

Review of Health Services' Performance Monitoring and Management Frameworks and Systems in Different Countries Relevant to New Zealand

A Report to Treasury

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Main Author:

Des O'Dea

Contributions from:

Alex Sundakov

Bridget Allan

Jackie Cumming

Charles Cangialose

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- The views expressed are those of the authors and do not necessarily reflect the views of the Treasury or the Ministry of Health. The Treasury takes no responsibility for any errors or omissions in, or for the correctness of, the information contained in this report.

Executive Summary

- This report assesses the Ministry of Health's proposed performance assessment and management system for District Health Boards (DHBs). It should be noted that it is an interim system, and work on it is continuing.
- Our assessment makes use of comments provided by overseas consultants, from Canada and the UK, drawing on experience with systems in their own countries.
- In the Ministry's proposed system, DHB performance (including performance of DHB hospitals) is measured against a set of 'accountability indicators'. These number 16 for the hospitals, and 42 for other areas of DHB performance.
- The 'accountability indicators' are a sub-set of a larger number of 'performance indicators'. The DHBs are not to be held accountable against the latter. The Ministry of Health will be actively monitoring these and some may eventually become accountability indicators.
- Most of the accountability indicators are 'process' indicators, and they do not set the DHBs very difficult objectives for 2001/2002. This no doubt is to ease the task of DHBs in their first year of operation.
- The indicators will measure progress towards a number of health sector goals, but only those which DHBs can be reasonably expected to influence by their own efforts.
- That restriction is entirely sensible, and it is pleasing to see that the number of goals and indicators DHBs are to be held accountable against is considerably smaller than seemed likely at one stage.
- However, the 'non-DHB' goals of the health sector are also important. We believe that the system being developed by the Ministry of Health should be comprehensive, covering the performance not just of DHBs, but also of the Ministry of Health itself and of 'non-health' agencies where their activities influence health outcomes.
- We suggest therefore that the Ministry of Health should broaden its proposed system to include performance assessment of all parties likely to be involved. We recommend that for this the Ministry of Health draws on some of the conceptual framework development overseas, for example by WHO and the OECD, or by CIHI for Canada.
- As the system develops, it should include more 'outcome' and 'output' measures in place of the present preponderance of 'process' measures. This will require research in some areas to identify the contribution of socio-economic and ethnic determinants to health outcomes.

- **At present some of the details of implementation of the proposed system have yet to be spelt out – for example the process for deciding whether a DHB’s performance is ‘good’ or ‘poor’.**
- **A wide range of incentives and sanctions for influencing performance is available to the Ministry of Health in the new system. The intention of the Ministry is to focus on performance improvement, rather than blame. We support this approach. Performance monitoring should be regarded as a learning process; as a kind of on-going conversation between the DHBs and policy makers.**
- **Organisational structure. The present proposals are that the Ministry of Health be the performance monitor and manager. There is a conflict of interest in this situation. The Ministry’s own funding allocation decisions and policies will influence the ability of DHBs to make progress towards health system goals. Also some goals are achievable more through coordinated policies at national level than by DHB actions locally.**
- **We consider there is a good case for an independent monitoring agency. We recommend that further investigation be made of this possibility. Other countries, e.g. Canada have such independent agencies.**
- **Such an agency will need an evaluation capability sufficient to command the respect of both DHBs and policy-makers.**
- **Long-term development. The Ministry’s proposed development framework, identifying policies for achievement of goals, assembling evidence of ‘effectiveness’, and identifying appropriate measures and data sources, is appropriate. It is important that there be a strong involvement of clinicians and other healthcare workers and the general community in this process.**
- **The framework should reflect current and developing knowledge relating to socio-economic and cultural determinants of health.**

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Summary

Background

District Health Boards (DHBs) begin full operation from 1 July 2001. They take responsibility for the purchase of most healthcare services for their District's population from that date, in addition to the provision of public hospital services from their hospital(s). They also take on some responsibility for improving health outcomes for their populations, and are expected to consult with their local populations for this purpose.

A performance reporting and accountability system for the new DHBs is being developed by the Ministry of Health. The purpose of this report is to provide comment to Treasury on that system, taking account also of systems developed overseas, and lessons from those developments.

The DHBs must comply with standard reporting requirements for Crown agencies under the Public Finance Act 1989, and also are required to report at regular intervals to the Ministry of Health on financial, management, and planning matters. These aspects of DHB accountability – which might be labelled 'compliance-based accountability' – are not the main focus of this report.

The focus instead is on 'performance-based accountability'. That is, DHB accountability for the performance in delivering healthcare services of that part of the publicly-funded health system for which they are responsible, and for the health outcomes which result for their populations.

The proposed DHB performance assessment and management system

The system as currently proposed is set out in Section 4. Briefly:

- Performance assessment and management of DHBs is carried out by the Ministry of Health.
- DHBs are to be held accountable for only some of the nation's health sector goals given in *The New Zealand Health Strategy* and elsewhere. The selected goals are those which they are able to influence.
- An interim set of 'accountability indicators' has been developed. It has two components, which overlap slightly. The first is the 'balanced scorecard' set of 16 quarterly indicators for monitoring the performance of DHB hospitals. The second is a larger set of over 40 indicators covering various broader aspects of DHB performance. Most of the latter are 'process' or 'output' measures, rather
- The 'accountability indicators' are a sub-set of a much larger number of general 'performance' or 'explanatory' indicators.

- There is little indication yet as to what will be judged satisfactory or unsatisfactory performance against the full set of accountability indicators. Nor to what extent, if any, it is intended to ‘rank’ or ‘benchmark’ DHBs in terms of the indicators.
- A range of incentives and sanctions is available to the Ministry for encouraging good performance and punishing poor performance. The intention is, however, to focus on performance improvement, rather than blame.

Overseas lessons

For this report we read accounts of recent developments overseas (Section 5). We also consulted selected overseas experts (Canada and the UK) about their systems. Their detailed comments are attached to this report, and summarised in Section 6. Thus we are able to draw in this report on the experience of the following overseas systems:

- Ontario hospitals reporting system. This also uses the ‘Balanced Score-card’ model. Participation is voluntary.
- Canada. Reports by the Canadian Institute for Health Information (CIHI). The system proposed by CIHI, and for which a first annual report has been published, aims at monitoring higher-level health system and health outcome goals, both national and regional.
- Australia. A recent report proposes a system based closely on the CIHI model.
- The United Kingdom’s National Health Service.
- USA. The HEDIS set of indicators; a voluntary quality assurance system for HMOs.
- International agencies such as OECD and WHO. WHO has developed a high-level system to enable international comparisons. The first report using this system and covering all nations was published last year. New Zealand ranked quite poorly. The chosen indicators are very few in number and have flaws, but the WHO (& OECD) conceptual framework is of considerable interest.

Lessons from the overseas experts we consulted are briefly as follows. (There is much additional useful comment in the reports they supplied. See the separate Annexes volume, as well as Section 6.)

- Accountability should be tied to a small set of performance indicators.
- They should be relevant, and should represent attainable goals for the agencies held responsible.
- Qualitative measures are appropriate, in addition to numerical measures of performance, but should be as ‘hard’ as possible, to avoid ‘gaming’ behaviour.
- Sanctions and Incentives. Sanctions sometimes must be applied to persistently poor performers (first making allowance for those whose populations are socio-economically disadvantaged having greater problems), particularly if significant clinical risk or financial risk develops.
- But in general overall standards are best improved by lifting the standards of all. This requires a cooperative approach, involving all DHBs with monitoring and

other agencies in the process of performance improvement. A ‘culture of continuous improvement’.

- There is a good case for an independent performance monitoring agency.
- Special institutional links may need to be developed, backed by appropriate research, to encourage progress on ‘shared’ outcomes. These are those target outcomes of the health sector which are also determined in part by ‘non-health’ agencies and by other factors, including socio-economic and ethnic group disadvantage, not within the power of the health sector to change.

Overseas frameworks. Of the performance assessment frameworks we examined, that developed by CIHI (Canada), and also proposed for use in Australia, is particularly impressive. It does not in itself provide a set of ‘accountability indic sub-set.

The main headings are set out in the following table (from OECD paper, Hurst and Jee-Hughes, 2001).

Table 1: The proposed Australian performance indicator framework

From Annex 2: Australia's NATIONAL HEALTH PERFORMANCE FRAMEWORK

Health Status and Outcomes				
How healthy are Australians? Is it the same for everyone? Where is the most opportunity for improvement?				
Health Conditions <i>Prevalence of disease, disorder, injury or trauma or other health-related states.</i>	Human Function <i>Alterations to body, structure or function (impairment), activities (activity limitation) and participation (restrictions in participation).</i>	Life Expectancy and Well-Being <i>Broad measures of physical, mental, and social well-being of individuals and other derived indicators such as Disability Adjusted Life Expectancy (DALE).</i>	Deaths <i>Age or condition specific mortality rates.</i>	
Determinants of Health				
Are the factors determining health changing for the better? Is it the same for everyone? Where and for whom are they changing for the worse?				
Environmental Factors <i>Physical, chemical and biological factors such as air, water, food and soil quality resulting from chemical pollution and waste disposal.</i>	Socio-economic Factors <i>Socio-economic factors such as education, employment per capita expenditure on health, and average weekly earnings.</i>	Community Capacity <i>Characteristics of the community such as population density, age distribution, health literacy, housing, community support services and transport.</i>	Health Behaviours <i>Attitudes, beliefs knowledge and behaviours eg patterns of eating, physical activity, excess alcohol consumption and smoking.</i>	Person-related Factors <i>Genetic related susceptibility to disease and other factors such as blood pressure, cholesterol levels and body weight.</i>
Health System Performance				
How well is the health system performing in delivering quality health actions to improve the health of all Australians? Is it the same for everyone?				
Effective <i>Care, intervention or action achieves desired outcome.</i>	Appropriate <i>Care/intervention/action provided is relevant to the client's needs and based on established standards.</i>	Efficient <i>Achieving desired results with most cost effective use of resources.</i>		
Responsive <i>Service provides respect for persons and is client orientated: - respect for dignity, confidential, participate in choices, prompt, quality of amenities, access to social support networks, and choice of provider.</i>	Accessible <i>Ability of people to obtain health care at the right place and right time irrespective of income, geography and cultural background.</i>	Safe <i>Potential risks of an intervention or the environment are identified and avoided or minimised.</i>		
Continuous <i>Ability to provide uninterrupted, coordinated care or service across programs, practitioners, organisations and levels over time.</i>	Capable <i>An individual or service's capacity to provide a health service based on skills and knowledge.</i>	Sustainable <i>System or organisation's capacity to provide infrastructure such as workforce, facilities and equipment, and be innovative and respond to emerging needs (research, monitoring).</i>		

Assessment of the New Zealand proposals

The interim Ministry proposals are that the DHBs be held accountable for only a sub-set of the goals for the health sector as a whole. Thus, of 13 priority population health goals stated in *The New Zealand Health Strategy (NZHS)*, six are covered in the ‘accountability indicators’ proposed for DHBs. These are child health, oral health, diabetes, cardiovascular disease, cancer (radiotherapy services), and mental health. There are also accountability indicators for certain other major health goals - elective surgery waiting times, the development of primary care services, Maori and Pacific peoples participation in DHB decision-making, and development of workforce and providers.

The goals covered by the proposed set of accountability indicators are goals which it is believed DHBs can play a part in achieving. The goals and indicators are a provisional set, expected to change over time, particularly as policies and more precise statistical measures are developed for other goals.

This focusing of DHB accountability to a relatively small number of achievable goals is, in our opinion, entirely appropriate. It also helps prevent the number of accountability indicators becoming excessive. Even so, the number currently proposed is not small.

The emphasis on DHB accountability in the current proposals is understandable, given the need to provide DHBs with initial guidelines. But the consequence is that the proposed system is almost entirely focused on DHB performance, rather than on the performance of the healthcare sector in its entirety. Achievement of some health system goals will depend on the performance of the Ministry, or on the Ministry working together with the DHBs and healthcare professionals. Further, some goals will require concerted action with agencies and persons who are not part of the health sector. In some cases this will require inter-sectoral research – in particular trying to determine causal links between socio-economic conditions and ethnicity, and health outcomes.

DHB success is contingent on the success of the health system in its entirety. A clear framework of national goals and objectives helps clarify what is required of DHBs. The DHB performance assessment proposals should be just a part of a performance assessment package for the whole health system. This will require a coherent overall conceptual framework. Such a framework might be developed, for example, from those discussed in WHO and OECD papers cited in this report, or from the CIHI proposals for Canada. Such a framework would also help in identifying gaps in our current knowledge and where new and better statistical measures are needed, and whom should be the collaborators in the research and development work.

We recommend that the Ministry develop a coherent conceptual framework for assessment of the performance of the nation’s health system as a whole, building appropriately on overseas work.

The proposed collection of accountability indicators sets the DHBs relatively unambitious initial goals. The indicators are mainly ‘process’ or ‘output’ indicators, with ‘population

health outcome' or 'healthcare outcome' indicators almost entirely absent. This might be appropriate for the short-term as DHBs take up their new duties. While recognising the statistical difficulties in adjusting for population socio-economic and ethnic differences, accountability indicators to have real impact do need to include some morbidity and mortality outcome measures.

The Ministry proposals say little about how a DHB's performance against the set of accountability indicators will be judged as 'good' or 'poor' overall. It seems that at least initially these judgements will be subjective.

A range of sanctions and incentives is available to the Ministry to encourage good performance by DHBs. The stated intent is that reliance will be on information sharing and performance improvement, rather than blame. We agree with this approach. Sometimes, of course, sanctions will be necessary for serious under-performance.

The NHS in the UK is to experiment with a 'traffic light' approach to performance assessment, grading NHS organisations as 'green', 'yellow' or 'red' on the basis of their performance, and then applying rewards and sanctions in terms of greater or lesser autonomy, public recognition, and access to additional funding.

The outcome of this UK experiment should be observed to see if it provides useful lessons for performance management in New Zealand.

The 'traffic light' approach is a version of 'benchmarking'; that is quantitatively ranking DHBs by their performance on the indicators, individually or collectively. Benchmarking, if adopted, would need to be applied with care in the New Zealand context. The DHBs vary greatly in population (approximately 35,000 to 400,000) and in other characteristics (urban/rural, ethnic mix, etc). The former CCMAU reports on hospital performance for this reason split them into about four categories, mainly on the basis of size. This made for small sets of four or five hospitals being benchmarked against each other. For DHBs the problems of comparison will be even more complex. To the extent benchmarking is carried out it should perhaps be a process where relatively informal meetings are held to discuss progress, or lack of it, towards goals, and remedies if needed.

Indicators should, however, continue to be made publicly available, with appropriate guidance on their interpretation. It will be important to make clear that some DHBs start further back than others – because of socio-economic disadvantage or disadvantage associated with ethnicity.

Organisational structure of the performance monitoring system

A feature of the proposed system is that the focus is on DHB accountability. In fact accountability for achievement of a number of the health system's goals, including some of the most important, must be primarily the Ministry's, sometimes shared with other 'non-health' agencies as well.

The Ministry will also be responsible for the broad policy settings, such as resource allocation and specifying goals in operational terms.

Given these considerations, and the difficulty any agency has in properly monitoring its own performance, there are arguments for the performance monitoring function being devolved to an independent organisation, which would then report on both the DHBs and the Ministry of Health. This is the Canadian approach, both for Ontario hospitals, and also for the Canadian health system in general through the setting up of CIHI. The HEDIS assessment system in the USA is also an independent system, as is the new Commission for Health Improvement in the United Kingdom.

There are also arguments against. In particular, ‘compliance’ monitoring is not so easily detached from the Ministry’s funding responsibilities.

On balance we think the arguments do favour an independent agency for monitoring and encouraging progress towards ‘health outcome goals’ by DHBs and the Ministry, separately and jointly. Such an independent agency might perhaps be modelled on the Education Review Office, or the Mental Health Commission. As a disinterested agency it could probably engage the DHBs more effectively in the process of designing performance measures, and developing ways of improving performance. It would be well-placed to sponsor research on better measurement of the effects on health of socio-economic and cultural determinants, perhaps in association with the Health Research Council and the Foundation for Research Science and Technology. It could also commission regular surveys (consistent nation-wide) of what people think of the health system, and of DHBs.

We were not able to carry out a detailed review of all the arguments for and against having an independent health sector performance monitoring agency. We think this an important issue, however, and we recommend that such a review be undertaken.

A long-term development strategy

This year will to some extent be a ‘roll-over’ year, as DHBs get their purchasing arrangements and consultation and reporting processes organised. Much of the monitoring focus should appropriately be on ‘process’ indicators, as is in fact the case in the Ministry’s proposals.

The DHBs then, however, start implementing their long-term Strategic Plans. The performance accountability system needs to be integrated with these.

The development framework proposed for priority population health goals in Ministry papers – assembling evidence of effectiveness (including ‘take-up’, and including that of action by ‘non-health’ agencies), then identifying appropriate indicators, and their data sources – seems appropriate. The process will need to allow time, and provide resources for consultation, at community level, with providers and healthcare workers, and with other agencies.

The process of developing a robust evidence-based system of DHB and national performance indicators will take time, and should be planned as such. To reiterate, all of this framework development should have a strong involvement of clinicians and other healthcare workers, as well as general community representation. Also, where it is known or suspected that socio-economic factors from outside the health system are influencing health outcomes, representatives from agencies in those areas (such as education, employment, housing) should also be brought in, for joint attempts to identify causal mechanisms and 'interface indicators', and proposals on effective remedies.

Finally, these developments will require improvement of present health system data collections. A review with this objective has started.

1. Context, Scope, and Structure of this Report

1.1 Context

This report was commissioned by Treasury in January 2001.

A major restructuring of the New Zealand health system is currently under way. Prior to this latest restructuring, there had been since 1993 a funder/purchaser/provider split in the delivery of government-purchased healthcare services. The Ministry of Health allocated tax-sourced funds to the Health Funding Authority (from 1997; in the preceding 1993-97 period to four separate Regional Health Authorities). The HFA then purchased healthcare services – hospital services largely from 22 publicly-owned hospitals, and other services (including disability support services) from other providers or the hospitals. The financial and management performance of the hospitals was overseen by a separate agency, the Crown Company Monitoring Advisory Unit (CCMAU).

