictions health insurance is subject to regulatory oversight designed to minimise its effects. Alternatively, health insurance may be provided by one government-owned insurer with the power to make membership compulsory. In this case, no individual or firm can benefit from the use of private information. However, as with all monopolies, a single provider faces few pressures to constrain costs, so premiums will likely be higher than ideal. A further alternative is competition between nonprofit or mutual insurance providers.<sup>42</sup> In principle, these organisations offer some protection against insurance provider cream-skimming, as any profits made from excessively high premiums can be used only for the benefit of the premium-payers,<sup>43</sup> and competition between firms reduces the ability of self-interested managers to extract surpluses in the form of salaries and perquisites. However, they offer no protection from individuals using private information to skew insurance-pool risk profiles.

#### The downside of premium subsidies

When a Group A individual's premium is subsidised, there is a breaking of the direct nexus between the full cost of the individual's premium, the cost of care, and the individual's behaviour. Unless the insurer has access to information about other contractual interactions between the premium subsidiser and the Group A individual, the ability to achieve optimal balancing of all stakeholders' interests is lost. Balancing is especially difficult if the premium subsidiser and the insurer are one, and if Group A individuals' contributions are levied not on the basis of likely future healthcare costs but on another basis (such as income, on which the tax system is based).

When Group A individuals' payments are unrelated to their health risks, their behaviour may be influenced by factors other than their health state and healthcare costs. For example, individuals paying high taxes may be (as Group B individuals)

more likely to over-consume or expect higher-quality care than individuals who pay lower taxes, because the higher-taxed individuals perceive that they have paid proportionately more of the costs of the scheme and so are entitled to more of the services. Moreover, the insurer has no recourse to individual financial incentives as a means of encouraging prevention activities (such as smoking cessation) by individuals who pay no taxes or co-payments and who therefore will receive both insurance and treatment at no financial cost. Both these types of individuals will be likely to consume more services than is optimal<sup>44</sup> – and the system will be less efficient than it would if customised individual signals could be used to alter individual consumer behaviour.

#### Information asymmetries favour providers

Arrow further identifies that, in addition to insurance factors, information asymmetries in the markets for the provision of care delivery also affect the efficiency of the system. Healthcare practitioners are highly skilled experts, whilst patients are generally not. Healthcare is an 'experience' or 'credence' good which cannot be easily examined and tested before purchase. Furthermore, it is fully 'used up' when purchased, so it is difficult to independently assess its qualities. Consequently, providers have significant scope to knowingly overcharge and/or deliver low-quality care without this being detected. This leads to a potential loss of trust between providers and patients, and to the consumption of healthcare being less-than optimal.

Industry regulation, professional registration processes, competency audits, and compulsory education go some way towards assuring patients that minimum levels of practitioner skill apply. Mechanisms such as codes of professional ethics, personal professional reputation, and nonprofit and mutual-ownership organisational forms offer some imperfect constraints on practitioner overcharging and quality/price arbitrage. Despite these measures, there is considerable room for practitioner discretion that leads to less-than-optimal outcomes.

The information-asymmetry problems are further exacerbated when the purchaser of care (insurance company, government, charity donor) is not the recipient. This is due to the difficulty in ascertaining whether the care actually delivered was of the type and quality agreed, and whether it was delivered to the intended recipients. Nonprofit ownership form has been offered as a 'solution' to

42 Henry Hansman. 1996. *The Ownership of Enterprise*. Harvard University Press. Cambridge, Massachusetts.

43 Presuming that the decision-making powers of the non-profit or cooperative insurance company are vested in the members or in individuals directly accountable to the members. See: Avner Ben-Ner and Theresa van Hoomissen. 1991. 'Nonprofit organizations in the mixed economy: a demand and supply analysis' *Annals of Public and Cooperative Economics* 62(4) pp519-50.

44 Education programmes may increase the preventive activities of these individuals – but, unless the programmes are very tightly targeted, the risk exists that too much will be spent on education, as the education is delivered both to those individuals who already face incentives and to those who do not.

Healthcare is a good that cannot be easily examined and tested before purchase.

the 'problem' of for-profit providers exploiting the asymmetry for their own financial benefit, but it is a very weak constraint on such behaviour.<sup>45</sup> For example, rather than extracting cash profits, a nonprofit provider may choose to provide a higher quality of care than the third-party purchaser intends, because delivering this quality of care is more satisfying to the provider.<sup>46</sup> Consequently, contractual incentives and monitoring (including regulatory reporting requirements) that specifically address the exploitative potential of information asymmetry between purchaser and recipient are a prominent feature in the design of healthcare systems, irrespective of the ownership and organisational form of the providers.<sup>47</sup>

### Are patients vulnerable to being 'locked in'?

Primary healthcare differs from other types of healthcare. As the first point of contact for a patient, the primary healthcare provider stands as a gatekeeper to other services (hospital, specialist care, pharmaceuticals, laboratory tests). Furthermore, unlike what happens in specialist and hospital care, primary care providers and their patients repeatedly interact.

An individual typically has two sorts of contractual arrangements with a primary care provider – an 'access' agreement (whereby the provider agrees to treat the individual in the future when illness occurs) and a 'usage' agreement (which governs the provision of services when care is sought for a specific illness). The terms of these agreements may be negotiated directly between the individual and the provider, or by the insurer on the individual's behalf. These agreements are distinct from the contracts that the individual has with the insurer for risk management.

Typically, patients prefer to have a long-standing access contract with a single primary care provider because primary healthcare is a highly customised personal service, with outcomes often determined by hard-to-measure qualities such as the match between the practitioner's communication style and the patient's receptiveness to that style. The costs for patients of finding a satisfactory match on these dimensions are high, as different practitioners and patients prioritise different dimensions of quality. Several consultations are usually required to assess the fit, so the patient will most likely settle for the first 'acceptable' provider they find, even though a better match may exist. This raises the risk that the patient will become 'locked in' to that practitioner because of the substantial costs and low probability

of finding a better match. The 'acceptable' practitioner can now raise prices or reduce quality within the margins of the patient's search costs, without fear of the patient taking their custom to another practitioner.<sup>48</sup>

Consequently, different contractual and regulatory arrangements are required in primary healthcare than in other parts of the health sector. Reputation and repeat custom may mitigate some of the complications arising from provider patient information asymmetries, in particular the consistent delivery of low-quality care. If even one patient detects and can communicate the presence of low-quality care, the provider risks losing all patients who care about this dimension of quality. Primary care providers who value reputation thus have incentives to repeatedly deliver such care at a consistent level of quality to all patients – and to a greater degree than if each treatment was a discrete episode.

However, in order to ensure the provider exerts sufficient effort in building and maintaining personal reputation in the valued dimensions, it may be necessary for the practitioner to be the owner of the firm through which services are delivered – that is, the provider 'owns' the 'list' of patients with whom the access agreements have been made, and also the capital gains and professional satisfaction that ownership of this list confers. As the returns from a personal reputation are not easily specified in a contract,<sup>49</sup> most primary care providers opt to practise as individuals rather than in partnership or as salaried employees. This arrangement reinforces patient preferences for provider continuity. Practice ownership 'locks in' the provider to a specific patient community, thereby providing certainty that the usage agreements will be overseen by the chosen 'acceptable' provider.<sup>50</sup> Such certainty is not necessarily achievable when the access agreement is between a patient and a multi-provider firm.

