HOW A GOVERNMENT STRATEGY OF ACTIVE PERFORMANCE MANAGEMENT HAS
INFLUENCED DISTRICT HEALTH BOARDS' DELIVERY OF PUBLICLY FUNDED ELECTIVE SERVICES

An Institutional Logics Perspective

BY

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Abstract

New Zealand, like most countries, is limited in the amount of publicly funded non-emergency (elective) medical and surgical services that it can provide to its population. In 2000, the 'Reduced Waiting Times for Public Hospital Elective Services: Government Strategy' outlined the systematic approach New Zealand would take with elective service waiting time management. The approach included the Government's use of active performance management, namely, the setting of accountability and clear performance expectations; the ongoing monitoring, measurement, and reporting of performance; and the management of system change using facilitative networks. Since 2001, District Health Boards (DHBs) have been accountable for implementing government electives policy.

The thesis examines how the Government's strategic use of active performance management has influenced DHBs in their delivery of publicly funded elective services. In order to better understand and evaluate elective service delivery outcomes, (in particular that equity of service access has been achieved), and to evaluate the improvement of health service decision-making, there is a need to understand how decision-makers at the macro, meso, and micro levels of the health system are influenced by performance management practices. The research has examined influence from a multi-stakeholder and performance management system perspective.

Methods include interviews with DHB and government stakeholders, review of Nationwide Service Framework and government policy documents, and the analysis of ten years of publicly available DHB performance reports to understand compliance patterns. The research narrative synthesised from study data is interpreted using a blend of neo-institutional meta-theories and institutional logics.

The research found the government uses two performance models: an administrative control performance model which relies on information collection, control logic and performance feedback, and a professional services performance model which relies on the management of change using networks. Each DHB has established organisational practices in response to active performance management which are largely concerned with the promotion of DHB legitimacy. The influence of the two performance models and the interests of multiple DHB stakeholders is explained by considering the interplay between

fifteen organisational practices, the government institutional logics of Active Performance Management and Service Improvement and the organisational field-level institutional logics of Population Health Management, Service Management, Medical Professional, and Integrated Care.

Overall, the research concludes that 'Active Performance Management' has made a significant contribution reducing public hospital waiting times. It focuses the attention of DHB service managers who are concerned with mitigating risks of financial penalties and loss of leadership legitimacy. However, there are different 'supply' decision-making agendas and criteria operating at different levels of the health system. In particular, it is difficult to lock in appropriate accountability arrangements with primary care, and the strategic use of active performance management has led to tensions between DHB management and hospital specialists. If New Zealand wishes to expand its evaluation of health service delivery to take into account outcomes measures, there needs to be a better understanding of the aggregated impact of performance management practices on the health system.

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Dedications

I dedicate this thesis to two very special people in my life. Firstly, to my father, Eric Charles Sloper (1932-1995). I owe my love of learning and core values to my dad. I miss him so much and know he would have been incredibly proud of this achievement.

Secondly, to my husband Derek Gower. Thank you, my love, for sharing this journey with me, for your unwaivering support and for helping me with blind spots.

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List of Abbreviations

BSMC Policy	The Better, Sooner, More Convenient Health Discussion Paper (Ryall, 2007)
CEO	Chief Executive Officer
CIO	Chief Information Officer
CMO	Chief Medical Officer
COO	Chief Operating Officer
CPAC	Clinical Prioritisation Assessment Criteria
CWD(s)	Case-weighted discharge(s)
DHB(s)	District Health Board(s)
ESPI(s)	Elective services patient flow indicator(s)
FSA	First Specialist Assessment
GP	General Practitioner
GPwSI	General Practitioner (GP) with special interest
IDF	Inter-District Flow
IDP(s)	Indicators of DHB Performance
IPS	Institute of Policy Studies
NBRS	National Booking Reporting System
NMDS	National Minimum Dataset
NNPAC	National Non-admitted Patient Collection
NHS	National Health Service (UK)
NHSPAF	National Health Service Performance Assessment Framework
NPF	National Patient Flow
NPM	New Public Management
OAG	The Office of the Auditor-General
OECD	The Organisation for Economic Co-operation and Development
PAS	Patient Administration System
PHO	Primary Health Organisation
PMS	Performance management system
RWT	Reduced Waiting Times for Public Hospital Elective Services: Government Strategy
SDR	Standardised discharge ratio
SIR	Standardised intervention rate
WHO	World Health Organisation

Chapter One: Introduction

Since its introduction in 1938, the New Zealand public health care system has been predominately funded through taxation and aims to provide health care to all its citizens under a universal coverage model. However, like most countries, New Zealand is limited in the amount of non-emergency specialist health care services that its tax-payer funding can afford. Therefore, public hospitals have to make difficult decisions about how to allocate their scarce specialist workforce and other service delivery resources.

In the late 1980s, several audits identified serious public confidence issues with access to treatment in public hospitals. The Hospital and Related Services Taskforce (NZ) (1988, p. 1) reported:

> "Most New Zealanders have come to believe that a wide range of health services will be available, as of right, when they want them. In reality the system falls short of this".

The Taskforce identified issues with inequity of access to services; the poor integration of primary and secondary health care services; and public hospital management issues. The Office of the Auditor-General (OAG, 1989) reported that many of the issues stemmed from the poor management of public hospital surgical workloads.

Throughout the 1990s, as part of major health sector reforms, New Zealand introduced changes to the management of public hospital waiting times, and since 1998, has used a systematic approach. In 1999, a newly elected Labour-led government announced the establishment of District Health Boards (DHBs), and since 1 January 2001 DHBs have been the Crown entities accountable for the operational management of all public hospitals. In 2000, the government ratified its approach when it published the "Reduced Waiting Times for Public Hospital Elective Services: Government Strategy" (Ministry of Health, 2000), hereafter referred to as the RWT Strategy.

The essence of New Zealand's approach is that, where a public hospital service does not have capacity to meet the demand for the elective services it offers, it must explicitly prioritise how it will allocate services and must provide services to those it can offer

treatment to within a maximum required waiting time. The RWT Strategy also describes the government's intent to actively manage health sector performance in respect of its electives policy objectives.

This thesis acknowledges that for the past thirty years public hospital waiting list management has been a 'hot topic' for New Zealanders. Derrett, Cousins, and Gauld (2013) present a perspective of a national system using media sources and demonstrate the 'messy reality' of maintaining overall control and co-ordination of public hospital elective services. The impact of national control and co-ordination of services at the local level, however, is not widely reported in the academic literature. Moreover, although there was a significant amount of research on the RWT Strategy in its early years (Cumming, 2013, pp. 206-209; Derrett, 2005), there is almost no recent research on the topic.

In 2011, the OAG reviewed the government's progress with elective service delivery in public hospitals. The Auditor-General's overview remarks:

> "Despite the encouraging improvements made in the last 10 years, we do not yet have a system for scheduled services that can demonstrate national consistency and equitable treatment for all. Our audit suggests that such a system is achievable. . . . This is a complex topic and deserves detailed consideration" (OAG, 2011, p. 7)

This thesis, then, aims to present a contemporary account of the RWT Strategy. In particular, it presents an institutional logics perspective of how DHBs are influenced by the government's strategy of active performance management. *Institutional logics* are the sets of organising principles, the material rules, and values that organisations and individuals abide by within each level of a system.

The context and background for this study are described in this chapter, which is organised as follows: section 1.1 provides context on elective services and describes the development of a systematic approach to service delivery; section 1.2 describes perspectives on priority setting; section 1.3 provides background on the role of DHBs; section 1.4 presents aims and objectives of this research; section 1.5 provides an outline of the chapters in the thesis; and section 1.6 provides a summary of this chapter.

1.1 Background

An elective service, sometimes referred to as a scheduled service, is a non-emergency medical or surgical service that is scheduled in advance. Public hospital elective services are delivered in a non-admitted (outpatient) or an admitted (inpatient) setting. Elective services include specialist assessments, diagnostic procedures and surgical procedures (such as eye cataract removal or hip and knee replacements), and medical treatment (such as the use of ultra-violet light to treat a skin condition).