The kinds and quantity of healthcare services to be provided were in general prescribed in considerable detail by the Ministry and the HFA. Performance monitoring measures were, in the 'RHA period', published in the Ministry's publication *Purchasing for Your Health*, in general for 27 regions. These measures were predominantly of hospital performance, in terms of number of patient discharges, various surgical procedures performed, etc. There were a few more general 'outcome' measures, such as Standardised Mortality Ratios by region. CCMAU also compiled its own quarterly 'scorecards' on hospital performance, including some measures of quality of care, as well as measures of financial performance and of patient satisfaction with the services they received.

The Public Health and Disability Act 2000, abolishes the HFA, absorbing its functions into the Ministry of Health. Twenty-one District Health Boards (DHBs) have been constituted. They come into full operation from July 2001. Funds will now flow from the Ministry to the DHBs, which will have the responsibility for purchasing most healthcare services for the population in their geographical catchment area. The DHBs are based on the regional publicly-owned hospitals (two having merged), but with additional responsibility for the purchase of other healthcare and disability support services. A large part of their purchasing will be of services from their own hospitals.

DHB performance will need to be monitored, particularly as some are small, responsible for as few as 30,000 to 40,000 people, and with relatively few managerial staff and limited other resources. The Ministry of Health has, from late 2000 through the early months of this year, been developing a set of indicators of DHB performance, and a performance management framework to make use of these indicators. An updated set of indicators of hospital performance developed by CCMAU (whose hospital monitoring functions have also been absorbed within the Ministry) is a sub-set of the wider set of DHB measures.

This is happening in the context of a trend, in New Zealand and elsewhere, to a greater emphasis on population health outcomes. Last year's *The New Zealand Health Strategy* focused especially on 'population health' objectives; that is programmes aimed at improving

the health of populations in general. Recent international work has attempted to develop a suitable range of 'outcome' measures for health system performance monitoring. See for *The World Health Report 2000*, and OECD comment (Hurst and Jee-Hughes, 2001). There have been national developments also, in Australia, Canada, the United Kingdom, and the United States. These are reviewed in the OECD paper. None has managed yet to develop a truly comprehensive set of 'outcome' measures, but the effort continues.

1.2 Scope of this report

Treasury wishes to learn more about these overseas systems and developments, and the difficulties which have been encountered, so that Treasury staff can make better informed comment on Ministry of Health proposals. A major objective of this report is to bring together information on overseas experience.

The principal focus of this report was specified by Treasury to be DHB accountability. DHB performance cannot, however, be separated totally from the performance of the health system as a whole; so on occasion it has been necessary to comment at a more global level.

We have identified four main accountability strands for DHBs. These are:

(1) organisational performance, or 'governance', both of the DHB and of its hospital(s); (2) the DHB as provider of hospital services; (3) the DHB as purchaser of healthcare services for its district; and (4) The DHB's performance in delivering on the NZ Health Strategy, in particular achieving good and equitable health outcomes for its district. This project is mostly about (3) and (4), but not exclusively.

Treasury specified as part of the project that we should contact experts in Canada and the United Kingdom (UK). These persons, Maria Goddard for the UK, and Adalsteinn Brown and colleagues for Canada, were provided with a list of relevant 'dimensions' of performance monitoring and management systems, and a description of the features of the proposed New Zealand system under each dimension. They were then invited to comment, on the basis of experience in their country, on what they thought of the New Zealand proposals, identifying strengths and pit-falls. The Canadian report focused on the monitoring of hospital performance, specifically in the province of Ontario, and the UK report on the National Health Service as a whole.

The material they provided was invaluable. It is given in a separate annexe to this report, and use was made of it through much of this report. It should be noted that they were asked to focus their comments on the New Zealand proposals, providing sufficient description of their own systems to give background to their comments. They were not required to provide a comprehensive description of their own national health systems.

The detailed dimensions are listed in Table 2 below. It is convenient later, when assessing the New Zealand proposals, to group them into four broad categories:

Purpose and goals of an accountability system
The indicators of performance

The accountability process
Performance management

1.3 Structure of this report

Preceding this section is a general summary.

Section 2 sets out the purpose of this review, as specified in the contract between the Health Services Research Centre (HSRC) and the New Zealand Treasury.

Section 3 provides some discussion, and definitions, of what we mean by ‘performance monitoring and management’ and terms such as ‘accountability’. Finally a classification of Performance Indicators (PIs) by ‘type’ is given.

Section 4 outlines the proposed New Zealand system, as at the time of preparing this report.

Section 5 gives some of the detail of performance indicator systems being used overseas, using available published information and, in particular, comments supplied to us on the Canadian and United Kingdom systems by overseas experts consulted for this project. The table on the next page gives the headings under which the overseas people were asked to comment on the New Zealand proposals.

Section 6 summarises the key lessons taken from the comments made by the overseas consultants, plus other material.

Section 7 discusses the underlying philosophy, and style of interaction among participants, that one would expect to see in a ‘good’ performance management system.

Section 8 draws on the previous sections to make an assessment of the New Zealand proposals.

Section 9 discusses the long-term strategy for the development of New Zealand’s monitoring and benchmarking system.

Table 2: Dimensions under which overseas experts were asked to comment

Dimension	
Purpose and Goals	The overall purpose and goals of the accountability system from the point of view of parliaments, governments and funding agencies.
Organisations	The entities being assessed and held to account and the level(s) in the system at which different forms of accountability apply
Indicators	The number and range of indicators used to hold purchasing and provider agencies accountable to public funding agencies (e.g. the balance between measures of inputs, processes, outputs and outcomes and the coverage of health and social care).
Qualitative vs quantitative assessment	The roles of qualitative assessments of performance as well as quantitative measures (e.g. the roles of ‘hard’ and ‘soft’ data in the system).
Selection Criteria	<ul style="list-style-type: none"> • How the indicators and measures of performance are/were selected (i.e. the criteria used such as relevance, scientific standing, feasibility, cost-effectiveness) • How professionals, patients, the public, ‘experts’ etc. are involved • How the indicators are operationalised (i.e. measurement and data quality issues such as overcoming technical problems associated with rarity of events, probabilistic nature of outcomes, lag effects, confounding, attribution of effects, use of aggregate versus single measures, etc.) • How the measures relate to government/funding agency policy goals and priorities;
Ex ante and ex post accountability processes	<ul style="list-style-type: none"> • How the expectations of funding agencies/governments are signalled to the sector • The processes and interactions through which the indicators of performance are used to enforce accountabilities • The timing, sequencing of events and feedback processes of the accountability system and the ways in which the different agencies involved signal their expectations.
Consultation processes	<ul style="list-style-type: none"> • Whether the expectations of other agencies and groups (e.g. members of the public) play any part in the system • How these forms of accountability are included in the system

Use of legislation and regulations	<ul style="list-style-type: none"> • The legislative frameworks governing the financial and clinical accountabilities of health agencies (e.g. legislation governing public finance) • Other regulations relating to quality, safety, etc. that support the accountability framework
Information management systems	The information systems and information policies underpinning the accountability system
Operating costs	Any information available on the costs of developing and maintaining the system of performance measurement and management
Multiple uses of information	The relationship between governmental/managerial systems of accountability/performance management and clinical accountability and quality systems and initiatives
Underlying performance management model	How performance measurement is used to manage performance and encourage improvement - whether the system is predominantly based on one of a number of contrasting approaches such as the identification of 'bad apples', or zero tolerance of 'failure' (i.e. penalising performance below a certain threshold), or a model of 'best practice', continuous quality improvement and professional empowerment
Behavioural Responses	Evidence of positive and negative (e.g. tunnel vision, sub-optimisation, myopia, misrepresentation, gaming, etc.) behavioural responses to the performance measures and management techniques in the system
Completeness	<p>The completeness of the accountability cycle through:</p> <ul style="list-style-type: none"> • Setting national/funding agency strategic priorities • Completion of operational planning processes • Ex post assessment of performance against priorities and plans • Subsequent modification of funding and health agencies' policies, systems and actions
Performance management techniques	The extent to which the system relies on one or a combination of the following: audit, inspection, regulation, financial and non-financial incentives, peer emulation, accreditation, licensing, standard setting, etc

Sanctions and Incentives	The explicit sanctions and incentives (if any) used to encourage performance improvement and reward good performance (financial and non-financial) and their effectiveness in practice
Overall assessment	An overall assessment of the system in relation to its ability to maintain and improve the quality and efficiency of health and social care and meet the aims and objectives of governments and public funding agencies

2. Purpose of this Review

To review proposed arrangements in New Zealand and compare these with the experience of performance monitoring arrangements for health systems in specified countries. In doing this, to:

- Outline the performance measures, assessment processes, performance management techniques and accountability cycles proposed for New Zealand;
- Compare the proposed New Zealand system with the systems in the UK, Canada, and the US (HEDIS), in particular identifying the key elements, friction points, gaps, data requirements, costs and any evidence about the impact in improving service quality and efficiency;
- Draw out key lessons from overseas experience that can inform development of an efficient, equitable and transparent system for DHB performance management, and will contribute to better health outcomes for all New Zealanders;
- Suggest a strategy to guide the development of New Zealand's monitoring and benchmarking system in the long term.

The principal focus of the project is to be DHB accountability for services which they are likely to become responsible for if Cabinet decisions in principle are implemented as planned.

-attributable' goals; and

- Discuss different types of performance measure.

3.1 The expected components of a performance monitoring and management framework

The objective of a performance monitoring and management framework is to maintain and improve performance.

The key steps in doing this are:

- Setting Performance Goals, followed by
- Monitoring of progress to those goals, leading to
- Assessment of performance, which can be done in a number of ways, for instance:
 - * subjectively taking into account a number of aspects of performance, or
 - * Measuring performance against one or more pre-set targets, and/or
 - * Comparing performance of similar organisations ('benchmarking')

leading to

- Feedback, and Change in performance in the desired direction.

3.2 What is meant by 'accountability'?

The underlying idea is that the entities being monitored are in some sense 'accountable'. That is, they have to account to their stake-holders for the use of the resources with which they have been entrusted. In the context of this report, this means that DHBs are accountable for the use of the resources entrusted them by the government on behalf of the citizens of New Zealand. They will also, given that a proportion of Board members are to be elected, be democratically accountable to the populations of their districts.

From an examination of some of the literature it is evident that there are different definitions of what 'accountability' means. Some of these are set out in Table 3 following.

Table 3: The different kinds of ‘Accountability’, as discussed in selected sources

Source	Kinds of “accountability”
<u>Economic theory:</u>	<p>‘Market accountability’. The economist’s paradigm. The provider is made accountable by the discipline of the market place. This works best if the purchaser is well-informed about the quality of the producer’s product.. Hence approaches such as those of the Joint Commission on the Accreditation of Healthcare Organisations (JCAHO) and the National Committee for Quality Assurance (NCQA) in the USA either imposing or inviting compliance with their accreditation programmes (Barwick, 2000). The NCQA’s HEDIS set of indicators for HMOs and similar organisations is described elsewhere in this report. This kind of accountability has its application in New Zealand where there are numbers of competing providers; as in Primary Health, Public Health and Disability Support services.</p>
<u>OECD; Public Management Service (PUMA) (Helgason, 1997)</u>	<p>The role of accountability can include “assigning responsibility (or blame), ensuring democratic control, ensuring openness and dialogue, creating trust, affirming basic values and ethical standards, improving performance.” Can distinguish ministerial or political accountability (responsibility?) as against managerial accountability. An important distinction is between the traditional ‘compliance-based accountability’, often legally-based, on the one hand, and ‘performance-based accountability’ on the other.</p>
<u>University of Toronto, Department of Health Administration (Brown, et. Al., 1999)</u>	<p>A review of accountability strategies in selected OECD countries. Three key strategies are identified :</p> <ul style="list-style-type: none"> • <i>“Reporting strategies</i> that collect and distribute information on health system performance; • <i>Participation and devolution strategies</i> that increase the information available by soliciting input from providers, patients and managers at different levels of the health care system; • <i>Standards strategies</i>, and, in particular, accreditation strategies that set a baseline for organizational performance and encourage quality improvement through internal and external reviews.” <p>The authors give a specific definition of accountability: “accountability is the extent to which an organization or individual demonstrates that it is meeting or exceeding its agreed-on objectives.” (op. cit. Page 7).</p>

Analysis of New Zealand experience:

(a) Cumming and Scott, 1998

The authors identify three main types of accountability in the literature. “Political accountability refers to the accountability of elected representatives to their electors. Managerial accountability refers to the accountability of appointed managers to those who appoint them. Professional accountability refers to the accountability of providers to a professional body for ethical practice and the provision of quality care.” (page 57)

They further identify sub-categories of managerial accountability, namely:

- Fiscal or regulatory accountability – making sure the money is spent in the ways which have been agreed;
- Programme or effectiveness accountability – ensuring that the intended results are indeed achieved; and
- Process or efficiency accountability – ensuring that the ratio of outputs to inputs is the most favourable.

The authors conclude “that holding purchasers accountable for outcomes is likely to prove difficult and controversial, because of problems of attribution [influence of economic and social developments outside the health sector] and because New Zealand funders in recent years have played an important role in determining the priority outputs and inputs which must be purchased.” And “accountability is more appropriate at the output and process level”.

(b) Mays and Hand, 2000

A paper dealing with purchasing options in New Zealand, rather than performance management and accountability as such. But some comments in passing :

“The Funding Agreement between the Minister of Health and the RHAs included a great deal of detail, much of which the RHAs ignored.” (page 32)

“As long as health services remain centrally financed, upward accountability to Parliament cannot be avoided, but sits uneasily with locally elected boards controlling health services.” (page 122)

“ [should] gradually alter the currency of accountability which is used between the Ministry of Health and the HFA to emphasise health outcomes rather than exclusively the delivery of contracted outputs.” (page 124)

Review of the Education Review Office (Barwick, 2000; Gray, 2000)

(Background: The ERO carries out regular reviews of schools and pre-school institutions. These are often hard-hitting, and receive considerable publicity.) The literature reviews commissioned for the ERO review focused on ‘evaluation’ rather than ‘accountability’. Gray, however, refers to the five forms of accountability in one classification – these being Political, Legal, Bureaucratic, Professional, and Market (page 14). Or, in another form:

- Contractual accountability to government
- Moral accountability to students and parents
- Professional accountability to professional standards and norms.

There are inconsistencies in these definitions but also overlap. Brown et. al.'s "accountability is the extent to which an organization or individual demonstrates that it is meeting or exceeding its agreed-on objectives" is a good general definition. Of the various ways of distinguishing the different kinds of accountability, a useful one in the context of this report is the OECD distinction between: –

- * Compliance-based Accountability – namely, demonstrating that specific actions required by law or regulation or directed by a superior authority have been performed
- * Performance-based Accountability – namely, demonstrating that the goals set word missing by the organisation in terms of achieving better outcomes are being met.

3.3 The nature of health sector goals

For an organisation to be held accountable it is necessary that it be set specific goals, that these be goals which are achievable through the organisation's own efforts, and that the organisation be provided the necessary resources to enable it to achieve those goals.

- **Accountable for just one goal?**

There has been in recent years an extensive literature in economics (particularly monetary economics) on the relationship between 'instruments' and 'goals', and on the number of goals which should be assigned an agency responsible for economic management. The general conclusion has been that best results are achieved if such an agency is given just one goal. This, for example, justified the legislation under which the Reserve Bank of New Zealand operated until recently. Its sole objective was to control inflation, within a specified range.

Is it possible to follow this model for the health sector? Unfortunately no. Governments, in their social and economic policies, need to consider not just issues of economic efficiency but also equity. In countries such as New Zealand it is agreed over almost the entire political spectrum that all citizens are entitled to equitable and affordable access to high quality health care. Thus it is not possible to focus on just the 'efficiency' objective of 'health gain'. Achieving an equitable distribution of 'health' between different socio-economic and ethnic groups, for example, must also be an objective. (Murray and Frenk 2000) discuss broadly defined efficiency and equity goals of national health systems.)

It should be noted also that the 'efficiency' goal has a 'quality' dimension. In particular there is an expectation that avoidable mistakes in diagnosis and treatment will not be made.

- **Intrinsic and instrumental goals**

The WHO framework spells out three main high-level goals for a health system. These are ‘improved population health’, enhanced ‘health system responsiveness’, and ‘fairness of financial contribution’. The first two each have an ‘average level’ and ‘distribution’ component – the third just a ‘distribution’ component. (See schematic representation in Appendix A.2.)

These broad health system goals are labelled, in WHO terminology, ‘Intrinsic’ goals (Murray and Frenk; op. cit.) of the system. That is, they are goals valued in themselves.

These high-level goals can be achieved, however, only by implementing a range of health policies and strategies – for example achieving a healthier population by policies aimed at reducing smoking, and encouraging more exercise. The goals of such policies can be labelled as ‘Instrumental’, in the sense that the goals are intermediate steps on the way to the ‘Intrinsic’ goals. A number of the priority population health goals listed in *The New Zealand Health Strategy* are instrumental goals of this kind. It is a part of performance management to measure also progress towards these goals.

This is the more necessary because progress towards the ‘Instrumental’ goals is often not easily measured. For example, large-scale, frequent, and expensive, population surveys would be required for monitoring of a measure of the overall health state of the population such as average self-assessed ‘state of health’. The present New Zealand Health Survey, which does include measures of this, is conducted at approximately five-yearly intervals only. Moreover, it could not, with usual sample sizes, give estimates of the required statistical precision at DHB geographical level.

Any performance monitoring system for the health sector must, therefore, take account of progress towards a number of different goals, of which probably the majority will be ‘instrumental’ rather than ‘intrinsic’ goals. This raises questions of weighting the importance of the different goals. It raises also the question of where the trade-off should be made between trying to measure progress towards all of a large number of specified objectives (as listed in *The New Zealand Health Strategy* for instance), at the risk of losing focus, against focusing on a few selected goals but perhaps missing some important dimension of performance.

- **‘Non-attributable’ and ‘attributable’ goals**

Another way of classifying goals is into ‘attributable’ goals and ‘non-attributable’. ‘Attributable’ goals are those goals progress towards which can largely be attributed to the actions and policies of the health system. ‘Non-attributable’ goals are those for which this is not the case. Their achievement is determined to a greater or lesser extent by factors not in the control of health-care agencies.