### The challenge: balancing the interests of all participants

The principal objective of healthcare policy should be to foster the creation of a sector capable of delivering the best health outcomes possible for all individuals within the constraints of available funding. This requires assurances that the worst consequences of information asymmetries between providers and patients are ameliorated, and that the achievement of better outcomes is supported by the ways in which insurance contracts 'balance' the interests of all participants.

45 Avner Ben-Ner and Theresa van Hoomissen. 1991 (see footnote 43).

46 Richard Steinberg. 1993. 'Public policy and the performance of nonprofit organizations: a general framework' *Nonprofit and Voluntary Sector Quarterly* 22(1) pp13-31.

47 Jeremiah Hurley. 2000. 'An overview of the economics of the health sector' Chapter 2 in A Culyer and J Newhouse (eds) (see footnote 18).

48 This is a feature of monopolistically competitive markets, of which primary healthcare is only one example. See: David Dranove and Mark Satterthwaite. 2000 (see footnote 18).

49 Oliver Hart. 2003. 'Incomplete Contracts and Public Ownership: Remarks, and an Application to Public-Private Partnerships' *Economic Journal* 113(486) ppC69-76.

50 For example, in most after-hours treatment agreements, the 'after-hours' provider treats the patient under an agreement in which the provider with the access agreement subcontracts usage-provision responsibility to the substitute, in respect of patients on the access provider's 'list', for a defined time period.

A specific challenge, however, attends how the insurance arrangements interpret the pursuit of 'equity'. Insurers face two specific equity challenges. First, on what basis do they allocate treatment benefits amongst Group B individuals? Second, on what basis do they allocate the costs amongst Group A individuals? In principle, Group B individuals who are equally ill would be likely to expect equal benefits, irrespective of premium payments made, as it is development of the defined health state that has made them Group B individuals in the first place. However, a government-owned insurer may use the treatment-allocation process to redistribute wealth

(for example, paying different treatment benefits to individuals with different incomes). Likewise, a government 'sponsor' may use socially-motivated rather than health-state-motivated bases for applying premium subsidies.

These characteristics of health systems suggest that, in the design of health policies, it is the design of the insurance arrangements that will have the most significant effect on the ability to achieve the desired outcomes. Therefore aspects of insurance design will be the most important determinants of the ability of different systems to deliver the desired outcomes in all dimensions.

## 4. The NZPHCS Managed-Care Scheme

No policy is ever implemented in a vacuum. The existing arrangements must be taken into consideration when assessing both the likely outcomes and the transition to those outcomes – and the NZPHCS is no exception to this. The framework shown in Figure 2 on page 7 enables the design and implementation of the NZPHCS to be assessed against the pre-NZPHCS arrangements. This section carries out that assessment.

### The 1938 'social contract'

The defining characteristic of the pre-NZPHCS primary healthcare markets was the 'social contract' arising from the 1938 Social Security Act. This legislation was introduced by a government that wanted to provide 'free-to-the-patient' healthcare, as subsequently adopted in England's NHS. Because of concerted opposition from the medical profession, however, a 'compromise' was reached: the government agreed to own and fund the entities that provided hospital, maternity and mental health services, whilst privately owned general practitioners (GPs) provided primary healthcare services and were part-funded by fee-for-service taxpayer-funded 'Section 88' subsidies.<sup>51</sup> Under this arrangement, privately owned primary healthcare providers retained the right to charge patients the difference between government subsidies and the costs of service delivery.

The 1938 arrangements saw the government both funding and operating a universal insurance scheme on behalf of all citizens. The 'Section 88' payments were insurance benefits (treatment subsidies) paid in respect only of those Group B individuals who fell ill and required care; eligible individuals (Group A) received implicit premium subsidies from taxation; and the government, as insurer, underwrote the variations arising from demand uncertainty (the costs of higher-than-anticipated demand were met from the tax pool). Providers faced no financial consequences of patient demand uncertainty as they were fully remunerated for each service provided, by a combination of the Section 88 and patient payments.

As patient out-of-pocket payments were not determined by the government insurer, the arrangements fell somewhat short of an ideal insurance arrangement where the insurer can optimally trade off the interests of Group A and Group B individuals, providers, and the premium

subsidisers (see Figure 2). The integration of the premium subsidiser and insurer, the budget-based taxation funding of the insurance scheme, and the absence of a clearly defined premium charge all posed further difficulties in achieving optimal trade-offs. However, government ownership/operation of a single insurance hub and private individual-practitioner ownership of the firms that provided care were both theoretically consistent with arrangements likely to reduce costs and eliminate some of the worst individual 'problems' of each of the insurance and care-provision elements of the system. That is, all individuals had some defined-benefit primary healthcare insurance funded by taxation, and owner-provider GPs faced reputation incentives to provide consistent and high-quality services to patients making repeated visits. Explicit sector-specific regulation (such as practitioner registration, codes of ethics, and competency audits) addressed many of the information-asymmetry 'problems' in care delivery.

Initially, the 'Section 88' payments covered most of the costs of primary healthcare. By the late 1980s, however, inflation and the failure of successive governments to adjust 'Section 88' payments meant that the insurance benefit covered only a very small proportion of GP charges. In 1991, the insurance coverage terms were altered. Treatment benefits for high-income adults were stopped. These individuals now had no insurance – they 'self insured' (paid the full costs of primary care, and hence underwrote their own demand uncertainty). The government-operated insurance scheme paid treatment subsidies only for low-income individuals<sup>52</sup> and children under six (which amounted to around 47% of the population), even though *all* individuals contributed through taxation to these treatment subsidies. Nonetheless, the fee-for-service treatment-subsidy benefits that were paid were substantially more generous than when the scheme was universal.

### The NZPHCS 'insurance markets'

By contrast, under the NZPHCS arrangements, PHOs assume the role of insurers. Government capitation payments to the PHOs are insurance-premium-subsidy payments. These premium subsidies are partially risk-rated according to a PHO's characteristics<sup>53</sup> and partially risk-rated by individual health states.<sup>54</sup> The government's

The NZPHCS requires providers to bear more risk than before. With capitation payments based on average costs, half of the PHOs/providers will have surpluses – the other half will have deficits.

51 Tori Ashton. 'Recent developments in the funding and organisation of the New Zealand health system' Australia and New Zealand Health Policy 2005 pp2-9 (available online at [www.anzhealthpolicy.com/content/2/1/9](http://www.anzhealthpolicy.com/content/2/1/9)).

52 As determined by CSC eligibility.

53 That is: the ethnicity, age, and income profile of the majority of Group A individuals, and the number of Group A individuals, registered with the PHO.

54 As indicated by the number of Group A individuals registered with that PHO who possess a HUH.

financial liability is fixed by the number of registered individuals in total, and is independent of individuals' primary healthcare demand variations. Any costs associated with underwriting the variation in patient demand now become the responsibility of the PHOs. PHO insurers must manage both demand variability (insurance) and care coordination/delivery.