Traditionally, New Zealand has allocated responsibility for managing waiting lists and times to individual hospitals and clinicians, who would decide which patients would be treated sooner rather than later, and then place those who could not be treated soon onto a waiting list. These lists tended to lengthen over time, and became of significant concern to the public, as well as being regarded as highly political. New Zealand's implementation of a systematic approach in the late 1990s involved the replacement of this traditional waiting list with a booking system approach and the use of explicit clinical prioritisation assessment criteria to determine which patients should be treated as a priority.

In a hospital booking system there are a series of decision-points and the patient progresses along a service pathway in stages. Much of the data collection and co-ordination activities associated with elective service delivery is completed by hospital business units, such as a referral processing centre, an outpatients department, the inpatients booking office, and operating theatre and hospital wards. Details are recorded in different areas of the hospital information system and staff access to details is often restricted in order to protect patient privacy. The booking system approach to service management is detailed in Chapters Six (section 6.3) and Seven (section 7.2), but is broadly outlined here:

- All patients receiving publicly-funded services must be referred for a DHB service by a registered medical practitioner. The starting point for most patients is a General Practitioner (GP) assessment but patients may be referred from specialists within the public or privately funded health system.
- A clinician within a DHB service must assess the patient's clinical need and prioritise the referral. Each service has an access threshold, which is based on a service's financial capacity and existing workload. The DHB must acknowledge the referral and

its decision to accept or decline the service request within ten working days (fifteen calendar days from 1 July 2016).

- Patients usually receive a first specialist assessment (FSA) before they receive surgery or medical treatment. An FSA is usually a face-to-face consultation in an outpatient clinic or via video, but the patient may also be assessed without being present (non-contact FSA), in which case the referrer receives a comprehensive written plan of care.

- Following an FSA, a decision would be made by the specialist as to whether the patient needs or would benefit from treatment. All patients who receive publicly-funded elective treatment must be assessed using nationally recognised clinical prioritisation assessment criteria (detailed in section 2.3.4.6).

- Service waiting time is separately monitored for FSA and for treatment. Waiting time starts on the date the patient is given certainty of service coverage. For an FSA this is the date the DHB service accepts an FSA referral. For treatment this is the date the DHB advises the patient they will be offered publicly funded treatment. Waiting time finishes when the patient attends their FSA, or when treatment is delivered. Not all patients go on to receive treatment and there is little public reporting of the reasons why or of how many times patients are referred for services.

There were many problems associated with the transition from a waiting list to a booking system approach. As Cumming (2013, pp. 217-218) explains, the implementation of the system was at times rushed, and there was a need for all system stakeholders, in particular clinicians, to agree on the principle and design of formal prioritisation processes. Clinicians did not always consider they were adequately consulted (Roake, 2003). Cumming observes that many clinicians resisted the use of criteria, and early evaluations found evidence of clinician resistance to the use of explicit assessment criteria, citing tool validity and reliability as an issue. In reality, it has taken several attempts for New Zealand to adopt its waiting time policies and processes and the use of funding incentives and the setting of performance targets have been critical for successful implementation of a systematic approach.

1.2 Determining a systematic approach to elective service management.

The choices a country makes about its health service coverage reflects its priorities and political, economic, and cultural values (Ham, 1997). New Zealand came to define its priorities and values as successive governments throughout the 1990s determined how they wanted to organise and deliver publicly financed health care services.

In 1991, following the election of a National-led New Zealand government, radical reforms of the health system were announced (Upton, 1991). An aim of the reforms was to de-centralise and de-politicise resource allocation decision-making. New Zealand investigated whether it might develop an explicit list of core services, in order that "New Zealanders would know the services to which they are entitled within a reasonable time from the publicly funded health service" (Upton, 1991, p. 75). Although the idea of an explicit list of core services was not progressed (National Advisory Committee on Core Health and Disability Support Services, 1992, 1994), it did lead to a comprehensive review of New Zealand's public hospital waiting list management. Fraser, Alley, and Morris (1993) reported on the main findings of the review and identified a lack of clinician transparency when prioritising patients, a lack of clarity for patients on when they would receive treatment, and a significant difference in waiting times across New Zealand. These three findings led to New Zealand opting for a systematic approach, based on the values of fairness, clarity and timeliness.

Since July 1998, all patients receiving publicly funded elective surgery have been prioritised using nationally consistent assessment processes, and public hospitals have been required to use a booking system to book elective treatments. The goal of prioritisation is to determine a patient's need and ability to benefit from surgery or medical treatment. In the mid-1990s, explicit criteria and a scoring system were developed for a number of health specialties (Hadorn and Holmes, 1996, 1997a, 1997b). A systematic approach to explicit clinical prioritisation requires that the output of the process, a score, is referenced to a hospital service access threshold to decide if a service will be supplied to the patient.

The RWT Strategy has four objectives and seven sub-strategies, shown in Table 1.1. The thesis has classified objectives and sub-strategies into three performance domains: *'Increasing the supply of elective services'*; *'Improving the primary-secondary care interface'* and *'Maintaining patient flow'*. The rationale for this classification is informed by the RWT Strategy; the health services literature and the researcher's prior public hospital and Ministry of Health work experience. In the case of the RWT strategy, the first domain, *'Increasing the supply of elective services'*, is concerned with objectives 2 and 3, and sub-strategies 2 and 4 in Table 1.1. The second domain, *'Improving the primary-secondary care interface'*, is concerned with sub-strategy 5; and the third domain, *'Maintaining patient flow'* is concerned with objectives 1, 3 and 4, and with sub-strategies 1, 3 and 4. Sub-strategy 6 (actively managing sector performance) is the overall topic of this thesis. Building public confidence, sub-strategy 7 is an outcome and is not within the scope of this research because there is no active performance management of this sub-strategy.

Table 1.1: Government Waiting Time Reduction: Objectives and Sub-Strategies

Objective	Seven Sub-Strategies
1. All patients with a level of need, which can be met within the resources (funding) available, are provided with surgery within six months of assessment. 2. Delivery of a level of publicly funded service which is sufficient to ensure access to elective surgery before patients reach a state of unreasonable distress, ill health, and/or incapacity. 3. National equity of access to electives - so that patients have similar access to elective services, regardless of where they live. 4. A maximum waiting time of six months for first specialist assessment.	1. Nationally consistent clinical assessment. 2. Increase the supply of elective services. 3. Give patients certainty. 4. Improve capability of public hospitals. 5. Improved primary and secondary liaison. 6. Actively manage sector performance. 7. Build public confidence.

Note: Adapted from the Reduced Waiting Times for Public Hospital Elective Services: Government Strategy (Ministry of Health, 2000)

In the case of health services literature, there have been two OECD studies on waiting time policy (Siciliani, Borowitz, and Moran, 2013; Siciliani and Hurst, 2003) and both of these studies differentiate between strategies for service supply and demand (see Chapter 2, page 27 for discussion). The European Observatory on Health Systems and Policies, an inter-

governmental partnership hosted by the World Health Organisation (WHO), has published a series of publications on health system performance and improvement (Smith, Mossialos, Papancolas, and Leatherman (2009), and has identified seven conceptual performance domains which can be seen to align to these three performance domains (see Chapter 2, page 26 for more details).

1.3   Perspectives on Priority Setting

New Zealand's health system, like all State sector services, has multiple levels of jurisdiction which give rise to different decision-maker concerns. Ham and Coulter (2000) identify decision-maker concerns at the macro, meso, and micro levels:

- At the macro (government) level, politicians are concerned with the resourcing of the health system, relative to other sectors of the economy.
- At the meso (health system funding) level, decision-makers are concerned with the mix of services being delivered for a given level of funding and whether they achieve intended health system objectives.
- At the micro (service purchasing and service delivery) level, decision-makers are concerned with the allocation of resources to patients.

