Health System Performance Measurement: New Zealand and Maryland Different Challenges-Similar Responses

Prepared by

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EXECUTIVE SUMMARY

Health care presents significant challenges to the measurement of public programme success. The inputs are many (health habits, sanitation, drugs, doctors, technology, etc.) and the outcomes (longer life, reduced illness) not usually traceable to a single effort. Still, the need to measure performance in health care is as great, or greater, than almost any public sector activity. Health care, or the lack of it, affects nearly every citizen and the public investment in health care is enormous.

In the last decade both the Maryland Medicaid programme and the New Zealand Ministry of Health embarked on ambitious restructurings of their respective health service delivery systems. In Maryland Medicaid developed in 1997 the Maryland HealthChoice programme that relied on Managed Care Organizations (MCOs). In New Zealand the Primary Health Care Strategy, which relies on the similarly named Primary Health Organizations (PHOs), began enrolling individuals in 2002.

Comparing New Zealand with the Medicaid programme also highlights the tremendous differences in the structure of health care service delivery in each country. The Medicaid programme accounts for only 17 percent of total health care funding in the United States, and targets that funding at low income and disabled populations. The New Zealand government's role in the health care is almost the opposite. In New Zealand public dollars account for 78 percent of all health care funding, and those funds are intended to serve the entire population. The differing funding structures lead to vastly different positions of market power. Maryland Medicaid is an important but small purchaser of services and must set prices and programme rules with the knowledge that providers, such as doctors and hospitals, can and do survive without Medicaid funding. In New Zealand the Ministry of Health is a monopsony, a single dominant purchaser negotiating with many small sellers.

From these very different starting conditions Maryland and New Zealand have implemented very different models of health service organization. They do however share two key features: prospective payment to providers on a per capita basis, and the creation of an enrolled population for whom the organization is responsible. Beyond these similarities however PHOs and MCOs are starkly different. This begins with the process of approval for operation: extensive and costly for MCOs while limited and economical for PHOs, and extends to the level of financial risk each bears to the methods used to calculate payment rates. It is notable therefore that both New Zealand and Maryland have invested considerable effort and resources in performance measurement systems.

New Zealand and Maryland are not alone in their interest in performance measurement. Other countries are developing ways to address the same issue. Performance measures in Maryland and New Zealand along with performance indicator efforts in Australia and the United Kingdom have been examined and commonalities identified. The four countries have different structures for health care financing and are using performance

measurement on very different entities, yet the following significant commonalities emerged:

- *Emphasis on primary care.* In all systems primary care measures such as immunization and proven screening tests had a prominent role.
- *Inpatient measures notably absent*. Even in systems such as Maryland and the United Kingdom that make organizations responsible for inpatient care, measures to assess inpatient services were few.
- *Use of patient satisfaction surveys as a measurement tool*. Incorporating direct feedback from the population served is common across systems.
- *Lack of financial measures*. Financial performance, such as success against outside set targets is not regularly used, although it is in New Zealand.
- *Infrastructure measures*. Performance measurement schemes used by the selected countries address key system elements that policy-makers see as essential (such as IT, contracting practices, etc).

While the ways that performance is measured across different systems is surprisingly consistent, there are a range of responses to the question, what is it for? The diversity of responses is inherent in the nature of performance measurement. Performance measurement is not a single tool designed to address a specific need; rather it is an evolving set of metrics that can be applied for a variety of purposes. These include:

- *Payments and Rewards*. Performance rewards are, especially in the United States, a prime goal of performance measurement.
- *Reporting and Evaluation.* Standard performance measures allow a tool for reporting back to policy-makers and the public in a consistent manner.
- *Benchmarking/Monitoring*. Performance measurement creates a system that allows organizations to assess their position relative to their peers.
- *Quality Improvement*. Measuring performance and providing feedback is at the heart of a philosophy of continuous quality improvement and central to the New Zealand approach to performance measurement.
- *Effective Governance*. Good information is essential to good governance.
- *Contracting*. As PHOs mature performance measurement will play a greater role in contract negotiations and processes.

These are not mutually exclusive and policy-makers and programme managers may use performance measurement to address all of the issues. In comparing performance measurement in the United States and New Zealand the primary differences are not of type but of emphasis. For example, New Zealand stresses the quality improvement aspect far more than the Maryland Medicaid programme.

Comparing Maryland and New Zealand offers a window into the biases and habits of thought of policy-makers in each system. By looking at them side by side several lessons emerge.

From New Zealand, Maryland can learn:

- *Change at the clinical level is important if systems of care are to improve.* The fragmented nature of the United States' financing system often causes policy-makers to despair of ever directly influencing medical practice, and thus limit their efforts to properly aligning financial incentives. New Zealand policy-makers are far more ambitious in their goals for influencing practice behavior. While Maryland and the United States face challenges in efforts to influence practices, they should not concede this issue.
- *Incentive payments do not need to be targeted at the top.* Maryland Medicaid efforts to implement incentive payments have focused on incentive payments to the parent MCO, and, thus far, have led to incentives too small to motivate significant change. Targeted incentives at primary care (like New Zealand), or specialized providers for high-need populations, may yield better results and more effectively use state funds.
- *There is more to effective delivery than access to a physician*. Out of fear that poor Medicaid recipients will be given second-class care the Maryland Medicaid programme places significant emphasis on assuring that recipients have access to physician services. This may lead policy-makers to discard, or undervalue approaches to service delivery that de-emphasize physician care in favour of nurses or other alternatives.

From Maryland, New Zealand can learn:

- *Public funding implies public access to data.* The debate between the representatives of General Practice and the Ministry of Health regarding the provision of practice fee information strike an American observer as odd. Both liberals and conservatives would tend to argue that pricing information should be widely available.
- *PHOs need a greater scope of control to succeed in achieving their goals.* At present PHO budget holding is extremely limited. If PHOs are to develop and evolve to meet their stated purpose they will need to assume responsibility for a broader range of services.
- *Managing PHO competition presents opportunities and challenges.* The large number of PHOs in operation is likely to continue. This should encourage the development of a competitive environment among PHOs that can have positive effects. New Zealand policy-makers will need to consider what kinds of competition (for practices, for enrollees) to allow and how to manage that competition.

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INTRODUCTION

Public programmes have long struggled with the challenge of how to measure their effectiveness and progress in meeting goals. New Zealand, through mechanisms such as the State Services Commission and the management of outcomes process, is often cited as a world leader in public outcomes measurement. The need for such measurement is obvious: taxpayers, through their governments, expend considerable resources for public services and demand to know that they are receiving value for money. Reporting value implies some quantifiable elements that can be compared across providers, regions, and groups, and tracked over time.

Health care presents significant challenges to the measurement of public programme success. The inputs are many (health habits, sanitation, drugs, doctors, technology, etc.) and the outcomes (longer life, reduced illness) are not usually traceable to a single effort. Lacking good tools health care systems have tended to assessed narrowly or in ways that have little relation to the performance of the system. Often the performance of health care systems has been defined in access and financial terms, and not in terms of the effective delivery of services designed to address health care problems among the population. Thus in the United States, the performance debate revolves around the issue of financial access to services. Do individuals have insurance to cover their health care costs and is that insurance sufficient to meet their needs?[1] The failure of the system is defined in terms of uninsured individuals who must bear the full cost of insurance (or forego care entirely).

In New Zealand's universal, largely publicly funded system and the issue of lack of or inadequate coverage has not been a concern. The assessment of the effectiveness of the system still comes down to relatively simple access measures. For example: what are the waiting times for various treatments and are they available close to home, or, are new and emergent technologies available to New Zealanders? [2]

In the last decade both the Maryland Medicaid programme and the New Zealand Ministry of Health embarked on ambitious restructurings of their respective health service delivery systems. The Maryland HealthChoice programme that relies on Managed Care Organizations (MCOs) was implemented in 1997. In New Zealand the Primary Health Care Strategy that relies on the similarly named Primary Health Organizations (PHOs) began enrolling individuals in 2002.

The HealthChoice programme and the Primary Health Care Strategy are different in fundamental ways relating to their design and the mechanisms they use to deliver care. Yet they share some important characteristics and goals that make their comparison useful and that may shed new light on aspects of each programme's delivery and [3]approach. Both programmes use public money to secure health care services (with all

[1] Pear, Robert, *The New York Times*, 29 May 2005, p.1
[2] MacDonald, Nikki, The Dominion Post, 16 June 2005

the issues of equity and efficiency that the use of public money entails). They were both introduced as a shift from a model where the state paid providers for services retrospectively to one where providers are paid prospectively to serve a defined population. Finally, both programmes acknowledge and seek to address the poorer health status and outcomes of high-need and vulnerable populations. The New Zealand Primary Care Strategy is particularly clear on this point, pledging as part of its vision to "actively work to reduce health inequalities between different groups."[4]

Each programme is therefore required to address the question of how the state purchaser should assess, report and reward the performance of the delivery systems it has enlisted to carry out its policy goals? This need to assess performance has also been driven by the need for, and benefits of, the integration of myriad aspects of health care delivery. A number of efforts have grown up to meet these needs, all falling under the generic term of health care performance measurement.

One challenge for policy-makers considering performance measurement is that the term is used in several contexts to address many separate activities ranging from the care of individuals within a practice to the effectiveness of an entire integrated delivery system. International comparisons are complicated by the very different health care environments from which individual programmes have emerged. A policy-maker wrestling with the concept of performance measurement must negotiate a host of different techniques and criticisms before they can come to a clear understanding not only of what they are measuring but, more importantly, toward what end.

This exploration of performance measurement and its variations in Maryland and New Zealand began with a review of the key documents defining the Primary Health Strategy and the establishment of PHOs. In addition literature related to performance measurement and related issues was surveyed. Finally, over 30 interviews were conducted, the subjects of which occupied a variety of positions in a range of organizations in the New Zealand health care system including staff of the Ministry of Health, District Health Boards (local and national), Primary Health Organizations, Independent Practice Associations, as well as General Practitioners and academics. These interviews were invaluable to establish context and gain an understanding of the issues facing health policy-makers in New Zealand.

Comparing the experience in New Zealand and Maryland helps to clear away some of the clutter around defining performance measurement, how it works, and what it can accomplish. This paper addresses these issues in four chapters:

- *Structural Differences in the Health Delivery Systems.* This chapter discusses the structural differences in the United States and New Zealand health care delivery systems. The financing of each system is reviewed and the relationship of providers to the public purchasers is discussed. Finally, the degree of market power possessed by public purchasers in each system is discussed.

[4] King (2001), p. vii

- *Maryland MCOs and New Zealand PHOs: Where They Come From*. This chapter examines the policy and programme environments that led to the creation of MCOs and PHOs. Key differences between the two models of service delivery are highlighted and discussed.

- *Performance Indicators: Conceptual Issues and Practical Challenges.* This chapter examines the limits of traditional models of performance measurement and the recent research findings that support the creation of programme indicators. Those either in use or proposed in New Zealand, Maryland, the United Kingdom and Australia are compared and discussed.

- *Lessons for Maryland and New Zealand.* The very different structures and approaches taken in Maryland and New Zealand lead to choices and assumptions that policy-makers do not regularly challenge. The analysis of performance measures suggests ways that policy-makers in Maryland and New Zealand might revisit or rethink certain policy assumptions.

1 STRUCTURAL DIFFERENCES IN HEALTH CARE DELIVERY SYSTEMS

Arguably the difference in scale between the United States and New Zealand makes any useful comparisons between the two countries problematic, and potentially useless. In 2004 the population of the United States was estimated at 293.7 million[5] compared with New Zealand's 4.1 million[6]. Thus the question must be asked if meaningful comparisons are possible? Were the US healthcare system a centrally run monolith the answer might well be no. Practical and historic reasons have led to the evolution of a health care system (or non-system as many argue) that is not a monolith, but rather a mosaic of separate, somewhat independent systems. It is also true that the expression of health care delivery in the US differs in different parts of the country.[7] Several factors lie at the root of the disjointed regional nature of the US health care system.

Health care is mostly retail. While much is made of the growth of technology in health care it must be remembered that much of that technology demands highly trained (and well-paid) individuals to deliver the service. Furthermore, if health services are to be useful, people need to be able to access them. In general, health care is broadly distributed to allow for reasonable access to those who need it. Thus health care delivery systems tend to be organized regionally, with primary providers relating to the closest hospital, or regional center, which in turn relate to tertiary centers for more specialized care.

The labour-intensive nature of health care also means that most costs are incurred locally. In spite of the promise (and overselling) of the remote provision of diagnostic and other services via the Internet, the fundamental unit of health care is and will likely remain, a face-to-face interaction between a patient and a provider. The retail nature of health care is also a reason why arguments for consolidation of services or organizations, though often cited, should be taken with a grain of salt.[8]

Health care reform efforts failed. The past 100 years have seen a number of efforts at reforming the US health care system to assure universal coverage. The Clinton reform effort of the mid-1990s is only the most recent example. The failed comprehensive reforms left behind fragments that address only segments of the population (the elderly, the disabled, poor children) and are often extensions of programmes that developed in local areas. Likewise the lack of a national approach led private employers and unions to champion specific models of health care delivery in areas where their employees or members were concentrated. Thus the United Mineworkers ran clinics throughout coal country, and one of the early managed care plans was designed for municipal employees

[5] US Census website
[6] NZ Census website
[7] For example, the vertically integrated staff model HMOs such as Kaiser Permanente are often referenced in discussions of the US health system, yet that model serves comparatively few people and operates almost exclusively on the west coast.
[8] Schramm (2001), p. 51

in New York state.[9] The echoes of earlier efforts at reform are present throughout the US health care delivery system, stronger in some regions than others.

Federalism gives significant power to states. The US is a federal system (like Australia), whereby "sovereignty is constitutionally split between at least two territorial levels so that units at each level have final authority and can act independently of the others in some areas".[10] As a practical matter the 50 states maintain regulatory and often operational responsibility for a large number of activities.

Health care is one area in particular (possibly due to its dispersed, regional nature), where states exercise a great deal of authority. For example physicians are licensed to practice, and disciplined,[11] at the state level, as are many hospitals.[12] In addition states regulate the private health insurance market and may mandate benefits that insurers must include in the packages they sell to state residents (for example one state may require inclusion of in-vitro fertilization in the benefit package while another may not).[13]

The State of Maryland has always been quite comfortable exercising its state prerogatives, especially in health care. On top of the typical state actions, Maryland has since 1974 operated a system of hospital payment regulation for hospital services that exists nowhere else in the country.[14] Finally, as will be discussed in detail shortly, the Medicaid programme is explicitly a state responsibility.