It will be apparent that ‘intrinsic’ goals tend also to be ‘non-attributable’ goals. For example, only a part of the ‘health state’ of a population can be attributed to the health system serving that population. Environmental, genetic, and socio-economic factors all play a part in determining the population’s health, in addition to the direct influence of health-care services (Howden-Chapman and Cram, 1998; Howden-Chapman and Tobias, 2000.)

There is still much that is not known about the influence of these other factors on health. Nor are the chains of causality yet well established. It is abundantly clear, however, that being of lower socio-economic status, or being Maori, are each associated with poorer average health. (It is worth noting here that work at the Wellington School of Medicine - Te Roopu Rangahau Hauora a Eru Pomare, and the Department of Public Health - appears to establish that, there is a definite ‘ethnic’ contribution to the health gap between Maori and non-Maori, additional to that part of the ‘gap’ attributable to differences in socio-economic status.)

Health sector agencies deliver in general health-care services only. They have very little influence on policies – in education, housing, employment, income distribution, ethnically-related disadvantage – which affect the social and economic status of the populations they serve; and thereby affect the health of those populations.

That is, the health system has goals whose achievement or non-achievement is to at least some extent determined by other, non-health, agencies and factors. The more the goals being pursued are long-term objectives, stated in terms of health outcomes for the population as a whole, the more important are these other factors likely to be.¹ Success in achieving the goals will not necessarily be attributable to the efforts of the health sector alone; and failure in achieving them may be caused by ‘non-health’ policies.

The problem is now being addressed in policy-making circles, although casual mechanisms are not yet well established. But it is apparent that in trying to achieve high-level, or intrinsic, health objectives, there will need to be more involvement of ‘non-health sector’ agencies in the future, there will need to be research on the causal mechanisms, and there will need to be some ‘interface’ statistical indicators (in the UK terminology) measuring these influences.

A further issue for DHBs is that the efforts of neighbouring DHBs, and of the Ministry of Health and of other central agencies, will also affect the health of the DHBs’ own populations. Again there will be some fuzziness in deciding to which agency progress, or lack of it, can be attributed; and also a need for DHBs and other agencies to work in ways which reinforce each other’s efforts (this expectation is made explicit in the New Zealand Public Health and Disability Act 2000).

¹ The OECD makes a useful distinction between ‘health status’ of the population, which can be influenced by the ‘non-health’ agencies, and ‘health outcomes’, meaning ‘changes in health status brought about by health care – or health system – activities’. (Hurst and Jee-Hughes, page 11.) The UK’s NHS distinguishes similarly between ‘Health Improvement’ – reflecting areas where NHS may not be the only agency – and ‘Health outcomes of NHS care’ – those areas in which the NHS can be expected to have a major influence.

- **The relative importance of ‘public health’ versus ‘personal health’ goals**

“Public health” is concerned with measures to improve the health of populations, as against ‘personal health’ and ‘disability support services’, covering care and treatment provided directly to people who are ill or who have a disability. For example immunisation and screening programmes, anti-smoking and melanoma awareness campaigns, etc. The goals set out in *The New Zealand Health Strategy* are by and large public health goals, and this is reflected at least partly in the Ministry of Health performance monitoring proposals.

Of publicly funded health-care expenditure of nearly NZ\$6.5 billion in 1998/99, less than \$200 million in total was allocated to ‘Public Health’. (Note however that some services which are often labelled public health, such as immunisation and screening services, are not called ‘public health’ in expenditure data; one-off expenditure is also excluded.) This does not mean that the stress on ‘personal health’ goals is wrong. The largest part of health care spending must continue to meet the immediate needs for care and treatment of those who are ill or who have a disability. The goals here are to ensure the delivery of quality treatment and care, responsive to population needs. But spending on public health helps improve future health and may lessen required spending in future on personal health and disability support services.

3.4 Performance indicators

- **Specific DHB functions to be monitored**

The specific functions of health sector public agencies to be reviewed in a performance monitoring and management framework are –

- * Their organisational competence (‘Governance’, management of financial and clinical risk, efficiency, capacity for flexible response to change in the environment, and capacity for growth)
- * Their purchase and/or delivery of specified healthcare outputs, in a manner responsive to the needs and wishes of the population being served
- * Their delivery, through these healthcare outputs, of health outcomes, which at the most general level include maintaining and improving average health state, and reducing health inequalities.

The organisations of interest are:

- * The District Hospital(s) managed by the DHBs, required to deliver competently and safely specified hospital outputs

- * The DHBs, required to arrange the delivery of both hospital and non-hospital healthcare outputs for their populations, and to deliver improved health outcomes and health equity.

That is hospitals can be performance assessed in terms of ‘competence’ and ‘delivery of outputs’; DHBs in addition in terms of ‘health outcomes’.

- **The different kinds of performance measure**

From the discussion above, the most general performance indicators are those that measure health status or health outcomes, in the broad sense of those terms in the WHO and OECD frameworks. There are a few such indicators available for New Zealand, though not always at DHB level. For example –

- * Standardised Mortality Ratios (SMRs). These are available for DHB populations, the standardisation being by age, sex, and ethnicity.
- * ‘Disability Adjusted Life Years’ (DALYs) as a measure of the ‘burden of disease’. DALYs are a sum of ‘years lost to premature mortality’ plus ‘years lost to severity-adjusted disability’; thus incorporating both the ‘length of life’ and ‘quality of life’ dimensions of health. (See Ministry of Health, 1999 and 2001.) Estimates are available for 1996 for New Zealand as a whole, by cause (disease or injury type); and also broken down by Maori/non-Maori, age-group, and gender.

It would be a large exercise, however, to construct DALY measures of ‘health gap’ for DHBs. Turning to SMRs, these, and corresponding life expectancies, have been constructed for DHBs, but for those with relatively small populations, in particular, several years can be needed to establish whether or not there has been a statistically significant shift.

It is necessary, therefore, to consider other measures which are valid in their own right or serve as proxies for more general measures. One general classification is as follows. The table is broken into two parts. The first part considers measures which could serve to record performance in achieving progress on ‘health goals’; outcome, output, process, and input indicators. The second part covers ‘compliance performance measures’. It should be noted that in practice the distinction is sometimes not that clear-cut.

Table 4: Types of performance measure
(from closest to furthest from 'health outcome' measures)

A: Measures of progress towards 'health goals'	
Type	Examples
Health outcomes	Measuring 'intrinsic' health system goals, such as longer life expectancies, better quality of life, and the equity of the distribution of these. Examples: Standardised mortality ratios (SMRs), gap in Maori and non-Maori life expectancies.
Healthcare outcomes	A change in the health of an individual or population attributable to a specific health-care intervention. For example, restored mobility following a hip operation (see Cumming, 2000).
Healthcare outputs	Actual output in terms of service or number of services provided. For example, number of GP consultations, number of hospital inpatient and daypatient discharges, number of hip replacements.
Healthcare process	Availability of a given healthcare service, and its quality in terms of patient satisfaction, waiting times, etc. E.g. availability of radiotherapy, waiting time for such. Efficiency of provision.
Healthcare inputs	Resources made available. For example, hospital staff or primary health-care workforce numbers; number of hospital beds; dollars available for a specific service.

B: Compliance Measures	
Type	Examples
Governance	Are Board members carrying out their required duties as appointed or elected directors?
Prescribed duties	Has the required consultation been carried out? Including with Maori? And with Pacific peoples where appropriate? Has assistance been given the development of Maori providers? Have skills in needs analysis, and prioritisation, been developed and applied? (In some instances perhaps through a Shared Services Support Agency, serving several DHBs.) Have Annual Plans and Strategic Plans been developed to schedule?
Risk Management	Are adequate measures being taken to eliminate clinical risk and financial risk? Is government warned beforehand of incipient problems?
Purchasing management.	Have contracts been signed on schedule? And satisfactory completion of contracts by providers monitored?
Efficiency	Is the DHB running a 'tight ship'? Resource utilisation measures, or partial measures for hospitals such as 'percent day surgery' or 'average length of
Development	Is provision being made for future needs, in the form of staff training and development, and long-term capital investment needs?

It is apparent in the New Zealand setting that:

- * For measuring progress towards 'health goals', it will be necessary to use performance indicators measuring outputs, process, and inputs, as well as outcomes. (For most economic activities, input measures would be thought a poor proxy for 'performance'. In areas of health such as Mental Health, however, they may be all that is available, and in fact not a bad indication of 'availability' in an area where there is poor measurement of outputs and disagreement over outcomes.)
- * Performance assessment also requires reporting on a number of 'compliance' or 'organisational competence' measures such as listed in the second part of the table.

It should be noted that these two aspects of performance monitoring will tend to have quite different time-scales. Compliance measures will be monitored closely, some aspects (e.g. financial flows) monthly, others at quarterly or annual intervals. The monitoring of progress towards 'health goals' will, depending on the particular statistical measure, be sometimes at quarterly intervals, sometimes annually, and possibly in some cases should be less frequently still. The time period needs to be long enough for any change to be statistically significant.

- **Qualitative and quantitative measures**

Quite a number of the 'compliance measures' will be qualitative measures. Is the DHB carrying out such and such a prescribed duty? Yes or No? Some qualitative measures will be 'soft'. For example, has the DHB developed a good working relationship with local iwi, or with local providers? In assessing performance of an individual DHB a number of such subjective measures will be required from time to time. But it is obviously preferable that as many as possible of any qualitative measures used be 'hard', able to be compared with other DHBs.

- **'Accountability', 'performance', and 'explanatory' indicators**

From the table above it would be possible to have a large number of indicators measuring various dimensions of 'compliance' and 'performance'. We label this general set as 'Performance indicators'. For accountability purposes it will in general be appropriate to use a much smaller sub-set, which we can label as 'Accountability indicators'. Finally there are also statistical measures which provide useful background or context. These can be labelled as 'Contextual' or 'Explanatory' indicators. For example the proportion of population that is Maori; the proportion of the population living more than one hour's travel from the nearest hospital.

3.5 Feedback, leading to improved performance

The most important, and most difficult, step in performance monitoring and management, is the providing of feedback to the organisations being monitored in a way that encourages them to lift their performance.

We discuss this in more detail subsequently, after reviewing the comments from our overseas consultants on the kinds of sanctions and incentives that are applicable, and on the most appropriate underlying performance management model.

3.6 Summary

There are a number of important activities making up a performance monitoring and management framework.

- Choosing goals and setting targets in terms of those goals (allowing also for the fact that others outside the health sector can also contribute to the achievement of those goals, or frustrate their achievement).
- Choosing indicators which demonstrate progress or lack of progress towards those goals. It is apparent that often the 'ideal' indicators do not exist, and it is necessary to use available statistical proxies. In particular it will often be necessary to use 'output', 'process' and even 'input' indicators as proxies for 'health outcomes'.
- Feedback of the results of the monitoring in ways which improve performance.

Some questions which arises are:

- How many goals and targets should be set for organisations such as DHBs?
- Should there be a closely defined small subset of performance indicators, against which DHBs will be held strictly accountable? That is, 'Accountability indicators', as against a wider range of 'Performance indicators' which measure aspects of performance, but for which DHBs will not be held so accountable?
- How should a performance monitoring and management framework cope with the fact that the 'health goals' being pursued by health sector agencies are in part determined by
-health' agencies and by other determinants outside the control of health sector agencies?

4. Description of the Proposed New Zealand Performance Monitoring System

This section summarises first the new structure of the New Zealand health system. It then discusses, drawing on available published and unpublished documents, the goals of the New Zealand health system, the tasks set for DHBs, the nature of the performance assessment system which will be applied to DHBs, and the expected approach to managing performance change on the basis of the assessments.

Further detail on the New Zealand system (as known in January 2001) is set out in the separate Annex; which was the document sent to overseas reviewers for their comment. This material below includes some updating in the light of subsequent developments.

4.1 Structure of the New Zealand health system

(Devlin et. al. (2000) discuss this latest restructuring of New Zealand's health system in the context of the other major changes over the last decade.)

The key agencies in the new health system are:

- the Ministry of Health
- the District Health Boards (DHBs). These have a three-fold role:
 - * Managing the public hospital(s) in their district
 - * Purchasing other healthcare services for their population
 - * Gaining improved health for their population, in ways responsive to the wishes of that population, and also reducing inequities in health outcomes.
- Other Agencies – in particular PHARMAC, and the NZ Blood Service.

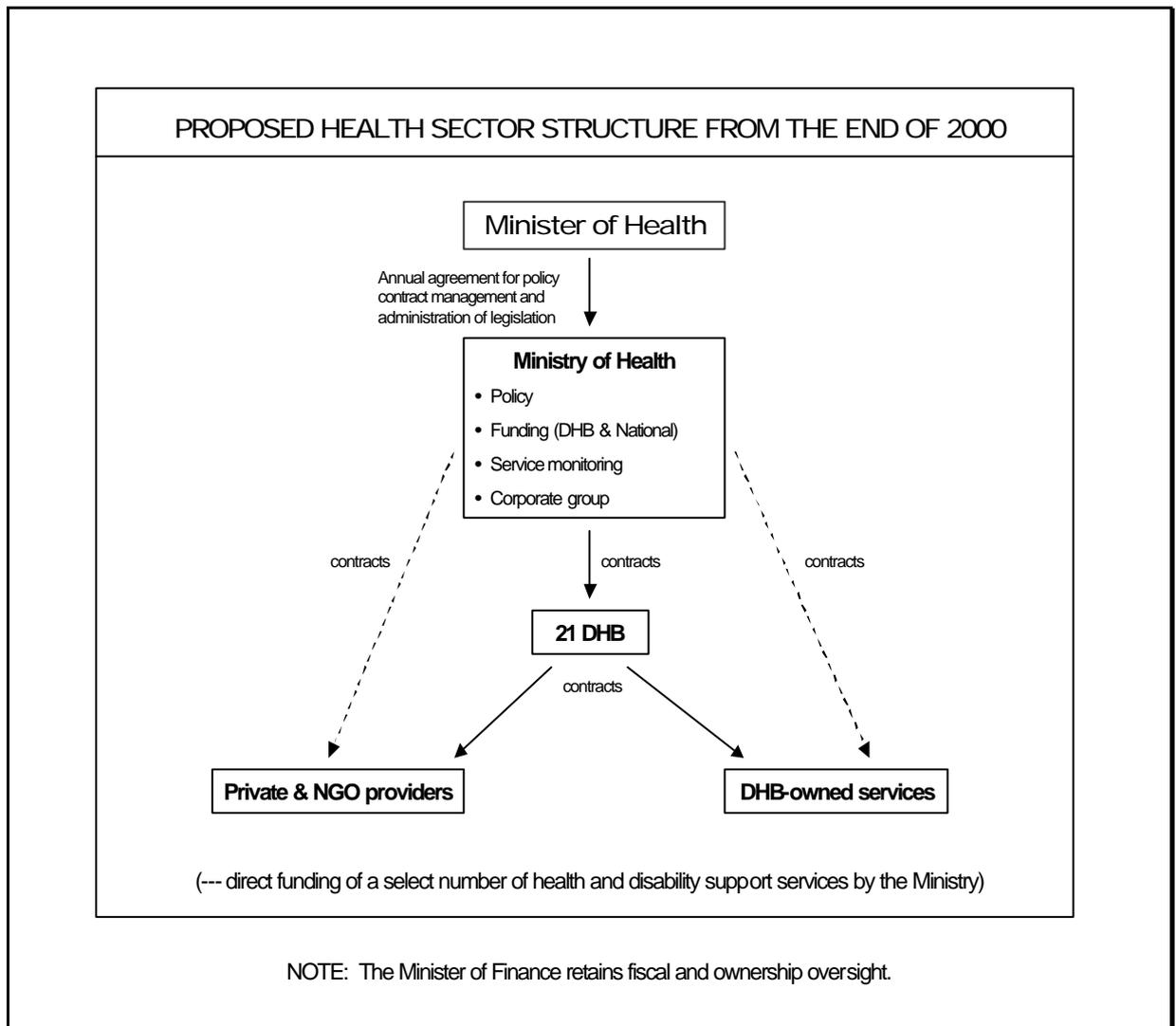
District Health Boards came into being on 1st January 2001. Their authorising legislation is the New Zealand Public Health and Disability Act, 2000.

The following chart shows the relationship between the Ministry of Health and the DHBs. The DHBs range in population from about 40,000 at smallest to around 400,000 for the largest. They are based on the major public hospital in their district (in one case two major hospitals). The funding agencies formerly interposed between central government and the hospitals – 4 Regional Health Authorities from 1993 to 1997; and a national Health Funding Authority from 1997 to 2000 – have now been replaced by the direct funding of DHBs by the Ministry of Health. The DHBs will become progressively responsible for the purchase of all health services for the population of their district (with the exception of some services, still being decided but in general 'high cost, low volume', to be provided nationally, or regionally for a number of DHBs). This includes services provided from their own hospital(s). The new structures place a strong stress on community involvement and consultation.

DHB boards are to be part elected and part appointed, with specific requirements for Maori representation on the Boards.

The DHBs will be monitored and held to account by the Sector Funding and Performance Directorate of the Ministry of Health. Hospitals, as providers, will also have their performance monitored directly by the Ministry of Health (Hospital Monitoring Directorate of the Ministry).