A challenge of this research is that terms, such as equity of access and prioritisation, are ambiguous and mean different things to decision-makers at different levels of the health system. In the literature, the terms priority setting, and rationing are often used interchangeably. Klein and Maybin (2012) explain that prioritisation is a very opaque term to health service providers and that there is a hierarchy of prioritisation within a health system. In the UK National Health Service (NHS) examples of rationing include the capping of treatment numbers (denial), the setting of treatment thresholds (selection), the reduction of service quality (dilution), the use of waiting time (delay) and the transfer of patients to another institution (deflection) (p. 15). Klein and Maybin distinguish the terms priority setting and rationing: *priority setting* refers to the decisions made about resource allocation among competing claims, whilst *rationing* is the effect of decisions on individuals. Throughout this thesis, government expectations of priority setting or prioritisation refers to decision-making about resource allocation amongst competing claims. All government

strategy and policy is inevitably top-down, and the premise is that decisions will cascade down from the macro-level to the micro-level. Klein and Maybin observe that it is inevitable in any system that requires priority setting that the further removed a decision-maker is from the patient, the more utilitarian rationing decisions appear to be. The most friction is experienced at the micro level, where decisions are applied to individuals.

Early research on the implementation of New Zealand's booking system has highlighted that different stakeholders had different perspectives on how clinical prioritisation and hospital booking systems had been implemented (Gauld and Derrett, 2000; Hefford and Holmes, 1999; McLeod, Morgan, McKinlay, and Dew, 2004; Roake, 2001). Kapiriri, Norheim, and Martin (2007, p. 82) claim that front-line clinicians are often not involved in service priority setting at the meso level of the health system which means they have limited understanding of prioritisation at this level. Ham (1997) argues a strong case for a strategic approach to priority setting that involves decision-makers at all levels of the system.

The RWT Strategy is not explicit about which organisations will be accountable for its implementation. However, in 2001 DHBs became accountable to government for planning and funding population health services and assumed responsibility for operating public hospitals, and therefore it is generally accepted that DHBs are accountable for its implementation and for the performance of public hospital elective service delivery.

1.4   District Health Boards

DHBs are Crown entities and are subject to the statutory management and performance reporting requirements outlined in the New Zealand Health and Disabilities Act (2000), the Crown Entities Act (2004), State Sector Act (1988) and the Public Finance Act (1989). As such, DHBs are required to give effect to government policy when directed by the Minister of Health.

DHBs vary in population size, demography, urban and rural geography and have been funded according to a population-based funding model since 2003. Currently, there are 20 DHBs, (initially there were 21, but Otago and Southland DHBs amalgamated in 2011); 15 are in the North Island and 5 are in the South Island.

A DHB is governed by an eleven-member Board which is established every three years. Seven Board members are elected in community elections and four are appointed by the Minister of Health. The Board is held accountable to the Minister of Health for delivering on financial and non-financial performance results. It also employs a Chief Executive Officer (CEO), who is responsible for the management of service planning, contracting, and funding, and for public hospital operational management functions. The CEO leads an executive leadership team, typically comprising a Chief Operating Officer (COO), Chief Financial Officer, Chief Medical Officer (CMO), Chief Information Officer (CIO) and a Planning and Funding Manager. The planning and funding and hospital service provider functions are separated since the DHB funds itself to deliver services. Throughout this thesis the terms '*planning and funding arm*' and '*hospital provider arm*' denote this separation of activity concerned with the contracting and delivery of hospital services.

Some health services, such as those provided by GPs and dentists, are offered in the community and are known as primary level services. GPs and dentists are unable to offer surgical procedures such as hip and knee replacements or maxillofacial (mouth, face and jaw) surgery. The terms 'secondary' and 'tertiary' level care denote that patients require services that are beyond the capacity and technical support of the primary level service provider. In such cases, the patient needs to be referred to another service provider. In New Zealand, public hospital medical and surgical specialist services are delivered and funded under a mixed operational model of emergency (acute) and elective services. All DHBs offer secondary specialist services, but some offer sub-specialised and complex tertiary level services. The level of service delivery is determined by resourcing (hours of service access, vocational training of specialists), the complexity of surgery and anaesthetic and complication risk of the patient. Complex tertiary level services include advanced medical and surgical interventions such as neurosurgery, vascular surgery and plastic surgery reconstruction. Some DHBs provide highly complex procedures for other regions. As observed by Cumming, McDonald, Barr, Martin, Gerring et al. (2014, p. 123), the boundary amongst secondary and tertiary services is not always clear. DHBs offering secondary level specialist services may also be regional or sub-regional service providers.

Accountability arrangements are complex in a multi-stakeholder environment where an organisation is accountable for performance because it is difficult to tie in individual

accountability when 'everyone is accountable for performance' (van Dooren, 2011). Since 2001/2002, DHBs have been accountable (to the Minister of Health through the Ministry of Health (Ministry of Health, 2015b, p. 7)) for 20-30 DHB performance measures. These measures are additional to statutory national data collection reporting.

1.5   Research Aims and Objectives

The RWT Strategy is explicit that it will rely on accountability setting and continuous monitoring to actively manage sector performance. Therefore, the organisations that operate public hospitals need to have clear information and understanding of medium to long-term service level requirements in order to effectively plan production, analyse capacity constraints and improve the capability of public hospitals. These expectations and needs are suggestive of the need for a multi-purpose performance measurement system.

There are three factors that motivated a study of active performance management. First, there is a gap in the literature about the role of active performance management in New Zealand elective service delivery. Second, the study was motivated by the case study research described by the Institute of Policy Studies (Gill, 2011), which considers how performance information is used in New Zealand state sector organisations (see Chapter Two, p. 19). Third, there is a need for more studies of how change is promulgated and how organisations in a field of service delivery adapt to change (Reay and Hinings, 2005, p. 379).

Therefore, this study aims to examine what the active performance management of elective service delivery has meant in theory and in practice from 1 July 2006 to 30 June 2016. The start date of 1 July 2006 was chosen because compliance with government policy on public hospital elective service patient flow performance expectations became mandatory from this point. Immediately prior to this date many DHBs had to cull patients from waiting lists. Derrett et al. (2013) argue that this is further evidence that New Zealand's approach is not as systematic as it appears because some DHBs had been more affected by waiting list difficulties than others.

The principal research question of this thesis is: How has a government strategy of active performance management influenced the DHB in its delivery of publicly funded elective services? This question is underpinned by three sub-questions:

1. How has the government applied active performance management to accountability setting, performance monitoring, and its use of networks to facilitate change?

2. How do decision-makers at different levels of the health system perceive elective priority setting and how do these differences focus attention?

3. How have DHBs singly and collectively managed the expectations of multiple stakeholders and managed social interaction?

The research examines DHB elective service delivery using a blend of neo-institutional and institutional logics theory (detailed in Chapter Three). The principal research question is answered from an institutional logics perspective.

1.6   Outline of thesis

Chapter Two reviews the literature pertinent to this study. This chapter furnishes the thesis with a vocabulary of performance management practice, it provides the context for understanding New Zealand State sector performance models and elective performance management.

Chapter Three describes the theoretical framework, a blend of neo-institutional theory and institutional logics. The theoretical framework is used in both the thematic coding of interview and documentary source data and in the cross-case analysis of data.

Chapter Four describes the research strategy, use of mixed-methods, validity and reliability considerations and ethical considerations used in this study. Two research methods are used: (1) compliance and trend analysis of Ministry of Health derived DHB performance data from 2006 to 2016 (Electives Health Target, ESPIs and National Booking Reporting System (NBRS) data); and (2) thematic content analysis of interview data. A cross-case study approach is taken, analysing five practices associated with each of the three performance domains (increasing elective supply; improving the primary-secondary care interface; and maintaining patient flow). A total of 45 variables are analysed, (fifteen priorities, fifteen organisational practices, and fifteen resource interdependencies).

Chapters Five, Six and *Seven* have separately examined how active performance management impacts elective service supply, the primary-secondary health care interface and public hospital patient flow management. Examining each domain of elective service

activity separately recognises that the sets of organisational practices associated with each domain come under the jurisdiction and control of different stakeholders.

Chapter Eight describes the cross-case analysis of the narrative described in Chapters Five, Six and Seven. Three analytical techniques are used: sensemaking type analysis; managerial behavioural response analysis and coupling strength analysis.

Chapter *Nine* discusses study findings in the light of theory and relevant literature. Active performance management is found to influence the DHB at both the organisational practice and organisation network levels. This chapter discusses the impact of changes to performance measurement and reporting between 2006 and concludes by re-evaluating its definitions of government and DHB institutional logics. Chapter *Ten* concludes the thesis, discusses the main contributions and limitations of the study and opportunities for future research.