The retail nature of health care, the political failure of global health care reform, and the federal structure of the US health system and Medicaid in particular, mean that the issue of scale need not be an impediment to meaningful comparisons between the United States and New Zealand. In fact when Maryland is considered in isolation, the issue of scale is nearly eliminated, at least in terms of population. New Zealand's population is roughly 4.1 million compared with 5.3 million in Maryland. In addition Maryland is an ethnically diverse population with nearly 35 percent of the population listing their ethnicity as non-white.[15] In New Zealand 20 percent of the population identify themselves as non-European (14 percent Maori and 6.5 percent Pacific Islander).[16]

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[9] Starr (1982), p 316-333
[10] *The Stanford Encyclopedia of Philosophy (Winter 2003 Edition)*
[11] The recent case of Dr. Jayant Patel, Australia's so-called 'Dr. Death', provides an example of this system and its vagaries. Dr. Patel first lost his license in New York State in the 1980s, before moving on to Oregon where he was subsequently disciplined in the 1990s before moving to Australia (New York Times, June 19, 2005).
[12] Hospitals operated by the federal government, primarily military and veterans' hospitals, are the prominent exception to this rule.
[13] A reader with a rudimentary knowledge of US employment law would point out that Federal ERISA statutes severely limit this power but an explanation would require volumes and is beyond the scope of this discussion.
[14] *About HSCRC* (n.d)
[15] US census (2005)
[16] Statistics New Zealand (2005)

Structural Differences between the US and New Zealand

The issue of scale does not preclude comparisons of New Zealand and the United States, especially if, as in this case, a state is the unit of analysis. The structural differences in each health delivery system however remain enormous, and these shape and constrain the options available to policy-makers. A list of differences could take volumes, but for the purposes of this analysis four in particular are highlighted:

- the role of public funding in health care;
- the challenges of targeted versus universal health care systems;
- the position of physicians in the system; and
- the position of hospitals in the system.

Taken together these factors combine to place public purchasers in very different positions in terms of market power in their respective health delivery systems.

The Role Of Public Funding For Health Care

The starting point of any discussion about the health care system in the United States relative to New Zealand, or any other country, must be the role that public financing plays in health care. Among member countries of the Organization for Economic Co-operation and Development (OECD), the United States share of public spending on total health care is by far the lowest. Public sources account for only 44 percent of all funding for health services, followed by private insurance at 41 percent, and individual resources at 15 percent (out-of-pocket).[17]

While the public role in funding health care in the United States is low by international standards, it is useful to note that it is higher than many casual observers may think, and in fact exceeds the share of costs borne by private insurance. Still, the potential impact of public funding on health care delivery systems is further lessened by its diffuse nature, consisting as it does of three distinct streams: Medicare, the federally-funded programme for those over 65 has a 15 percent share of total funding; Medicaid the state-operated programme for the poor and disabled provides 17 percent of total funding; and programmes for active and retired military personnel account for 12 percent of total spending.

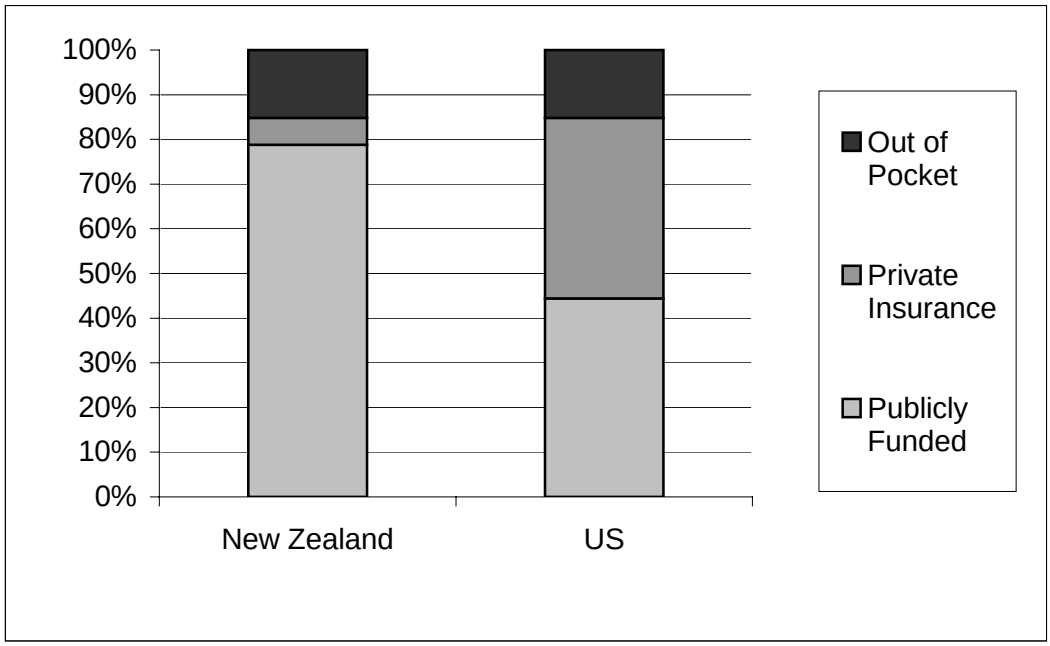
In New Zealand health care funding is unitary and dominated by the state. Public funding accounts for 78 percent of total health care funding.[18] Unlike the US public funds predominantly flow from the central government. The quasi-governmental Accident Compensation Commission (ACC) pays a part of that 78 percent, [19] although its share of total funding is only roughly eight percent of total health care spending.[20]

[17] Colombo and Tapay (2004), p. 9
[18] Ibid.
[19] For a United States observer the ACC is the financing structure that is most immediately understandable. It acts in many ways like an insurance company, estimating costs, underwriting (setting the tax that industries will be assessed based on their risk), managing long-term costs, etc.
[20] Health Expenditure Trends in New Zealand, 1990-2002, pp. 50-56

Finally, in New Zealand, private insurance occupies only a peripheral role in health service delivery funding.[21]

One interesting aspect of funding streams in both systems is that out-of-pocket expenditures in New Zealand and the United States each provide 15 percent of total health system funding. It should be noted that since the per capita cost of the United States system is nearly three times the New Zealand system, the level of out-of-pocket spending in the US is considerably greater. Out-of-pocket spending in New Zealand is also more equitably distributed with only five percent reporting more than $1,000 in out of pocket expenditures compared with 26 percent in the United States.[22]

Chart One
Public and Private Funding Streams in the United States and New Zealand



Targeted versus Universal Health Care Systems

A central feature of health care funding in the United States (especially if viewed through the universal access prism of New Zealand) is its targeted nature. To a large degree

[21] From a US perspective private insurance is much more analogous to Medigap policies purchased by Medicare recipients. They exist to supplement the coverage provided by the state and provide better care options than would be otherwise available. Medigap policies typically provide coverage for co-pays or pharmaceuticals. In New Zealand private insurance exists primarily to allow covered individuals faster access to elective procedures than they would be able to receive under the state system.
[22] Schoen (2004)

health care financing is directed at specific segments of the population. The major categories of health financing can, in a very simplified way be summarized as follows: [23]

- *Medicare.* Medicare is the federal programme that serves virtually all Americans over age 65.
- *Private Insurance*. Private insurance is almost exclusively available to United States citizens through their employers. Thus private insurance can be characterized as serving employed individuals and their dependents (spouses and children). [24]
- *Medicaid.* Medicaid is the programme managed by the states and provides coverage for the poor, the disabled, and the children of low and moderate income employed adults.

The myriad programme designs within each funding segment further complicate the segmentation of funding streams by population. Only in the case of the federally managed Medicare programme, which operates (primarily) on a fee-for-service basis in all 50 states, is there any degree of consistency. Private insurance can take on an almost unimaginable host of permutations, varying in terms of: covered benefits (subject to state regulation); individual out-of-pocket contribution; cost of covering family members; and, delivery system (managed care, fee-for-service, preferred provider organization, etc). [25] Medicaid, as will be discussed in more detail in Chapter 3, is managed by the states and depending on state resources, politics, and other factors, can assume various guises.

One result of segmentation by population group is that policy-makers (or insurance companies) design their programmes in response to the constraints of the purchaser. Private insurers market to employers who want to control costs (a driver of recent trends for increased individual responsibility for insurance costs).[26] Medicaid programmes on the other hand are public purchasers using tax dollars to take care of a disadvantaged population who are by definition not in a position to personally bear much cost. Finally, Medicare is a universal programme for a coherent and electorally active segment of the population, meaning that to date major changes (except those that add benefits) have been few.

New Zealand funding for health care does not as a rule segment the population. Only in the case of the relatively small private insurance sector, which is predominantly used by more affluent individuals, can any market segmentation be seen. Otherwise the public funding for health care, Vote Health, ACC and others tend to be distributed throughout the entire population, with rich and poor, old and young eligible for services on the same terms.

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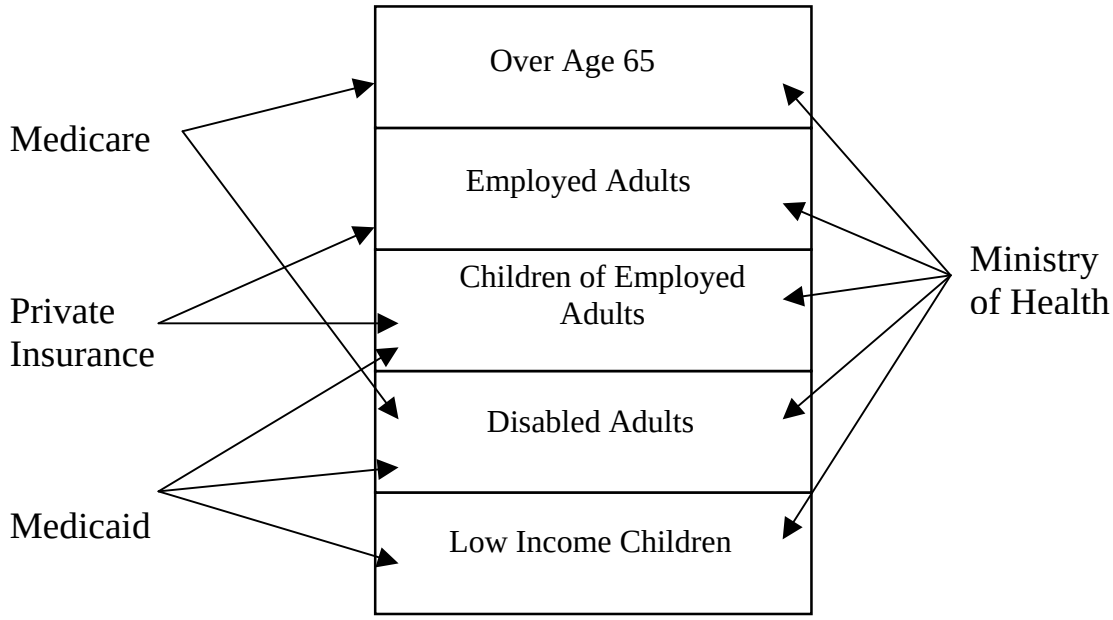
[23] The exceptions to any blanket statement about the United States health care system are innumerable but efforts to detail them tend to add little to the understanding of the system, so I will provide here an illustrative generalization.

[24] In the United States the current debate on domestic partnership often touches on the inability of homosexual couples to provide health insurance for their partners, and highlights the pitfalls of insurance tied to employment.

[25]The likelihood of employers providing insurance will vary by the size of the employer (big employers are more likely to offer) and the wages of the employees (high-wage businesses are more likely to offer insurance.)

[26] Kaiser Family Foundation (2004)

Chart Two
Segmentation of Funding Streams: United States Compared to New Zealand



While the unitary funding approach in New Zealand has obvious advantages (in administrative efficiency, equity, and clarity to name but a few) it does create its own policy challenges. Dr. George Salmond, the former Director General of Health, noted that "The challenge for New Zealand is to balance the needs of those for whom health care is a consumer good with those for whom health care is an essential element of community development".[27] The New Zealand value that health care should be universally available to all citizens was established in 1938 with the passage of the Social Security Act. [28] That the New Zealand health system has not resulted in equal access to the entire population in spite of its theoretically universal nature is one of the prime motivations for the Primary Health Care Strategy. New Zealand has at various times in the past 15 years wrestled with and made initiatives toward targeting resources to the poor. The Community Services cards introduced in 1991, which qualify holders for discounted services, are one example of targeting efforts.

The question of universal versus targeted (usually to low income) support is a theme of many public policy debates in the United States, New Zealand and other nations. The treatment of poor, chronically ill adults highlights the essence of this policy conundrum. There exists a body of evidence that indicates that low-income individuals will forgo care

[27] Author interview.
[28] The term value is used intentionally. New Zealanders of different political perspective may disagree about what universal means, or the best way to achieve it, or the individual's responsibility to pay for it, but there is little debate that health care should be universal to all New Zealanders.

due to cost.[29] This is particularly troubling if those poor individuals suffer from chronic conditions that require aggressive management, as does much of the disabled population served by Medicaid. Clearly, limiting any cost barriers to treatment is a desirable policy for such individuals. Consistent with this Maryland, like all Medicaid programmes, imposes no co-payment requirements on enrollees. In New Zealand a poor chronically ill adult, even with a community services card, would face co-payments for primary care services that are exorbitant by Medicaid standards. If, as the United States literature suggests, chronically ill individuals will avoid care due to cost, the primary care co-pays in New Zealand may contribute to some of the poor outcomes among deprived populations.

The Maryland Medicaid experience also provides (like the Medicaid programme in general) a cautionary tale on the dangers of targeting to individuals of low socio-economic status. A lack of political power can, and does, lead to chronic under funding for these individuals. Maryland, a wealthy and comparatively generous (in Medicaid terms) state, demonstrates this fact. Even after a recent significant increase in state funding Medicaid physician payment rates were a third less than Medicare payment rates.[30]

The Position Of Primary Care Physicians

New Zealand's Primary Health Care Strategy introduced in 2001 is one of the key elements of the larger New Zealand Health Strategy rolled out in 2000. These strategies reflect the current government's vision of a health system with a strong level of community input and a focus on broad population health.[31] The Primary Health Care Strategy, as the name implies, places the delivery of primary care at the heart of its efforts to improve health care. General Practitioners and their practices are central to achieving that goal. The Maryland HealthChoice programme with its call for individuals to have a 'medical home'[32] ensconced primary care providers in a similar role. [33] Understanding the operations of the two delivery systems calls for some understanding of how primary care physicians operate within them.