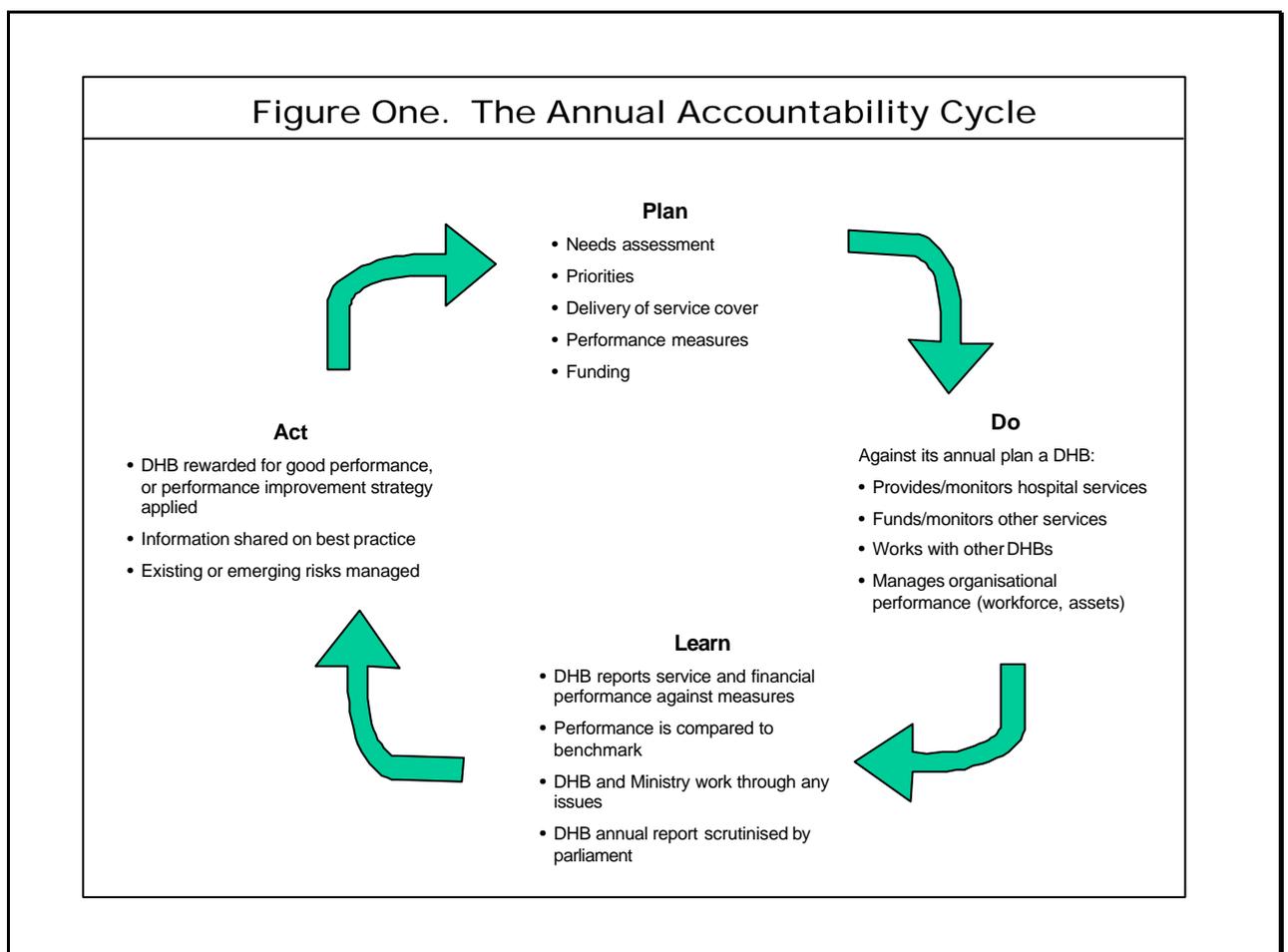
The DHBs will have ‘non-health’ or ‘social care’ responsibilities as well as ‘health’ responsibilities (using WHO definitions). During the 1990s funding responsibility for disability support services (DSS) in New Zealand was wholly transferred to the health sector, and devolution of responsibility for these services to the DHBs, perhaps in 2002, is currently under discussion. This includes residential subsidies for those without adequate other resources, in particular those affected by ‘age-related disability’ who require long-term rest-home or geriatric hospital accommodation.



The first five months – February-June 2001 – are a transition period in which most of the purchasing responsibilities formerly handled by the Health Funding Authority are taken over by the Ministry of Health and DHBs for the remainder of the financial year, ending 30 June; and during which the DHBs build up their capability for purchase of services for their first full financial year from 1 July 2001 to 30 June 2002.

The next chart shows the annual accountability cycle. The government’s ongoing expectations are set out in legislation (the New Zealand Public Health and Disability Act 2000 and the Public Finance Act 1989); in the government’s Health Strategies; and in the operating environment documents (the non-regulatory framework).

Once the first Annual Plan has been finalised there will be an ongoing dialogue between DHBs and the Ministry of Health regarding the ability of the DHB to meet its performance targets. The DHBs are required also to develop Strategic Plans in consultation with the people of their district, for 5 to 10 years ahead, to be reviewed at intervals of not more than 3 years.



3 principal health sector goals:

- * Very good health and independence for all New Zealanders, and lower disparities in health and disability outcomes
- * Access for all New Zealanders to an acceptable range of health care and disability support services, regardless of ability to pay
- * A high-performing system in which people have confidence.

- **More specific national goals from ‘The New Zealand Health Strategy’**

(The process of deriving these goals is discussed in the Ministry’s March 2001 publication *Evidence-based Health Objectives for the New Zealand Health Strategy*.)

The NZ Health Strategy lists 10 ‘goals’. These are

1. A healthy social environment.
2. Reducing inequalities in health status.
3. Maori development in health.
4. A healthy physical environment.
5. Healthy communities, families and individuals.
6. Healthy lifestyles.
7. Better mental health.
8. Better physical health.
9. Injury prevention.
10. Accessible and appropriate health care services.

The strategy also lists 61 ‘objectives’, of which 13 population health objectives are highlighted. These are to:

- * reduce smoking
- * improve nutrition

- * reduce obesity
- * increase the level of physical activity
- * reduce the rates of suicides and suicide attempts
- * minimise harm caused by alcohol and illicit and other drug use to both individuals and the community
- * reduce the incidence and impact of cancer
- * reduce the incidence and impact of cardiovascular disease
- * reduce the incidence and impact of diabetes
- * improve oral health
- * reduce violence in interpersonal relationships, families, schools, and communities
- * improve the health status of people with severe mental illness
- * ensure access to appropriate child health care services including well child and family health care and immunisation.

In addition the strategy specifies objectives of reducing inequalities in health status, for those from lower socioeconomic groups, for Maori, and for Pacific peoples.

The strategy also highlights five service delivery areas for the health sector to concentrate on in the short to medium term. These are public health, primary health, reducing waiting times for public hospital elective services, improving the responsiveness of mental health services, and accessible and appropriate services for people living in rural areas.

- **District Health Board goals**

DHB objectives are specified in Clause 22, parts (1) and (2), of the New Zealand Public Health and Disability Act, 2000.

“ Objectives of DHBs

(1) Every DHB has the following objectives:

- (a) to improve, promote, and protect the health of people and communities:
- (b) to promote the integration of health services, especially primary and secondary health services
- (c) to promote effective care or support for those in need of personal health services or disability support services
- (d) to promote the inclusion and participation in society and independence of people with disabilities
- (e) to reduce health disparities by improving health outcomes for Maori and other population groups
- (f) to reduce, with a view to eliminating, health outcome disparities between various population groups within New Zealand by developing and implementing, in consultation with the groups concerned, services and programmes designed to raise their health outcomes to those of other New Zealanders

- (g) to exhibit a sense of social responsibility by having regard to the interests of the people to whom it provides, or for whom it arranges the provision of, services
 - (h) to foster community participation in health improvement, and in planning for the provision of services and for significant changes to the provision of services
 - (i) to uphold the ethical and quality standards commonly expected of providers of services and of public sector organisations
 - (j) to exhibit a sense of environmental responsibility by having regard to the environmental implications of its operations
 - (k) to be a good employer.
- (2) Each DHB must pursue its objectives in accordance with its district strategic plan, its annual plan, its statement of intent, and any directions or requirements given to it by the Minister under section 32 or section 33.”

4.3 The goals of the Performance assessment system for DHBs

(It has been possible in this section to take into account some developments in the Ministry of Health’s proposals made since the first draft of this report was written in February. There is a sharper focus on a more limited number of “Accountability Indicators”, rather than a very large set of “Performance Indicators”.)

The overall purpose and goal of the accountability system is to ensure that DHBs are meeting Crown expectations in delivering health services to their district populations.

To achieve this, the DHB’s performance will be assessed at two levels.

- **The performance of the DHB hospital(s)**

The goal of the assessment system here is to ascertain whether or not the hospitals are well-managed providers of hospital and related services to the required quality. (‘Balanced Scorecard’. For more detail see Appendix A.1.)

- **The performance of the DHB as a whole**

The draft DHB Accountability Indicators report states that:

An interim performance indicator framework is being developed for accountability purposes in order to:

- * Focus DHB activity in priority areas
- * Monitor DHB activity
- * Hold DHBs accountable
- * Compare DHB performance.

The framework seeks to reflect the transitional constraints placed on DHBs, in terms of the staged devolution of funding and assumption of responsibility for pre-existing contractual arrangements. The practical effect of this has been the need to select indicators which measure activity in areas where it is expected funding will be devolved, and where DHBs have the ability to influence provider activity within the context of existing arrangements with providers.

As a result, the framework is necessarily interim or transitional with the framework being further refined in the future to include:

- * other service areas which are devolved later
- * indicators from finalised toolkits
- * indicators of performance which become available through improvements in data availability and quality (ie outcome indicators)
- * evaluation of the indicators set out below.

Emphasis has been placed on the inclusion of indicators that:

- * align DHB activity with strategic policy goals (e.g. The New Zealand Health Strategy)
- * measure things that can be influenced by DHBs
- * provide the Minister and DHBs with timely and relevant information
- * encourage action in priority areas, and manage health, service and financial risks, without unintended impacts on other DHB activities
- * capture the key dimensions of the organisation in a manageable form
- * minimise compliance and transaction costs
- * focus on information sharing and performance improvement, rather than blame
- * are relatively stable over time
- * are easy to implement.

Partnership obligations with Iwi/Maori, Maori Health priorities as set out in the various strategies and analysis of indicators by ethnicity are an integral part of the framework.

And

In order to reduce transaction costs a relatively small set of indicators has been sought where existing data and reporting processes can be used to measure and compare DHB performance against the indicators.

As far as possible, qualitative indicators have been limited to key areas. In response to feedback, reporting against the indicators has been regularised to annual, six monthly or quarterly in order to reduce additional reporting requirements for DHBs. Measurement of financial indicators will be based on financial reporting which is supplied monthly to the Hospital Monitoring Directorate.

Specific targets or deliverables against the indicators will be agreed with individual DHBs. Targets will need to reflect baseline information including the impact of any data quality or interpretation issues, the degree to which the DHB can influence or impact on the activity in the next twelve months taking into account any practical constraints along with the need to drive performance and stimulate improvement. In a number of cases the final indicator framework will be a subset of that listed below on the basis that not all DHBs provide every service covered (ie radiotherapy).

4.4 The Proposed Indicators

(More details are given in Appendix A.1)

- **Hospitals**

Using a ‘balanced scorecard’ model, 16 indicators are proposed by the Hospitals Monitoring Directorate of the Ministry of Health, four in each of the following categories:

- * Organisational health & learning (human resource issues)
- * Process & Efficiency
- * Patient & Quality
- * Financial.

- **DHBs in general**

The latest draft (end-April) proposes a set of 42 Accountability Indicators under 13 headings (number of proposed indicators in brackets):

- * Governance (7)
- * Quality Systems (4)
- * Nursing Practice and Development (1)
- * Child Health (6)
- * Oral Health (2)
- * Diabetes (4)
- * Cardiovascular (3)
- * Cancer (1)
- * Primary Care (4)
- * Elective Surgery (3)
- * Mental Health (2)
- * Performance to Annual Plan (2)
- * Hospital and Related Services (3)

The five indicators in the last two categories are a sub-set of those captured through Balanced Scorecard reporting or other DHB financial reporting to Hospitala Monitoring Directorate.

Reporting frequency varies with most indicators being required quarterly or annually, some six-monthly, and one financial performance indicator monthly. A couple under the 'Governance' heading are 'one-offs' – namely 'Effective Health Needs Assessment' by 1 November 2001, and 'Prioritisation' by 31 May 2002. A small number are narrative – for example, 'Level of progress towards implementing the Primary Health Care Strategy'. A couple of the 'Elective Surgery' indicators are required on an 'Exceptions only' basis. These are that 100 percent of patients do not wait longer than 6 months for first specialist assessment, or for offered publicly funded treatment.

- **Proposed use of indicators**

The set of Accountability indicators discussed above are those indicators that the DHBs will be directly measured against. To quote again, there will be a 'focus on information sharing and performance improvement, rather than blame'.

They are in general a sub-set of the much larger number of 'explanatory indicators' maintained for the purpose of monitoring and contributing to policy development.

This seems a sensible approach, focusing for accountability purposes on a relatively small sub-set, rather than trying to hold DHBs rigorously to account over the whole range of available indicators. Explanatory indicators could of course be used to supplement analysis of DHB performance, if and when needed.

4.5 The performance management model, and performance management techniques

Annual expectations and performance targets will be set out in the DHB Annual Plans, Service Cover and Funding Agreements. The DHBs will be monitored by the Ministry of Health, reporting monthly, and quarterly, and will make a year end Annual Report to parliament including audited accounts.

Once the first Annual Plan has been finalised there will be an ongoing dialogue between DHBs and the Ministry of Health regarding the ability of the DHB to meet its performance targets. Annual plans will be revised and the process begins again. (See Figure 1 above.)

Overall the intention is to use an operational policy framework rather than regulations. The focus of performance management will be on improvements, but the system that is being set up will also provide levers to address non-responsive poor performers. (See below on 'Rewards and sanctions'.) There are legislated powers in the New Zealand Public Health Disability Act, 2000 for both the Minister of Health and the Minister of Finance (in his role as shareholding Minister in public hospitals) to intervene. However the Ministry of Health intends to use relationship management and publicity to manage DHB performance, drawing on legislative sanctions only when things go badly wrong.

Realistic performance targets are to be set for individual DHBs taking into account the starting points and their position relative to other DHBs. Sharing of knowledge, collaboration and cooperation between DHBs will be encouraged.

4.6 Sanctions and incentives

(See Cabinet Committee paper ‘Sanctions and Rewards for District Health Boards’ 11/9/00.)

The proposed developmental framework for performance management has three modes of autonomy ranging from low autonomy (a highly prescribed environment), through moderate autonomy, to autonomy (a focus on minimum standards and on ensuring consistency in key areas). Initially, however, all DHBs will start in low autonomy mode. They will be assessed annually by the Ministry of Health on their capability, and move up or down the development framework according to the assessment.

Also “Formal rewards and sanctions should generally be used in an encouraging rather than punitive fashion and be applied only to DHB management of risks over which DHBs have an ability to respond. Their application should assist the objective of improving health and disability outcomes for a DHB’s population.”

The proposed rewards include public praise, board re-appointment, greater autonomy and less detailed monitoring, and ability to generate and retain surpluses. The proposed sanctions are the opposite of these, with a worst case option of dismissal of the Board and appointment of a Commissioner.

Legislative sanctions are seen as a last resort. Non-legislative sanctions and incentives e.g. publicity are the most likely to be used.

4.7 Summary

- The core agencies of the new health system are:
 - * at the centre, the funding agency, the Ministry of Health;
 - * in the regions, 21 District Health Boards responsible for providing hospital services from their local hospital(s), for purchasing other healthcare services for their district population, and in general for achieving health outcomes as good as possible for the population of their district.
- The DHBs will be accountable to the Ministry for their performance.
- DHBs will, in addition to normal financial reporting, be assessed according to their performance on sets of Accountability Indicators. A ‘Balanced Scorecard’ set of 16 indicators will be used to monitor DHB hospital performance at quarterly intervals. A full set of 42 accountability indicators, including a couple of these ‘balanced scorecard’ indicators, will monitor overall DHB performance.

- There is legislative provision (New Zealand Public Health and Disability Act 2000) for a range of possible sanctions and incentives to be applied to influence DHB performance in the desired direction. The stated intention is rely on incentives and encouragement, where possible, rather than 'blame'.

5. Performance Monitoring and Management Frameworks In Use Overseas

Much of the material here is summarised from the annexes to the recent OECD paper by Hurst and Jee-Hughes (2001). Some is taken from the material provided by the overseas consultants, and discussed in more detail in the following Section. The consultants were not, however, expected to give a general picture of the institutional structure in their country. This section supplies some general context.

Three different levels of performance indicators are considered here:

- The overall performance of health systems – national and/or provincial or regional. (WHO, OECD, CIHI for Canada, the NHS in the UK.)
- The performance of hospitals as providers of hospital healthcare services (the Ontario Hospital Association)
- The performance of HMOs, and managed health care plans in general, as purchasers of healthcare for their enrolled populations. (HEDIS set of performance measures in the USA.)

5.1 WHO and OECD frameworks

Before looking at the individual countries we mention the conceptual framework used in recent WHO reports, and also OECD thinking on the subject. To quote

“The WHO and OECD frameworks offer high level concepts whereas the national frameworks show an understandable tendency to put forward concepts which are easier to make operational. This has led to more emphasis having been given to structural and process domains in the national proposals than in the proposals from WHO and OECD.” (Op. cit., page 11).

The WHO and OECD frameworks classify health system objectives into three main categories:

- Health improvement
- Responsive/access and
- Fairness of financial contribution

Details are given in Appendix A.2.

5.2 United Kingdom (UK)

The National Health Service (NHS) is the responsibility of central government, funded mainly from general taxation. The majority of hospitals are publicly owned and managed, and general practitioners are nearly all contracted to the NHS. The result is that health care is more centralised in the UK than in most countries, and private or independent providers (hospitals, GPs, etc) play a lesser role than in Canada and, particularly, the United States. The UK is similar to New Zealand in that government is largely unitary, though with local authorities playing a much larger part than in New Zealand in social services delivery, and in that most facilities are publicly owned. A key difference is that most primary care providers in New Zealand are not contracted to provide services under capitation arrangements.

The UK has been developing performance measures since 1983, and over that period has had three different performance management regimes, providing a series of natural experiments in the application of performance indicators. (OECD, page 48.)

The latest regime was introduced by the Labour government following its election victory in 1997. Competition is abandoned, although the purchaser/provider split and contracting for hospital services is retained. Health Authorities (HAs), purchase hospital and other healthcare services, and Primary Care Groups of about 50 GPs each replace GP fundholding, involving all GPs in purchasing.