1.7   Chapter Summary

New Zealand's systematic approach to elective service delivery and waiting time management has required the development and implementation of explicit clinical prioritisation criteria, the use of hospital booking systems, procedural standards, and the enforcement of a maximum waiting time guarantee. These actions were described in the RWT Strategy and are a manifestation of the government's strategic intent to actively manage elective service delivery. This thesis will argue that understanding this systematic approach and strategic intent requires recognition that decision-makers at different levels of the health system have different concerns. In order to better understand and evaluate elective service delivery outcomes, (in particular that equity of service access has been achieved), and to evaluate the improvement of health service decision-making, there is a need to understand how decision-makers are influenced by performance management practices.

Chapter Two: The Literature Review

Since the 1990s, the performance management literature has been influenced by changes in management practice, advances in information technology and the demand for greater public accountability. The literature pertinent to this study is reviewed under three sections: the organisational discipline of performance management (section 2.1), New Zealand State sector performance (section 2.2), and health system and elective service performance (section 2.3).

2.1 The Organisational Discipline of Performance Management Literature

The theoretical foundations of the discipline of performance management can be traced to Frederick Taylor (1911, cited by Gill and Schmidt, 2011, p. 13). Taylor believed in transferring control from workers to managers and in enforcing a systematic approach to work practices. The performance management literature has two branches: an operational branch, which focuses on organisation structure, system process design, and production optimisation; and an accounting branch, which focuses on measurement, policy implementation, and public sector performance management.

2.1.1 Organisational performance management concepts and themes.

Formal definitions of performance and performance management are often absent from the literature. Therefore, in order that this study is comparable to other studies, it is important to define this investigation's understanding of these terms.

2.1.1.1 *Performance.*

Performance is an abstract and multi-faceted concept. The New Zealand Dictionary (2005, p. 841) defines *Performance* as (1) the act or process of performing; (2) a play or act; (3) a person's achievement under test conditions; (4) a fuss or scene; (5) the capabilities of a machine or product; and (6) the return on an investment.

Performance is a relative term, it means different things to different audiences. The World Health Organisation (2000, p. 23) defines h*ealth system performance* in terms of the comparison of the attainment of an outcome of interest, what a system has achieved "relative to what it should be able to accomplish – that is, the best that could be achieved with the same resources". The OECD (2005, p. 57) defines government performance in

terms of achievement, "the yield or results of activities carried out in relation to the purposes being pursued". A decision-maker may define performance in terms of its significance; referencing the time, causality, efficiency, and effectiveness of an act (Lebas and Euske, 2002).

In this study, the focus has been on organisational performance, that is on the capabilities of a DHB to act or perform and how the Ministry of Health and New Zealand government perceives DHB performance.

2.1.1.2 *Performance management as practice.*

Performance management is tightly entwined with performance measurement and reporting practices. Radnor and Barnes (2007, p. 393) define *performance management* as the action taken to improve overall behaviour and motivation, processes and innovation. *Performance measurement* is concerned with quantifying event or process inputs, outputs or activity levels. *Performance reporting* is concerned with providing an account, (often including some analysis), of performance measures, usually against some form of target.

Gill and Schmidt (2011, pp. 11-12) explain how managerial perceptions of performance play a crucial role in helping us to understand how performance management influences behaviour. For example, there are three perspectives of performance measurement: rationalist, interpretivist or relativist. The rationalist objective view is that performance is measurable, controllable, and the meaning of performance information is self-evident. The interpretivist view is that performance is influenced by the distribution of power in society, the meaning of performance information is subjective and negotiated. The relativist view is that performance is institutionally defined and those in power control the interests being pursued. Dormer (2010, p. 334) recognises that there is a temptation to make generalisations about the performance management focus of managers based on their position in an organisation's hierarchy but cautions that this approach is too simplistic.

Pollitt (2018, p. 169) claims perceptions about performance measurement system ownership influences performance information use. Operational staff are suspicious of a system that is clearly about providing management with control or of a system that is designed in order for operational staff to have greater accountability to politicians.

2.1.1.3 *The purpose of performance management.*

Henri (2006) identifies four purposes of performance measurement: legitimising, monitoring, attention-focussing, and facilitating strategic decision-making. Henri concludes there is a perennial tension between management's need for control and predictability and the need for flexibility and innovation. Managers with a controlled style favour a monitoring and legitimising purpose, whereas managers with a flexible style favour an attention-focussing and strategic decision-making purpose. Each purpose relies on specific system, people, and process core components. A monitoring purpose relies on: goals being set in advance, on control logic and feedback (Gill and Schmidt, 2011, p. 15). Monitoring tends to be information-intensive (Feldman and March, 1981), which can be challenging for generalist managers who may be unable to differentiate between good and bad performance (Moynihan and Pandey, 2010). A legitimising purpose, associated with governance, relies on the use of accountability setting (Lemieux-Charles, McGuire, Champagne, Barnsley, Cole et al., 2008). Legitimising can result in symbolic reporting and feedback that is irrelevant to decision-makers (de Lancer Julnes and Holzer, 2001; Feldman and March, 1981; Modell, 2001). An attention-focussing purpose relies on an understanding of performance cause and effect relationships (de Lancer Julnes, 2008), whilst a strategic decision-making purpose relies on feedback information being relevant.

The government uses performance management to strengthen accountability and control, but its use is also intended to be a stimulus to learning and professional and organisational self-reflection (Hood, 2012; van Dooren, Bouckaert, and Halligan, 2015). The rationale for performance measurement is significant in any systematic approach. Behn (2003) argues that regardless of any specific purpose, measurement is pointless unless it achieves the ultimate aim of performance improvement. However, van Dooren, Bouckaert, and Halligan (2015, p. 120) argue that research evidence overwhelmingly highlights that, in addition to learning and self-reflection purposes, performance measurement and information is used for power-enhancing, legitimising and symbolic purposes.

2.1.1.4 *Performance measurement.*

Performance measurement is a science with its own epistemology (Micheli and Mari, 2014). The quantifiers *measure* and *indicator* are sometimes used interchangeably in the literature but have different meanings. A measure is a quantity or quality value, whereas an indicator

is a "summary statistic used to give an indication of a construct that cannot be measured directly" (Bowen and Kreindler, 2008, p. 42). Performance indicators also recognise different accountability concerns, for example: *allocative* performance indicators are concerned with whether a system is producing an appropriate mix of outputs, while *technical* performance indicators are concerned with minimising costs and reducing waste in a system (Smith and Papanicolas, 2012, p. 29).

2.2   New Zealand State Sector Performance Literature

This section reviews literature on New Zealand State sector non-financial performance reporting requirements (section 2.2.1), the performance management of State sector organisations (section 2.2.2), a systems approach to performance management (section 2.2.3), and a discussion of the paradoxes in public sector performance control (section 2.2.4).

New Zealand's State sector includes the public service (central government departments and agencies), non-public service departments, and Crown entities. Throughout the 1980s and 1990s, nearly every developed country undertook public sector reform and health sector restructuring in order to improve the financial accountability and management of government departments. From 1984 to 1999, a series of New Zealand governments experimented with an approach to public sector reform known as New Public Management (NPM), which aimed to increase public sector efficiency and accountability for the delivery of service outputs. A feature of NPM is its separation of public ownership and service provision. It also aims to create competition amongst public and private service providers (Norman, 2003, p. 67). New Zealand went further than most countries in its use of contract-like arrangements and in its reliance on performance agreements as a form of external control (Schick, 1996, pp. 7, 91). Restructurings along these lines resulted in enormous changes to the public health system. However not all aspects of change management were accepted; attempts to introduce patient co-payments and competition amongst public hospitals proved unpopular and were later abandoned (Ashton, Mays, and Devlin, 2005).

2.2.1 Non-financial performance reporting requirements.

New Zealand's use of performance management techniques has tended to mirror international public service management trends (Pollitt, 2018, pp. 167-168). New Zealand was an early pioneer of non-financial performance reporting in the 1990s, when it undertook major reforms as part of its implementation of the NPM public sector operating model.