The treatment benefits paid in respect of Group B individuals are now determined by the contracts that the PHO enters into with service providers. Conceptually, these payments may take any form that the PHO managers and directors decide upon, and ideally would comprise a mix of the variety of instruments<sup>55</sup> that insurers have available for constraining providers' cost-causing behaviour and 'balancing' the interests of all sector participants. In practice, the 'back-to-back' agreement offered by the Independent Practitioners Association Council (IPAC) as a model for PHO-provider contracts<sup>56</sup> requires that all care-delivery capitation payments (the GMS/Nurse subsidies in Table 1 on page 4) be 'passed on' direct to service providers. Any shortfall<sup>57</sup> between the capitation premium-subsidies and the costs of providing services is made up by the out-of-pocket payments of Group B individuals to service providers when they fall ill.

### **Providers become de facto insurers**

The NZPHCS replaces the single government-owned insurance hub with at least 81 private-sector insurers that have registered populations of between 3,200 and 333,000 (median 18,700) and that compete with each other within each DHB area. However, the 'passing through' of the capitation payments means that the variation in patient demand in most instances is managed by approximately 3000 individual GPs, with patient pools of between 1200 and 2000 registered patients. These pools are substantially smaller than the primary-care pools of 25,000 recommended in the United States as the minimum size for avoiding adverse financial risks to practitioners. The contractual arrangements have thus resulted in service providers with extremely small patient pools becoming 'de facto insurers'. This poses some significant challenges for efficient risk management in the 'upstream' insurance part of the system, relative to the single insurance pool pre-NZPHCS.

Without any cream-skimming, half the PHOs/providers will have registered population bases 'healthier' than the population average and half less healthy than the average. The smaller the

PHO/provider's base, the greater the likelihood that its registered patient health-state average will be substantially different from the total population average upon which capitation premiums are based. As capitation premiums and patient out-of-pocket charges are based on average costs, there will be in any time period half the PHOs/providers with surpluses (income in excess of costs) and half with deficits (costs exceed income). Furthermore, the higher the proportion of income that a PHO/provider receives from capitation, the more exposed the individual PHO/provider will be to the financial costs of deviations from average. If demand is correlated across time and space (highly likely, given the geographical limitations placed upon PHO formation), then some PHOs/providers will be habitually in surplus and some habitually in deficit.

The substantially smaller NZPHCS risk pools will lead to substantially larger risk-management costs. Unlike in the single centralised pre-NZPHCS system, there is no provision for using surpluses from the 'healthy' PHOs/providers to cover losses arising in the 'less healthy' PHOs/providers. As PHOs are nonprofit entities, with no accumulated funds and no shareholders to underwrite the financial variations that arise, and because the NZPHCS makes no provision for the development of reinsurance markets that would enable PHOs/providers to insure against the variations, the only entities able to manage the variation are contracted providers.

However, contracted providers are principally private for-profit providers. It is unlikely that they will voluntarily underwrite this cost, especially given that they have the right to charge patients. The most likely scenario is that, to make up the shortfall in their incomes that arises from risk management activities, they will charge their patients – thereby replicating their pre-NZPHCS financial-risk status. Those private providers who make surpluses face no impediments to removing the surpluses as dividends. Surpluses arising from 'luck' in one year (for example, a lower demand than usual) can be withdrawn as profits rather than applied to future risk management (such as higher demand in subsequent years). Even if providers were subject to regulation, it is highly unlikely that such withdrawals could be avoided. The informational difficulty in determining what is a fair return, given that each 'fair return' will vary with the variations in patients' health states, means that the limited provisions in the NZPHCS for DHBs to impose price restraints will be extremely difficult to implement. Even in the mature United States health-

<sup>55</sup> Such as patient co-payments, supply-side cost-sharing contracts with providers, and premium contributions levied on Group A individuals.

<sup>56</sup> ([www.ipac.org.nz/members/contracts/PHO-GP%20Back-to-Back%20Contract.pdf](http://www.ipac.org.nz/members/contracts/PHO-GP%20Back-to-Back%20Contract.pdf))

<sup>57</sup> That is, the 'top-up' that ensures total primary healthcare spending from all sources equals the total costs of care provided plus PHO operating costs.

insurance markets, these issues handicap regulators overseeing very small provider-insurers.<sup>58</sup>

Patients registered at habitually loss-making PHOs/providers will therefore have to pay higher fees, simply because they are 'unlucky' enough to be registered at a less-healthy PHO/provider. Meanwhile, the 'lucky' providers are able to reap dividends that arise as a consequence of natural variations in the distribution of patient health states. The government's expectation is that the nonprofit status of PHOs will prevent funds designated for healthcare from being extracted as provider dividends – but the design of NZPHCS contracts *gifts* profits to half the providers (and guarantees that higher average costs will result) simply because the single more-efficient insurer has been dismantled into approximately 3000 substantially less-efficient insurers.

### **Cream-skimming potential**

Because population-based characteristics are likely to be poor estimators of actual demand uncertainty, there is provision for higher capitation payments for those individuals assessed *ex ante* to be at higher risk. Nonetheless, variations in health states and patient payments will be significant – even between identically subsidised PHOs/providers. Incentives for cream-skimming will increase substantially under the NZPHCS, as the incomes of PHOs and their care-provider agents are now critically dependent upon variations in registered patient health states.

PHOs and service providers possess the historic information that enables the best predictions of likely future health consumption, and hence likely financial risk, to be made. Pre-NZPHCS, there were few incentives for cream-skimming. Providers were paid for each treatment delivered, irrespective of the underlying health state of the individual seeking treatment. Cream-skimming incentives open up the potential for even greater variations of patient distribution – and hence even greater likelihood of entrenched surpluses in some PHOs/providers, with a consequent distortion of the average health states of the other PHOs/providers. If cream-skimming is undertaken by even one PHO or provider, then this skews the risk profile of the remaining PHOs/providers; they become relatively high risk, and so their charges to the patients of PHOs/providers will be higher than otherwise. Whilst higher premium subsidies for HUHC holders may mitigate some of the effects of correlated demand, over time these payments too will become population-based 'Care Plus' payments and will be

determined by the PHO/provider's overall population characteristics (rather than being transferable with the individual). Indeed, HUHC status or previous eligibility for Care Plus funding may provide additional tools that enable PHOs/providers to discriminate between individuals even when no individual history is available. Moreover, HUHC and Care Plus are designed for only a small proportion of the population – the distortions from high costs may arise from individuals requiring more treatment than the average, but less than that required for eligibility for additional funding.

Because there is a policy expectation that patient charges will decrease with premium subsidies being passed through directly to the patients concerned as decreases in patient payments,<sup>59</sup> service providers will be required to bear proportionately more financial risk when higher capitation subsidies are extended to more groups in the population. The more of the provider's income that comes from capitation payments, the more the provider's income will be affected by the random variations in health states that the provider cannot control. This increases the incentives for cream-skimming even further. Consequently, PHOs/providers with 'poorer than average' or 'worried well' health-state individuals on their books must either raise charges to the remaining low-subsidised individuals<sup>60</sup> or lower their care quality. The only other alternative is to request capitation increases from government for all patients.

If capitation payments are increased further, the additional costs will be borne by all citizens (through taxes). The 'lucky' and cream-skimming PHOs/providers within each class (*Interim and Access*) will become even more profitable as increased capitation payments are applied to all providers. If increased capitation payments are not forthcoming, charges to patients at the 'unlucky' PHOs/providers must rise, enabling the 'lucky' and cream-skimming providers to similarly increase their patient fees and thereby increase their profits. If care quality is reduced to meet costs, then 'unlucky' PHOs/providers must reduce the quality of care to the patients who are already the unhealthiest, whilst the healthier (on average) patients of 'lucky' and cream-skimming PHOs/providers enjoy relatively higher-quality care. In all instances, the rewards for 'luck' and cream-skimming are substantial. And they are contrary to NZPHCS objectives of reducing health disparities between populations.