The NHS Performance Assessment Framework (PAF), covers 6 areas in which performance is to be assessed:

- Health Improvement (including influence of ‘non-health’ factors)
- Fair Access (‘in relation to people’s needs, irrespective of geography, socio-economic group, ethnicity, age or sex.’)
- Effective Delivery of Appropriate Health Care
- Efficiency
- Patient/Carer Experience of the NHS
- Health Outcomes of NHS Care (‘direct contribution of NHS care to improvements in

Note the careful distinction between ‘Health Improvement’ - meant to reflect areas where NHS may not be the only, or even the main, agency able to bring about improvement – and ‘Health Outcomes of NHS Care’ – which is meant to reflect those areas in which the NHS can be expected to have a major influence. Examples of the latter include survival rates from breast and cervical cancer; adverse events/complications of hospital treatment; examples of the former include suicide rates; deaths from all causes.

‘Efficiency’ measures include day case rate, length of stay, and unit Maternity and Mental Health costs, but ‘Productivity indexes’ are no longer included, apparently in recognition of the criticisms of these indices as used under the previous regimes. It should be added that in

parallel with these changes productivity began increasing at a rate of about 1.5 percent, from 1983 onwards, increasing to 2 percent per annum in the early 1990s. These are very respectable rates of productivity increase for a service industry (OECD, Annex 6). Much of the explanation was due to sharp increases in rates of day case surgery and reductions in average length of stay. By the later 1990s there were concerns about the sustainability of this, and its implications for quality of care.

The arrangements for pursuing quality in this framework consist of three inter-related processes.

- 1) The setting of clear standards for services through the development of 'National Service Frameworks' for specific care groups such as the mentally ill, the elderly and people suffering from major acute diseases. In addition a new 'National Institute for Clinical Excellence' would conduct health technology assessments and set out guidelines for the adoption in the NHS of those new treatments which were found to be cost-effective.
- 2) The pursuit of good clinical governance, through professional self-regulation, and lifelong learning, at a local level.
- 3) The monitoring of performance through: the new performance framework and through a new 'Commission on Health Improvement' with powers to monitor and support local clinical self-regulation. (OECD page 50.)

The NHS Plan of 2000 announced the extension of the Performance Assessment Framework (PAF) to providers – hospital trusts and primary care groups - in addition to health authorities. The setting of standards, performance monitoring, and performance management was all to be done from the centre i.e. presumably the Department of Health.

Also announced was a new system of targets and incentives. The cost of providing care in the best-performing trusts is to become the benchmark for the whole of the NHS. In addition, a 'traffic light' classification system was announced. 'Red' organisations are those failing to meet a number of core national targets. 'Yellow' organisations are those meeting all or most targets, but not in the top 25% of performance. 'Green' organisations are those in the top 25% on performance.

'Green' organisations are to be rewarded with greater management autonomy and national recognition. They also have automatic access to a special National Health Performance Fund (about the equivalent of NZ\$100 million per year adjusted to NZ population and currency) used to reward progress against agreed objectives. 'Yellow' organisations would have to agree plans for improvements with the Regional Offices of the NHS. 'Red' organisations would come under the oversight of the Modernisation agency. The more general role of that agency is to 'help spread best practice.'

5.3 Canada

A federal system of government, with health-care delivered by the governments of the provinces, but with Federal funding, and universal provision under Medicare.

There has been a variety of work on performance monitoring at national, provincial, and hospital levels. The provincial work includes assessing progress made by the newly-created regional health authorities in several provinces. The 1999 Social Union Framework Agreement recognises the need to measure performance on both the performance of the health system and the health of Canadians.

A major mover at the national level has been the Canadian Institute for Health Information (CIHI). This agency has developed the performance indicator framework set out in the accompanying table. The numbers in brackets are the number of health indicators confirmed at the 1999 National Consensus Conference, Ottawa. (CIHI 1999).

Canadian Institute for Health Information's (CIHI) Performance Framework

Health Status (28)			
Deaths (12)	Health Conditions (8)	Human Function (4)	Well-Being (4)
Non-Medical Determinants of Health (18)			
Health Behaviours (6)	Living and Working Conditions (9)	Personal Resources (3)	Environmental Factors (0)
Health System Performance (22)			
Acceptability (0)	Accessibility (4)	Appropriateness (3)	Competence (0)
Continuity (0)	Effectiveness (10)	Efficiency (4)	Safety (1)
Community and Health System Characteristics (10)			

Note that at this stage many of these indicators are being published only at national or sometimes provincial level, with only a proportion being available, or suitable, for regions within provinces.

Like the UK system also, the CIHI system has a sub-set – ‘Non-Medical determinants of health’ – lying outside the health system’s ‘domain’ (except that ‘Health Behaviours’ is one component where the health system has the responsibility of promoting healthy behaviour).

The system also provides ‘contextual’ information on ‘Community and Health System

The core indicator set is primarily designed to “assist regional health authorities to monitor progress in improving and maintaining the health of the population and the functioning of the health system and ... to assist with reporting to governing bodies, the public and health professional groups.” (CIHI). It is intended to reflect agreed national goals and strategic directions and agreed benchmarks, guidelines and standards. (OECD, 2001, page 39.)

The OECD comments that the framework “is skewed toward measures of population health and health outcomes. Measures of health system performance require substantial development – for example there is no information on costs captured other than per capita expenditure on public and private sector services and health services outputs and outcomes for hospitals, general practice and community care are poorly described.” (Op. cit., page 38).

The current indicators of “health system performance” build on the work of the accreditation agency, the Canadian Council of Health Services Accreditation (CCHSA). The agency has been developing standardised performance indicators with the intention of using them on a voluntary basis across accredited organisations. “The revised accreditation program will focus on how well organisations use the indicator data to understand and improve their processes and outcomes rather than use the indicator data to assess the organisation’s performance at this stage.” (OECD, page 39). As part of its work CCHSA is developing a set of six generic acute care indicators.

At provincial level there is a rich range of different performance assessment frameworks – though there are generally strong similarities in the health system goals specified by each province – and sets of key performance indicators.²

At provider level, the University of Toronto and the Ontario Hospital Association have been producing since 1998 reports measuring the performance of Ontario acute care hospitals. Participation is voluntary, but coverage of some 91 percent of patients has been achieved. This Ontario hospital ‘report card’ system is the basis of much of the comment provided by our overseas consultants at the University of Ontario. Some of that comment is summarised in the following section of this report.

The Ontario Hospital Association (OHA) performance indicator set has the following headings:

- Clinical Utilization and Outcomes;
common causes of hospitalization, access to technology, clinical efficiency, and outcome indicators
- Financial Performance and Condition
- Patient Satisfaction

² Some illustrative material on Saskatchewan is given in one of the annexes in the accompanying volume

- System Integration and Change

(investments in improved linkages with other care providers, better information, and improved care coordination)

The Ontario system puts more than does the New Zealand “Balanced Scorecard” into measures of clinical utilisation and outcomes. Of course these are more of a reporting responsibility for DHBs in the proposed NZ system than for the DHBs’ hospital arms. Its ‘System Integration and Change’ component is one which seems to have received little attention so far in the New Zealand proposals.

5.4 The United States

(OECD, 2001, Annexe 8. See also the HEDIS material in separate annexe to this report)

Much of the effort in the United States has been focused on developing performance indicators for use at the clinician level and in health maintenance organisations (HMOs). There is no uniform national performance measurement framework at this time.

HEDIS (Health Plan Employer Data and Information Set) is a set of standardised performance measures developed in the United States during the 1990s by the National Committee for Quality Assurance (NCQA), an independent not-for-profit organisation. The purpose of HEDIS is ‘to ensure that purchasers and consumers have the information they need to reliably compare the performance of managed health care plans’. Health plans choose whether or not to have their quality of care measured against HEDIS, and whether or not to have the results published.

The categories on which health care plans are measured are:

- effectiveness of care
- access/availability of care
- satisfaction with the experience of care
- health plan stability
- use of services
- cost of care
- informed health care choices
- health plan descriptive information.

Note that the Health Care Financing Administration (HCFA), which manages federal requirements for Medicare and Medicaid plans, requires risk or cost managed care plans to report to the HCFA on a number of HEDIS measures, and also to participate in the

Consumer Assessment of Health Plan Study (CAHPS) survey. This survey provides some of the information under the ‘satisfaction’ and ‘information’ headings above.

We do not have a full list of HEDIS indicators, but it is noticeable that sample lists are strong on public health immunisation and screening programmes, on follow-up of chronic illness, and on ‘access’ to services.

5.5 Summary and comment

Performance measurement and management systems overseas are developing rapidly. Some of the main points from above are as follows.

- The conceptual frameworks being developed for health systems internationally are putting more emphasis on ‘outcome’ goals and measures of progress towards those goals.
- It is not easy, however, to find ‘outcome’ measures of performance which are operationally practicable. This is in the sense of being readily quantifiable and timely, and being also closely linked to the activities of the healthcare agencies being monitored.
- Both the Canadian and UK national frameworks distinguish between those health outcome goals which are ‘non-attributable’ – that is they are affected by ‘non-health’ activities and agencies as well as by the ‘health’ sector – and those outcomes which are mainly influenced by healthcare. In the Canadian CIHI system the former come under the heading ‘Non-Medical Determinants of Health’. In the UK system they are labelled ‘non-health determinants’, as against ‘Health Outcomes of NHS care’.
- Performance systems at provider level; for example the Ontario Hospitals system, and the HEDIS measures in the USA, are less concerned with population health outcomes, and more with clinical outcomes. These systems have developed in the context of competing providers, but their focus on consumer satisfaction and healthcare outcomes could still provide lessons for New Zealand.
- In general the systems described do not focus much on monitoring the fine details of ‘governance’ and the achieving of managerial and financial goals; with the partial exception of the Ontario system. This probably reflects the nature of our sources. These matters are certainly monitored, but through management reporting and audit systems and the like, rather than through the ‘health-oriented’ performance indicator systems described above.
- The UK system is that which appears to have gone furthest in linking accountability to performance measures. Greater accountability over the past two decades has been accompanied by, and may well have contributed to, significant improvements in NHS productivity.

- The NHS has also developed innovative approaches to performance management, notably the ‘traffic light’ system described above. There are some concerns about how well this will work in practice, reported by Maria Goddard (see Annexe). It may also be more difficult to apply in a country like New Zealand, with relatively few DHBs, ranging from small to relatively large, each of which could with some plausibility argue its own uniqueness. We should observe first how well it works in the UK, before deciding whether to introduce it here.

6. Comments by UK and Canadian Consultants

The full comments made about the UK and Canadian performance assessment systems by our overseas consultants³; and the lessons they suggested for New Zealand, are given in a separate document. This section quotes key parts from that material. The comments were made under the headings in the template ‘questionnaire’ sent to our overseas consultants. These 16 dimensions are for convenience grouped here under four main headings:

- Purpose and goals of an Accountability System
- The Indicators
- The Accountability Process
- Performance Management.

6.1 Purpose and goals of an accountability system

(i) Purpose and goals

A first general point is that goals should be achievable. Thus –

“Holding health agencies accountable for socio-economic inequities makes no sense unless they have powers to influence those inequities.” (Canada)

and

“The PAF⁴ recognised that health care organizations do not have complete control over certain dimensions of health outcomes. Hence the distinction between *health outcomes of NHS care* – which is meant to reflect those areas in which the NHS can be expected to have a major influence; and *health improvement* – meant to reflect areas where NHS may not be the only/main agency. Examples of the former include survival rates from breast and cervical cancer; adverse events/complications of hospital treatment; examples of latter include suicide rates; deaths from all causes. “ (UK)

Further –

“Real attempts have been made to recognise the need for a multi-agency approach, especially where NHS will not have the major influence over outcomes. This can be achieved in NZ if consideration is given to development of shared targets and responsibility between different agencies.”

Our Canadian consultant distinguished between accountability for goals, and measuring progress on strategies for achieving those goals (roughly the WHO distinction between intrinsic and instrumental goals).

³ UK – Dr Maria Goddard, York Centre for Health Economics; and Canada – Drs Adalsteinn Brown and colleagues, Department of Health Administration, University of Toronto.

⁴ Performance Assessment Framework.

“However, holding entities accountable for health outcome and health equity goals requires also identifying the *key strategies* through which local or national governments hope to achieve those goals and to measure progress on the strategies as well as the larger goals (which will move more slowly.)”

‘Equity’ is a difficult issue for all systems.⁵ Thus for Canada

“..the system tries to deal with equity in access not directly with equity in health.”

The UK material is worth quoting at length –

“Equity is a relatively new concern in the NHS, having been the focus of attention only since the Labour Party was elected. One dimension of the PAF relates to fair access to services, but many of the targets proposed in this area relate to waiting times and volume of services and specific treatments (eg CABGs) rather than variations according to socio-economic group or other dimensions.”

“However, the NHS Plan announced that there would be, for the first time, a national health inequalities target which will be reflected in local targets and agreements. This is to be developed in consultation with experts and supported by a new health poverty index which will combine data on access, health status, uptake of preventive services etc.”

“The general areas discussed in the NHS Plan include the narrowing of the gap in infant and early childhood mortality and morbidity by social group as well as a target to address inequalities later in life. The drive towards reducing health inequalities is not only to be focused on health care but also supported by broader government policies addressing poverty for example. The government has also placed much emphasis on reducing inequalities faced by minority ethnic groups.”

“It is also interesting to note that the government has decided to introduce new resource allocation criteria – resources are to be distributed (to health authorities and primary care groups) in order to reduce “avoidable” inequalities in health. There is much work to be undertaken to define what is meant by “avoidable” as well as an increasing recognition that it may be necessary to performance manage how resources are spent in order to achieve this goal – just giving areas extra money will not in itself translate to reductions in inequalities – it depends how it is spent.”

⁵ The OECD paper notes *There is slow progress with the development of equity indicators*. Page 4.

(ii) Completeness

The Canadian comment is that

“Behavior decision-making theory would suggest that trying to measure everything is defeating, since there will be no way to maximize all outcomes. Instead pick key goals and strategies and measure on them, with higher population and delivery statistics as background.”

On the number of goals, the UK comment is that

“Recognition that giving NHS organizations a plethora of “top-down” targets is counter-productive – (a) they will waste time and energy trying to find out which ones “really count” and then just focus on these anyway as there are too many pressing demands on them to respond to everything; (b) they are less likely to commit to meeting targets set centrally when they should also be responding to local needs and priorities. Thus the local organizations need to be told which targets they really have to meet and which are more flexible and open to local agreement.”

(iii) Organizations

The UK correspondent notes that

“There is a tension in the NHS system between the rhetoric of devolution and local autonomy and the creation of more monitoring and regulatory agencies (eg Commission for Health Improvement, Modernisation Board etc). We do not know how this will develop yet. I am not sure whether this will be an issue in NZ but it is something to be aware of.”

The Canadian correspondent has strong views on the independence of the monitoring organisation.

“The independence of the organizations involved in monitoring is essential. Here in Ontario, we have based the performance reporting for hospitals out of the University and now, out of a collaborative that includes the University, a public corporation that manages data, and a research institute.”

Dr Goddard comments

“Consideration in NZ might be given to the role for an independent agency in the collection, validation and production of performance information – especially if credibility is going to be an issue if everything is left to the providers and to the government.” (UK)

(iv) Consultation processes about plans

“Expert consultation works better when structured. We have used a nomination system whereby hospitals nominate practicing clinicians (doctors, nurses, and therapists) and managers to sit on expert panels to define indicators, improvement strategies, and to provide input into general research direction for the Ontario Hospital Reports.”

In the UK as here the balance to be struck between local and national priorities is as yet unclear.

“In the light of the emphasis on the importance of local priorities and developments, there IS likely to be scope for performance expectations to vary in the light of local priorities. This appears to be the overall aim of the system, although a minimum level of performance must be achieved in a number of must-do areas, regardless of local issues.

Achieving a balance between national and local priorities is likely to involve a degree of trial and error. The problem will be that as the number of national priorities proliferate, less scope is available for local innovation and determination of priorities.

It may be helpful to develop some pilot sites for investigating the effects of letting local agencies choose their own priority areas eg evaluate what impact this has on achievement of national goals, whether more progress can be made on local issues when this freedom is given, views from staff and local population etc.”

6.2 Performance indicators

(v) Indicators

Both correspondents had much useful comment to offer on indicator frameworks and philosophies, and what made for useful indicators.

The number of indicators can quickly become substantial. Thus for Ontario hospitals

“There are probably also too many indicators in Ontario. We have one provincial balanced scorecard for hospitals that contains more than 40 indicators spanning clinical outcomes, financial performance, patient satisfaction and learning and growth. We are expanding the process this year to include emergency departments and chronic care hospitals. This means that there will be over 120 distinct indicators floating around the province and for some hospitals that provide all three types of care, the public will face that number alone when considering one institution.”

For coverage of a health system as a whole, the UK PAF offers the following coherent framework –

“The PAF covers 6 areas in which performance is to be assessed:

- * Health Improvement
- * Fair Access
- * Effective Delivery of Appropriate Health Care
- * Efficiency
- * Patient/Carer Experience of the NHS
- * Health Outcomes of NHS Care

The 6 areas are seen as interdependent: Starting from the perspective of the health of the local community (health improvement), we need to ensure everyone with health care needs (fair access) receives appropriate and effective health care (effective delivery) offering good value for money (efficiency) as sensitively and convenient as possible (patient/carer experience) so that good clinical outcomes can be achieved (health outcomes of NHS care), to maximise the contribution to improved health (health improvement again).”

Note that the actual NHS Performance Indicators published in July 2000 are given in Appendix A.3 to this report.

Both had some valuable suggestions about the relation between outcomes and process.

Canada:

“Some key criteria for evaluating proposed measures include feasibility (and costs) of specific measures; and finding measures that will show some change in a year. The list of measures should shift slowly, replacing some and adding others. It is also important to be able to assess key healthcare strategies from the mix of measures. The challenge is to develop a set of measures that are relevant and feasible. The relevance depends on the goals. I would argue that you need a set of measures that are useful to funders and the public, who are mostly focused on outcomes, and that are useful to providers, who are focused more on process. In this context you need to think of the different audiences and to keep in mind that there needs to be a clear link between outcomes and process. An outcome is relevant only if there is some way that a process can be changed in order to improve that outcome. A process is relevant only if it can change outcomes.