In Maryland, as in the United States in general, primary care is delivered by independent business entities that build their patient population from among a number of different patient payment sources. The independent business model persists in spite of recent shifts away from the owner-operator model. Even as physicians are increasingly

[29] Federman (2005)
[30] Maryland DHMH (2004), p.1.
[31] These strategies will be discussed more in Chapter 3.
[32] Maryland DHMH (2002)
[33] The use of the term General Practitioner is very different in the United States and New Zealand and grows out of different training models. In New Zealand vocationally registered General Practitioners are probably most analogous to residency trained Family Practitioners, which is normally thought of as one of the three or four 'primary care specialties' along with Pediatrics, Internal Medicine and, sometimes, OB/Gyn. Those primary care specialists tend to be office-based in New Zealand as GPs. In the United States the term General Practitioner has become synonymous with older physicians who trained under an earlier model when a residency after medical school was not the norm.

becoming salaried employees, they are salaried employees of independent entities that contract with payers.[34] The presence of many competing insurers allows providers some ability to substitute among funding streams.[35] A provider (or that provider's business) that dislikes the rules or payment provisions of a Medicaid programme can choose not to participate in the programme, or limit the number of Medicaid enrollees served by the practice.

In New Zealand primary care providers are small independent businesses negotiating with a single purchaser. It is a classic monopsony. The overwhelming characteristics of general practice are small size (over 80 percent of practices have fewer than four full-time equivalents)[36] and the degree to which they are privately owned. These theoretically independent providers cannot, unlike their counterparts in the United States, survive without the government payments for their services. Providers must participate in any system designed by the Ministry of Health that can be politically supported.

Hospital Structure

In a developed country inpatient and institutional care will inevitably consume a significant if not dominant share of health care spending. In 1998 inpatient services accounted for 38 percent of total per capita health spending in the United States, [37] compared to 43 percent in New Zealand in 2001.[38] This dominant role of hospitals in health expenditure is consistent with the role they play in the delivery system. Inpatient facilities tend to be the hub around which much of the health care delivery system spins. In Maryland and New Zealand the relationship to the state of these institutions is fundamentally different.

In Maryland, at present, there are 58 acute care hospitals, all operating as private non-profit corporations.[39] These hospitals are independent entities governed by independent boards of directors. Independent in this case does not mean unconnected. In fact hospitals in Maryland are inextricably tied to the state as Maryland, unlike any other state, directly sets hospital charges and payments. As independent entities hospitals actively compete for patients and, while payment rates are set, can fall into serious financial difficulty if either volumes decrease or patient mix shifts from more lucrative (surgery) to less lucrative (medicine) activities. In spite of the hospitals' independence

[34] Simon (1997), p.124, and Green (2004), p.113
[35] One effect of managed care is that providers and managed care organizations will often negotiate how many patients the provider will serve. This arrangement has implications for both parties. For managed care organizations it allows them to assess their capacity to serve a patient population. For providers it can cut down on administrative costs by limiting the number of payers with whom the provider must deal.
[36] Didham (2005), p 9
[37] CMS (2004)
[38] New Zealand Health Expenditure Trends (2004)
[39] Public hospital and for-profit hospitals are quite common in the United States although not in Maryland. The non-profit sector has historically been quite robust so for-profit hospitals have not made an inroad. Several public hospitals existed until the late 1980s when they converted to not-for-profit status for reasons relating to the state payment system.

from the state, the state is loath to allow one to fail if it is vital (or perceived to be vital) to local service delivery.[40]

New Zealand operates two hospital models, private and public, that are absent in Maryland. Private hospitals in New Zealand are essentially niche players providing individuals with means or access to private insurance to elective care outside of the rules and waiting lists of the state supported system.[41] Private hospitals account for 20 percent of hospital expenditures, and 60 percent of that share comes from private insurance or direct patient payment.[42] Public hospitals are owned by the state and operated by the state's agent, the regional District Health Board (DHB). More than 99 percent of public hospital funding comes from public sources. The relationship between the DHB and the hospital is extremely close. Hospital management tends to dominate the DHBs activities by virtue of the dominant role it plays in its budget. This perception was confirmed in my interviews with DHB officials. It is common in New Zealand for DHB staff to locate their office space within the district's major hospital.

Market Power And Its Limitations

The very different funding structures and programme designs in the US, coupled with the very different levels of dependence of the key providers of service, place policy-makers in a state such as Maryland in a very different position of market power. Put bluntly, Maryland policy-makers have almost none, while New Zealand policy-makers have near unlimited power. At first sight (at least when viewed by a Maryland policy-maker) the level of market power in New Zealand should allow the swift and consistent roll-out of policies and programmes, with little modification once political decision-makers have chosen a course of action. The several sweeping health reforms that have been implemented in New Zealand over the past 15 years (discussed in the next chapter) demonstrate how much power the state has when willing to exercise it. Still, the relative lack of market power possessed by the Maryland Medicaid programme may offer policy-makers and programme managers some freedom in terms of programme design and implementation strategy that their New Zealand counterparts might envy.

The Maryland Medicaid programme is but one purchaser among many. In this role the policy-maker is seeking to balance two needs. First they must provide the best service possible for the individuals for whom they are purchasing on behalf, and second they must do so within the state's budget constraints. As a single purchaser among many the state sets policies and enters into negotiations with providers with the knowledge that those providers can choose not to participate in the system. The danger is that a programme's rules, payment levels etc., might result in the programme participants being unable to access care.

[40] Rapoport (2005), p.2
[41] The motto for Bowen Hospital, a private hospital in Wadestown, Wellington sums up the niche that private hospitals wish to play to very succinctly: "Where you'd sooner be cared for."
[42] Health Expenditure Trends in New Zealand, 1990-2002 (author's analysis)

This problem was one of the motivations behind the move to managed care by many Medicaid programmes. The issuance of a Medicaid card to an eligible individual was not an assurance of access to necessary care, but rather provided the opportunity to shop for care from a provider who would accept the payment terms offered by the state. MCOs under systems such as HealthChoice are required to maintain lists of providers and assign enrolled patients to a physician who has agreed to provide care. Assuring that physicians are accessible to enrollees is a major oversight activity of the state.

The State's relatively minor position in the overall delivery system, both in terms of population and financing, means that it need not involve the entire provider community to have a successful programme. Once the Maryland Medicaid programme has satisfied itself that the MCO networks are sufficient to provide adequate access to all recipients, it has little reason to make extra efforts to reach out to those providers who choose to remain outside the system.[43] Similarly, Medicaid may be a minor part of the overall practice volume for many practices and slight changes in payments (or the failure to raise payments to appropriate levels) may have little influence on the decision to participate.

The New Zealand Ministry of Health is the dominant force in all health care financing in New Zealand. Some organizations, notably private specialized hospitals, can succeed in small niches outside of the state financing system. As a rule however health providers, institutional and professional, must come to terms with state funding if they are to have a viable practice. The arrangement can be described as a classic monopsony, with many small independent entities negotiating with a single dominant purchaser.

Health policy-makers in New Zealand are constrained, as are all policy-makers in New Zealand, by the fact that any local position of dominance is often trumped by New Zealand's position as a very small player in a large international market. Unlike a Medicaid policy-maker in Maryland, a New Zealand policy-maker has no fear that providers will refuse to serve their population. Instead they must be concerned that they create for physicians and other highly trained health professionals an environment that is competitive in a global context.[44] Given this constraint it is not surprising that New Zealand officials seek a higher level of consensus in policy changes, as those changes must be implemented across the entire system.

[43] In fact policy makers may be very reluctant to make additional concessions to recalcitrant providers, as they fear that those providers will only make new, potentially unreasonable demands.

[44] To US ears this sound bite from Don Brash may sound odd: "600 New Zealanders a week [are] leaving the country", but it puts the health policy-makers challenge in perspective. New Zealand is fully integrated into the world economy and at the margins highly trained professionals (like doctors) can and will choose to practice elsewhere.

2 MARYLAND MCOS AND NEW ZEALAND PHOS: HISTORY AND STRUCTURE

Dr R Bengoa, Director of Chronic Disease at the World Health Organization, in remarks at the Primary Care Forum in Wellington New Zealand in March 2005, stated that health care reform happens in a local context. Delivery systems are the result of a complex process that must account for proposed changes and improvements. An effort to impose a one-size fits all template on unique local systems is likely to fail.

Keeping in mind this warning this chapter will treat the comparison of the rise of managed care in Maryland Medicaid and PHOs in New Zealand as a response to a similar problem in two dissimilar systems. As the previous chapter outlined the structures of health care in the New Zealand and the United States are starkly different. For a public purchaser of services those differences manifest themselves in markedly different positions in terms of market power.

In spite of the differences that shape them, both the HealthChoice programme in Maryland and the PHOs in New Zealand can be seen as responses to the fundamental problems created by systems that rely on fee-for-service bill paying. These types of service systems focus on the inputs of care and not on the outcomes of that care.

This focus on input limits the ability to hold any individual provider accountable for the systemic failure of the system (poor access, health care disparities etc.). Since services are being paid on a per unit basis the quality of the care can only be assessed based on how well the unit of service was provided. Thus, the state can review the quality of the service on a given day, but have difficulty criticizing a provider for the fact that a large percentage of the high-need population in the area went untreated, or were poorly followed up on.

Each country has responded to this challenge by developing systems that make an organization responsible for care to a population. Both approaches turn the fee-for-service model on its head by attaching payment not to service retrospectively, but to enrolled individuals prospectively. After these two very important similarities the mechanisms used by the Maryland Medicaid programme and the New Zealand Ministry of Health part company. The remainder of this chapter will discuss the policy environment that each model grew out of and the main differences of each response.

The Road To Medicaid Managed Care

The last decade has seen managed care become the predominant model for service delivery for Medicaid enrollees in the United States. This is a result both of the evolution of managed care and the needs of Medicaid programmes. As was noted earlier, the overriding characteristic of the US health care financing system is multiple payers targeting different, largely distinct populations.

Established in 1965 as part of the 'Great Society' reforms in the US, Medicaid is a joint federal/state programme. In keeping with the tenets of federalism states have substantial latitude in the design and operation of their individual Medicaid programmes. The result is that Medicaid is better seen as 50 distinct programmes that share important characteristics, but are best considered and analyzed as distinct entities.[45] State variations include:

- *Eligibility standards.* States determine which of their residents qualify for the programme. While the programme is intended for the poor and disabled the definition of who is 'poor' can vary widely from state to state. For example, in Maryland children in families with incomes up to 300 percent of the federal poverty level (FPL) qualify for the HealthChoice programme while in South Carolina only children in families with incomes at or below 150 percent of FPL qualify.[46]
- *Covered services.* States have substantial leeway in the benefits and services that their individual programmes provide. For example, although virtually all programmes provide pharmacy services it is optional.[47]
- *Delivery systems*. How states chose to deliver services to the patients they cover is also subject to variation. Several models exist to deliver services to Medicaid beneficiaries (MCO, PCCM, PACE, etc.), all reflecting the circumstances and preferences of individual states.

While state Medicaid programmes are highly variable, over the past 20 years they have all greatly expanded their coverage of children. This expansion is the product of two major policy changes: SOBRA and the State Children's Health Insurance Programme (SCHIP). [48]

SOBRA is policy shorthand for a series of federal law changes in the late 1980s that increased the eligibility for Medicaid coverage up to 133 percent of the federal poverty level.[49] In Maryland SOBRA had the effect of increasing the percentage of children covered by Medicaid from 10 to 19 percent from 1990 to 1996, at which time the growth leveled out.

[45] This is how most states view their programmes. They are run and managed under the constraints and values of the state in question. The designs and practices of other states are instructive but not proscriptive. The way state Medicaid policy-makers will look to other state programmes is analogous to the way that New Zealand officials look to other OECD countries, or Australia or the UK. Other country experiences are valuable as a template to test ideas and concepts against, and informative about the strengths and weaknesses of policy alternatives, but by no means controlling in how policy is assessed.

[46] StateHealthFacts (2004). Variation in eligibility is greatest when coverage for adults is examined. States can choose to cover a large number of adults, or almost none.

[47] CMS (2005)

[48] SOBRA stands for the Supplemental Omnibus Budget Reconciliation Act and is the federal budget that enacted the Medicaid eligibility changes.

[49] The Federal Poverty Level is a construct of the federal government, and is based on the cost of a bundle of goods. It is updated annually and is used to determine eligibility for a host of programmes.

SCHIP was passed as part of the Balanced Budget Act of 1998 enabling a major expansion of government-financed health care for children.[50] As of 2004 SCHIP covered over six million children nationwide. The SCHIP expansion in Maryland caused the percentage of children covered by the state to grow to roughly 30 percent by the end of 2002.[51]

The growth of children covered by Medicaid has numerous effects, two of which are especially important when considering managed care and performance measurement. The growth in the number of children has:

- *Broadened the geographic significance of the programme.* The expansion of coverage for children of low and moderate income families means that a programme that for many years was thought of as serving the urban poor (a perception that persists among some) now has an impact on a much larger share of the country.
- *Increased the emphasis on primary care service delivery*. A population dominated by children will create, of necessity, an increased focus by policy-makers on primary care. Issues such as access to care, immunization, preventive services and the like are far more pressing here than for a disabled population.