Patients registered at habitually loss-making PHOs/providers will have to pay higher fees, simply because they're 'unlucky' enough to be registered at a PHO/provider that has sicker-than-average patient lists.

58 Gary Hagen. 1999. 'Shaky Ground: questioning health plan and provider solvency' *Risk Management* 46(11) pp42-45.

59 This expectation confuses 'average premium' with 'average consumption subsidy'. Figure 2 on page 7 shows that these are not directly comparable: premiums are paid for all registered individuals but 'consumption subsidies' are paid only in respect of the subset falling ill. It also does not take into account the distribution of consumption: survey evidence suggests nearly 20% of New Zealanders have not visited a doctor in the past 12 months, a large number have made a small number of visits, and a few have made many visits.

60 This effectively has low-subsidised individuals cross-subsidise the 'poorer than average' and the 'worried well' over-consumption of the higher-subsidised.

If capitation payments are increased further, the additional costs will be borne by all citizens (through taxes). The 'lucky' PHOs/providers will become even more profitable.

Whilst PHOs/providers might be able to merge to form larger patient bases and so spread financial risks, the mitigating effects of such activity are limited because mergers must occur within DHB boundaries. Furthermore, mergers are likely to occur only amongst PHOs/providers with the sickest patient bases, as profitable PHOs/providers would be unwilling to sacrifice profits or the higher quality of care they can deliver. The likely outcome, within each DHB, will be a small number of very large sicker-than-average PHOs/providers and a large number of small PHOs/providers with healthier-than-average patient bases. This is not unlike the United States insurance markets, which are demarcated between the large government-subsidised Medicare/Medicaid and private insurers. In New Zealand, however, the bifurcation will occur at the level of service providers, because the providers are the 'de facto insurers'.

#### **Out-of-pocket payments will vary – even more**

As a consequence of the insurance arrangements, the variation in patient out-of-pocket payments under the NZPHCS will be substantially greater than those under the pre-NZPHCS system, with the variations most likely being largest amongst the PHOs/providers that have the smallest registered populations. Both total costs and fees charged to some population groups are also likely to be greater than under the pre-NZPHCS system, despite higher subsidies in total. Patient payments will vary according to the health states of the entire PHO's/provider's registered patient base, the cream-skimming activities of PHO managers and their contracted service-provider agents, and the degree to which surpluses are 'inadvertently' extracted as either profits or higher-than-average quality of care.

Patient payments now include not just the difference between the provider's costs and the average subsidy. They also include a component related to variation in patient demand (risk management). The pre-NZPHCS risk-management component, managed by the government from taxation revenue, was both smaller (overall) and opaque (to patients). Under the NZPHCS, this cost is both larger overall and explicitly priced into patient charges. As government subsidies increase, both the tax burden to all citizens and the charges to those patients not yet included in the higher-subsidised groupings will increase.

Moreover, the charges to patients whose capitation payments do increase will not fall

uniformly, as the charges too are determined by the distribution of patient health-states and by patient consumption-behaviour. As the patient out-of-pocket payments under the NZPHCS are paid only by those patients consuming health services, these charges will be borne disproportionately by the subset who fall sick and consume services (Group B), rather than being spread across all patients (Group A) in the form of an ex-ante premium payment or insurer-determined co-payments (as occurs in typical managed-care schemes).<sup>61</sup> Meanwhile, the 'usually well' in the higher-capitated categories, who are most likely to increase their 'worried well' consumption in the face of lower out-of-pocket charges, consume even more care. This further exacerbates the size of fee increases charged to the frequently ill in all patient pools – and especially to those in pools with lower-than-average health states.

There is inadequate information about both individual New Zealanders' health states and the extent to which these could be used for predicting likely health costs and allocating the costs efficiently and equitably between individuals and the state.<sup>62</sup> For example, the difficulties of setting actuarially fair premium subsidies and patient co-payments was a principal reason given for not adopting the three to four competitive comprehensive (primary, secondary and tertiary) private-sector health-insurance firms proposed in the Green Paper and the White Paper in 1991. Thus the Ministry of Health's 'surprising' finding that, on average, the payments made by patients of those providers who were not yet part of the NZPHCS were lower than the higher-subsidised NZPHCS providers,<sup>63</sup> and the Minister's disappointment that patient co-payments have not fallen as much as anticipated amongst the newly-subsidised groups, are not so puzzling.<sup>64</sup>

#### **The real risk of 'passing the buck'**

Managed-care schemes utilise a combination of fiscal incentives and practice strategies to alter provider behaviours in order to induce the desired outcomes. Fiscal incentives are embodied in the contracts between the insurance hub and the service providers on the 'care delivery' side of the system. Fiscal incentives expose providers to financial risk: by adopting a set of behaviours desirable to the managed-care entity, financial risk to the provider is reduced. However, if the provider can set the terms of patient payments, then any fiscal incentives in the contract with the managed-care entity are able to be 'undone' by the provider's simply charging the

61 The NHS avoids the 'ill patient charging cross-subsidy' by precluding patient payments. But the difference in care quality between Primary Care Trusts (PCTs) prevails, and concerns have been raised about the extent to which PCTs can 'cream-skim'. See: Christopher Ham. 2004 (see footnote 30).

62 Toni Ashton. 1999. 'The health reforms: to market and back' in J Boston, P Dalziel and S St John (eds) *Redesigning the Welfare State in New Zealand: Problems, Policies and Prospects*. Oxford University Press. Auckland, New Zealand.

63 CBG Health Research Limited. 2004. *National GP Fee Survey*. Ministry of Health (available online at [www.moh.govt.nz](http://www.moh.govt.nz); search under document name).

64 Minister of Health. 2004 (see footnote 31).



patient a fee. The fee eliminates the financial risk that the managed-care entity is using to reduce the desired behaviour, and the provider ends up bearing no financial risk. Therefore, managed-care contracts utilising fiscal incentives typically remunerate providers through contracts that preclude the provider from setting the patients' fees.

The capitation 'pass through' contracts, and the freedom that GPs have retained (since 1938) to levy charges directly on patients, have two significant and costly consequences for the NZPHCS. Firstly, the arrangements lead to the effective dismantling of most of the benefits of insurance markets in healthcare – leading to higher costs in total, and to very large variation in the prices paid by patients. Secondly, the right of GPs to levy patient charges removes any ability for PHOs to use fiscal instruments to encourage or constrain provider behaviour. Thus, PHOs are denied use of the fiscal instruments normally available to managed-care entities for inducing desired outcomes.

These consequences call into question the rationale for the NZPHCS use of capitation payments for care delivery, and indeed even the managed-care model itself. As long as providers can set patient charges autonomously, PHOs are confined to using only practice-based strategies to induce desired practitioner-behaviour changes. They have no institutional capacity for managing financial risk. Whilst they can control costs in relation to patient registration and administrative activities (including practice-based managed-care strategies), they have no option but to pass on any financial risks to providers. The providers can then pass on the consequences of the financial risk to patients. Capitation funding for PHO management and for

services to increase access may be justified, because these activities are entirely within the control of PHOs/providers. But, under current provider-charging rights, capitation funding of GMS and nurse subsidies for care delivery (which is subject to many sources of variation outside the PHOs'/providers' control) has led to very costly and inequitable fiscal consequences.