Organisation performance is often described using a production process model, in which performance is defined in terms of: economy (a measure of the relationship between resources i.e. funding and outputs), efficiency (the conversion of inputs to outputs), and effectiveness (the conversion of outputs to outcomes) (Gill and Schmidt, 2011, p. 10). Public sector outcomes are also influenced by the quantity and quality of outputs, the fairness of distribution (equity), value for money (for the taxpayer), and consumer satisfaction ratings (Boyne, 2003). However, some of the issues with the production process model and consideration of public service performance are discussed by Wilson (1989), who identifies there are four types of public organisation: (i) production, (ii) procedural, (iii) craft and (iv) coping. Organisation type varies according to the extent to which activities (outputs) and results (outcomes) are observable. Gregory (1995, pp. 173-174) categorises organisations that are concerned with health service delivery as 'craft' since outcomes depend on co-production and the activities of trained autonomous professionals. Dormer (2010) recognises that the function or nature of work being measured influences performance management approaches, and not all public functions lend themselves to the management of outputs and have clear cause and effect relationships.

Schick (2003, p. 4) explains that the concept of public service delivery performance and improvement is political and contested because performance is not a static measure and the performing State is "one that continuously reads its environment and adjusts how and what it does in response to new information." Gill and Schmidt (2011, p. 10) explain that public service performance models need to recognise that firstly, services are consumed as they are produced; secondly, outcomes take more than one three-year political term to be realised, and thirdly outcomes are attributable to a combination of social, economic and environmental factors.

By 2002, the OAG had recognised that public sector organisations were having difficulty with performance reporting. The OAG (2002, p. 5) observes that performance is a comprehensive concept and performance reporting is essential for effective accountability. When preparing performance reports, public sector agencies should consider:

- What the public entity actually achieves: its impact and the benefit or burden of impacts on the community as a consequence of results.
- The level and quality of the entity's interactions with the public: processes, ethical behaviour, delivery of goods and services.
- The costs of results and interactions: the cost of performance where it results in decline in public entity capability. (OAG, 2002).

2.2.2 The performance management of state organisations in New Zealand.

Despite the OAG's guidance, there was little observable improvement in the quality of reporting and, in 2008, the Auditor-General publicly expressed disappointment in public sector performance reporting (OAG, 2008). This disappointment was the trigger for the NZ Institute of Policy Studies (IPS) research on how public sector organisations use performance information. This research, edited by Gill (2011), includes seven public sector agencies. Three of the case studies, (Work and Income, Public Prisons, and Community Probation) were the focus of Rodney Dormer's PhD research (Dormer, 2010).

A competing values framework was used to analyse case studies in both the PhD and IPS studies (Dormer, 2010; 2011). The framework consists of two axes. The first, the locus of rationality of control, considers whether major functions of an agency's performance are measured and managed using regulative control or shared understandings. The second, the locus of control, considers the extent to which internal or external factors influence the performance management model. Examples of factors influencing control are political saliency of the agency's work, perceived complexity of agency function, sensegiving activities, and management's investment in the agency's public capital. The application of a competing values framework results in a matrix of four possible performance models (Dormer, 2011; p. 147). The administrative control model is represented as inputs focussed; the professional services model as targets and process focussed; the rational goal model as outputs focussed; and the multiple constituency model as shared-responsibility (cross-

agency) focussed. As mentioned in Chapter One (p. 10), the IPS case study research, and notably Dormer's competing values framework and administrative control and professional services performance model definitions, have played a significant influencing role in this research design and this will be seen in the definitions of institutional logics in Chapter Four (Section 4.5.1, p. 83 for further discussion of these models).

When the seven IPS case studies were categorised according to the framework and placed in the performance model matrix (Dormer, 2011; p. 185), it is apparent that no case study is positioned in the professional services quadrant. Conversations with Derek Gill and Rodney Dormer about the studies have highlighted that the Child, Youth and Family agency might be an example of a professional services performance model but Laking (2011, p. 213-214) who analyses the case, categorises the agency as being an example of an agency using a hybrid administrative control and rational goal performance model. Laking recognises that social worker at CYF "like to represent social work as a craft based on professional judgement, not a standardised process". Clinical pathways of practice are promoted at the agency. However, operational risk and political responses to sentinel incidents influence how agency performance is managed. What the analysis of IPS case studies highlights is that organisations that rely on a professional workforce to deliver

Dormer (2010) posits that there are three groups or tiers of performance models within New Zealand's State sector: the first (top) tier consists of requirements legislated by the Public Finance Act, the second tier is a formal documented model, which is encoded in information systems and; the third tier is the "in-use" model, which forms the basis of operational decision-making (pp. 19-21). In the Institute of Policy Studies research (Gill, 2011), the second tier is referred to as the 'espoused' model and the third tier as the 'enacted' model.

2.2.3   A systems approach to performance management system design.

By 1 July 2006, New Zealand's system of electives performance metrics was well established. Whilst we know the aspects of elective service delivery that were being monitored (referral acknowledgement, the use of CPAC tools, waiting time for assessments and treatment, and review of patients who were just below a service's access threshold), there is no academic literature describing the origins of the performance metrics

themselves. This section describes the literature on the principles of PMS design and the importance of a systems approach. This literature is relevant to the study because it supports the gaining of understanding of the assumptions and decisions that contribute to PMS design.

2.2.3.1 *A systems approach to designing a performance framework.*

The design of a performance measurement system involves the consideration of administrative feasibility, political acceptance, and the validity, reliability and usefulness of performance measures (Lu, 2008). Pollitt (2013, pp. 348-349) describes the difficult, unavoidable decisions and trade -offs that performance stakeholders must make in the PMS design phase, namely:

- What activities and aspects of an activity should be measured?
- Who is to be responsible for measurement?
- How and when will measurement be carried out?
- How will performance be presented and who will have access to it?
- How will performance information be used?

Bevan (2006, p. 68) refers to decision-making activities about performance measurement as "defining the performance domain". Using the UK Labour Government's NHS star ratings performance assessment system as an example, Bevan observes that the process of defining a performance domain involves making three types of "heroic assumptions". The first is that central government can determine a scoring system to prioritise what matters, the second is that local variation does not matter, and the third is that failures of performance in the scoring system do not matter. Bevan concludes that a sophisticated system of domain definition is needed for a PMS to be well designed. Meekings, Briault and Neely (2010) argue that effective setting of performance targets requires knowledge of both current and future process capability (p. 46) and the achievement of a genuinely systemic perspective of performance needs indicators that are both necessary and sufficient (p. 50). As mentioned earlier (in section 2.1.1.4), indicators are summary statistics of constructs that cannot be directly managed, so defining the performance domain is challenging.

2.2.3.2   The basic elements of a performance management system.

According to Pollitt (2013, p. 349), a systematic approach to performance management can be understood by considering six basic elements (shown in Figure 2.1): (1) the identification of activities where control is required (2) the measurement of selected aspects of performance that require monitoring; (3) the collection of data (numeric or other) about an activity; (4) the application of performance criteria, (averages, standards or targets); (5) the presentation of information to decision-makers (the use of aggregation, composites and weightings), and (6) intervention by decision-makers in order for the activity to be refined (assessment or decision-making about an activity).