Managed care has become a generic term whose variation and flavours can be attached to so many health models as to be almost meaningless. This analysis will focus on what is commonly referred to as 'full-risk managed care' and is usually associated with Health Maintenance Organizations (HMOs). The model first appeared shortly after World War II on the west coast of the United States, although the name HMO was not coined until the 1970s.[52] Full-risk managed care, while having many variants, is consistent in three areas:

- *Enrolled population.* In managed care the MCO takes responsibility for the care of a defined population of people. Typically, individuals are enrolled for a set period of time and must remain in the MCO.
- *Comprehensive benefit package*. A comprehensive benefit package means the organization is responsible for delivery of the bulk of health services an individual will need. At a minimum the comprehensive benefit package should include acute hospital and all lab and physician services. The benefit package may also include a range of other services (pharmacy, dental, mental health, medical equipment, etc). Other forms of managed care, known as partial-risk models may take on risk (or budget holding) for a more limited package of services, usually avoiding high cost services such as inpatient hospitalization.
- *Capitated payments with the assumption of financial risk.* Managed care organizations agree to provide the defined service package for a predetermined set fee per person enrolled with the organization. If the MCO cannot provide all necessary

[50] Outside observers familiar with the Clinton administration's efforts at health reform in the US will typically cite the failure of the Clinton plan to achieve a major, fundamental restructuring of the US health care system. While true at face value, that statement ignores the fact that the Clinton administration also oversaw the largest single expansion in publicly funded health insurance coverage of the last 30 years.
[51] O'Brien(2003). It should also be noted that the level of public coverage varies regionally. In Baltimore City, a poor urban area, over 70 percent of children have publicly funded coverage, while in rural areas of the state the level of public coverage for children approaches 50 percent.
[52] Starr (1982)

services in the benefit package for the amount agreed it bears the responsibility for any financial losses.[53]

For much of its history the managed care model was small and regional (the West Coast). Beginning in the mid-1980s and through much of the 1990s the managed care model, with its apparent ability to control cost more effectively than traditional models of health insurance, grew rapidly. Recent years have seen what can only be described as a backlash against managed care systems in the United States. Some organization's excesses in attempting to manage costs led to bad press and bad jokes. In addition managed care systems, which for a time promised to provide enormous savings relative to more conventional models of care, proved unable to deliver dramatic savings over the long-term. Finally it can be argued that a key feature of an effective managed care system, the limited network of providers, struck many Americans as an unacceptable restriction of choice.

The growth in managed care peaked in 1998 at slightly over 75 million individuals (or just under 25 percent of the population).[54] The question of whether the plateau in the growth of managed care is permanent and will lead to a long-term decline, or a lull as alternatives are tried and found wanting remains to be answered.[55]

Unlike the stagnating growth in the private sector, managed care continues to experience rapid growth in Medicaid programmes. From 1990 to 2003 the number of Medicaid recipients in some sort of managed care grew more than tenfold from 2.3 million (nine percent of all enrollees) in 1990 to 25.3 million in 2003.

This growth has continued in spite of managed care's fall from favour in the private insurance market. From 1999 when private enrollment peaked, to 2003 the number of Medicaid recipients in managed care increased by nearly 50 percent, from 17.8 million to 25.3 million. An outcome of the growth in Medicaid managed care has been the phenomenon of public traded companies that focus on delivering managed care services to Medicaid recipients.[56]

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[53] The process of establishing payment rates can be bafflingly complex. At its simplest, payment rates are set by demographic groups, usually age and sex. More complex systems will base payments on the relative health status of the enrolled populations.

[54] Hurley (2004)

[55] An interesting aspect of the turn away from managed care is that it may be partly the result of the greater ease more traditional insurance models have to shift costs onto consumers either through co-pays or deductibles. The current fad in the US for 'consumer directed health plans' that feature increased individual responsibility for health costs through tiered arrangements, may have a shorter shelf life than managed care efforts.

[56] Interestingly, at the start of the 1990s federal policy was opposed to allowing the formation of managed care organizations that focused on serving Medicaid recipients. The desire was to have recipients integrated into systems that also serve the general population and not into Medicaid focused systems. The fear of a two-tiered system of care was often cited, ignoring the fact that this system had already been established. As a practical matter many state policy-makers have found that Medicaid-focused organizations are more responsive to their policy direction, since Medicaid makes up the dominant portion of their business, whereas in MCOs with large private enrollments Medicaid has too small a share of the overall population to justify the efforts in terms of outreach, etc. that serving a Medicaid population entails.

The reasons for this growth are complex and stem from the fact that Medicaid programmes are public purchasers of services for a defined population. The two motivations are:

- *Cost control and predictability.* The desire for cost control and predictability is often overemphasized in debates about Medicaid managed care, but it is undeniable. Expansions in Medicaid coverage and the fact that health care costs have historically grown at a more rapid pace that inflation,[57] means that Medicaid takes up an increasing share of state budgets. Nationwide Medicaid spending accounted for 16.5 percent of total state general fund spending in 2003. In Maryland that figure was 19.1 percent.[58] The general growth of health care spending is further complicated by the fact that Medicaid spending tends to be counter-cyclical. As an entitlement programme (meaning that if an individual qualifies for a benefit they are entitled to receive that benefit) based on income Medicaid rolls tend to grow when the economy is poor. Thus Medicaid costs often spike at the same time as state revenues drop.
- *Improved access and accountability.* As discussed earlier, a fee-for-service system creates unavoidable problems of accountability. The population focus of managed care allows states to establish expectations of service for the populations to who they are responsible. Policy-makers can therefore focus less on payment rules and billing backlogs and more on whether their contractors (the MCOs) are fulfilling the state's expectations.

The long history in the US of managed care and Medicaid meant that there existed well-established models for managed care systems, and expertise in both the public and commercial worlds. Maryland's choice to implement mandatory managed care for virtually the entire eligible population was seen as the expansion of a tested model to a new group.[59] The existence of these models and experience led the Maryland Medicaid programme to outline and adopt a very detailed structure of the HealthChoice programme.

HealthChoice began enrolling recipients in July 1997 and by January 1998 had completed the initial enrollment of roughly 300,000. The implementation of the Maryland Children's Health Programme in 1999 expanded the programme enrollment by roughly

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New Zealand may face a similar problem as it seeks to address disparities in health status. Large PHOs with only a small share of high need enrollees may prove unresponsive to pressure to better serve high need populations, as they are, not unreasonably, concentrating on efforts that provide the greatest benefit to the greatest share of their members. In contrast, smaller more focused organizations may be more attentive to the needs of underserved and vulnerable populations as they are part and parcel of the their operations.

[57] This is a worldwide phenomenon, OECD analysis of the health care spending shows that on average health care spending grew at a rate that was 2 percent greater than inflation. For the United States the rate was 2.1 percent and for New Zealand it was 2.2.

[58] Mann (2005)

[59] In fact, the State's perspective was that it was not even a new model for Medicaid, as roughly 1/3 of Medicaid recipients were already enrolled on Managed Care on a voluntary basis. In addition, much of the remainder of the population had been required to select a primary care provider under the Maryland Access to Care (MAC) programme.

100,000. As of January 2004, total programme enrollment stood at 484,000, with total premium expenditures for CY 2003, exceeding US$1.3 billion.

New Zealand's Path to PHOs

Those involved in the design and implementation of the HealthChoice programme would describe it as a major, even fundamental, change to the Maryland Medicaid programme's approach and operation. A New Zealand policy-maker on the other hand, might be struck by the incremental and gradual change HealthChoice represents. The managed care model has been developing and evolving in the US for over 40 years. The Maryland Medicaid programme had itself been voluntarily enrolling individuals in full risk managed care since the 1970s, and mandatory with primary care providers since 1991. In a very important way the programme is a logical next step, a feature that some New Zealand officials might envy.

The roots of the present New Zealand health care system start with the Social Security Act of 1938. At this time two elements of the New Zealand system were established: the predominant role of public funding in assuring health care services for the general population; and the delivery of primary care via a private practice model, albeit with a significant contribution of public funds. The split between the public secondary and tertiary sector and the private primary care sector is the backdrop against which reforms of the health care system are played out. For most of the time between 1938 and the late 1980s the basic outlines of the delivery system were static and change was only incremental.

The reforms of the 1990s are one part of the aftermath of a process begun by the Fourth Labor Government 1984, the essential feature of which was a reassessment of the roles of the public and private sectors in all aspects of life in New Zealand.

The Primary Health Strategy and the creation of Primary Health Organizations is either the latest, or last, step in a near 20-year period of rethinking and restructuring the organization of health services in New Zealand.[60] Beginning in 1986 with the Health Benefits Review,[61] New Zealand has at various times rethought most of its assumptions about health delivery and proposed and implemented several structures intended to promote, with different degrees of emphasis, efficiency, equity, accountability, cost savings, community control, etc.

The effort began with the creation of 23 Area Health Boards (AHBs), each directed locally. The AHBs received population-based budgets and were to manage those budgets with an understanding of community needs. This system was criticized for not having a

[60] An interesting theme that emerged from my interviews with a variety of people in different positions within the health care system (Ministry of Health, DHBs, PHOs, IPAs, etc.) was the desire not to experience another round of reform. Even individuals who are critical of the current structure of DHBs and PHOs and felt that earlier, or altogether different, systems were preferable tended to argue for a period of consolidation and incremental change to allow systems and relations to develop and mature.

[61] Marwick Scott (1986)

proper incentive structure and was replaced with a structure built around four Regional Health Authorities (RHAs) that contracted with 23 Crown Health Enterprises. This model was intended to lead to market-based incentives for efficiency among public hospitals (the primary business of the CHEs). The RHAs were subsequently criticized for being too dispersed, and were consolidated into a single Health Financing Authority (HFA) that contracted with Hospital and Health Services Boards (HHS).

The inability of market mechanisms to deliver efficiencies and rationalize services in a politically acceptable fashion (or in a fashion acceptable to the current government) led to the most recent restructuring, as described in the New Zealand Health Strategy. [62] The central feature of the New Zealand Health Strategy is the creation of 23 District Health Boards under local control. The shift has been described as the system coming full circle back to the late 1980s model of Area Health Boards, with a focus on local community control and direct accountability to the Ministry of Health.[63]

The implementation of the Primary Health Care Strategy and creation of Primary Health Organizations is an important change to the largely hospital-centric string of reforms over the past 20 years. The PHCS released in 2001 proposed a five to ten year vision where:

- People will be part of local primary health care services that improve their health, keep them well, are easy to access, and co-ordinate their ongoing care.
- Primary health care services will focus on better health for a population and actively work to reduce health inequalities between different groups.[64]

The mechanism to achieve this goal is the PHO. The key features of the PHOs are that they: are District Health Board funded; have an enrolled population; and are not-for-profit organizations. The first PHOs were formed in 2001 and patient enrollment began in 2002. As of June 2005 there were 77 PHOs serving well over 90 percent of New Zealand citizens.

This new model reflects the New Zealand structure from which it has grown. Some PHOs are direct successor organizations to the Independent Practice Organizations that began in the 1990s. Others have their roots in the non-profit community health centers that also grew up in the 1990s. Finally, some are new entities consisting of previously independent physicians. PHOs range in size from less than 10,000 enrollees to over 300,000 enrollees.

[62] A truism of all of the reforms in New Zealand during this period is that a conclusive good or bad assessment is impossible as none was in place long enough to reach a level of programme maturity that could support a definitive assessment.
[63] Gauld (2003)
[64] PHCS (2001), p vii

Key Differences Between MCOs And PHOs

The different structures and political environments in Maryland and New Zealand lead to different responses to the challenge of accountability and population health. The table below summarizes the major differences in each programme.

Table 1: Maryland HealthChoice MCOs and New Zealand PHOs: Differences Among Key Elements		
Programme Feature	**Maryland MCOs**	**New Zealand PHOs**
Benefit Package	Comprehensive	Limited
Barriers to programme entry	High barriers to becoming an MCO	Low Barriers to becoming a PHO
Service area of participating plans	Overlapping service areas required	Limited overlap of service areas, exclusive service areas permitted.
Payment Rate Setting	Risk based capitation based on medical need	Limited risk capitation based on community proxies of need

Benefit Package

The most significant difference is the dramatically different scope of the services for which MCOs and PHOs are responsible. MCOs are full-risk managed care organizations and the range of covered benefits is quite expansive even for that model. The HealthChoice benefit package includes, in addition to what are typically thought of as core benefits (inpatient services, physician services, pharmacy and lab services), services such as dental, speech therapy, physical therapy, vision services (eyeglasses). The only significant service not include in the HealthChoice benefit package is specialty mental health care.[65]

At this stage in their development the scope of the PHO benefit package is very narrow. PHOs are budget holders for primary care services in primary care practices with some additional payments for population-based health promotion and services to improve access. Even by New Zealand standards the scope of services that PHOs control is limited. In the 1990s several IPAs took on budget holding responsibility for lab and pharmacy services, an option not currently available to PHOs.

Barriers to Programme Entry

The New Zealand and Maryland approaches to determining programme participation could hardly be more different. In Maryland a prospective MCO undergoes an extensive,

[65] An early version of the HealthChoice proposal did include specialty mental health services.

costly and time-consuming review prior to being allowed to enroll recipients. The review starts with a written submission that requires MCOs to spell out in detail virtually every aspect of their operations: corporate structure, financial reserves, provider network, quality assurance programmes, provider and patient grievance procedures, information and payment systems, etc. The initial proposal is reviewed by a team of 6-10 and leads to additional document requests from the MCO, concluding with a day-long site visit (again by a team of 6-10). The process typically takes from 3 to 6 months (and occasionally longer) from submission of an initial application to approval for participation.

The review process for becoming a PHO is far less extensive. The documents detailing the process and requirements to become a PHO are very limited in specifics. The minimum requirements for becoming a PHO are laid out in 5 pages that emphasize the key elements of a PHO, not the specifics of how those tasks are to be carried out. The MCO application section of the Maryland HealthChoice regulations are over 30 pages long and addresses in specific (some MCOs would claim excessive) detail almost all aspects of MCO operations. [66]

The Ministry of Health's guide for establishing PHOs illustrates the differences: "The Guide is intended as a collection of helpful ideas, examples and tools. It does not set further requirements. Since the Minimum Requirements are deliberately permissive of different approaches, DHBs should be careful not to restrict this approach or stifle innovations by setting their own more rigid requirements."[67] Two factors largely explain the difference in approach:

- *Magnitude of financial risk.* As full-risk entities responsible for a comprehensive range of services (inpatient, pharmacy, lab, specialty care, etc.) MCOs have a level of financial risk far greater than a PHO. Since they must hold significant reserves to fulfill their budget holding responsibilities, the risk of state funds being lost and obligations unfulfilled is far greater than for PHOs that (at this stage in their development) largely pass funds to practices and hold only limited reserves. The consequences of an MCO failing to manage its budget have grave ramifications in response to which Maryland is extremely cautious in its MCO approval process.[68]
- *Existence of a well established model.* In contrast to PHOs, MCOs built in most all of their key features on the established Health Maintenance Organization model. The model was well understood in most of its details. The state had an established template for the types of activities an MCO should provide and its review process is designed to assure that the established model is carried out. PHOs as described by the PHCS, are a means to achieve a set of long-term goals in the health care system and are by their nature new and evolutionary. Again this is explicitly stated in Ministry of Health guidance: "The key notion in the principle of stepwise evolution is that change will usually be built on or evolve from existing arrangements and that there will be

[66] They occupy a chapter of the Code of Maryland Regulations (COMAR).
[67] Ministry of Health (2002), p1
[68] The caution also grows from some high-profile failures of managed care organizations (both in the private employer and Medicaid markets) that demonstrated the potential consequences of poorly managed or undercapitalized managed care organizations.

continual movement towards the full achievement of the vision."[69] Independent Practice Associations (IPAs) in New Zealand are important precursors to the current PHOs in that they brought together previously unrelated primary care practices into an organized structure. However the IPA model is itself a relatively new phenomena having only come into existence in the 1990s, and also continues to evolve.