If PHOs are to act as effective managed-care entities, and if they are to deliver more efficient and/or equitable outcomes, they must be able to constrain provider fee-setting behaviour. They must also be free to set the degree of fiscal incentives imposed on providers in a manner consistent with the degree of financial risk to which each provider is exposed (as a consequence of the distribution of patients' health states and demand patterns). United States experience shows that very small fiscal incentives yield large changes in provider behaviour; yet the standard 'back-to-back' contract implies that the objective of the NZPHCS is to move progressively towards the imposition on providers of the strongest of all fiscal incentives – full capitation payment. Substantially more efficient outcomes could be achieved by either removing the provider's right to set charges (thereby granting PHOs the ability, or even the obligation, to act as both insurer and care manager) or removing capitation payments for care delivery and reinstating 'Section 88' payments (thereby restoring the insurance role to a single government provider whilst retaining the practice management benefits achieved from PHO service coordination). As it stands, the current arrangement leads to the most costly insurance arrangements, and to substantially less than effective managed-care activities.

If PHOs are to act as effective managed-care entities, they must be able to constrain providers' fee-setting behaviour.

## 5. Competing for Governance

Two types of PHOs have emerged: genuinely consumer-governed PHOs; and PHOs oriented around providers.

This section analyses the implications of the contractual, regulatory and governance changes of the NZPHCS on sector outcomes. The analysis recognises that any change is implemented in the context of an existing set of contractual and governance arrangements. It also recognises that these existing arrangements will be fundamental to shaping both the dynamic interactions of participants, and the arrangements and institutions that ensue. The ability of the NZPHCS to deliver on its objectives will be determined by the ways in which the existing participants and institutions respond dynamically to the contractual changes that the NZPHCS introduces, when they form new institutions, alliances and contractual interactions.

### The 1990s: a period of innovation and change

The 1990s was a period of great change in New Zealand primary healthcare. The realisation that government primary healthcare spending had fallen substantially led to 'Section 88' subsidy changes in 1991,<sup>65</sup> and to a growing awareness that government funding ought to be available to a wider range of provider types. The 1990s changes also reflected a movement away from a 'universal subsidy entitlement' approach to primary care funding, and towards targeted spending to reduce disparities in health outcomes between populations.<sup>66</sup>

When four Regional Health Authorities were established in 1994,<sup>67</sup> substantial additional government funding was made available for primary healthcare services offered by all provider types. Regional

management of these funds allowed letting of contracts that catered to specific local needs. This appears to have resulted in a period of vibrant innovation and competition in primary healthcare services, with providers of all types developing new service-delivery models in order to secure the additional funding. These contracts were typically let on the basis of either a fixed budget (to meet all demand of a given type) or capitation (per identified-member serviced), thereby limiting the financial risk for the government whilst the new services were evaluated.<sup>68</sup>

Where communities of specific interest or need identified a way to meet that need, then new entities were often formed to enter into contracts for the additional funds. Two general types of entities emerged – those based upon specific consumer characteristics (such as iwi, Pacific Island groups, or trade-union membership) and those based upon provider characteristics (for example, trusts formed as operational arms of Independent Practitioner Associations [IPAs]). Because the new funding provided an opportunity for the development of new service-delivery models in competition with the general-practitioner 'Section 88' payment model, the former were the first to form. They tended to be consumer-governed nonprofit entities that provided a range of services and either employed health professionals as salaried employees or contracted for their services. These consumer-governed entities have also provided a prototype for the NZPHCS's PHO model.<sup>69</sup>

As the new consumer-governed entities began competing with general practitioners (GPs) for patients, the GPs too were forced to innovate.

<sup>65</sup> See the previous section (4. The NZPHCS Managed-Care Scheme).

<sup>66</sup> Jackie Cumming. 1999. *Funding Population-Based Primary Health Care in New Zealand: Report prepared for the National Health Committee* (available online at [www.nhc.govt.nz/publications/phc/phcfunding.pdf](http://www.nhc.govt.nz/publications/phc/phcfunding.pdf)).

<sup>67</sup> These were merged into a single Health Funding Authority after the 1996 election.

<sup>68</sup> Laurence Malcolm, Lyn Wright and Pauline Barnett. 1999 (see footnote 13).

<sup>69</sup> Gregor Coster and Barry Gribben. 1999 (see footnote 9).

### Competition and governance ...

Competition, in its general sense, is the dynamic process by which institutions interact with each other to produce and exchange goods and services. Contracts embody the agreements reached between interacting institutions. The principles guiding interaction are that each participant will voluntarily enter into a new contract if doing so improves the participant's outcome. However, the interacting institutions are themselves 'bundles' of contracts embodying the arrangements by which individuals and other institutions agree to participate jointly in the production and exchange of goods and services. These contract 'bundles' are generally termed the institution's 'governance' arrangements.

Similarly, the governance contracts in place at any one point in

time within an institution are the outcome of a dynamic process of interaction. Furthermore, the interactions between institutions and the interactions between an institution's governance arrangements are interdependent. A change in the relationships *within* an institution will alter the agreements reached *between* the institution and another entity; a change in the relationships between entities has implications for the governance arrangements within each of these entities. Moreover, the entire set of interactions may differ according to the over-arching rules (the regulatory environment) that govern the sector.

The interactions between entities and the governance arrangements within entities both have substantial implications for

Geographically-focused IPAs, formed initially as provider lobby groups to advocate for provider interests during a time of change, offered an avenue whereby providers could coordinate their activities, develop new services, and tender for contracts in addition to the 'Section 88' arrangements. Many IPAs (such as the Wellington Independent Practitioner Association [WIPA]) formed nonprofit trusts to manage these contracts; some even had nominal community representation on their governance bodies.<sup>70</sup> A small number of GPs, principally in the Waikato and Bay of Plenty, also experimented with capitation funding contracts.<sup>71</sup>

However, the distinguishing feature of the IPA-aligned trusts was that they were formed, governed and operated principally by provider interests. The member providers maintained their individual independent businesses for 'Section 88' business in addition to their interest in the IPA activities, and the contracts that the IPAs entered into complemented rather than competed with the 'Section 88' business. For example, IPAs entered into contracts for services such as immunisation, maternity services, and management of pharmaceutical and laboratory budgets. Moreover, many of the financial gains from the additional contracts were invested directly into provider benefits. For example, savings from pharmaceutical and laboratory-management contracts were used to fund provider education and to establish locum-management schemes in at least one IPA. In essence, IPAs were co-operatives of independent business providers that acted in the interests of the individual members, in the same way as Fonterra is a cooperative of individual farm businesses organised for the collective benefit of the farmers.

By the end of the 1990s, despite the increased funding of alternative providers, the independent GPs funded through 'Section 88' remained overwhelmingly the dominant form of primary healthcare provider. Only around 15% of GPs were in salaried employment, and fewer than 3% were employed by the community-governed trusts.<sup>72</sup> It has been claimed that up to 20% of GPs were engaged in some form of capitated scheme.<sup>73</sup> But, because the 'Section 88' scheme was available for all individuals (including those nominally covered by a capitated practice) and because there was no registration-monitoring in place, it is far from clear that these capitated providers faced the full financial risks of capitation. GPs could charge patients and avoid bearing financial risks – and, if costs exceeded income, community-based providers could divert excess demand to providers who were funded through 'Section 88'.