Similarly, it is also important to order indicators so that cause and effect relationships are identified, particularly if some indicators are likely to show change before others (lead and lag indicators) and to note correlation between indicators. For example, population health measures like DALYs are difficult to change over a short period of time. Population health oriented measures are problematic unless one can identify key strategies to influence these population

health measures and then use completion of these strategies as proxy measures in addition to the underlying population health measures.”

UK:

“There is a recognition that process indicators have a useful role to play in many circumstances. For example, people often care about the process of treatment or their care experience itself (this was illustrated in the public consultation exercise undertaken prior to the NHS Plan); they can be good indicators of outcome if process and outcome are strongly related; they may be easier and less costly to measure; poor performance on process indicators may be more easily attributable to specific activities and thus more amenable to management change than outcome indicators.”

And

“Measurement of health outcomes is possible but great care is needed to specify the degree to which health care organizations are expected to influence such outcomes given the strong role of socio-economic and other factors.” (UK)

Some other relevant comments –

Patient satisfaction

“Satisfaction has been one of the most important and most widely understood measures of health system performance. We are expanding this year to include explorations of provider (physician and nurse) satisfaction and to try to measure the relationship between patient satisfaction and patient health outcomes.” (Canada)

With somewhat less enthusiasm –

“There is a role for patient satisfaction surveys as long as they are well-designed and consistent over time.” (UK)

“A national annual survey of patient satisfaction and experience of health care have been initiated and is to be repeated over time so progress can be measured. ... The government are also undertaking various surveys of the health of particular groups eg ethnic minority groups.

“Every local NHS organization will be required to publish in a new Patient Prospectus, an annual account of views obtained from patients and the action taken as a result. At local and regional levels, there is increasing interest in surveying population health status. CHE has been involved in some of this work, using the Euroqol measure (EQ-5D).

At the moment the main indicators relating to patient/carer experience centre around waiting times (emergency, in-patient, out-patient and GP), cancelled operations, delayed discharges.” (UK)

Productivity/Efficiency measures

Our UK correspondent is sceptical about their usefulness.

“Attempts to measure relative productivity/efficiency of hospitals should be treated with

and

“..... In a nutshell, we maintain that the results are (a) highly dependent on the methodology used eg a hospital can move from top 10 position to bottom 10 depending on the index; and (b) that the differences are not statistically significant, suggesting that there is not a great deal of variation in efficiency overall.” (UK)

(vi) Qualitative versus quantitative assessment

Our commentators have similar views – include qualitative indicators, but use with caution.

“our experience with reporting these measures suggests that soft indicators still need hard definitions although units of measurement may vary by sector of the health care system or by region. Too much reliance on soft data however is problematic and susceptible to gaming.”
(Canada)

“There is a place for qualitative aspects of performance management. Both in terms of qualitative indicators and in terms of the sort of supporting information which is used by those in the health service to form judgements about performance.

However, there must be a balance. Too much of a focus on “hard” data will ignore the valuable information which can be found as part of informal networks and relationships; too much of a focus on “soft” information will create difficulties in analysis and may be insufficient as a basis for challenging poor performance. It is always easier to initiate an investigation of apparent poor performance when there is at least some hard information from which to start.

The NZ system may need to incorporate elements of inspection and informal assessment or reporting in order to utilise this valuable source of information.” (UK)

(vii) Selection criteria

Our Canadian commentator says first get the framework right.

“a key message from a number of our stakeholders has been to be clear about what phenomenon are to be measured and why. Get people to agree on the principles of the framework and then pick measures that fit the framework. At a theoretical level do not be put off by a lack of existing data. If you do not have the data now, but the measure is important to the framework, do not eliminate the measure. Rather, make development of the data source a priority.”

Some of his comments on criteria are given above. For the UK, Dr Goddard writes –

“The stated criteria for assessing possible indicators are:

Attributable: indicators should reflect health and social outcomes which are substantially attributable to NHS as provider, advocate or partner (although note that there is scope for measurement of health improvement which is felt to be less attributable to NHS care alone than other indicators)

Important: indicators should cover an outcome which is relevant and important to policy makers, health professionals and managers as well as resonating with concerns of patients.

Avoid perverse incentives: indicators should be presented in a way which does not encourage perverse incentives, especially shifting of problems onto other organizations. If this is the case, a counterbalancing indicator should be introduced.

Robust: measurement should be reliable and coverage of outcome high, although sampling may be appropriate for some. Data should be robust at the level at which monitoring is undertaken eg if it is at health authority level, the indicator should measure sufficient number of events so that the values are not subject to large random variations.

Responsive: indicator should be responsive to change and change should be measurable. It should not be an indicator where changes are so small that monitoring trends is difficult. Consideration should be given to expected rate of change to decide if it is suitable for monitoring purposes.

Usability and timeliness: data should be readily available within a reasonable timescale.”

Both comment on the question of trying to adjust for socio-economic or cultural differences.

“If there are specific differences in risk of disease or outcome based on genetic or cultural (non-economic or educational) differences in outcome, then these

should be accounted for when evaluating system performance, but not when using data for planning or management as adjustment for these differences will eliminate important differences.” (Canada)

and

“The issue of the adjustment for socio-economic differences is still under debate in the UK. The most recent consultation reflects this concern and may be in response to the observation that most of the hospitals which would be classed as performing poorly under the proposed traffic light scheme would be located in the less prosperous parts of the country; whilst the opposite was true of the good performers. Thus performance was thought to reflect social circumstances rather than anything within the control of the hospitals.”

(viii) Information management systems

Good data are important, and too often lacking.

Canada:

“Canada has invested funds in repeated national health surveys and some provinces have data that can provide reasonable information on health at the level of public health units (about 100,000 people). There is no organized national effort to collect primary data on the quality of care.”

“It is clear that any successful accountability and improvement initiative will require the design, development and testing of information systems. The good news is that health care is data rich (medical records contain a great deal of useful data) the bad news is that there is currently little investment in turning that data into relevant and timely information for accountability or improvement.”

UK:

“Our research has indicated that unless those who are meant to respond to the performance information have faith in the quality, relevance and timeliness of the data on which the indicators are based, action is unlikely to be taken (Mannion and Goddard 2000).

In the UK, some attempts have been made to improve data quality although it is acknowledged that many problems still exist. It is probably fair to say that this aspect of the performance strategy has not, to date, received sufficient attention in the UK.

Good information is essential to underpin any performance system and an imaginative national strategy is required to make sure this is available. This is likely to be expensive and so should be undertaken as part of a co-ordinated national strategy rather than on an ad hoc basis by regions or district health boards.

The timeliness of data is a major issue – managers and clinicians will not be willing to act on indicators based on out-dated information as their practices and situation are likely to change over time so the information may be far less relevant. In addition, it is harder to get organizations to accept responsibility for performance if the data is too old to be meaningful as they are able to say that things have changed since the data was collected.”

6.3 The accountability process

(ix) Operating costs

Canada:

“Estimating the marginal (add on) costs of an accountability system will be difficult. First, neither accountability nor improvement are new or add on roles for government. They should have been part of existing structures and organizations. Second, data can be used for multiple information purposes. Data for performance indicators should be part of managing and providing care. Third, costs should be placed within a health policy framework that considers both costs and benefits. A good body of work suggests that good quality of care is cheaper because it reduces the risk of complications and other costly adverse events such as readmissions. It will also be important to measure the direct and indirect costs to providers if they have to spend more time with information generation or analysis.

For Ontario Hospital Reports, our budget this year is \$2.5 million and the costs to complete the current development cycle. Coverage of the entire system will require at least as much again.” (Population of Ontario is about 11 million.)

UK:

“I am not aware of any evaluation of costs of the overall performance management system, so I cannot answer this question.

As mentioned above, much of the data was already being collected so the costs were already being borne. The original consultation exercise on the PAF suggested that in order to minimise cost, maximum use would be made of routinely collected data.”

“It is admirable that the NZ Ministry will be considering cost issues explicitly and this is likely to be a useful exercise.”

(x) Multiple uses of information

Dr Goddard refers to the use of information for benchmarking and investigative purposes.

“The intention has always been to encourage the organizations themselves to use the information for benchmarking purposes and for seeking out and learning from best practice.

In the UK, several benchmarking organizations have developed at hospital and health authority level and there are web-sites dedicated to this purpose as well.

It is generally accepted that the indicators are meant to do just that – *indicate* aspects of performance which may justify further investigation. They are supposed to act as “can-openers” to suggest ways of digging beneath the surface to see what the causes of variation in performance are.”

Dr Brown:

“Finally, although it is important to link quality improvement to accountability, it is also important to identify the several possible uses of health care activity data. Data may be used for management (adequacy and distribution of current resources), evaluation (performance of current resources), and planning (adequacy and distribution of future resources). The Accountability System should not be expected to meet all data needs. However, it will be important to look beyond the data you have to the information you need and be prepared to invest in information systems. It will also be important to spend time developing the partnerships and involvement of the stakeholders that are required for the “cultural shift” necessary for successful behaviour change and

6.4 Performance management

(xi) Underlying Performance Management Model

‘Bad apples’ can easily attract disproportionate attention. Both commentators stress the need to consider the whole range of performance.

Canada:

“There will always be a need for a well defined administrative system to deal with the clearly incompetent or dangerous practitioner. The notion of an overall CQI approach with everybody moving towards better care is appealing. However, it is clear from work in many jurisdictions that there are not just two categories of doctors – bad apples and good apples – but that there is a range. There is a substantial proportion of providers that have a great deal of room to improve. Accountability and improvement are concepts that can bring quality of care to the forefront and that will help focus our

efforts. Though we do not want to limit ourselves to bad apples it is also important to focus improvement efforts on those that need the most help.”

The UK ‘traffic light’ system will endeavour to improve the performance of all organisations. But there are potential pitfalls.

“Traffic Light System:

Our research has indicated that in the past, the emphasis of the performance system has often been on exposing the “bad apples” by producing comparative information in a league table approach. Outliers are therefore highlighted but no incentives to improve are given to the majority of organizations in the centre of the distribution even though it is only by moving this majority upwards that substantial improvements overall could be obtained.

Our recent work in Scotland supports this view: it revealed that hospitals appearing as “bad” outliers often used this information to argue for more resources; similarly, those appearing as “good” outliers also pressed for more resources as a way of supporting their centre of excellence! Those in the middle did nothing (Mannion and Goddard 2000).

The traffic light system which was first put forward in the NHS Plan attempts to address both *absolute* minimum standards as well as encouraging improvements in *relative* performance, regardless of the different starting points of organizations. Those organizations which meet all core national standards and are in the top 25% of organizations on other PAF dimensions will be classed as GREEN; those who meet the core targets but are not in the top 25% along PAF indicators are to be classed as YELLOW; those who fail to meet the core national targets will be classed as RED.”

“Lessons/Issues:

The traffic light scheme represents a real attempt to try to tackle both absolute and relative performance and to provide incentives for ALL organizations to respond.

However, there are a number of potential pitfalls. First, as detailed earlier, there has to be some way of taking into account socio-economic status or otherwise all red organizations will be found in the more deprived areas of the country. Second, there is a danger that categorising organizations as red or failing will just exacerbate their problems. This sort of system has been tried in the education sector in the UK and many schools classed as “failing” have found it impossible to recruit and retain good quality staff. Staff feel it is a reflection on their personal ability and they leave and others may not wish to join failing schools. Third, it is not clear how patients and the public may react to being told their local hospital or health authority is “red” status in the case of schools, patients had some degree of choice over where to send their children (although this is restricted in practical terms) but patients may not have the same choices. The red status may lead to the “ghettoisation” of red organizations.

Fourth, classifying the whole organization as red may not be helpful if the shortcomings are isolated in one particular department.”

“In the NZ system, care must be taken with making comparisons of relative performance between boards – there are only 21 of them. What sort of robust comparison may be made between such a small number of agencies? In the UK, there are many health authorities and hospitals but even here we have some problems once we try to group them into “similar” groups.”

(xii) Use of legislation and regulations

Canada:

“What are truly needed in Canada is a framework and a process for developing that framework that changes the culture of accountability. It has to provide benefits to all those involved. Accountability cannot be imposed it must develop out of mutually shared goals. Likewise, the regulatory or legislative environment for accountability should be include enough incentives and leeway to encourage innovation.”

UK:

“It is too early to tell whether the rhetoric of devolution will be borne out in practice. It is probably fair to say that there is some cynicism about the degree to which central “interference” will be reduced as most governments have said this in the past.

However, there does seem to be a real will this time round to give more control to local agencies. Whether this will be possible politically remains to be seen. I am sure the same thing applies in NZ.”

(xiii) Ex ante and ex post accountability processes

The link from performance measurement to performance improvement needs more thought and work than it is often given.

Canada:

“The feedback only helps improvement when there is support for improvement. This probably requires as much planning as the actual evaluation process. Evidence from regions such as New York state suggests that improvements due to publicly available evaluation have been minimal at best and likely result from the exit from practice of a small number of providers.”

“The key element that needs to be developed is a process for linking publicly reported measures, which will tend to be outcomes focused, to improvement measures that will be more process focused. Measurement will be most useful if it can be used on a more frequent basis (not just yearly feedback). Not all measures will be suitable for such a process. It is important that measures that

are unlikely to respond to improvements in the short term (e.g., life expectancy, socio-economic related disparities in mortality rates) should be recognized as such. These measures should be used to help focus planning efforts with the understanding that change will not be noticed in outcomes for years in the future.”

“Professional leadership is key and within the Ontario process, work with large panels of clinicians has helped us to maintain good relationships with the professional associations. Clinicians need to be involved but to date there is no process to do this at the national level in Canada and unfortunately, the first set of publicly reported national performance measures are being developed with little or no input from providers.“

UK:

“I think perhaps there has been less thought given in the UK so far to how the provision of the performance information will actually impact on performance. We have explored this in our research in relation to the publication of clinical outcome data in Scotland (Mannion and Goddard 2000) and we found little impact has occurred. However, the system there was different from the English performance system, in that it was not incorporated into a formal system or set of agreements nor accompanied by appropriate incentives and sanctions.”

(xiv) Performance Management Techniques

Canada:

“Ultimately it is my belief that providers want to provide high quality care and that what the system needs to do is to provide them with the organizational and information environment to do that.”

“It may be better to reduce the scope of the measures and associated performance measurement techniques in the system. Instead, start small, create a limited set of core measures that can be influenced by local actions in a reasonable time period, and add in other measures based on feedback and experience. Too much design will result in a complex and unworkable system.”

UK:

Rewards:

In the past, the lack of clear incentives to reward good performance and sanction poor performance has been a major gap in the PAF.

The new approach contained in the traffic light system aims to address this. Green light organizations are to be rewarded with greater autonomy, including automatic access to the new *performance fund* which will provide extra resources for locally designed incentive schemes. They are free to use the funds as they wish without seeking prior approval from any other body.

Yellow organizations will have the use of their share of the performance fund moderated by the regional offices and the Modernisation Agency – the aim is to ensure it is spent in ways which will improve performance. These organizations will need approval from the regional offices for their plans.

Red organizations will receive intensive “support” from regional offices and the Modernisation Agency and the latter will hold their share of the fund. Some of the funds may need to be spent on getting external assistance to help address their performance.

Earned Autonomy:

In addition to the above aspects of autonomy in the use of the performance fund, there is emphasis on other aspects of earned autonomy for green and yellow organizations.

These include: automatic access to discretionary capital without having to bid, lighter touch monitoring by the regional office; less frequent monitoring by the Commission for Health Improvement (which has the brief to inspect organizations); greater freedom to decide on local organization of services; used as “beacons” and exemplars for Modernisation Agency; have the ability to take over red organizations.

Others mentioned as possibilities in the recent consultation document: reduced progress and routine monitoring; ability to sign off service strategies without regional office approval; retaining land sale receipts up to a certain limit; being first choice for pilot sites; increase in the threshold at which approval is need for business cases.

Lessons/Issues:

Unfortunately we do not yet know how any of this will work in practice, so lessons are limited.

The aims are certainly valid and (as discussed later) there is a real attempt to try to think of ways of rewarding staff who are at the front-line and are responsible for the performance improvements.”

“The UK focus is on rewarding individual staff or groups rather than organizations as a whole. Thus any retention of funds would need to happen at the department or team level and it may be difficult to allow this to happen if other parts of the organization were running deficits. Hence in the past, many departments have had to give up underspends/savings made on their budget when the hospital as a whole has run into financial problems. This provides a weak incentive for making savings.”

This last-mentioned rewarding of individuals or teams has not been suggested in the New Zealand context. From Dr Goddard’s comments, implementation of such an approach could have difficulties.

(xv) Sanctions and incentives

Canada:

“... the development of a useful public reporting system requires input from methodologists, managers and providers and ... should involve partnerships between those who measure and those who can help with improvement efforts.”

“The key for us has been to get people to buy into the system as a useful set of tools, not a stick to beat others with. Think about performance measurement as a way to disseminate strategy and to monitor performance. Kaplan and Norton’s new book on the Strategy-Focused Organization is good on these topics, but they recommend focussing on the benefits of better measurement and reward good performance not sanction bad performance.”

UK:

“Local incentive schemes are to be devised to motivate and reward good performance. The types of rewards which are being discussed at present include financial and non-financial rewards:

- * Paying for additional equipment/one-off investment in a service
- * Education and personal development
- * Non-consolidated cash bonuses for key individuals and teams
- * Improvements in physical environment eg office space, parking
- * Setting up fund for training of key staff
- * Non-recurrent expenditure for providing support services for key staff.”

“Issues/Lessons:

We do not yet know whether the sort of incentives outlined above will actually prove to incentivise staff or not.

It is clear that all expenditures are to be one-off as recurrent expenditure cannot be guaranteed as the organization’s traffic light status may change. This will limit the potential uses to which the fund can be put. This is a problem with financial rewards made on an annual basis and should be considered carefully in the NZ system as well. It is also not clear how easy it is going to be to link improved performance with the actions of a small number of front-line staff. This may be relatively straightforward in some cases eg if a team designs a new booking system which reduces waiting; but less clear in other cases eg who is responsible for reductions in emergency admissions?

Publicity alone is unlikely to provide a strong incentive for hospitals to improve. However, it is likely to play some role in encouraging the very worst organizations to get out of the glare of publicity by moving up the performance distribution.”