These six elements constitute a *performance measurement system*, which is defined by Gimbert, Bisbe, and Mendoza (2010, p. 480) to be: "A concise set of (financial and/or non-financial) metrics that support the decision-making processes of an organisation by gathering, processing and analysing quantified information about its performance, and presenting it in the form of a succinct overview".
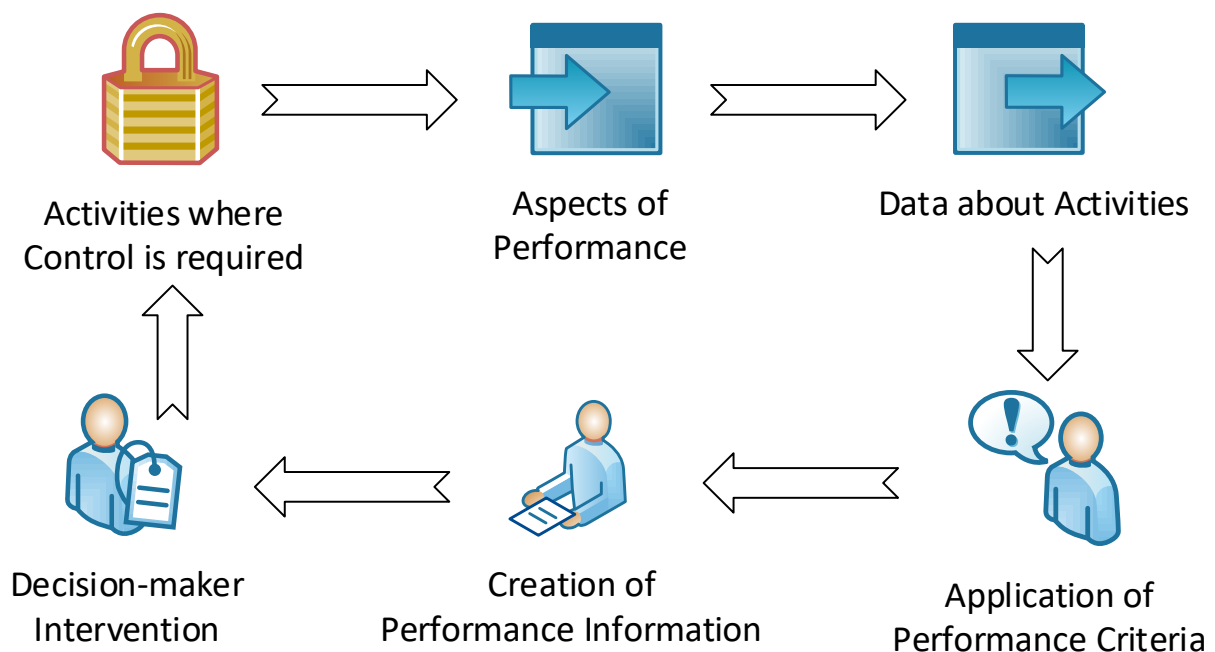
Figure 2.1: Basic Elements of a Performance Management System

Note: Adapted from Pollitt (2013, p. 349)

Pollitt (2013, p. 350) recognises that performance measurement is neither, simple, purely objective or a mirroring of external reality but requires political inputs and management.

Nonetheless, Pollitt's basic elements and the system relationships depicted in Figure 2.1 serve as a useful framing device for the literature review of the performance management of New Zealand's elective service delivery later in this chapter (see section 2.3).

Gimbert, Bisbe, and Mendoza (2010, p. 480) explain that a strategic performance measurement system is a specialised form of system in which long-term strategy is integrated into system metrics and multiple views of performance are provided to organisation decision-makers. Micheli and Manzoni (2010, p. 473) claim the effectiveness of a strategic performance measurement system is determined by the extent to which system metrics are linked to strategic review.

Performance measurement system designers must consider the types of measures and indicators to be used. Governments tend to favour the use of target, ranking or intelligence types of performance measurement system (Hood, 2007). A target-driven system aims to meet an aspirational standard that is often based on a change in a *threshold*, (which may be a number or ratio associated with a previous time-period). *Ranking systems* aim to compare service units and use benchmarks to encourage organisational learning. *Intelligence systems* measure performance for background information but do not interpret data or use targets or ranking. Target, ranking, or intelligence public service performance measurement systems can exist in stand-alone or hybrid form. Goddard, Davies, Dawson, Mannion, and McInnes (2002b) observe that the use of ranking tables to present benchmarking results can lead to organisation complacency or can demotivate efforts to improve performance.

2.2.3.3   *A systems approach to performance measurement and information use.*

Performance information can be presented to decision-makers in singular, aggregated, or benchmarked form but regardless of how information is presented, system designers expect decision-makers to respond to performance information. Carter, Klein, and Day (1992, p. 49) classify targets as *prescriptive*, *proscriptive* or *descriptive* in nature. When prescriptive, targets act like dials, they serve a precise top-down management control purpose. When proscriptive they act like an alarm-bell, they focus the attention of decision-makers. However, the majority of performance indicators are descriptive, they act as tin-openers, prompting further inquiry. The problem with descriptive indicators is that they can provide only a partial, and potentially inaccurate picture of performance achievement.

A performance measurement system that serves a controlling or legitimising purpose is likely to use benchmarking as a means to focus attention. Smith and Papanicolas (2012, p. 2) differentiate between *performance benchmarking*, which focuses on the achievement of a standard; and *practice benchmarking*, which focuses on understanding why an organisation has been able to achieve a level of performance.

2.2.3.4   Why a systems approach doesn't always work.

Official accounts of performance measurement systems often focus on the implicit logic embedded in a system's design and omit to mention what Pollitt (2013, p. 347) has termed the "alternative logics" of performance management. Pollitt describes macro-level logics, which are concerned with the appropriateness and consequence of performance measurement, and micro-level logics, which arise from the measurement design and the calculations that fuel performance management practices. Figure 2.2 illustrates the inter-relationships between micro-level alternative logics *identified* by Pollitt (p. 355).

The *symbolic use* of information will be discussed in detail in Chapter Three. *Synecdoche* is the term used to describe part of an activity or system being taken to represent its whole. This partial monitoring of aspects of an activity's performance can result in *Performance Paradox* (an appearance of performance that differs to reality). Attempts to mitigate performance paradox can result in proliferation of measures or amplification of existing measures and in threshold, ratchet and definitional drift effects. According to Hood (2007), a *ratchet effect* occurs where historical or current actual levels of performance set future levels, and a *threshold effect* occurs when all units have the same target levels. Ratchet effects disincentivise staff exceeding targets out of a concern that a future target is not sustainable, whilst threshold effects only motivate those below the threshold to improve. Bird, Cox, Farewell, Goldstein, Holt et al. (2005) discuss definition drift in target setting, whereby targets become irrelevant or more gameable. Definitional drift occurs from ambiguity or the use of extreme values when wording target definitions, such as 'no patient shall fail' or 'patients will wait no longer than six hours'. Such wording can contribute to gaming by stopping the clock or cheating by not accepting a patient unless they can be exited within the required timeframe.
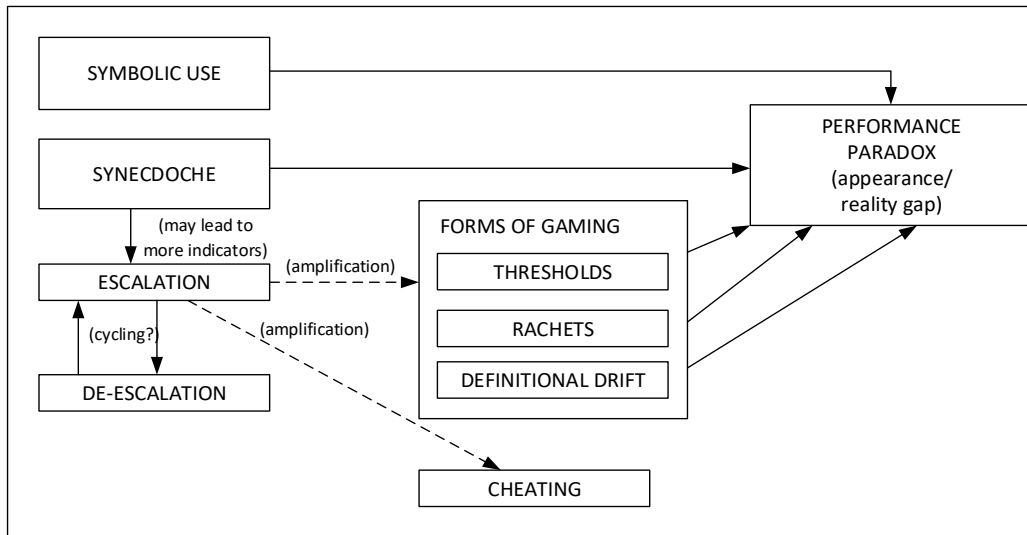
Figure 2.2: Pollitt (2013, p. 355). Alternative Logics in Performance Management: Some Inter-Relationships

N.B. All forms of gaming and cheating may occur spontaneously, but are likely to increase if there is escalation.

Forms of gaming or cheating are differentiated in the literature. Hood (2007) defines *gaming* as "reactive subversion", the changing of data or the employing of tactics that have the effect of improving reported performance. *Targetology* is a form of gaming and refers to a narrowing of focus or fixation on specific aspects of service delivery and targets (Radnor, 2008). This subsequently leads to "hitting the target but missing the point" (Bevan and Hood, 2006b, p. 520; Smith, 1995). Hood (2007) defines *Cheating* as the alteration of how an activity is carried out in order to improve its reported performance. Cheating is regarded as more extreme than gaming.