### Transitioning to the NZPHCS: the development of PHOs

The environment into which the NZPHCS was implemented was therefore characterised by two distinctly different models of primary healthcare delivery, with strong pre-existing professional and community alliances. The consumer-governed model was very close to the PHO model, where the PHO is the agent of the patient and subcontracts care-delivery to the provider. Consequently, consumer-governed entities were able to make a relatively seamless transition to PHO status. As they already had contracts with service providers (either salary or another contract form), and as they and their constituent populations already had an access agreement that was independent of the contracted

PHOs did not compete for patients. They competed for providers, who would supply the patients.

70 Pauline Barnett. 2003. 'Into the unknown: the anticipation and experience of membership of independent practitioner associations' *Journal of the New Zealand Medical Association* 116(1171) (available online at [www.nzma.org.nz/journal/116-1171/382](http://www.nzma.org.nz/journal/116-1171/382)).

71 Peter Crampton, Frances Sutton and Jon Foley. 2003 (see footnote 8).

72 Antony Raymont, Roy Lay-Yee, Janet Pearson, and Peter Davis. 2002. 'New Zealand general practitioners' characteristics and workload: the National Primary Medical Care Survey' *The New Zealand Medical Journal* 118(1215) (available online at [www.nzma.org.nz/journal/118-1215/1475/](http://www.nzma.org.nz/journal/118-1215/1475/)).

73 Martin Hefford, Peter Crampton and Jon Foley. 2005 (see footnote 3).

## ... a dynamic relationship

the types of goods produced and exchanged, and for the costs and prices of production and exchange. For example, when there are many potential buyers and sellers, each seller must pay attention to the relative cost and quality of goods they produce, in order to attract buyers. This leads to continual innovation in both production methods and product variety. When there are few sellers or a restricted number of buyers, however, such innovation will be less intense. Costs may be higher and product variety lower, because less attention needs to be paid to these elements.

Furthermore, the nature of interaction between institutions may lead to innovation in the governance arrangements of the respective institutions. When different individuals are involved in the institution's

governance, costs of production may be lower or levels of innovation higher, and the nature of interaction in the markets over the sale of goods and the ensuing contracts may be different – for example, over-high prices charged by a monopolist may be constrained if the consumers of the firm become the owners and set the terms of contracts for sale of the goods to themselves. Over-arching rules (such as competition law or sector-specific regulation) may either encourage or prevent participants from interacting in a manner beneficial to the development of governance and contracts that enhance sector outcomes.

Geographical constraints on PHOs, the dominance of IPA-based PHOs, and differential funding based on provider (not patient) characteristics ... the result is minimal competition between PHOs.

service providers, these entities had mechanisms in place that allowed them to act as genuine managed-care entities and market their services to potential new members at the PHO level.

However, this was not the case for the remaining population and providers. To address this, the NZPHCS contained transition arrangements for the formation of new PHOs. These arrangements specified that existing patient-provider relationships (access agreements) could be used as the basis for PHO formation, which enabled new PHOs to be formed from provider alliances. Consequently, competition for patients in the new PHOs arose from providers choosing which PHO to join and 'bringing their patient lists with them'. Competition in PHO formation, therefore, was not between PHOs for patients; rather, it was between PHOs for providers, who would furnish the patients. So – although 95% of the population is registered with a PHO – the vast majority of New Zealanders have no explicit knowledge about which PHO they are registered with, nor about the package of care management provided by that PHO.<sup>74</sup>

Under these arrangements, the provider-patient relationship (rather than the relationship between the patient and the managed-care entity) becomes the driver of primary healthcare management for most New Zealanders. PHO clients are compelled under the transition arrangements to buy their 'bundle' of care management and care delivery from the care *deliverer*, rather than from the care *manager*. This is the equivalent of panelbeaters choosing the insurance company for individuals who agree to come to them for accident-based vehicle repairs. Furthermore, most of the insurance companies are actually run by clubs of panelbeaters, who manage both the insurance contracts and the vehicle repairs of their customers. If individuals don't like aspects of their insurance policy and wish to change their insurance company, they must change their panelbeater. These types of arrangements have significant implications for both competition and governance of PHOs.

### The implications for competition

Because PHO income streams rely on provider-patient relationships, PHOs must sign up providers under exclusive contracts in order to prevent a provider taking clients – and income – to another PHO. Thus, care management and care provision are vertically integrated (see Figure 3 on page 22), and consumer choice is confined to a choice between 'bundles'. This does not pose a problem as long as

there are many bundles from which the consumer can choose. However, without choice, consumers are forced to settle for one bundle. Whilst consumers may choose between individual providers within this bundle, all providers are delivering to the same care-management specifications, and so choice in care management will be limited. This can lead to a concentration of market power in care management, with inherent possibilities of increased costs (because there is no competition to incentivise cost management) and reduced innovation in care-management practices (because there is no need to differentiate services from those of a potential competitor). Innovation may occur, but at a much slower pace than if competition was present.

The fact that 'additional' funding under the NZPHCS is available only for care delivered under a PHO arrangement has further contributed to reduction in competition, and has increased the likelihood that IPA-formed PHOs will become the dominant institutional form. As mentioned earlier, the original PHOs (which were based upon consumer-governed provider forms) transitioned to PHO status very soon after the NZPHCS's implementation. Because these PHOs had access to higher subsidies under the NZPHCS, they could charge lower fees than providers still on 'Section 88' agreements. Thus, individuals in locations where consumer-governed PHOs were established had strong incentives to terminate their access arrangement with Section-88-funded providers and to sign up with the consumer-governed PHOs. So GPs had to move rapidly to protect their businesses, by forming their own PHOs. The already-established IPAs provided a vehicle for this to occur in a timely manner. Consequently, IPAs took the lead in forming new provider-driven PHOs. Not surprisingly, the result is a bias towards general-practitioner interests within the governance of such PHOs.

As IPA-aligned GPs were already the dominant provider form and as the IPAs themselves were arranged around geographical communities of provider interest, it was natural for IPA-aligned PHOs to emerge as the dominant PHO form within DHB boundaries. As there was typically only one IPA per geographical region, the implications for competition and consumer choice are significant. Analysis of PHO formation and enrolment patterns confirms that over 90% of individuals registered in PHOs in December 2004 were registered with PHOs formed around IPAs. Moreover, most PHOs are operating as local geographic monopolies.<sup>75</sup> Even

<sup>74</sup> Allan Wyllie. 2004. *Primary Health/PHO Communications Campaign Research: National Survey*. Phoenix Research. Auckland (available online at [www.moh.govt.nz/moh.nsf/wpgIndex/Publications-General+Practitioner+Fees+in+New+Zealand](http://www.moh.govt.nz/moh.nsf/wpgIndex/Publications-General+Practitioner+Fees+in+New+Zealand); document is C in list).