Service Areas

Maryland state and federal regulations require that all HealthChoice enrollees have a choice of at least two MCOs in their area or the programme cannot operate. The logic of this provision is that by assuring each recipient a choice between at least two MCOs (and as a practical matter the choice tends to be between four or more) competitive market forces will come into play. These forces, along with the financial incentives of the comprehensive benefit package, combine to force MCOs to provide the best value for the public dollar. The belief that properly managed market pressure will lead to better results for consumers permeates the design of the HealthChoice programme.

New Zealand has no similar rule intended to assure that people will be able to choose between PHOs. In rural areas of New Zealand PHOs with geographically exclusive service areas are the norm. Even in urban areas, where PHO services can and do overlap, the degree of overt competition is low by Maryland standards. The PHCS and by extension PHOs, while not rejecting the idea of competition, are clearly far less wedded to the concept than Maryland Medicaid policy-makers. What to an American would sound like healthy competition leading to a better, leaner delivery system, to a New Zealander often sounds like excessive administrative spending leading to inefficiencies that add little patient benefit.

Method for Setting Payment Rates

The Maryland HealthChoice programme makes capitation payments on a risk-adjusted basis. Using the system of Adjusted Clinical Groups (ACGs) developed by researchers at Johns Hopkins University,[70] HealthChoice enrollees are assigned to one of eighteen 'Risk-Adjusted Categories' (RACs), each with a different monthly payment. The purpose of risk-adjustment methodology is to assure that MCOs serving individuals with poorer health status have sufficient resources to care for those individuals. To state the goal in the obverse: Maryland is trying to eliminate the incentive for MCOs to succeed not by effectively managing care, but by avoiding high-risk, more costly patients.[71]

Since the Medicaid population contains a significant portion of individuals with chronic conditions (especially among the disabled population that accounts for roughly 20 percent of total enrollment) who may have significant variations in their health status (and the resources required to serve them) the danger of inadequate distribution of

[69] Ministry of Health (2002), p4
[70] JHU (2005)
[71] This practice, known derogatorily as 'cream-skimming', is an overriding concern to public purchasers as there is ample evidence that it has occurred in the past.

resources across MCO is significant. The comprehensive benefit package and the scale of financial risk that an MCO bears, drives the need for a risk-adjusted system. The risk-adjustment system in Maryland has been a feature of the programme since its start and leads to payments that vary from the overall average by more than 20 percent for disabled individuals.[72]

In New Zealand capitation payments are based primarily on age/sex categories, with higher capitation payments to individuals in age and sex bands with historically greater use. [73] The base capitation funding at this time does not adjust for the relative health status of the enrolled population. Two additional adjustments are made to PHO funding that do account for the level of patient need:

- *Care Plus*. Assumes that up to five percent of a PHO population is in need of additional and more intensive services. The Ministry has set aside additional funds to service this population. PHOs are able to draw down these funds as they submit documentation on individuals in their practices who meet the Care Plus criteria.
- *Services to Improve Access.* These funds are intended to provide PHOs serving high-need individuals additional resources to address the barriers that may have kept these populations from accessing care. Services such as transportation, outreach, etc., can be provided with these funds. The services to improve access funding, which accounts for roughly 10 percent of total PHO funding is targeted, based on a combination of deprivation in an area and ethnicity. This approach has, however, been challenged.

Recently Cabinet requested options for basing services to improve access and health promotion funding on morbidity and mortality, instead of ethnicity and deprivation. This highlights the question of how health status and/or need should be incorporated in PHO funding.

Since the Maryland system for risk-adjustment is a morbidity system (in the United States known as 'health status') its experience may be instructive. Three key points can be made about risk-adjustment systems:

- *Health status risk adjustment systems demand high quality data.* The risk-adjustment methodology used in Maryland grew out of a fee-for-service claims system that historically included diagnosis information for every encounter.[74] This practice developed over years and is standard for both public and private insurers. It is also well understood and consistently used, by all providers (doctors, nurses, etc.) in the system. New Zealand has no such comparable data source for primary care. While

[72] DHMH (2002), p. V-11

[73] Note that even in a risk-adjusted system such as Maryland's age and sex categories are still used to set payment rates for new enrollees for whom historic diagnostic information is unavailable.

[74] The billing form, know as a HCFA 1500 used a system of codes (CPTs) for every service a physician or other provider could deliver (office visits, suturing, x-ray, etc) and with each procedure an ICD diagnostic code was required. The HCFA 1500 billing form was a standard form used by virtually all insurers, and its format and data elements have carried on to electronic claims and encounter systems now in use.

claims for ACC do require Read codes, GMT payments did not. There is, therefore, no historic database from which to build PHO or practice-specific morbidity rates. The performance framework does begin to lay a potential framework for morbidity rates by requiring reporting of certain chronic diseases. Even that system, still in its infancy, is a far cry from the data Maryland possesses with aggregate counts not tied to individuals.

- *Data collection systems take time to develop.* The Maryland HealthChoice programme is considered a leader in the collection and use of encounter data.[75] Submission of complete (visit, lab, etc.) encounter data was a basic programme requirement from the start and aggressively pursued by programme managers. Even under these circumstances it was not until July 2000 (three years from the programme's start) that encounter data of sufficient quantity and quality was available to support risk-adjustment.
- *Risk-adjustment systems that use inpatient data are unreliable.* In preparation for a large expansion in Medicare managed care (that has yet to occur) the Health Care Financing Administration (HCFA) commissioned the development of a risk-adjustment system based on hospital data. Analysis of this system showed that it did a poor job of predicting health care costs and should only be used as an interim step before a better, encounter-based system could be implemented.[76] It should also be noted that the HCFA analysis was for full-risk managed care (including hospital, pharmacy and lab services), not for risk-adjustment for a system as narrow in scope as PHOs. In that case the performance of inpatient care risk-adjustment is likely to be even poorer than for a full risk system.

The capitated delivery systems used by Maryland Medicaid and New Zealand have significant, even fundamental differences in their design. Yet in each case policy-makers are seeking to incorporate performance measures into the assessment of these systems. The next chapter will investigate the similarities and differences in each system's approach to performance measurement.

[75] Chang (2003)
[76] Pope (2000)

3 PERFORMANCE INDICATORS: CONCEPTUAL ISSUES AND PRACTICIAL CHALLENGES

The Primary Care Strategy in New Zealand and HealthChoice in Maryland spring from different historic and structural roots but use very similar language when discussing performance measurement. Terms such as 'evidence base', 'accountability', 'quality' and 'aligning with priorities' come up in readings and discussions with policy-makers.[77] The underlying consistency in both cases is less the model of health care delivery and more the fact that they are public entities using tax dollars to provide a service. That a publicly funded provider should be able to demonstrate value for the services it provides is a well established tradition in New Zealand, demonstrated by the philosophy and role of the State Services Commission. In the United States, and for Medicaid programmes in particular, assuring value for tax dollars is a relatively new undertaking.[78]

While New Zealand has longer experience with the concepts and tools of assessing public programme value, New Zealand, like the US and other countries, has found measuring performance in the health delivery sector problematic.[79] The limitations in this area are not due to lack of will or effort, but more accurately ascribed to poor tools and a lack of consensus as to what constitutes 'good'.

Limits to the Traditional Approach to System Assessment and Quality

Until fairly recently the question of whether a health care system, meaning all the disparate providers who deliver services (doctors, pharmacies, hospitals, etc.), is doing a good job has seldom been directly asked. When the question has been posed, answers have usually been offered based on the tools and concepts of public health. Those tools include measurement of the incidence of various diseases, estimates of mortality from various causes, and for various populations. Two frequently cited measures of the 'quality' of a health delivery system are infant mortality and low birth-weight. While these measures are vital to assessing how well any state or nation does at assuring good health to their populations they are of limited usefulness in assessing the performance of a health care delivery system.

Public health measures are limited in that they tend to be more about other aspects of a society's development than the health system. Rates of, and death from, infectious disease speak more to the quality of an area's water and sanitation systems than the organization of and delivery of health care services. This is not to understate the importance of such measures in assessing the progress a state is making, but to clarify how little they say about the coordination of services between primary and secondary care.

Quality assurance tools that focus on institutions are also problematic. These tools, typified by those used by the Joint Commission on Accreditation of Health Care

[77] Demarva Foundation (2004), p. 1; DHBNZ (2005), p.2; Perera, R (2005)
[78] Fossett, J (2000)
[79] Gauld, R. (2001)

Organizations (JCAHO) in the United States and Quality Health New Zealand, focus on the quality processes of institutions and the individual components of care provided by the institution. The quality assurance process can be thought of as a series of yes or no answers to specific questions. Are the proper procedures in place? Has the facility been accredited? Does an appropriate medical board certify the providers of care? And so on. Such processes are an absolutely essential element of assuring good quality care and an effective system of care, as they ensure that individual pieces of the delivery system meet agreed upon standards. The problem with the approach is that while it assures the quality of the discrete pieces, it does not address whether those pieces have been knit together into an effective system, or how well the system serves its community.

The following scenario highlights the limits of institution-focused performance measurement. A hospital has a deservedly world-renowned service for treating children with sickle-cell anemia. It has well-trained committed staff, the best available technology and follows the latest treatment protocols to the letter. Operating at peak efficiency the service can treat 100 children a year. Unfortunately the community served by the hospital has 200 children with sickle-cell anemia. The quality of care for the 100 children treated is unsurpassed; the system, however has failed miserably as half of the children in need were left untreated.

Obviously the evaluation of systems of care responsible for a population requires a different set of tools to answer the question of whether value is being provided to recipients enrolled in the programme. One way of conceiving of performance measurement is as an effort to merge the broad population focus of public health with the specific interventions of medical service. The ultimate goal of performance measures is well summed up by New Zealander, and Harvard Business School Professor, Dr. Richard Bohmer:

> We are at a point in history where the medical outcome is as much a function of organizational performance as it is a function of individual performance. And that was not true a generation or two ago, it was all about training spectacularly well trained professionals … Their performance as individuals was enough to guarantee the best possible medical outcome of the day. I don't think that's where we are now. We have recognized that medical outcomes are generated by teams of nurses, doctors and therapists. I think that good organizations can make up for medium physicians; and bad organizations can undo the work of excellent ones.[80]

The goal of performance measurement is to measure the performance of systems of care over a range of parameters. The practice of performance measurement is not nearly so straightforward. However, several factors are acting to encourage the development of performance measurement as an effective tool.

[80] *Listener* (18 June 2005)

Variation in Service Use and Evidence-Based Medicine

In his 1973 seminal work John Wennberg demonstrated that the rates for certain common procedures varied widely in two small areas in the state of Vermont, even though there were no differences in the underlying population or the level of their need.[81] This research has led to a body of literature around practice variation and why it occurs. Several theories ranging from financial incentives, to training background, to the relative supply of physician services have been offered to explain these patterns.

One explanation that has been offered is the lack of consensus on treatment protocols for many medical conditions. Some conditions show far more variation in treatment frequency than others. For example the treatment of fractures fell in a very narrow range, indicating that there was a high degree of unanimity among physicians as to how and when to treat a fracture. In contrast back surgery shows a wide variation from region to region, indicating a diversity of opinion on the proper treatment of the condition.[82]

This variation in treatment patterns has led to an interest by physicians, researchers and policy-makers to gather better information on how to treat conditions. This in turn has led to the growth of research into evidence-based medicine. Put simply evidence-based medicine seeks to rigorously examine the treatments for various conditions in order to establish the most effective treatment practice. Evidence-based research has spawned a host of groups that have then offered a range of treatment protocols for various conditions.[83]

The preventive services guidelines by United States Preventive Services Task Force are one example of the fruits of evidence-based medicine. The guidelines also point out the promise and challenge of performance measurement. The guidelines compile the existing evidence on a range of medical practices (testing, counseling, prophylaxes, etc.) intended to prevent, or identify at an early treatable stage, illness. They offer a good starting point for any performance monitoring system as they offer the possibility of exactly what performance indicators should be: medical system efforts that, applied broadly, can lead to better health status.

The guidelines offer a great starting point for any system trying to develop performance measures yet they also highlight one of the challenges, the evidence for most population screening and interventions is limited. The task force's recommendations on a variety of cancer screenings demonstrate this point. The task force has made recommendations for 12 specific screening tests and graded them as either A- Definitely effective, B- Most likely effective, I– inconclusive, or D- harmful (meaning the danger of harm due to false positives leading to unnecessary procedures outweighs any potential benefit from early detection). For the 12 screening tests assessed, four were deemed harmful and five were

[81] Wennberg (1973)
[82] Weinstein (2004)
[83] Eddy, D. (2005)

inconclusive as to whether they provided any benefit. Only three of the twelve (25 percent) received an A or B rating.[84]

Creation and Selection of Performance Measures

In spite of the challenges, recent years have seen a concerted effort to develop well-defined and well-accepted performance measures for systems of care. The effort to develop performance measures includes both a growing body of literature that discusses what constitutes a good performance measure, as well as increasing practical experience in applying them in real world contexts.[85] What both the literature and practical experience make clear is that system performance measurement is an art that is in its early stages. The fact that performance measurement is a relatively new practice means that policy makers in the United States and New Zealand (and other countries) cannot simply apply a tested model. While the idea of performance measurement has gained significant currency its practice remains tentative.

Measuring the relative performance of discrete systems requires not only technical skill, but also an interest in the answer. The competitive health care market and long managed care history in the United States has arguably given it a head start (albeit a short one) in the developing performance measures. Managed care organizations have a need to create distinctions (in price, in convenience, in quality) among themselves and other insurance products, so they were open to the idea of performance measurement, and provided much of its early impetus.

The National Committee for Quality Assurance (NCQA) was originally a creation of the managed care industry, but in 1990 it became an independent entity thanks to a grant from the Robert Wood Johnson Foundation, a large health care foundation in the United States. The NCQA has two major initiatives: an accreditation programme for managed care organizations that works much like any such programme with auditors reviewing and certifying organizational process; and the maintenance of the Health Plan Data and Information Set (HEDIS), a set of performance measures intended to assess managed care organizations.