(xvi) Behavioural Responses

Canada:

“Any system can be subverted. The key challenge is to start a cultural change within the system so that the new paradigm of accountability and improvement is not seen as a threat but rather is seen as useful tool by all the stakeholders. There will be tensions. Every effort must be made to resolve those tensions. There is a need to identify “champions” for the initiative in all sectors. It is possible to reduce gaming by trying to make the indicator set as useful as possible locally and to maximize the consequences of good citizenship (recognition for high scores) while continuing background validity checks and audits (gaming behaviors will become evident in patterns of performance). At the same time, changing, refining, and shifting measures on a multi-year basis can help balance continuity and the need to reduce manipulation.

On a larger scale, we have started to speak with the professional associations to see if they can encourage their members to record better data. Within Ontario, this has meant a large amount of political as well as academic work. Although it is rewarding and important to communicate our mission and vision to stakeholders across the province, it is also important to budget for this type of work as it is very time consuming.”

UK:

In the UK, some of the problems have been addressed in a number of ways which may also be relevant to NZ.

The problem of *sub-optimisation* (pursuit of narrow local objectives by staff at the expense of the objectives of the organisation as a whole) has been addressed by giving joint responsibility in some areas for agencies which can influence the outcome ie social care and NHS agencies can influence hospital discharge policies. Access to the financial incentives of the traffic light system will also be used to reward joint working.

The problem of *myopia* (pursuit of short term measures at expense of longer-term outcomes which may not show up in performance measures for many years) has been addressed in part by setting longer term targets (10 years) for some diseases which will require efforts to be made in preventive care as well as curative care.

Problems of *misrepresentation and manipulation and misinterpretation* are being addressed by the involvement of independent agencies in data validation and analysis.

The traffic light system attempts to overcome the problem of *complacency* by taking account of relative as well as absolute performance, as described earlier.

Problems of *ossification* may be avoided by reviewing the indicators for their continuing relevance eg a focus on increasing day case rates in a specialty may detract from innovative ways of carrying out procedures on an out-patient basis.

However, constant change will not be appreciated by those in the health service.”

6.5 The consultants’ overall assessment

Both were asked to provide an overall assessment, and advice for the development of the New Zealand system. Extracts are given below (full comments are in Annexes 2 & 3.)

Dr Brown commented as follows:-

“Don’t try to measure everything, instead be strategic and link each performance indicator to realizable key strategic goals. Try to maintain a balance between different types of indicators, however, and try not to focus mostly on measures of clinical outcomes.”

“Be clear about the goals of accountability (i.e., reporting and improvement) and develop a framework before defining specific measures. Second, make public reporting a priority. Nothing focuses the mind of an organization like public reporting. Third, develop a suite of measures that is a mix of measures that are reported to the public and measures that are used directly by providers. Make sure there is a clear link between the two types of measures. The public should understand what the relevant outcomes are and the providers should know what they can do to improve their performance on those indicators.”

And Dr Goddard:

“The following factors have been highlighted as important elements in a successful PM system in our research into the health care sector and in other public sectors (such as education, social care, police services etc) (Mannion and Goddard 2000a):

Measurement Issues:

Shift away from narrow focus (normally financial) towards a “balanced scorecard” approach which recognises the multiple aims and outcomes of health care system
Notwithstanding the above, a more streamlined approach to data collection to avoid organisational paralysis and minimise costs.

Recognition that organisational performance is influenced by the actions of agencies outside the sector being monitored. Design of interface indicators where responsibility is shared.

Acceptance of the fact that there are many aspects of performance which cannot be captured by quantitative analysis. This means that most performance indicator systems need to be accompanied by additional approaches such as inspection and review which incorporate softer information.

A shift towards locally set targets and bespoke measurement systems within a broader framework of standardised data collection. This should maximise the use of the data for local purposes whilst still providing national overview.

Issues to do with Purpose:

Clear analysis of what the purpose of the system is and whose needs are to be met. Distinction between the use of this information for internal management control purposes and their use by external stakeholders for purposes of monitoring and accountability.

Promotion of opportunities for the organizations to use the data themselves in order to identify and spread best practice. Creation of networks, benchmarking clubs, web-based tools etc.

Focus on the role of communities in the process, involving consultation with the public, reflection of their needs and concerns in the chosen indicators, experimentation and piloting.

Analysis:

Careful consideration of the full range of factors which may influence the indicators measured but which are outside the control of the organization eg socio-economic factors etc.

Technical progress is being made in this area with econometric techniques such as data envelope analysis and stochastic frontier analysis being used in health and other sectors for measurement of relative performance. However, we are still some way from being able to measure this in a way which gives us confidence that the variations observed and unexplained by the above factors, actually reflect “real” variations in performance.

Consideration of changes in performance of organizations over time can avoid some of the above problems arising in cross-sectional analysis. This depends on availability of robust longitudinal data sets (which also requires consistency in the indicators measured over time).

Action:

Dissemination is important but should be tailored to audiences for whom it is intended. Many of the subtle technical issues about comparison are not easy to explain to a lay audience. The internet is opening up opportunities for dissemination.

However, the provision and publication of data alone is unlikely to encourage action. Incentives are a major key in achieving this goal. These may be financial or non-financial (the latter include things such as “beacon status” to signify high achievers). The latter may be quite powerful in sectors where staff are not motivated by financial considerations alone.

There is little experience and evidence in relation to what sort of incentives work in health care. There is a role for experimentation and trial.

Care needs to be taken to ensure the rewards target those who are responsible for the improved performance. This is likely to work best at the level of team or individual rather than institution. However, linking the performance with individuals is not always straightforward.

Imaginative options may be required especially where recurrent expenditures are not feasible.”

6.6 Summary

Much of the rich detail of the above material is lost in any attempt to summarise. However, the dot points below are an attempt to identify some of the key points made by the overseas consultants.

- **Purpose and Goals**
 - * Do not have a lot of ‘top-down’ targets
 - * Hold agencies accountable for only those goals they can actually influence
 - * Progress on strategies for goal achievement should be monitored as well as progress towards the goals
 - * Monitoring organisations should be independent.

- **The Indicators**
 - * Do not be too limited by existing data sources
 - * Good information systems need money
 - * Trying to measure everything is defeating
 - * Productivity measures for comparison purposes are probably not worthwhile
 - * Clinicians and others should be involved in development of measures.

- **The Accountability Process**

- * The culture of accountability should develop from mutual goals
- * Some improvements take years to become apparent.

- **Performance Management**

- * Feedback helps improvement only when there is support for improvement
- * Sanctions are needed for the clearly incompetent
- * But in general highlighting outliers is not the way to improve the performance of the majority
- * Be careful not to confound poor performance and socio-economic disadvantage
- * The key challenge is to start a cultural change so that performance measurement is seen not as a threat but a tool.
- * Praise works better than rewards.

7. Philosophy and Style of good Performance Management. System Implications for New Zealand

7.1 Performance Monitoring as an ‘ongoing conversation’

Evaluating the performance of any public sector organisation is an art rather than a science. This is doubly true in the health sector, where the links between health outcomes and organisational performance are imprecise, poorly understood and long-term in nature. In addition, organisational performance itself is not easily captured by information available to third parties. Customers, who possess such information, have few avenues for passing their knowledge to others (in market settings, such knowledge is transmitted through choice among providers). Measurable performance indicators have a wide margin of error, and rarely provide early warnings of changes in organisational performance.

The above problems are not an excuse for doing nothing. Rather, they suggest that the performance monitoring framework needs to be thought of in institutional rather than data terms. In other words, the framework needs to think of performance assessment as an ongoing process, where the interaction between the monitoring body and the District Health Boards takes place at a variety of both formal and informal levels. In an on-going process, feedback loops are numerous, and information needs evolve over time in response to specific needs and opportunities for action.

The OECD⁶ observes that “Public decision makers are much like corporate executives...They give priority to practical or qualitative information obtained by speaking to individuals they trust. This is a far cry from the theoretical model that assumes that problem solvers take the time to think the problem through by analysing and exhaustively reviewing all the information on the specific empirical situation and the quantitative merits of the alternatives available. This means that evaluation will be more credible if it is adapted to the reality of the decision-making process.”

In this context, it is important to remember that performance monitoring is a learning process. What this means is that policy-makers constantly use information available from the performance monitoring system to keep themselves informed about what is working and what is not. On the other side, the agencies being monitored use the system to learn what matters and what does not matter to the policy-makers. Whenever there is a wide range of indicators, a large share of them are likely to be ignored at any one time. Policy-makers will focus on the few that they think tell them something new and different about the DHBs, while the DHBs will highlight the indicators which they think appeal to policy makers.

Hence, when considering a range of indicators, it is best to think of performance monitoring as a kind of on-going conversation between the DHBs and policy makers, with the monitoring agency’s responsibility being to manage and inform that conversation. In particular, performance monitoring should aim less at providing an overall understanding of a vast range of parameters than at producing indicators on a few well-defined aspects that can be considered as reasonably useful proxies.

⁶ Evaluation as Usable Knowledge for Public Management Reforms, Jean-Claude Thoenig, PUMA/SGF(99)6

To quote OECD again, “Good practices naturally lead to performance evaluation as a living management tool. In other words, culture and people are its core components, and production of information is merely an outcome or means to an end. The goal is to raise people’s awareness, to disseminate a new kind of focus on performance, cost, quality and the relevance of the services provided, but also to give agencies and staff the capacity to evaluate themselves. Under this approach, the goal of a structured approach to performance at all levels of the public system is achieved by enabling each level to produce the information it needs for its own day-to-day decision-making...”

7.2 Accountability

The purpose of performance monitoring is to enhance accountability. So what does “accountability” mean? In general terms, accountability is the process which changes organisational behaviour in response to information about how well or how badly the organisation is doing.

There are two problems with any such process:

- First, the available data may be a poor proxy for how well the organisation is doing.
- Second, the information on performance may have little effect on behaviour.

There is a close link between these two problems. If the key players place low credibility in the quality of the performance indicators as proxies for performance, they are less likely to change their behaviour in response to negative assessments.

In some settings, this link can be broken through the use of sanctions. In other words, if the monitoring agency has the authority to impose or recommend sanctions for non-compliance with the chosen indicators, the fact that the organisations whose performance is being monitored disagree with the assessments may be less relevant. However, sanctions are unlikely to be effective or politically sustainable in the health sector. The key institutional sanction is a reduction in funding (akin to loss of sales in the commercial sector). However, the political reality is that poor performance in the health sector – as signalled by poor health outcomes – is likely to attract more rather than less funding to the affected area.

Hence, accountability in relation to DHBs is likely to work through channels not linked to sanctions. These are:

- Trust. DHBs and the monitoring body develop a level of trust and mutual understanding, which discourages DHBs from responding to signalled problems by using vast amounts of information available to them to explain why they are different and how adjusting the official indicators for local conditions shows that they are doing a good job. Trust will mean that DHBs work continuously with the monitoring agency, and come to value its judgements and its feedback.
- Shame. Public accountability reports can change behaviour by shaming DHBs into action. However, this would be difficult to achieve, as DHBs will always have more

information at their disposal than a monitoring agency, and will have “ammunition” to respond. Second, shaming DHBs into action is a high cost and disruptive process. It also may not be politically sustainable, as indicated by the recent review of the Education Review Office.

In conclusion, trust and informed two-way communication are likely to be the key instruments of accountability. The analysis below is predicated on this approach.

7.3 DHBs' decision making needs

DHBs are broadly involved in two types of decisions:

- They allocate resources between competing and conflicting objectives. In practice, corporate boards rarely reconcile conflicts explicitly. For example, given the competing claims of satisfying the current demand for hospital services and investing in preventative primary care, DHBs are relatively unlikely to pass explicit judgement about their relative priorities. Rather, they will be making lots of specific allocation decisions in relation to every service and every facility, which will emerge into an implicit strategy. In this context, DHBs themselves will require information that would allow them to monitor the emergent strategy.
- They monitor management to ensure that the agreed priorities are implemented into a sensible range of specific services, and the required services are produced efficiently and within budget. Again, like all corporate boards, DHBs will be at a disadvantage relative to the management. In particular, the decision on what specific services to offer within a limited budget is frequently driven by the availability of inputs rather than by strategic considerations. DHBs will find it difficult to understand how the policy decisions are best to be translated into service offerings, and will require information to address such issues.

If we accept that the monitoring framework needs to be consistent with the DHB's own needs, then the performance indicators required by the Government need to be geared towards helping the DHBs perform the above functions. This has a number of implications:

- First, it would make sense to work with the DHBs to develop the indicators that they should be judged on. Such a process would allow the DHBs to tailor their accountability to their own decision-making needs. This has obvious commercial parallels. For example, corporate boards negotiate performance contracts with CEOs where both parties have an input into the indicators and targets. Such indicators and targets may vary from year to year, and from DHB to DHB. Hence, it does not appear likely that a large, universal set of indicators can be devised once and for all.
- Second, the selected performance indicators need to be consistent with the requirements of an annual decision-making and reporting cycle. Within such a cycle, DHBs are likely to be assessed in terms of how this year's indicators compare to last year's, i.e. is the change for the better or for the worse. Many potential performance

indicators have high volatility, making it difficult to extract a trend, and compare performance year to year. It would be inappropriate to judge changes in performance on the basis of such data. Equally, some indicators show little variability year on year. Again, they are unlikely to be useful within an annual cycle.

Overall, the institutional approach would suggest that the focus in the design of the performance monitoring framework should be not on an initial selection of the optimal (or the widest possible) set of indicators. Rather, it should be on setting up an institutional arrangement which would engage the DHBs and the monitoring agency in a developmental process. The actual monitoring framework is likely to evolve over time, depending on the needs and issues facing individual DHBs.

A framework which sets up a large range of measures and goals at the outset would not be the best starting position for such an evolutionary process. Such a framework would be likely to encourage *pro-forma* compliance, and discourage DHBs from seeing the usefulness of the process for their own decision-making needs.

7.4 Institutional setting

As noted above, the institutional setting for performance monitoring is critical to the success of the process. The following features are important:

- The monitoring agency needs to have the trust of both the DHBs and the policy-makers to guide the evolution of the monitoring frameworks. Policy makers need to trust that the monitoring agency will have the capacity to process large amounts of data, both formal and informal, and separate noise from information. At the end of the day, policy makers will base their decisions not on raw performance indicators, but on the judgements and perceptions of the monitoring agency. Hence, they will need to trust these judgements. Equally, the DHBs will need to trust the monitoring agency's ability to separate the woods from the trees, and to come up with useful feedback.
- These issues point strongly in the direction of an independent agency. As long as the monitoring agency is linked to the funding agency, there is a risk that policy makers will perceive the monitor's judgements as being contaminated by its funding and policy roles. Equally, the DHBs will not be able to relate to the monitor separately from the tensions they will inevitably have with the Ministry's role as the funder.
- It is critically important that the role of the monitoring agency not be reduced to collating a pre-determined set of indicators – that is being a statistical agency. The agency needs to have the capability to practice the “art” of evaluation. In practice, this means acting as a body which absorbs a wide range of relevant research, and then interprets individual DHB performance through the prism of that knowledge. For example, it may be impossible to find an indicator which directly links DHB performance to, say, smoking rates in an area. However, there may be a considerable amount of both New Zealand and international research which links

smoking to individual aspects of the health services delivery. An appropriate role for a monitoring agency in this context would be to engage the DHBs in discussion on how such research may or may not illuminate aspects of their performance, and to guide the development of a collective view based on an intelligent use of such research.

- The monitoring process needs to take into account the information needs of various stakeholders. In addition to the policy-makers and the DHBs, the affected parties obviously include health service consumers, local voters, private and NGO providers and health professionals. All of them will have different legitimate information needs. This raises two issues:
 - * First, it again highlights the need for perceived independence. Third parties not directly involved in the relationship between the government and the DHBs need to have the confidence that the monitoring process will not be captured by either interest.
 - * Second, the monitoring agency will need to have the capability to “tell the st in a range of contexts. Accountability reports need to make sense and be useful to a variety of stakeholders.

7.5 Range of indicators

The government collects a wide range of administrative and statistical data. Only a small proportion of that data is directly useful for performance monitoring. Many statistical indicators are useful for research purposes, or as inputs into a broader picture of the world, or may simply be collected because they are available and are stored pending future use. The key point is that the selection of indicators for performance monitoring purposes should not be confused with the decision on which statistics to collect.

In particular, there is frequently a temptation to link as many of the desired statistical indicators as possible with the performance management framework in order to improve reporting incentives. Those who want to collect health statistics know that DHBs are more likely to comply if these statistics are required for accountability. However, this is, in general, not a good reason. Just because data may be useful or interesting for understanding health sector performance, does not make them useful for performance monitoring.

The risk is that once some indicators are included in the performance framework, there will be considerable pressure to include more. Every interest and pressure group will see the presence of the indicator relevant to them as a key factor in ensuring that their position is reflected. Thus, if the process does not start with a limited range of indicators, it may be very difficult to contain the pressure to add more and more indicators.

The key problem, however, is that the more indicators there are, the less useful they become in monitoring performance. For a wide range of indicators, there will likely always be some that would be showing an improvement and others showing a deterioration. The DHBs and

the monitoring agency will have a wide discretion over which to highlight and which to downplay. In fact, it is an old bureaucratic trick: if you want to avoid accountability, overwhelm your reviewer with detail.

This suggests that only a small range of indicators should, at any one time, be formalised into direct performance measures. Other information should be collected within the context of the statistical framework. The currently proposed system does appear to be moving in this direction – of differentiating between useful statistics (‘performance’ or ‘explanatory’ indicators) and formal ‘accountability indicators’.

7.6 Conclusion

The overall conclusions of this analysis are:

- The proposed performance monitoring framework must pay adequate attention to the institutional setting. It must avoid generating considerable data flows which do not translate into usable information given the decision-making needs of all those involved. In this context, the suggestion of an independent monitoring agency along the lines of ERO is worth exploring. However, the key issue is not just independence, but the ability to turn data into information.
- The wider the range of goals and indicators against which DHBs will be monitored, the less accountability they are likely to produce. DHBs can only be held accountable if the indicators contain sufficient information to change behaviour. A requirement to supply a wide range of indicators increases the prospect of deviations in each one of the indicators being “explained away”, and provides DHBs with a greater opportunity to tailor the story to avoid change.