<sup>75</sup> Bronwyn Howell. 2005 (see footnote 34). Chapter 3.

where there appears to be competition between PHOs, it is not at all clear that this will lead to real consumer choice, because the 'competing' PHOs are differentiated on their Access and Interim funding bases. An individual with 'Interim' characteristics is unlikely to be accepted by an Access PHO because this might jeopardise the balance of patient mix that leads to the Access PHO being paid higher rates for all registered individuals. (Most Access PHOs are maintaining very close to the 50% maximum of non-Access-characteristic individuals on their registers, in order to maximise preferential funding.)<sup>76</sup>

### The implications for governance

Consequently, most PHOs formed around provider groups are likely to be governed, at least in the initial stages, as if they are supplier-owned IPA co-operatives rather than consumer-governed entities or entities that have a balanced decision-making process.<sup>77</sup>

The consumer-driven PHOs were formed around common consumer interests, and this is reflected in their governance arrangements (which include clearly defined processes for membership and 'inclusive' processes for electing or appointing boards). The IPA-driven PHOs, however, had no such shared consumer interest around which to build their governance structures. Because the motivation behind their formation was principally to protect the interests of a specific provider group,<sup>78</sup> it is not surprising to find that their governance processes are more reminiscent of a self-perpetuating trust where the founders, in conjunction with management, determine the composition of the board in perpetuity. Where 'community' representatives are included, they are more likely to be appointed by a nominating body chosen by, or acceptable to, the founders. Few PHOs have community representatives nominated or elected by their constituent community, in the way that community representatives on DHB boards are elected. As PHOs are private-sector entities, there is no capacity for influence to be exerted in their governance through national political processes (as can occur when central-government politicians are held to account for the activities of DHB board members they have appointed).

It is therefore extremely unclear to whom most PHO 'community representatives' are directly accountable. If constituents are unhappy with care-management decisions, their only effective signal is to remove their custom – there is no direct

governance right for registered individuals specified in most PHO constitutions. Consequently, the majority of New Zealand's PHOs bear no resemblance to the consumer-owned cooperatives and nonprofit entities that have prevailed (in many healthcare-insurance markets) to overcome insurer opportunism or (in many healthcare-provider markets) to overcome the information asymmetry between patients and providers. This suggests the governance arrangements will most likely lead to, at best, conflicts of interest and, at worst, prioritising of provider interests over both patients' (Group B) healthcare interests and all individuals' (Group A) insurance-market interests.

IPA dominance in PHO formation means that, even where community governance exists, provider interests will be likely to dominate decision-making. Providers' interests are already aligned, via IPA activities. Community interests are likely to be very diverse – so it is more difficult, and thus takes longer, for community representatives on a PHO board to coordinate their interests.<sup>79</sup> One PHO manager reports taking 18 months to bring eager but uninformed community representatives 'up to speed' on PHO issues.<sup>80</sup> In these circumstances, the need for quick decision-making by the PHO board leaves it subject to 'provider capture'.<sup>81</sup> Boards are also similarly exposed to 'management capture'. As many IPA-formed PHOs have entered into management contracts with IPA-controlled management companies,<sup>82</sup> this means their boards are doubly exposed to provider capture.

The ability for a single provider group to be able to exert such control over PHO decision-making renders questionable the ability of the NZPHCS to deliver 'balanced' PHO governance and decision-making. Under the existing arrangements, it would be difficult to make decisions about letting provider contracts without undue influence from a specific provider type. It is unlikely that a board under such influence would willingly agree to let contracts to competing provider types. If new providers are admitted to the PHO cooperative, they will most likely complement (rather than compete with) the dominant provider type. This would appear to inhibit the NZPHCS from achieving its objective of increasing the range of provider types that have access to the increased funds, at least in IPA-governed PHOs. Any innovation that occurs under this arrangement is likely to be general-practitioner-centric innovation, rather than the 'pan-provider' innovation of the consumer-governed PHOs. Moreover, the potential conflicts of interest that arise

How can the NZPHCS deliver 'balanced' governance and decision-making, when one group of interests is able to exert so much control?

76 Martin Hefford, Peter Crampton and Jon Foley. 2005 (see footnote 3).

77 Laurence Malcolm and Nicholas Mays. 1999. 'New Zealand's independent practitioner associations: a working model of clinical governance in primary care?' *British Medical Journal* 319(7221) pp1340-2.

78 Pauline Barnett. 2003 (see footnote 70).

79 Henry Hansman. 1996 (see footnote 42).

80 Personal communication with the clinical manager of a PHO management company.

81 Paul Milgrom and John Roberts. 1992. *Economics, Organization and Management*. Prentice-Hall. Englewood Cliffs, New Jersey. p315.

82 For example: WIPA Ltd, which manages five PHOs in the lower North Island, is a limited liability company owned by 59 GPs – and its shares can be owned only by GPs who are currently practising in the region.

Providers are likely to become locked into existing arrangements – and this will further reduce the potential for competition between PHOs.

when providers and insurers are interconnected call into question the entire rationale for provider representation in PHO decision-making, as providers in their role as PHO governors are essentially 'letting contracts to themselves'.

### Implications for the interaction of governance and competition

As they increase the numbers of PHOs they manage, IPA-controlled management companies may further reduce the range of care-management services and discourage innovation. Management contracts observed to date give management companies the power to act, for all financial, operational and strategic activities, as if they are the PHO. In effect, the management company is the PHO – and multiple PHOs managed by one management company<sup>83</sup> are a de facto 'MegaPHO'.

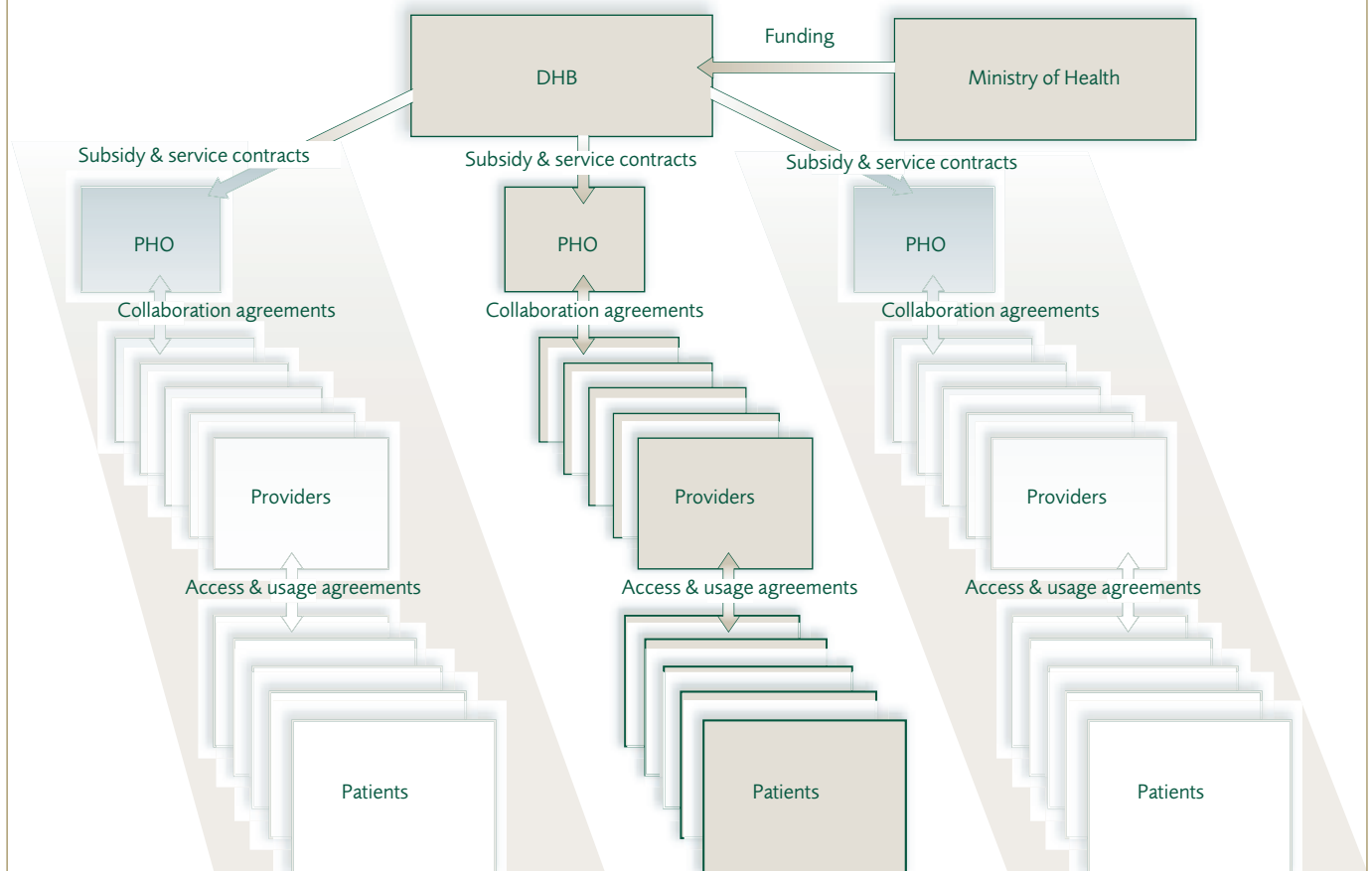
A company that manages many PHOs will be likely to use a similar models to manage all of them. Thus, not only are competition and innovation reduced within DHB boundaries; they are also reduced across DHBs. Identical management contracts are likely to arise because PHO