HEDIS was originally intended for use in the private insurance market, and went through various iterations in the early to mid 1990s. In 1997 a specific version of HEDIS designed to address the needs of Medicaid programmes was introduced and the distinction was subsequently dropped. HEDIS is now a standard set of measure that can be applied to any managed care organization (public or private). At present there are over 20 distinct HEDIS measures that focus on various aspects of clinical care.[86] The HEDIS measures have become the backbone of performance measurement programmes for state Medicaid programmes. The Maryland HealthChoice programme required HEDIS reporting in its initial programme design in 1997.

[84] AHRQ(nd)
[85] See Maio (2003); McColl (1998); Campbell (2003); Gribben (2002); Keenan (2004); and Dyer (2002)
[86] NCQA (2004)

For the Maryland HealthChoice programme (or any Medicaid managed care programme) the HEDIS measures have two great attractions:

- *National development.* From a state programme director's perspective a national measure has currency that makes its implementation and use far easier than a unique state-defined measure. While states have no incentive to create alternatives to reasonable HEDIS measures, they have every reason to create additional measures for its purposes. For example, a state will not create a diabetes care measure as HEDIS has several. It may however create a measure specific to individuals with HIV/AIDS, as at present no HEDIS measure exists.
- *Well specified and standard.* The extremely detailed specifications for each HEDIS measures and the audit process that goes along with those measures assures consistency in reporting.[87] The consistent nature of reporting means that HEDIS provides one of a state policy analyst's Holy Grails, a reliable cross-state comparison.[88]

Comparing the development of HEDIS measures with those used in New Zealand to develop performance indicators highlights one way that Maryland Medicaid policy makers have an advantage compared to their New Zealand counterparts. [89] NCQA is a well-financed, independent body whose work has nationwide currency. A state such as Maryland that uses HEDIS measures as the starting point for its performance assessment system is able to piggyback a technically sound, well-vetted system. As important, the state is insulated from criticism that may be conceptual (that measure is not a valid assessment of care) or technical (the data will not allow that measure to be calculated). By contrast the Ministry of Health, DHBNZ, and the contractors engaged over the past two years have had to conduct the HEDIS process while rolling out the programme it is intended to measure. The challenge that this has created was clear during interviews with various individuals around New Zealand. Discussions of performance measurement often devolved into analysis of the Ministry of Health motivations or problems with the process and it was difficult to discuss the measures outside of the context of their development.

The process for developing HEDIS measures,[90] and adding new ones follows roughly the same as the process used in New Zealand to identify and produce the PHO performance management indicators.[91] First, individuals with expertise in various aspects of practice are brought together and propose a set of possible indicators. Second, the existing literature is reviewed to assess the value and usefulness of specific measures. Third,

[87] In general the calculation and reporting of HEDIS measures are the responsibility of MCOs. They use their own data and resources to calculate their measures according the HEDIS specifications, and then must have their calculations certified by an independent auditor (approved by NCQA) who reviews their processes for calculating the measures.
[88] This is especially true of a state such as Maryland that, to date, has fared well in comparison to its Medicaid managed care peers.
[89] I mean 'advantage' in the sense of 'easier' and 'less contentious' as opposed to 'better' or 'more effective'.
[90] AHRQ (2004)
[91] DHBNZ (2005)

measures are assessed as to how well they meet certain criteria. The HEDIS criteria of relevance, scientific soundness and feasibility, track very closely with the PHOs' performance principles of equity, quality, affordability, sustainability, and collaboration.[92]

The New Zealand process departs from the HEDIS process in one significant way. The New Zealand process includes measures that emerged from the analysis of laboratory and pharmacy services. Laboratory and pharmacy services are outside of the financial control of PHOs and the risk for their cost falls to the DHB in which the PHO is located. Laboratry and pharmacy costs are a significant financial expense for the DHB, and Ministry of Health officials felt they should be monitored by PHOs. The presence of these measures for PHO assessment (and their absence in other countries and schemes) may be associated with the limited budget control of PHOs. In more comprehensive managed care systems such as the United States or Primary Care Trusts in the United Kingdom, the assumption is that inefficient or inappropriate lab and pharmacy use should be addressed internally (as the organization is at financial risk) and need not be addressed as part of a programme monitoring performance. However some analysts have specifically pointed to the lack of measures that explicitly address the use of financial resources as a weakness of performance measurement programmes in the US performance monitoring schemes.[93]

Comparing Uses of Systems Performance Measurement in Four Countries

Much of the literature about the uses of health delivery system performance measurement tends to focus on clinical issues and implicitly assume the delivery structure in which the debate is occurring. This is not surprising in that much of the discussion about performance measures tends to be around the roll out of a set of measures within a given country. International performance measurement comparisons tend to focus on how those measures work as a national approach versus how they are used to influence or reward individual systems. [94]

As discussed earlier the use of performance measures in the United States and New Zealand grows from very different historical and political roots. Other nations are also beginning to use performance assessment in the oversight and management of publicly funded health delivery systems. To expand the perspective of the United and New Zealand use of performance measurement, performance measurements approaches Australia and the United Kingdom were also examined. Each of these applies performance measurement to distinctly different delivery models.

[92] Collaboration is not so much a principle for what makes a good measure as a mantra that is repeated whenever possible in PHCS programme documents. This reflects the undertone of distrust between the MoH and the sector, specifically the GP physician community, who suspect the MoH's motives.
[93] Rosenthal (2005)
[94] McLoughlin (2001)

Before reviewing some of the measures that are being used in these countries it is necessary to review briefly the design features of the programme that performance measures are designed to address.

Brief Overview of United Kingdom and Australian Models

Primary Care Trusts (PCTs) were introduced in the United Kingdom in 2001 and represent a major restructuring of health delivery in the United Kingdom. As in the United States and New Zealand, one of the central drivers of PCTs is a desire to promote effective integrated care. They are responsible for providing primary care to a defined population and commissioning secondary care for that population. They are paid on a capitated basis for a comprehensive set of services (much like an MCO). Roughly 80 percent of National Health Service funding flows directly to primary care trusts.[95] PCTs are similar to MCOs in that they must manage the costs of a comprehensive set of services. They are very different from MCOs in that they grow out of a universal, non-competitive health care market.

The National Health Service is engaged in an ongoing process to develop a set of measures to assess the performance of PCTs.[96] The first scheme of measures was introduced in 1998 and consisted of 46 measures on which individual primary care trusts were given from one to three stars based on their performance. That scheme was revised in 2003 and now has 42 measures. Based on their combined performance on the measures, PCTs are awarded one, two or three stars.

Australian Divisions of General Practice (Divisions) are an evolving element of the Australian health delivery system. In 1992 Australia began directly funding Divisions with the aim of improving health by "encouraging general practitioners to work together and form links with other health professionals to upgrade the quality of health service delivery at the local level."[97] Divisions were to accomplish this by developing and promoting activities designed to allow the disparate voices of general practitioners to be coordinated. In the late 1990s their role evolved to include a focus on developing primary care infrastructure (office IT and data systems, coordination of continuing medical education, etc). Still later, Divisions have begun to focus on initiatives designed to address quality of care issues.[98]

More recently Australia has gone through a process of developing a series of performance measures for Divisions, partly as way to formalize the structure of divisions that has thus far been extremely loose. [99] A vital distinction between the Australian and the other systems is that Divisions are not budget holders for any medical service.

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[95] Walshe (2004)
[96] The UK is also in the process of implementing what is known as the Quality and Outcomes Framework for primary care practices. This system has over 100 measures that individual practices are assessed against. It was not chosen for comparison in this paper as it focuses on individual practices as opposed to systems, although it may be applicable to New Zealand.
[97] Commonwealth of Australia (2003) p. 96
[98] Phillips (2003)
[99] APHCRI (2005)

Each of these service delivery models is wrestling with the issue of how to assess performance. They have all engaged in an extensive process within government and with stakeholders regarding what should be measured. Finally, for each the process is still in its early stages. As Table 2 (below) shows, each system is distinctly different in some key aspects. The Maryland Medicaid programme has the longest track record in performance measurement since it began collecting HEDIS measures in 1999, and has been making value based payments since 2003. Although, as Maryland policy-makers would attest, the Maryland experience is still quite limited.

Table 2: Key Differences Among Delivery Systems Using Performance Assessment

	New Zealand PHOs	**Maryland Medicaid MCO**	**United Kingdom PCTs**	**Australian Divisions of General Practice**
Population	**Universal**	**Targeted** (low-income, disabled and children)	**Universal**	**Universal**
Health services for which it is Budget holder	**Primary care**[100]	**Comprehensive** (physician, inpatient, lab, pharmacy, etc.)	**Comprehensive** (physician, inpatient, lab, pharmacy, etc.)	**None** Support functions only
Relationship to primary care	**Exclusive** Practices may only belong to one PHO	**Non-exclusive** Practices can contract with multiple MCOs	**Exclusive** Practices may belong to only one PCT	**Exclusive** Practices may choose not to participate
Financial relation to primary care	**Primary** PHO accounts for 60%+ of practice income	**Secondary** Medicaid often less than 10% of total practice income	**Absolute**[101] (no other significant source of revenue)	**Minor** Provides support services, but no funding related to service provision.
Primary care business model	**Independent** Rarely salaried	**Independent** About ½ salaried	**Independent** Salaried growing	**Independent** Rarely salaried
Funding	**National**	**State**	**National**	**National**
Formed	**2002**	**1997**	**2001**	**1990s**
Performance Measurement History	**Initial roll-out**	**Reporting HEDIS since 2000, Incentive payments 2004**	**Introduced 1998, revised 2003**	**Initial Roll-out**

Table 3 (below) uses the New Zealand Performance Measures as a starting point. New Zealand has developed a set of 14 performance measures that are now rolling out in primary care organizations. These measures are compared here with the measures

[100] Primary care budget holding for PHOs is at present very limited, and primarily consists of funds for direct physician care and limited outreach. Other services such as lab and pharmacy are not included.
[101] While virtually all of primary care revenue flows through the PCT at present it acts as a pass through with the contractual provisions set nationally, somewhat like the relationship of DHBs to PHOs.

Maryland uses for its Value Based purchasing programme, along with the current HEDIS clinical measures.[102] The United Kingdom measures are those reported in the April 2005 version of the Health Care Commissions key targets and performance indicators for PCTs.[103] The Australian measures are from the recently released (April 2005) National Performance Indicators for Divisions of General Practice or were specified in the 2003 National Report on Health Sector Indicators.[104]

All of these measures can be seen as an expression the New Zealand Primary Health Care Strategy which states: "there is now a much greater acceptance by providers and their representative bodies of the need to be accountable both to the community served and to those Government agencies that pay for services".[105] In New Zealand, as in Maryland, performance measurement was a core programme feature from the start. [106]

[102] Both sets are included, as Maryland requires that MCOs collect and report most HEDIS measures. For Value Based Purchasing it uses a subset of HEDIS measures supplemented by several state-defined measures.
[103] Health Care Commission (2005)
[104] The Australian Health Sector Indicators did not focus directly on Divisions of General practice, but are useful to highlight in this analysis as they show the range of indicators under consideration in Australia.
[105] Primary Care Strategy (2001), p. 24
[106] It is also interesting to note that in both Maryland and New Zealand programme monitoring was one of the last elements of programme design settled on, after such issues as funding formulas and enrollment procedures. This seems consistent with the evolution of the programmes, while the general outline of performance measurement becomes clear relatively quickly, the initial operational experience will almost inevitably raises issues that are then incorporated into a performance framework.

Table 3: New Zealand PHO Management Performance Measures and Pre-Requisites Comparison to other International Approaches

	Maryland Medicaid	US HEDIS	United Kingdom-PCTs	Australian Divisions of General Practice
PHASE I - CLINICAL INDICATORS				
Children Fully Vaccinated by age 2	X	X	X	X
Influenza Vaccination over 65		X	X	B
Cervical Cancer Screening past 3 years	X	X	X	B
Breast screening recorded in last 2 years	X	X		B
Appropriate dosing Inhaled Corticosteroids		C		B
Metformin:Sulphonylurea ratio		C		
Investigation of Thyroid Function				
Measurement of Acute Phase Response				
PHASE II - CLINICAL INDICATORS				
Rate of adults with smoking recorded		C	E	B
CVD risk recorded		C		
Statins prescribed for patients with CVD risk		C		
Diabetes patients w/microalbuminuria on ACE inhibitor	D		E	
Investigation of UTIs, urine culture and colony count				
Use of serum tests for iron deficiency				
Recording of four chronic conditions				
PROCESS MEASURES				
Percent of valid NHI #s				
Utilization by high need	D			
Achievement of utilization review objectives				
FINANCIAL INDICATORS				
GP-referred lab expenditures				
GP-referred pharmaceutical expenditures				
AUDIT OF SYSTEM ACTIVITIES				
First phase performance pre-requisites	D		E	B

X - Identical or nearly identical indicator
B - Australian 2003 National Report of Health Sector Indicators, not used to assess Divisions.
C - Analogous HEDIS indicator exists but differs significantly in key aspects.
D - Analogous Maryland HealthChoice indicator exists but differs significantly in key aspects.
E - Analogous PCT indicator exists but differs significantly in key aspects.

Table 4: Selected International Performance Measures Not Currently in New Zealand Performance Management System				
	Maryland Medicaid	**US HEDIS**	**United Kingdom-PCTs**	**Australian Divisions of General Practice**
Patient Survey Information	**X**	**X**	**X**	
Provider/Staff Survey Information			**X**	**X**
Analysis of Workforce	**X**	**X**	**X**	**X**
Death Rates			**X**	**X**
Substance Abuse Treatment			**X**	
Dental Services	**X**		**X**	
Prenatal Care	**X**	**X**		
Mental Health Treatment		**X**	**X**	**X**
Anti-Depressant medication		**X**		
Appropriate test children w/ pharnygitis		**X**		
Appropriate treatment children with URI		**X**		
Waiting times for services			**X**	**X**
Lead Screening	**X**			

Comparative Findings

Tables 3 and 4 place the New Zealand performance measures in an international context. By comparing measures used by systems with a similar population focus but rising from very different structures and assessing very different models of service delivery, some interesting similarities and differences are highlighted.