2.2.4 Paradoxes in public sector performance control.

In practice, a number of paradoxes are associated with the control of public sector performance. The first paradox is that the government's management of performance creates an environment in which Chief Executives are afraid to make changes that may improve performance. Norman (2003) describes how relationship tensions arose among government officials and public sector Chief Executives before New Zealand's public sector reforms because politicians believed they were not adequately informed about, and in control of, the results of public expenditure. Although the public sector reforms resulted in a shift in focus from the management of inputs to the management of outputs,opposition politicians continual questioning of how Chief Executives mange inputs contributes to a

fearful and risk averse decision-making environment and an input based management focus has never really gone away (Gill, 2011).

A second paradox, discussed by Van Dooren (2011) arises when service delivery relies on a professional workforce. Government relationships with professionals are observed to deterioriate when performance management is seen as micro-management. Van Dooren argues that, while the government relies on professionals to improve public sector performance, its distrust of them leads to the development of performance measures intended to counterbalance professional knowledge.

Performance measurement tends to focus on what can be easily achieved, readily measured and predicted (Norman, 2003). Policy goals are often unquantifiable and this leads to attempts to count the uncountable (Smith, 1995).

Denhardt and Aristigueta (2008) describe the phenomenon of "collaboration inertia" which arises in a multi-stakeholder environment where parties are unable to successfully work together in conditions where resources are scarce, purpose is ambiguous, stakeholder power is imbalanced, and organisational structure and operating procedures are not aligned.

van Thiel and Leeuw (2002, p. 271) claim the value of performance indicators degrades over time leading to four performance paradoxes: firstly, as performance improves, there is positive learning and indicators become obsolete; secondly, as aspects of measurement become understood, there is perverse learning and performance assessment is manipulated; thirdly, as poor performers are replaced with better performers, it becomes increasingly difficult to discriminate between good and bad performers; and fourthly, as performance differences are ignored, good performers are suppressed.

2.3 Health System and Elective Service Delivery Performance Literature

The literature on health system and elective service delivery performance is reviewed following the systems approach that is outlined in section 2.2.3 and is organised as follows: health system performance as a concept (2.3.1); priority setting and activities where control is required (2.3.2); government elective service accountability setting (2.3.3); priority setting and aspects of performance to be managed (section 2.3.4); elective service data collection

activity (2.3.5); the application of performance criteria (2.3.6); the creation of performance information (2.3.7); decision-maker intervention (2.3.8) and comparative performance management (2.3.9).

2.3.1 Health system performance as a concept.

According to Smith et al. (2009, pp. 27-248), a robust conceptual framework is needed for any health system performance evaluation exercise. Smith et al. (2009) define seven health system performance domains: (i) population health; (ii) patient reported outcome measures and performance measurement; (iii) clinical quality and appropriateness; (iv) financial protection in health; (v) health system responsiveness; (vi) equity of access to health care; and (vii) health system productivity and efficiency. As discussed in Chapter One, the RWT Strategy identifies three aspects of service delivery performance to be managed. The first, the delivery of a sufficient level of service supply, maps to performance domain (iii) (above); the second, the timely delivery of services, assessment, and surgery, maps to (v) and (vii); and the third, national equity of service access, maps to (vi).

Unlike the English NHS, New Zealand does not have a national health system performance framework which can be readily used as a reference to understand how these performance domains correspond to performance measures. The English National Health Service Performance Assessment Framework (NHSPAF) was developed in the late 1990s and was used to communicate the performance values of the NHS (NHS Executive, 1999). Underpinning the NHSPAF is the belief that performance values would be seen as a "golden thread" that would cascade down from central to local government (Audit Commission and Improvement and Development Agency, 2002). In a study of the effectiveness of the "golden thread" metaphor to communicate performance priorities to the UK health service and police, Micheli and Neely (2010, p. 597) find there was confusion at the local government level. There was a lack of consistency among performance indicators, targets and priorities; and no evidence of any reflection by government about the need for consistency between measures and priorities. Micheli and Neely conclude that conflicting agendas at different levels of the system were the root cause of performance management issues in these sectors.

2.3.2 Priority setting: activities where control is required.

New Zealand's decision to prioritise the control of service supply and demand in the RWT Strategy (discussed in the previous section) is similar to other countries. There have been two OECD country studies on the effectiveness of electives waiting time reduction policy and these studies have differentiated between strategies that focus on managing service supply and those that manage service demand (Siciliani, Borowitz, and Moran, 2013; Siciliani and Hurst, 2003). Cross-country comparisons highlight that supply-side strategies are effective where funding is available but capacity is limited. Supply-side strategies include providing temporary additional funding, using capacity in the private sector, introducing alternative models for service delivery, and providing day surgery. Demand-side strategies are effective when funding is limited and include the use of maximum waiting time guarantees, service access thresholds, and explicit prioritisation criteria (Siciliani, Borowitz, and Moran, 2013).

2.3.3 Government elective service accountability setting

New Zealand's health system priorities are defined by over twenty pieces of legislation in the health and disability system statutory framework (Ministry of Health, 2018). The Ministry of Health administers a nationwide services accountability framework that includes the monitoring of DHB elective service volumes, the achievement of an elective surgery volume Health Target and compliance with hospital patient flow process standards. Elective service accountabilities are defined in framework documents, such as the Service Coverage Schedule. DHBs are required to provide coverage for the range of specialist medical and surgical services specified in the Service Coverage Schedule (unless they obtain specific variation or exemption). The Service Coverage Schedule does not specify a DHB's supply levels and is appended to the Crown Funding Agreement, which enables the Minister of Health to then explicity agree to a level of elective service supply with each DHB (Ministry of Health, 2013d, p. 1). Agreed elective service volume levels are included in a DHB's annual plan.

In order to provide coverage, DHBs need to be able to forecast their future service delivery capacity and, if there is a shortfall at their own public hospitals, may enter into purchasing arrangements with other health care providers. Capacity constraints can arise when a public

hospital does not provide a specialty in its entirety or to an advanced level of sub-specialty investigation. DHBs may enter into service provision purchasing arrangements with other DHBs, with private specialists or private hospital facilities, or with GPs.

From 2001 and 2006, government performance expectations were focussed on hospital booking system processes, waiting time management, and specialists' use of clinical prioritisation assessment criteria (CPAC) tools to determine health service coverage for surgical procedures. Since 2003, hospital booking system details have been electronically reported to a National Booking Reporting System (NBRS). By 2006, a performance management system was in place to monitor DHB compliance with elective services patient flow indicators (ESPIs), enabling government attention to turn to output measurement and the delivery of a minimum level of elective service volumes. In the 2006-2007 financial year, an 'Improved Access to Elective Surgery' Health Target was introduced.

The election of a National-led centre-right government in 2008 led to a greater emphasis being placed on the reduction of DHB bureaucracy and the need to focus on regional service co-ordination (Gauld, 2012). In 2011, changes were made to DHB planning regulations to emphasise the regional planning of services. New Zealand has four health care regions and each DHB is assigned to a region, (for a map of DHB geographical location and region see the Regional Services Planning Audit Report (OAG, 2013b, p. 8). Each region has a Shared Services Agency, which is owned by the DHBs in the region and is responsible for the development of a Regional Services Plan.

2.3.4   Priority setting: aspects of performance.

This section considers aspects of elective service delivery performance that are associated with priority setting, (such as service waiting time (2.3.4.1), national equity of service access (2.3.4.2), increased service supply (2.3.4.3), service redesign (2.3.4.4), the management of the primary-secondary interface (2.3.4.5), and nationally consistent clinical prioritisation (2.3.4.6)). Whilst it is possible to surmise what the government priorities have been at specific points in time between the mid-1990s and early 2000s, no literature was found outlining how the national booking reporting system was designed. The Indicators of DHB Performance (IDPs) for the 2002/03 financial year (Ministry of Health, 2002) are evidence of the government's elective service performance monitoring focus around the time of DHB

formation. These IDPs show that government attention was focussed on: confirming that FSA referrals had been prioritised and the decision outcome had been acknowledged to the patient and GP/referrer within 10 working days; monitoring the percentage of patients who had received services outside the six months maximum waiting time; and confirming patients in active review, (patients who had not been given a commitment to treatment (certainty) but who were just below the DHB's clinical acceptance threshold), had received a six monthly review.