8. An Assessment of the Proposed New Zealand System

8.1 Introduction

This Section provides our overall assessment of the Ministry's proposed performance assessment and management framework, as described in Section 3, drawing on the material in the subsequent Sections.

The task of assessment has been made more complex by the fact that the new system is still very much in process of development. There has, for example, been a significant change in the Ministry of Health proposals just in the last two months (since the writing of our earlier draft report). This has been in the direction of using a smaller number of 'accountability indicators'; specifically linked to objectives which DHB actions are in fact able to influence. That change meets some of the criticisms made in our earlier report.

Our criticisms and recommendations here are therefore of the system and its details as they are currently known to us.

With this caveat, we assess below whether the proposed DHB performance assessment and performance management system will do the job, in terms of:

- * setting appropriate goals for the DHBs;
- * identifying good measures of progress towards those goals;
- * reporting in a timely and unambiguous way on whether DHBs are performing satisfactorily;
- * generating appropriate corrective action for sub-standard performance, or reward for good performance.

We also comment on the appropriate institutional arrangements for a performance monitoring and management system.

8.2 Conceptual framework and goals

- **A conceptual framework for the nation's health system goals**

A profusion of goals and objectives, as listed elsewhere in this report, has been prescribed for our national health system. They range from very high-level goals, such as a high average level of population health, to more specific objectives, such as listed in *The New Zealand Health Strategy*; for example reducing smoking, reducing the rate of suicides and suicide attempts, etc.

New Zealand is far from being the only country setting its healthcare sector a multitude of objectives. Healthcare systems have both efficiency and equity goals, across a wide range of services and populations, and a large number of policies which can help towards those goals.

It does provide a more focused system though, we feel, if all these goals and objectives are made to fit into a clearly set out conceptual framework. The recent work by WHO and the OECD, in particular, is starting to provide such a framework. For example, we think a useful distinction is made by the WHO in classifying goals into:

- * Intrinsic goals – for example, an overall healthier population, and/or with less inequality in the distribution of health outcomes;
- * Instrumental goals – intermediate goals on the way to achieving the intrinsic goals, such as the objectives of reducing smoking, or suicides, mentioned above.

WHO and OECD have also proposed a two-way classification into three major goals – health improvement, responsiveness to consumers’ expectations (including ‘access’ in the OECD framework), and fairness of financial contribution – which are then cross-classified by ‘average level’ and ‘distribution’ components (for the first two goals). Again this framework would be well worth using in New Zealand for the conceptual clarification it provides.

Finally there is the distinction made, for example by CIHI for Canada and in the UK NHS system, between:

- * ‘Attributable’ health gain goals; i.e. those goals whose achievement, or non-achievement, can be attributed entirely or predominantly to the actions of the health sector; and
- * ‘Non-attributable’ health gain goals; in whose achievement or non-achievement other agencies or policies play an important part, with a more limited contribution from healthcare agencies and health sector policies.

The high-level ‘intrinsic’ goal of health improvement – ‘attributable’ in this sense, in that other non-health factors, such as socio-economic status, labour force status, housing, etc., play a part in determining population health status, in addition to that played by healthcare services.

Our conclusions from this discussion are that:

- (i) The Ministry of Health should give more thought to the general conceptual framework within which to express the nation’s ‘health outcome’ goals, and strategies for their achievement.

- (ii) The Ministry should give more thought to ‘non-attributable’ goals, and to appropriate mechanisms for ensuring that ‘non-health’ agencies and policies support rather than hinder the achievement of health goals.

The above comments may seem to fall beyond the scope of this report, which is required to focus on DHB performance assessment and management. DHB success is contingent, however, on the success of the health system in its entirety. A clear framework of national goals and objectives helps clarify what is required of DHBs.

- **Goals for DHBs**

The Ministry of Health proposals in their current form hold DHBs accountable on only a limited number of goals. The proposed accountability indicators cover only six of the 13 priority population health objectives in *The New Zealand Health Strategy* – child health, oral health, diabetes, cardiovascular disease, cancer (only for those providing radiotherapy services), and mental health. Other indicators include elective surgery waiting times, the development of primary care services, Maori and Pacific peoples participation in DHB decision-making, and development of workforce and providers.

In other words, there is a focus on those goals to whose achievement DHBs can contribute by local action. Goals not included appear to be in two categories. There are those for which resources are perhaps more effectively used in national campaigns (smoking reduction, reducing violence, reducing the suicide rate), although not ruling out local programs as well. And there are those for which there are statistical impediments to measuring changes for small populations (reducing the suicide rate), or where data are not currently available at local level, and perhaps would be expensive to collect (obesity, nutrition, physical activity, alcohol abuse).

We support this focus on that sub-set of national level goals which can be influenced by DHB actions.

8.3 Performance indicators

As noted in an earlier section, a set of 42 ‘Accountability indicators’ is proposed for assessing DHB performance. These are in addition to the 16 ‘Ba indicators’ proposed for DHB hospital reporting. Some of the DHB indicators are ‘qualitative’, indicating whether or not a given task has been carried out, or ‘exception only’ reports if waiting times exceed 6 months. Most of the others are quantitative indicators, extracted from the large number of statistical measures presently available.

The overall number is of the same order as in the overseas systems we have reviewed. A reasonable proportion of the proposed indicators are found in other countries’ systems also.

The accountability indicator framework is explicitly stated to be ‘interim or transitional’ with further refinement to follow in future. The development of ‘outcome indicators’ is mentioned as one part of this further refinement. This ongoing development should include review of the

measures used in other countries. It is apparent from the material assembled for this report that a good deal of valuable work is happening around the world.

The proposed set of accountability indicators appears a reasonable initial set as DHBs take up their duties.

A formal undertaking to carry out the ‘further refinement’ in the form, for example, of public reviews, would be welcome. It should involve consultation with DHBs, with healthcare professionals, and with others who are interested or able to contribute.

- **Productivity measures**

The set of accountability indicators includes only one of the standard healthcare ‘efficiency’ measures – namely “Percentage eligible day case surgery”. The ‘Balanced Scorecard’ measures of hospital performance do, however, include a measure of ‘inpatient Average Length of Stay’, and also a ‘Resource Utilisation Ratio’.

The question is whether there should be an overall ‘productivity index’ of some sort, which could be based on the Resource Utilisation Ratio, measuring the ratio of outputs to resources, and changes in this ratio over time. There is a good case for constructing such an index for the New Zealand hospital sector as a whole (it would be more difficult to include all non-hospital services, particularly primary healthcare – see O’Dea, 1998). It provides information useful for projecting future productivity growth, and therefore future expenditure requirements.

It is a different matter if such an index is used to compare performance of individual DHBs. Differences in scale of operation are large, and there would inevitably be argument about the effect of these on hospital productivity. The use of such indexes for benchmarking in the UK has been controversial, and the current regime there has abandoned that particular benchmarking measure.

8.4 Performance reporting

The proposed indicators are mainly quarterly and annual in frequency, with some six-monthly. These seem reasonable frequencies for detecting any developing divergence from the targeted path.

There is little indication as yet in the Ministry’s proposals of just how big any ‘deviation’ would need to be to attract the Ministry’s attention, favourably or unfavourably. For some of the indicators, statistical analysis to determine ‘confidence intervals’ will be required.

Nor is there indication of how, or whether, the performance on all the indicators will be summarised in some manner so as to provide a conclusion as to whether performance is satisfactory, unsatisfactory, or better than satisfactory. It seems likely, but is not definitely stated, that initially there will not be an attempt to rank DHBs overall. Instead there will be encouragement of performance improvement in specific areas.

There are virtually no ‘clinical outcome’ measures in the designated set of accountability measures, yet it would be supposed that failure to achieve satisfactory clinical outcomes would be a major cause of concern.

8.5 Performance management

The Minister has power under the New Zealand Public Health and Disability Act 2000, to appoint ‘Crown monitors’ to District Health Boards to assist in improving performance (Section 30 of Act). In case of serious dissatisfaction the Minister may replace the board by a commissioner (Section 31).

These legislative powers are reserved for serious under-performance. The Ministry’s proposals call for a focus on ‘performance improvement, rather than blame’.

The Cabinet Committee paper *Sanctions and Rewards for District Health Boards* (Cabinet Social Policy and Health Committee, 11 September 2000) states that ‘performance rewards and improvement tools for DHBs’ ‘should be used in an encouraging

Performance rewards proposed in that paper include greater autonomy, publicity for good performance, and ability to generate and retain surpluses, and access to funding for pilot initiatives. Sanctions are in general the reverse.

In assessing these proposals, the comments of Maria Goddard, our UK consultant, are particularly apposite. She noted that one recourse of poorly performing healthcare agencies is to plead inadequate resourcing. If the geographical area is one of low socio-economic status, that also might be cited as a cause of below-average outcomes. It is possible therefore to end up both rewarding good performers with more money, and propping up poor performers with more money.

It is important therefore to ensure that resources are equitably distributed between DHBs. The intention is to use the population-based funding formulae, developed in the early 1990s for the RHAs, to allocate DHB funding. (See the three Cabinet committee papers released in early 2001.) The formulae do try to allow for socio-economic differences. Some development and refinement will be needed for applying them to DHB needs.

The UK is implementing an interesting ‘traffic light’ system for classifying healthcare agencies as ‘red’, ‘yellow’, or ‘green’; and applying appropriate rewards and sanctions in each case. We doubt, however, whether it is an approach suitable for application in New Zealand. This is because of our relatively small number (21) of DHBs, and also their wide range in population size and facilities. It is probably preferable to use a more ‘case-by-case’ approach for New Zealand DHBs, taking account of differences in individual circumstances. We should, however, keep an eye on the UK experiment, to see if it does provide lessons for New Zealand.

8.6 Institutional arrangements

We have mentioned elsewhere in this report that there seems to be a potential conflict of interest in that the Ministry of Health is the agency responsible for setting targets for DHBs, and distributing resources to them, and then is also the agency which assesses their performance. The performance of the healthcare sector is determined by the policies and activities of the Ministry of Health as well as by those of the DHBs.

There is a case, therefore, for an independent agency to monitor the overall performance of the publicly funded health sector, including the activities and achievements of the Ministry of Health as well as those of the DHBs.

Arguments for and against an independent agency include:

For:

1. DHBs will feel they are getting a more impartial appraisal.
2. At the same time, an independent agency might find it easier than the Ministry to publish harsh appraisals when needed, as has, for example, the Education Review Office (ERO) in its reviews of schools.
3. The Ministry will be subject to open performance appraisal as well as the DHBs.
4. Thus the performance assessment will cover the performance of the healthcare sector in total; not just those activities for which DHBs are primarily responsible.
5. An independent agency would also be better placed to call to account other 'non-health' agencies whose policies and activities affect health outcomes.
6. Such an agency could be a leader in health sector evaluation and monitoring work, and sponsor research into improving health sector measurement.

Against:

1. The Ministry cannot escape its operational responsibility of checking that the agencies it is funding are performing their duties in a competent matter; and therefore must collect in any case much of the information needed to assess performance.
2. The Ministry would therefore have to make judgements on the performance of DHBs, and to act on them, even if a separate 'Health Review Office' was publishing its own assessments.
3. A separate agency could therefore mean fragmentation of effort.
4. Independent agencies can be vulnerable to political pressure, as for example in the case of the Public Health Commission in 1995.

The arguments either way both have considerable weight. Perhaps the most important one is that there is currently no independent evaluation of the Ministry of Health's performance, and, given the change in the Ministry's role, it is important that there should be some such evaluation.

We consider this issue an important one, which should be investigated further.

We recommend therefore that there should be an investigation into the setting up of an independent Health Sector Performance Assessment Agency, whose tasks could include:

- assessing the performance of the Ministry of Health, DHBs, and other publicly-funded health sector agencies;
- publishing the results of its assessments;
- assisting the agencies to improve their performance;
- and carrying out such research and consultation as is needed to perform those tasks.

Whether or not an independent agency is set up, it needs to be said that proper monitoring and evaluation needs proper resourcing.

8.7 Summary

- The proposed system for DHB performance assessment and management is still very much in development.
- It has a relatively limited number of objectives for which DHBs will be held accountable.
- The number of proposed 'accountability indicators' is also now smaller than had been earlier proposed, at just over 40, plus the 16 'balanced scorecard' indicators of DHB hospital performance.
- We very much support this reduction in the number of DHB goals and 'accountability indicators' from what we believe to have been an unmanageable number in earlier work.
- This report is concerned with DHB accountability rather than with accountability for the health system as a whole. However, we consider that 'system accountability', as well as 'DHB accountability', would benefit from having a more coherent conceptual framework than has so far been stated. This might be based on the frameworks being developed by agencies such as WHO and OECD, or on national frameworks such as the CIHI model in Canada.
- Such a framework would also be helpful in identifying more explicitly 'non-attributable' health objectives - that is those such as population 'health state', and 'health inequities' which are determined not only by the 'health sector', but are also health determinants and policies. This would better highlight the need for research on 'health determinants', and for improved policy coordination in these areas.

are intended to cover only those objectives which DHBs are actually able to affect. In general they seem appropriate.

- There is a general absence of ‘outcome’ indicators, to a perhaps excessive extent. For example the cardiovascular measures do not include the district rate of cardiovascular disease or treatment. It could be that it is felt that initially DHBs are unable to have much direct impact on disease and mortality rates, and that there are difficulties in adjusting for socio-economic and ethnic factors. Even so, it is desirable that DHBs should eventually be held accountable for at least some local morbidity and mortality outcomes. This will require work on socio-economic and ethnic adjusters.
- No comprehensive measure of hospital productivity is included in the accountability measures at this stage. This is probably the correct decision for now, as UK experience suggests some care is needed in using such measures for benchmarking.
- There is no precise specification in the system as so far defined as to what ‘deviation’ in any given indicator would require corrective action. Nor of the relative importance of the different indicators.
- A range of sanctions and incentives are proposed for encouraging good performance and deterring bad performance. Most of these are ‘non-regulatory’ in nature, for example changes in the level of autonomy, possible access to additional funding. The intended emphasis is on support to improve performance rather than blame for poor performance. We believe this is the correct emphasis.
- The UK ‘traffic light’ classification into three performance tiers is an interesting approach to performance improvement. The results in the UK should, however, however be observed before introducing it here.
- The Ministry of Health is the proposed performance assessment agency for the DHBs. We see advantages, however, in having an independent monitoring agency, which could also monitor the performance of the health system for the country as a whole. There are disadvantages, also, in possible duplication of reporting. On balance we think the advantages outweigh the disadvantages. We recommend further investigation into whether or not an independent monitoring agency should be set up.
- Regardless of the institutional structure monitoring of performance does require adequate resourcing.
- Overall the performance assessment and management proposals appear to be moving in the right direction, and they are less excessively detailed and burdensome on the DHBs than we had originally feared. They are still very much at an interim stage of development, however, and it appears as if much of the implementation detail has yet to be worked out.

9. A Long Term Strategy for the Development of New Zealand's Monitoring and Benchmarking System

9.1 The current situation

The DHB monitoring system being set up by the Ministry of Health provides DHBs with initial performance targets for the 2001/02 financial year. It is clearly stated to be an interim arrangement, which will be further developed for later years.

The interim system is based on two sets of 'accountability indicators'. These are:

- The 'balanced score-card' set of 16 indicators for assessing DHB hospital performance.
- The larger set of 42 indicators for monitoring the wider aspects of DHB performance. (There is a little overlap with the hospital indicators.)

The 'balanced score-card' set of indicators was developed over the past two years, building on earlier models and based on an examination of overseas developments plus local consultation.

For the larger set of 42 indicators, priority has been given to getting into place a system comprised largely of 'process' indicators. A number of these are linked to a selection from the 13 'priority population health goals' listed in *The New Zealand Health Strategy*, and to other objectives specified in that publication, including reducing inequalities in health status for Maori.

9.2 The Ministry of Health's long-term plans for developing indicator sets

The interim performance indicator framework is to be progressively refined. It will include additional service areas devolved to the DHBs. It will incorporate the results of improved data availability and quality. In particular it is hoped to include more outcome indicators. It is also intended to include indicators from the finalised toolkits for the 13 priority population health goals (not all of these will be DHB goals).

These 'tool-kits' will have the following components for each goal:

- Evidence on the best ways to achieve health gain for specific population groups. For example by age, gender, and ethnicity. As well as effectiveness, evidence on 'take-up' will also be examined.
- Evidence on the best way different sectors and providers can influence health status. That is, other sectors as well as Health.

off' documents.

9.3 Relevant comment from overseas

One of the messages from the overseas consultants for this project was the need to get the right Performance Indicator framework decided before getting into too much detail on individual indicators. And in doing this, the importance of consultation with stake-holders was stressed, including in particular with providers and clinicians, as part of creating a positive 'accountability culture'.

9.4 Recommended long term development strategy

As noted, above and in the previous section, a more solid foundation for future development will be provided by developing a conceptual framework which covers not just the DHBs but the whole of 'health'.

Once this is done, the proposed 'toolkit' development program above sets an appropriate development path which is applicable not just to the priority population health goals but to other goals also.

We see therefore the long-term development path as follows:

- (By end-2001) Getting the conceptual framework right, as discussed in section 8.
- (By end-2001) (But continuing work beyond then) Identifying the ideal indicators to match the different goals being set the health sector. Not all of the goals will be DHB-relevant.
- (By mid-2002) (But continuing work beyond then) Establishing whether the ideal measure or a reasonable approximation to it is likely to be available from existing statistical sources or projected new statistical sources.
- (Ongoing) Carrying out the necessary research to develop the proposed measures. This should include research into socio-economic and ethnic influences where appropriate, and if appropriate in collaboration with 'non-health' agencies and researchers.

- (Ongoing) Adding, if appropriate, new indicators to the DHB accountability set of indicators. Existing indicators should occasionally be discarded, to keep the total number manageable.

The above steps should involve consultation with the public and with health sector workers and professional bodies. And also with 'non-health' agencies about possible 'interface' indicators where relevant.

They also require ongoing development of information systems. There are deficiencies in present systems, particularly perhaps in the areas of primary care, and outpatient services. A national health information strategy has yet to be established, although a Health Information Management and Technology Plan Advisory Board is currently working in this area. Improvements to current information systems will allow the development of better sets of performance indicators.