management lends itself to economies of scale. Larger providers can offer services at a lower cost per registered member. 'MegaPHOs' thus have a cost advantage over smaller PHOs, and this will affect PHO formation and competition into the future. Providers unhappy with the 'MegaPHO' management become 'locked in', because the only option they have is to exit the PHO and form another (smaller) PHO in competition. But this new PHO will be more costly to operate, and exiting providers forfeit the benefits of the previous arrangement (such as education and the locum scheme). Likewise, new providers will prefer to join an existing PHO rather than start afresh. This reinforces the current arrangements. There are now real barriers to new PHO entry.

The manner in which government subsidies are differentiated further reduces the likelihood that there will be competition to 'MegaPHOs'. A dissatisfied provider may leave a 'MegaPHO', taking their patients with them. But, if the provider does not join another PHO, the government payments for the provider's patients revert to the less-generous 'Section 88' payments. Provider exit from a PHO

<sup>83</sup> For example, Southlink manages 13 of the 17 PHOs in the South Island.

Figure 3. Primary healthcare competition under the NZPHCS



thus means many patients will most likely leave their now non-PHO higher-cost provider for another PHO-aligned provider. Differential government funding thus further contributes to the barriers that providers face in exiting a PHO. The market power of the 'MegaPHO' in its core market constituency – providers – is increased.

### Is evolution to the desired model likely?

These arrangements mean it is highly unlikely that the interim arrangements will 'evolve' into the managed-care model proposed in the NZPHCS. Rather, the more likely outcome will be entrenchment of the transition arrangements. It is

highly unlikely that the self-perpetuating IPA-driven PHOs will willingly alter their current contractual or governance arrangements, because to do so would reduce the providers' ability to control PHO activities. And, as illustrated above, their constituent communities lack the power (as either consumers or via the governance arrangements) to impose community-driven change. Ironically, by removing control of primary healthcare purchasing from the Ministry of Health and placing it in the types of PHOs that have emerged, the NZPHCS may have actually reduced effective community control of primary healthcare spending and made it even harder for some of the 'pan-provider' integrated-care aspects of the Minister's vision for the sector to be delivered.

## 6. For the Future

One of the stated intentions of the NZPHCS policy is to develop a managed-care healthcare system with community-focused PHOs acting as the insurers and care coordinators for defined populations. Yet it appears to have created a set of institutions and interactions dominated by provider interests, to the exclusion of attention to the insurance issues that are central to the efficiency and equity outcomes of all healthcare systems.

The initial arrangements have allowed the patient-provider agreements to proxy for the usual agreements between Group A individuals and the insurers, and (because of the 'pass-through' contracts between PHOs and providers) have obfuscated any distinctions between capitation payments as *premium* subsidies paid to insurers and capitation payments as *treatment* subsidies paid to providers. As a result, no-one has undertaken the insurer's role of 'balancing' the interests of sector participants. Indeed, the fact that regulatory and monitoring activities are focused upon service-delivery metrics<sup>84</sup> suggests that the design of the entire strategy has been focused on healthcare service-delivery instruments – that is, the relationships between Group B individuals and service providers – even though the required outcomes make it necessary for attention to be focused primarily on insurance-market design issues and, in particular, on the balancing of interests between Group A and Group B individuals.

A presumption has been made<sup>85</sup> that, over time, interactions in the sector will evolve as the NZPHCS moves from 'transitional' to 'fully operational'. However, because PHOs are already well-established, and because the prevailing governance arrangements are unlikely to lead to evolutionary change, it appears likely that alternative outcomes will require further policy and legislative change. This requires real debate about the type of state-funded healthcare systems New Zealand wants, and about the insurance-based instruments that will be used to achieve it.

This debate needs to involve all interested sector participants. It also needs to involve meaningful discussion about who should undertake specific responsibilities. For example, should insurance provision be a public- or private-sector activity? Will there be a single insurer or multiple insurers in competition with each other? How should the activities of the insurer be monitored and enforced? Should communities take a primary role in this activity, or are other forms of organisation (such as designated regulators, or local or central government processes) more effective in co-ordinating this activity?

Some key guiding principles must be provided about the nature of how trade-offs should be made, principally in respect of how premium subsidies and treatment subsidies should be set. For example, should the system be fully state-funded (as in the

It is not likely that the current arrangements will evolve in the desired direction. Further intervention will be necessary.

84 For example: price monitoring by DHBs is confined to patient co-payments (which are required to be levied according to premium-subsidy classifications), and no insurance-sector regulations have been implemented.

85 Minister of Health. 2001 (see footnote 2).

United Kingdom's NHS), or are patient payments required? If patient payments are required, should they be made as premium contributions, co-payments, or both? And should trade-offs between Group A and Group B individuals be based solely on health-state characteristics – or is the insurer required to undertake socially inspired wealth-transfers as well as health-state-determined treatment payments?

Only when these issues have been addressed will it be feasible to address the optimal nature of the contracts between Group B individuals, healthcare providers, and insurers. It may also be presumptive

to assume that a single model of insurance and care-delivery will suffice. Plurality in both may enable evolution of different contractual, organisational and service-delivery forms that meet the varying needs of different sector participants whilst simultaneously maintaining and improving responsiveness to the requirements of different communities.

Whatever changes are made, it is imperative that they be informed by such debate, as well as by the learning that has come from examining the evolving effects of models and principles in healthcare service delivery and insurance management both in New Zealand and worldwide.

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