Performance indicators show surprising consensus

In spite of the differences in the systems using performance measures,[107] there is surprising consensus regarding some of the core measures. There is clear consensus that delivery systems should be accountable for some population-focused activities such as immunizations (either for children or the elderly) and proven screening services. The screening tests typically chosen (cervical cancer, breast cancer) are also ones that the United States Preventive Services Task Force has deemed effective.[108] Finally, each performance measurement scheme has either a measure, or several measures, that address the treatment of chronic disease. Diabetes is the most common chronic disease to receive attention, but measures addressing asthma, cardio-vascular disease and mental illness are also found. That diabetes is the most common condition reflects both its prevalence and the level of consensus on key aspects of its treatment and management.

[107] In particular the loose structure of Australian Divisions is striking when compared to the well-established norms of Maryland MCOs.

[108] Likewise none of the screening tests deemed either harmful, or as having inconclusive evidence, were used by any country as a performance measure.

Measures emphasize primary care and community-based services

Even when the delivery model includes the delivery of a comprehensive service benefit package, as is the case for MCOs and PCTs, the measures to assess the system focus predominantly on primary care and community-based services. In addition to immunizations and screenings, performance measures often also look to services that individuals are most likely to require, thus dental, mental health and prenatal care, are all measured in at least two of the systems. The prominence of what can be classified as primary care measures highlights the fact that if a 'system', as opposed to an institution (such as a hospital), is being evaluated the measures will tend to focus on broad, population-focused measures.

Inpatient measures are notably absent

None of the schemes applied measures that focused on hospital services such as admission rates or average length of stay. The absence of hospital measures for PHOs in New Zealand and Divisions in Australia is logical, since hospital services are outside of the scope of both. The lack of inpatient measures also holds for Maryland's MCOs and the UK's PCTs. Those HEDIS performance measures that do address hospitalization tend to focus on follow-up care. This is probably due to two factors. First, in a capitated system it is assumed that the financial incentives should be sufficient to control inappropriate hospitalizations and measures would therefore be superfluous. Second, since hospitalizations are sensitive to the health status of the enrolled population valid, unambiguous performance measures for hospitalization require that the enrolled population's health status be adjusted for, a complex process that, as yet, is not widely applied.[109]

Patient satisfaction surveys are used as a measurement tool

Both the United Kingdom and Maryland Medicaid carry out surveys of system enrollees as a key element of their performance measurement approaches. Maryland, in particular, views patient surveys as an important mechanism to allow patient choice among competing plans. They incorporate patient data into a 'report card' that is widely distributed to the enrolled population.[110]

Financial measures are lacking

New Zealand is unique among the countries examined in that it includes explicit financial/efficiency targets among the indicators. This appears to follow from the limited scope of PHO budget holding. Both PCTs and MCOs are budget holders for a comprehensive set of benefits and thus directly accountable for lab and pharmacy spending (the New Zealand measures). Viewed in this light the financial measures employed by New Zealand can be described as shadow budget holding.

[109] Volpel (2005)

[110] Maryland's report card to consumers also demonstrates one of the problems with condensing a health system performance measure into a very limited number of easy to interpret metrics. A review of the report card shows very little distinction among plans.

Infrastructure measures are included

Each system of performance measurement incorporates specific items that reflect what policy makers in each setting view as necessary conditions for the effective operation of the locally defined system. These measures tend to follow the quality assurance audit model discussed earlier and do not directly measure performance. They are, however essential to well performing systems. The infrastructure elements chosen and how they are incorporated can best be described as idiosyncratic. Maryland Medicaid conducts a separate annual review process that is distinct from performance measurement.[111] New Zealand has established a series of prerequisites that must be met before a PHO can qualify for a bonus payment. New Zealand is also in the process of developing a set of PHO requirements that will be addressed through the contracting process.[112] Australia is taking a phased approach to the development of infrastructure for Divisions, identifying first and second level measures that are likely to be phased out over time.

A Topography of the Uses of Performance Measures

The use (or at least planned use) of performance measures internationally demonstrates that the need for accountability and the growth in evidence-based medicine is pushing public purchasers in a roughly similar direction. It is also apparent, and demonstrated by both the Maryland and New Zealand experiences, that measures once developed can be used in numerous ways. During the course of this project over 30 people occupying a variety of roles in the New Zealand health care delivery system were interviewed. The question, "what is performance measurement for?" elicited a range of responses.

The inconsistency in responses is not due to a lack of clarity among participants in New Zealand, as the same query in Maryland would elicit similarly inconsistent responses (in spite of Maryland being several years further along in the process). The diversity of responses is inherent in the nature of performance measurement. Performance measurement is not a single tool designed to address a specific need, rather it is an evolving set of metrics that can be applied for a variety of purposes.

Payments and Rewards

Once performance begins to be measured and distinctions are made among organizations, the motivation to attach payments is inevitable. In fact in the United States the idea of payment for performance has come to dominate the performance measurement discussion. Incentive-based concepts such as value-based purchasing and pay-for-performance abound in the US. This is exemplified by the recent emphasis that the Center for Medicare and Medicaid Services (CMS)[113] has given to pay-for-

[111] Delmarva (2004)
[112] Jordan (2004)
[113] Yes, the acronym should be CMMS, but who am I to argue with former Secretary of Health and Human Services Tommy Thompson, who decided that old name for the bureaucracy the Health Care Financing Administration (HCFA) was unacceptable.

performance.[114] While the concept has attracted many adherents, the evidence that it actually works in health care is, thus far, scant.[115] The difficulties in making pay-for-performance schemes work in the United States are ascribed to a number of causes ranging from the lack of coordination among multiple payers, to the inadequacy of payments relative to necessary effort, to systems that only pay the best performers and fail to reward improvement.[116]

The Maryland experience with its Value Based Purchasing (VBP) programme of incentive-based payments to managed care organizations highlights the difficulty in implementing effective pay-for-performance programmes. In August 2004 HealthChoice MCOs received incentive payments based on their performance on 11 indicators. The incentive payments were based on targets established by the state, based on the amount a plan exceeded a target multiplied by the MCO's enrolled population. Each measure also had a neutral range (no reward) and a disincentive threshold (at which a penalty would be assessed). Based on this methodology total net incentive payments for services in calendar the year 2003 were US$291,000, with the best plan receiving an incentive payment of US $275,000. The poorest performer was imposed a penalty of US$ 5,400.[117] While the measurement process was generally well accepted, the effectiveness of the financial incentive was negligible, as it represented only a minute fraction of total MCO payments. In 2003 the Maryland Medicaid programme payments to HealthChoice MCOs exceeded US$1.3 billion. The incentive payments under the VBP programme therefore accounted for less than one quarter of one percent of total MCO compensation.

The present dearth of evidence in the United States that pay-for-performance programmes yield tangible quality of care benefits casts a particularly interesting light on the incentive payments structure being implemented in New Zealand. The New Zealand performance incentive payments provide a natural experiment as it avoids the following three problems cited as impediments to performance measurement in the US:

- *Lack of coordination among insurers.* PHO payments are the primary source of payment for General Practice (over 60 percent of total revenues). There is then no problem of primary care providers receiving diffuse, or even contradictory, messages from multiple, uncoordinated, payers as in the United States.
- *Rewards for improvement.* The New Zealand performance framework explicitly places its emphasis on quality improvement. The incentive payments reward improvement over baseline performance. In theory all PHOs should be able to secure an incentive payment either by improving their own performance or maintaining the high level already attained. To date most incentive payments in the United States have been directed at 'best' performers possibly limiting the incentive for providers or organizations that have a low expectation of achieving rewards.
- *Rewards for performance are significant*. The total amount allocated to performance incentive payments is NZ$20 million, or roughly 4 percent of total funds directed at

[114]CMS(2005)
[115] Rosenthal (2005)
[116] Keenan (2004)
[117] Delmarva (2004)

office-based care by the Ministry of Health under PHO funding formulas. While this may appear small it dwarfs the incentive payments used in Maryland, which were less than one quarter of one percent. It should also be noted that those incentives are concentrated in primary care and can be more effectively targeted.

Reporting and Evaluation

A starting point for any performance measurement system is the need to report basic information in a coherent way. Performance measures offer a way for policy-makers to report the success or failure of their efforts in a consistent way. Once established and accepted, standard performance measures become a starting point for discussion of programme issues and areas that need attention. That is not to suggest that performance measures will constitute a complete evaluation, but that for policy-makers who are pressed for time and resources a well designed set of performance measures may serve their purposes with considerably less cost and effort.

The Maryland experience illustrates the usefulness of standard performance measures. Maryland released a five-year evaluation of HealthChoice in 2002.[118] The evaluation introduced a series of measures (mostly related to access to primary care) and disaggregation of those measures (age group, region, ethnicity, etc). In each subsequent year these measures have been recalculated and broadly disseminated.[119] They are accepted by stakeholders both in and out of the Maryland Medicaid, and have become the standard tool for discussing the programme.

Benchmarking and Monitoring

Both Maryland Medicaid and the New Zealand Ministry of Health have delegated service responsibility to downstream entities. That transfer of accountability calls for ways to establish where the responsible organizations, whether MCOs or PHOs, stand relative to prior performance and their peers.

Benchmarking the group is also the necessary first step in establishing targets and performance goals. The creation of reliable benchmarks from a group of peer organizations establishes what is possible for participating organizations. Once the range of performance has been established, the next step is the establishment of experience-based standards. A problem that has often plagued performance measures is the Delphi method, or standards set by an expert panel. Under this model a panel of clinical or other appropriate experts set the standard for practice and that is set as the target. This target is then imposed on the world without reference to actual practice. With distressing regularity the standards are far higher or more rigorous than day-to-day practice. Policy-makers and programme managers are then faced with the unattractive alternative of

[118] DHMH (2002)
[119] DHMH (2005)

penalizing organizations for failure to meet an impossible goal, or ignoring the rules and requirements they have set.[120]

Quality Improvement

Performance measurement can be used as a means to provide feedback to providers as to the areas in which they perform well or poorly. The idea of continuous quality improvement (CQI) and its application to medical practice fits very neatly with the cooperative ethos in New Zealand. The New Zealand performance monitoring plan has very explicitly built in the idea of feedback leading to a rising level of performance. As was noted in the discussion of incentives, New Zealand is relatively unique in that its incentive payments reward PHOs and practices for the gains made over an initial benchmark.

Effective Governance

Performance measurement can also serve as a governance tool allowing the leadership of an organization to assess its status vis-à-vis peer organizations. In New Zealand the use of performance measurement in this way may be particularly useful. PHOs must be not-for-profit entities and the Ministry of Health has placed great emphasis on community input and control as a core element of the PHO philosophy. To date the main focus of the establishment of PHOs has been to get their boards up and running. In general the PHO boards are new and they are directing a model of care that is itself very young. Setting expectations and monitoring the achievement of those expectations is at the heart of effective governance. Performance measures, by providing a set of standard, well understood metrics across all PHOs, are likely to be central to board oversight in the early stages of PHO development.[121]

Contracting

Performance measures can be used to help make selections among multiple providers of a service. A future question for New Zealand is how much control a DHB will have over their contracting decisions with PHOs. Thus far the Ministry of Health has chosen to encourage the development of PHOs, even when local DHBs may have wanted fewer in their region. In addition, while the DHB is the budget holder for PHO payments, the payment rates are set centrally with the DHB acting as a pass through.[122] As PHOs and their relationship with DHBs mature the contract negotiations will likely focus increasingly on expectations of performance.

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[120] The HealthChoice programme has faced this dilemma for several years. The original programme legislation contains specific targets for dental access (created by a single legislator) that MCOs were required to achieve or be penalized. In spite of enormous progress by MCOs in improving dental access (a more than threefold increase), the targets have never been met.

[121] Author's interview with Danny Wu and Kim Arkus

[122] A more accurate statement would be that DHBs are a pass through for PHOs base level of funding, since DHBs could choose to supplement PHO payments with funds from other part of their budgets.

The categories listed above are not mutually exclusive and a performance measurement may address all of those issues. In comparing performance measurement in the United States and New Zealand the primary differences are not of type but of emphasis. New Zealand stresses the quality improvement aspect of performance measurement far more than the Maryland Medicaid programme. The proposed incentive payment methodology clearly illustrates this emphasis. The New Zealand incentive payment scheme allows for incentive payments based on a practice's improvement from their baseline performance, even if that performance leaves the organization performance below the means level. In contrast the Value Based Purchasing incentive in Maryland Medicaid establishes disincentive thresholds for all measures that the MCO are held equally accountable.

4 LESSONS FOR MARYLAND AND NEW ZEALAND

This analysis has detailed the health care environment that has led to the creation of PHOs in New Zealand and MCOs in Maryland. In each case a focus on an enrolled population is coupled with an active commitment to system performance measurement. While they share these important similarities they are also shown to be starkly different. The two most important differences, I would argue, are New Zealand's position of extensive market power compared to the Maryland Medicaid programme's limited power; and the comprehensive, vertically integrated, scope of the MCO service package compared to the narrow scope of PHOs.

The similarities and differences mean that policy-makers responsible for each programme approach issues and problems from very distinct perspectives. In both New Zealand and Maryland policy-makers who are immersed in the day-to-day challenges of operating a programme tend toward certain responses and assume certain tools will be more effective than others. Other options are not so much rejected as not considered, or certain aspects of the health system are seen as beyond their power to influence. The opportunity to observe issues that have arisen surrounding the operation of PHOs and the performance measurement indicators, and to speak with individuals from a variety of perspectives and positions in the New Zealand health care system afforded me a counterpoint to my own experience of ten years working with MCOs and in Maryland.

In this section I would like to offer some observations, first on what the New Zealand approach to performance measurement has to tell a Medicaid policy-maker from the US, and then some thoughts on what strike me as areas where New Zealand may gain some insights from the Maryland experience.

Lessons For Maryland

Promoting Clinical Change

In the New Zealand system the discussion of the primary care strategy starts (and occasionally gets stuck) in a discussion of how to influence individual practice patterns. This is not surprising as it was one of the purposes of the PHCS. New Zealand policy-makers have identified finding ways of restructuring of primary care that would make it more effective as one of four core goals of the new capitated payment structure.[123] The model explicitly calls for an expanded role for practice nurses (nurses in the primary care setting). In this new role nurses would take on more responsibility in the areas of routine care and patient education, especially for patients with chronic illness. Under this model physicians, with their higher level of training, would concentrate their efforts on managing more complex cases. The concept of the 'primary care team' is one that is stated with great consistency by various people at all levels of the New Zealand delivery system.

[123] Crampton (2002)

From the perspective of the Maryland Medicaid programme the goal of restructuring the general approach to primary care is, even in the often overblown language of programme objectives and mission statements, very ambitious. This response is somewhat understandable when one considers the financial share that primary care services represent in terms of overall programme spending (less than 10 percent of all expenditures), and the relatively small share of practice income that Medicaid represents. The lack of attention to the organization of primary care is less understandable if the HealthChoice service population is considered, as over 80 percent of programme enrollees are children. The provision of primary care is therefore at the heart of the programme. Evidence of this contention can be found in the performance measures themselves as they are overwhelming focused on child health and primary care.

The lack of focus on primary care practice is underpinned by the belief among Maryland Medicaid policy-makers that effective primary care is the outgrowth of a proper incentive structure. This assumption is clearly stated in the preamble to the Value Based Purchasing report: "Appropriate service delivery is promoted by aligning MCO incentives with the provision of high-quality care, increased access, and administrative efficiency".[124] Whether the incentive structure is properly aligned at all levels of the delivery system is not often discussed. Four months of talking to New Zealand policy-makers suggests that those incentives may not be properly aligned for the best delivery of primary care.

The provision of well-child screening services highlights this issue. The provision of these services according to a standard periodicity schedule has long been a key indicator tracked by Maryland and all other Medicaid programmes.[125] A recent article in *Pediatrics*, cited a number of problems with the delivery of well-child services.[126] The problems ranged from how the service was defined to parent dissatisfaction with the content of the well-child services they received. The article offered poor provider reimbursement as a reason why practitioners had inadequate time to properly do well-child checks, leaving parents feeling that important questions were unanswered. Many changes were suggested as to how to better provide well-child services in the United States, all focusing on physician action. The possibility that the practice team should reorganize their time to better address this need, possibly by re-emphasizing the nurse's role in well-child screening (a role that they have fulfilled in public health clinics in the United States and Plunket in New Zealand) was not considered.[127]

[124] Demarva (2004) p. 1
[125] Well-child service provision is tracked in all Medicaid programmes regardless of whether they use a managed care approach such as in Maryland.
[126] Schor (2004)
[127] The move away from well-child in the public health clinics in the United States grew from a desire to integrate well and sick care at the primary practice level. While I still feel this is the more appropriate model, it may have led to an overemphasis on the physician in service delivery. The extended time that a nurse can allow may be invaluable for providing service to individuals with complex needs, or where the understanding of and compliance with treatment regimens is especially important.

Moving Beyond Access

In Maryland Medicaid the system has strongly emphasized the provision of complete encounter data from the MCOs to the state. The data form the backbone of the system and have an enormous influence on payments that MCOs receive. The effect of data quality and completeness on payment has created strong incentives for MCOs to collect and submit data. One result of this has been the extensive use of fee-for-service payment mechanisms by MCOs with their contracted providers (hospitals, physicians etc). The reason for this is simple, if data reporting is a priority, attaching payment to the submission of data is essential. Many MCOs have found that if practices are paid on a capitated basis and asked to submit encounter information (often referred to as 'shadow claims') the quality and completeness of the data is poor, and leads to additional costs if the MCO has to directly gather data from practices.

In addition Medicaid programmes, like most public programmes, set policy to mitigate their worst fears. For Medicaid programmes this is the fear of the 'Medicaid mill'. This refers to a practice that makes its income by seeing large volumes of patients and providing them with only cursory care. The specter of the Medicaid mill hangs over all policy-makers who work with Medicaid. It is especially strong when managed care programmes are in use, as the incentive structure (if not properly monitored) contains the danger of the mill.

Cognizant of this danger, policy and programme managers in Medicaid are on guard against any suggestion that enrollees will have limited or poor access to physicians. The data collection and performance measures focus on services provided by physicians. The management of chronic disease is a good example: in Maryland an MCO that restructured its approach to diabetes by expanding the role of nurses to provided ongoing intensive monitoring and education would not be rewarded in their approach to performance measurement. [128]

Targeting Incentive Payments

The implementation and effectiveness of New Zealand's incentive payments will be very interesting to Maryland. Maryland has thus far found incentive payments in the value-based purchasing scheme difficult to calibrate. Incentive pools have been created and payments made as discussed in Chapter 3. Unfortunately, the magnitude of incentive payments has been miniscule relative to total budgets. This begs the question of whether incentives can be effective to encourage changes in behavior.

There are also dangers in putting greater portions of MCO payments at risk. If a large portion of an MCO's payment is placed at risk it creates the danger that the MCO will budget to the guaranteed level (without incentive payments) rather than to some higher level that would be financially viable if incentive payment were received. Thus,

[128] Although a managed care purist would argue that the reward of such innovation should be in reduced hospital or pharmacy costs reaped by achieving better control.

perversely, incentive payments can encourage reduced efforts to reach out to recipients and provide services.

Part of the problem for managed care is a result of the comprehensive nature and relatively small share that primary care makes up of that budget. Thus incentives that emphasize primary care services tend to be out of proportion with primary care budgets. In New Zealand, since the PHOs are only responsible for primary care incentive payments, they can in theory be more proportional to primary care budgets. They may therefore more effectively serve one of their purposes to reward practices and systems that demonstrate success in meeting state goals.

One way that the New Zealand model might be applied in Maryland is to target incentive payments more directly at primary care. Rather than rewarding the incentive payment to the MCO as an overall reward for good service perhaps the payment could be made to the MCO for distribution among providers. In this way the primary care side would see rewards (consistent with the State goal of assuring access), and incentive payments would be a tangible reward.

Such targeting may be refined even further to address the provision of service to specific subgroups of the population. An example would be individuals with HIV/AIDs who are often difficult to manage.[129] A limited number of specialized clinics maintain relationships with multiple MCOs, identifying all the HIV/AIDS patients served by these clinics and rewarding the clinic performance directly as opposed to through the MCO may better target resources.

Lessons For New Zealand

Public Funding, Public Data

In recent weeks we have seen an occasionally acrimonious debate between the Ministry of Health and representatives of general practice regarding the provision of information on the co-pays charged by individual practices within PHOs. Representatives of general practice have argued that the Ministry of Health's request for fee information (and that it be provided for identifiable practices) was unreasonable, reflecting a change in the original PHO agreement and a Ministry of Health 'distrust' of General Practice.[130] The Ministry of Health has held that the information request was part of the original contract agreement between the PHOs and the DHBs.

To American ears this debate is odd in the extreme, as the reluctance to widely publicize physician charge information would find strong criticism from both the left and the right ends of the political spectrum in the US. The left would oppose the reluctance to provide charge information on equity grounds, arguing that public funding was being expended to

[129] In a poor Medicaid population the majority of individuals with HIV/AIDS contracted the disease as a result of IV drug abuse. Therefore treating this population often requires addressing the co-occurring substance abuse problem.
[130] Interview with Dr. Peter Foley New Zealand National Radio 13 May 2005

promote access to low-income and vulnerable populations and that charge information was essential to assure that barriers to care had, in fact, been reduced. This is essentially the position that Ministry of Health officials have taken thus far.

An American conservative would also support publication of individual charge information, although for different reasons. The conservative's argument would be a market-based one, that pricing information is essential to allow individuals to make their own assessments of trade-offs between, price, quality and convenience. They would also argue for the widest possible dissemination of fee information, to allow market forces the proper opportunity to operate.

The debate over pricing information highlights the reluctance of the General Practice community to share information with the state. This appears to come from an almost reflexive desire to maintain professional sovereignty. In my conversations with individuals developing the performance measures I have been struck by how many data elements they do not receive. The HealthChoice programme requires MCOs to provide the Medicaid programme with complete encounter data (every visit, lab, and procedure, for every person enrolled). The encounter data provides a rich source of information without which Maryland policy-makers would be lost.

The HealthChoice encounter data requirements took several years to fully implement, and caused consternation and complaint among MCOs. The complaints however were due to the complexity of the task, not the State's rationale for collecting the data.

The Scope of PHOs

At present PHOs are funded almost exclusively for office-based primary care. While there are some extra funds for services to improve access and health education, they make up only a small share of total PHO budgets. If PHOs are to develop and serve as a vehicle for a comprehensive, population focused restructuring of primary care they will need a wider scope of control. The danger of the present model is that it can serve as a way for independent practices to organize to assure a continued stream of state funding, and pay only lip service to the larger goals of the PHCS. In interviews several PHOs took pride in their virtual nature (meaning that the PHO itself devolved most tasks to member practices), highlighting this problem. While this is a concern, interviews with other PHOs and the DHBs they interact with, revealed a strong interest by the PHO in taking on greater, more comprehensive responsibilities.

While a full risk comprehensive model along the lines of an MCO does not make sense in New Zealand, there are several functions that PHOs, in keeping with their primary care focus could logically assume delivery and responsibility for budget holding responsibility. For example:

- *Laboratory and pharmacy services.* There is some reluctance in this area due to perceived problems with earlier budget holding arrangements with IPAs. The shortcomings of earlier efforts should not preclude giving PHOs responsibility for a

component of care that they should be able to influence, both in terms of quality patient care and effective use of resources.

- *Plunket services.* The present model of well-child and early development care in New Zealand, where Plunket services and PHO services operate in separate silos, is inconsistent with the goal of integrated primary care advanced by the PHCS. In Maryland a similar, although less universal, approach was in place until the early 1990s with public health offices operating clinics providing well-child and developmental services to poor children. Well-child care was made an explicit responsibility of Medicaid primary care providers in 1991. A positive aspect of the integration of well-child services into the primary care practice has been the establishment of a 'medical home' responsible for acute and preventive services. Under this approach well-child services can be the first step in establishing a long-term relationship with primary care that is then reinforced by the provision of acute services.

Clearly all PHOs will not be able to assume greater responsibilities, as they lack either the desire or the administrative capacity, or both. Still as PHOs develop they will increasingly want to assume a greater scope of operations. The Ministry of Health and DHBs could also use PHOs desire of greater budget holding as an incentive for PHOs to advance in important areas. Increased responsibility would be dependent on demonstrated capability, or compliance with key programme goals (such as flow through of funds, and openly available fees).

Managing Competition

Health care is not, and cannot be, a pure market and even the supposedly wide open market in the US features an enormous public presence both as a purchaser and a regulator. The limits to unfettered competition are particularly apparent for hospital services. Competitive approaches to inpatient services will always be difficult to promote in New Zealand as the potential consequence of such competition, the closing of a major tertiary facility, directly conflicts with the overriding public need to assure geographic access over a large, often sparsely populated area.[131]

New Zealand's inescapable geography means that the full-risk, competitive model of managed care in place in Maryland and the United States is never likely to be effective.[132] The split between private primary care and public secondary care however, may offer the opportunity for the appropriate play of competition and market forces in New Zealand. The relatively narrow focus of PHOs (even if budget holding were expanded as suggested earlier) means that PHOs do not have to maintain and manage large financial reserves, a

[131] The US experience also demonstrates that even in a (theoretically) competitive market such as the US hospitals, especially large ones with a community mission, are rarely closed. In fact, a small industry of hospital turn-around consultants has grown up to work with financially troubled facilities. It is not unusual for public funds (either through loans, direct grants or other mechanisms) to be a component (along with management changes) of efforts to save hospitals that are not financially viable.

[132] In fact the introduction of managed care-like 'health care plans' was part of the Green and White paper of the early 1990s put forth by Health Minister Simon Upton, very sympathetic to competition yet even then was not carried out.

prime driver of growth and consolidation among comprehensive risk organizations. The PHO model therefore will likely continue to be characterized by a large number of organizations capable of competing in a number of areas. [133]

The challenge for New Zealand policy-makers as the PHO model matures will be how to manage and even encourage competitive market forces to operate consistent with programme goals. The fact that overlapping service areas already exist (particularly in urban areas) and PHOs have sought to capture other PHO enrollees indicates that competitive force are actively at work. [134] Some examples of the future challenges are:

- *Management fees*. At the Primary Care forum in March Health Minister Annette King announced that additional resources would be available to smaller PHOs to assist them with management functions. While these funds can be viewed as an investment in infrastructure, New Zealand should be careful not to turn PHO management into a cost plus exercise. Experience in Maryland, where a full-risk MCO of less than 8,000 enrollees has successfully operated next to organizations with ten times the enrollment, indicates that size creates both economies and diseconomies of scale.
- *Practice movement among PHOs*. The original roll out of capitation payment with its distinction between access and interim PHOs caused understandable reluctance to allow providers to switch PHOs. Excessive practice movement could lead to gaming of the payment system, or 'pepper-potting'. With the implementation of capitation nearly complete that danger is largely past, although the reluctance to allow practices to change PHOs remains.[135] As PHOs mature and develop services both for patients (i.e. outreach programmes for hard to manage patients) and practices (i.e. management efficiencies resulting from better IT), practices may want to change PHOs for reasons consistent with programme goals and benefiting patients. Allowing such movement while avoiding destabilizing PHOs unnecessarily will be important.
- *Direct Marketing to Potential Enrollees*. As performance measures develop PHOs that are successful may wish to highlight their success to potential enrollees in their service area. This has potentially positive results, as it will offer enrollees information that may influence their choice. As important, it may serve as an additional goad to other PHOs to improve their performance. By whom and how such information might be distributed to enrollees or potential enrollees will raise a number of issues.[136]

[133] Whether that number is 20, 40, 60, 77, or more is anyone's guess.
[134] That some of the competition has expressed itself inappropriately only underscores the policy-makers' challenge.
[135] In an interview with a PHO I was struck by how a practice that had wished to switch PHOs in the Christchurch area was prevented by mutual agreement of both PHOs. This was described as a positive example of a cooperative consensus process in the local area. Author's interview with Winston McKean
[136] Again the Maryland experience is instructive. Abuses of enrollment by MCOs in Baltimore City in the 1980s led state policy-makers to be very cautious about how MCOs could market to enrollees, including review of marketing materials and specific restrictions on which activities the MCOs could engage.

CONCLUSION

Comparing the Maryland and New Zealand approaches to performance measurement (and those of Australia and the United Kingdom) yields one overarching conclusion. Policy-makers in developed countries seek, albeit imperfectly, to provide their citizens with the benefits of advanced medicine within the constraints of their respective systems.

In spite of the dramatic even fundamental differences between New Zealand and the Maryland Medicaid programme the discrete pieces they are trying to put together, inpatient care, physician services, medications, technology, and the like, are much the same. Also what constitutes 'good care' (i.e. that it is coordinated, accessible and timely) transcends any local health care system. The very different systems in New Zealand and Maryland, therefore, have far more to tell each other than might be apparent at first sight. One promise of performance measurement is that through standard (or at least relatively consistent) measures of care for populations cross-country comparisons may lead to more useful conclusions about the value of different organizational models.

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