Pollitt (2018, p. 170) argues that many performance measures are not actually concerned with outputs but are measures of internal organisational processes. Studies of performance indicators over time have shown that they tend to become more complex, and original decisions as to what should be measured seldom persist. Interestingly, the focus of performance indicators for public hospital elective service booking systems have changed very little since the late 1990s. It is only since 2014 and the introduction of a new national data collection, National Patient Flow, that the government's focus has been expanded to monitor other types of assessments and diagnostic tests and procedures.

2.3.4.1 Service waiting time.

In 2000 the RWT Strategy set an expectation that the maximum waiting time for FSA and elective treatment would be six months. Waiting time was subsequently reduced to five months from 1 July 2013 and four months from 1 January 2015.

Any measurement of waiting time needs to define when waiting starts and finishes. In New Zealand, waiting time starts on the date the patient is given certainty of service coverage, namely the date the DHB service accepts an FSA referral or advises the patient they will be offered publicly funded treatment. Waiting time finishes when the patient attends their FSA, or when treatment is delivered. Historically, some hospital booking systems were unable to report when a procedure was delivered, and submitted either the date of hospital admission or the date of discharge. Since 1 July 2010, the date the patient exits NBRS should be the date the patient receives the procedure.

A target performance indicator must also define the scope of service coverage, the proportion of patients who must be seen within the guaranteed timeframe, and any exclusions from the guaranteed time. Until 31 July 2010, 98% of patients waiting for an FSA

and 95% of patients waiting for a procedure were required to have received their service within six months. From August 2010 to June 2012 the expected proportion increased to 98.5% for FSA and 96% for procedures. Since July 2013 all patients have been required to receive their elective service within the required timeframe. Waiting time for procedures that are staged (where multiple procedures are required), planned (required at a future date for clinical reasons such as age or pregnancy), or surveillance procedures are also exempt from the waiting time guarantee (refer to the NBRS data dictionary for details (Ministry of Health, 2012b, p. 72)).

In the literature there is very little discussion of New Zealand's use of the practice of "Giving Patients Certainty". The practice is referred to in the RWT sub-strategy and was introduced to mitigate the distress caused to patients when they did not know if they would receive a service. The OAG (2011, p. 117) considers the practice important, since it enables the patient to independently and confidently research their current treatment options and ensures patients are not steered towards using the private sector when public sector services are available. Norway is the only other country that has had a comparable certainty concept (Siciliani, Borowitz, and Moran, 2013, p. 226). The Norewegian concept translates as elective treatment 'with' or 'without', referencing to the setting of a maximum waiting. The use of this concept ceased in 2013 (Johansson, Nygaard, Herlofsen, and Lindemark, 2017).

There is also little discussion of the proportion of New Zealand patients who meet the government's waiting time guarantee. The OAG (2011, p. 39) examined NBRS trend data to ascertain the number of patients who had not received FSA or treatment within six months, and noted there was significant improvement between 2006 and 2007. However, the OAG observes that the sector had struggled to maintain improvement, and there was variation in numbers from month to month. The audit concluded that six months was the maximum time patients should wait once a service is offered and patients with high health needs should receive services sooner (p. 46). In 2013, it was noted that a greater proportion of patients were receiving services within six months (OAG, 2013a), but by 2015 DHBs were finding it increasingly difficult to achieve a four-month waiting time (OAG, 2015, p. 4).

The use of maximum waiting time guarantees is discussed in the international literature. In the first OECD study, Siciliani and Hurst (2003) found that several countries use a maximum

waiting time in conjunction with other policies. Guarantees tend to be classified as unconditional (England); fully-conditional such that "all patients with higher need should be treated within 'x' months" (New Zealand); or partially conditional such that "x% of the patients should be treated within 'y' months" (Netherlands, Italy). It was noted that Denmark, Norway, and Sweden had initially introduced maximum waiting time guarantees but had since stopped using them. Siciliani and Hurst report a dramatic reduction in New Zealand FSA and inpatient waiting time over a two-year timeframe and attribute this achievement to demand management, in particular, clinical prioritisation (p. 5). In the second OECD study, Siciliani, Borowitz, and Moran (2013, p. 11) claim that the use of a waiting time guarantee is a common policy tool but without enforcement is purely aspirational. Enforcement approaches used by countries include: setting conditionality targets (see above), holding health providers directly accountable for achieving targets, allowing patients to choose alternative health providers if guarantees are not honoured (used by Portugal and Denmark) and penalising service providers financially if guarantees are breached (in the UK and Finland). There is no literature on New Zealand's use of an enforcement approach in regard to maximum waiting time.

Kreindler (2010) claims that service providers resist waiting time guarantees because there is often no clinical rationale for a timeframe and a time target is seen as a threat to clinical freedom. Maximum wait time targets also promote a focus on patients who have waited the longest and this may extend wait times for patients, services, or parts of the patient journey that are not covered by the target. In Scotland, targets have been criticised for distorting existing clinical priorities and focussing on waiting time (Nikolova, Sinko, and Sutton, 2012).

In New Zealand, Mortimore and Whitham (2012, p. 3) have reported on their electives care co-ordination work at Waikato DHB to manage patients who had become "stranded" in the hospital booking system whilst waiting for surgery. Mortimore and Whitham find the most important learning is that communication of a strategy at every level of the system is needed, along with support from senior management to ensure implementation roadblocks are removed. Mortimore and Whitham claim that variation in process across specialties is to be expected and that a flexible approach is required to resolve the issue of stranded patients.

Quantifying the impact a maximum waiting time guarantee makes on reducing overall waiting time is difficult because other system changes are often made at the same time. It is also difficult to make international comparisons because the definition and optimal duration of wait times varies among countries.

2.3.4.2 National equity of service access.

The RWT Strategy is concerned with two aspects of equity of service access: geographical (location), and clinical (access on the basis of need and ability to benefit). Equity of service access has horizontal and vertical aspects. According to Culyer (2006), horizontal equity requires patients who are the same in a relevant respect to be treated the same, whilst vertical equity requires patients who are different in a relevant respect to be treated differently. This view of horizontal and vertical equity requires that patients with the same need for a treatment should be prioritised using the same assessment criteria and, that score should be used to determine a relative treatment timeframe.

A review of the literature finds equity is a complex and contentious concept. According to Culyer and Wagstaff (1993), equity has four aspects: 'equality of utilisation'; 'distribution of resources according to need'; 'equality of access', and 'equality of health'. Culyer and Wagstaff argue that there can be no precise sense of equity without understanding the need for health care. A more contemporary perspective of equitable service access is provided by Levesque, Harris, and Russell (2013), who suggest that service access should be appropriate and able to be repeated. Access is therefore defined as the consumer's ability to 'identify' their need, and to 'seek, reach, obtain, and use' the health care services they need.

In New Zealand, it is the responsibility of the DHB, as funder and planner of district population health services, to ensure elective service levels are sufficient and access is equitable. The government's performance measurement concerns are allocative (focussed on the entire health system producing an appropriate mix of outputs) and technical (focussed on service delivery transparency, fairness and efficiency, which is addressed through clinical prioritisation).

McLeod, Dew, Morgan, Dowell, Cumming et al. (2004) find there were different understandings of the concept of equity amongst New Zealand GPs and hospital surgeons in

the early 2000s. GPs referred to equity as the ability of all their patients to access elective surgery when it was needed, whereas surgeons talked about the complexity of achieving equal access to services. Surgeons did not consider local equity of access to be a useful goal. Although the assessment of clinicians' attitudes on equity was not a primary objective of their study, McLeod, Dew et al. concluded clinicians were relying on subjective patient socio-economic and ethnic stereotyping when advocating for care and making service determination decisions. McLeod, Dew et al. recommended guidance be given to clinicians on the relative importance of socio-demographic factors on decision-making.

Empirical evidence for the challenges associated with determining geographical equity is found by Valentine (2011), who examined the correlation amongst ethnicity, the New Zealand Deprivation Index, (which applies to a geographic area and is not directly related to individuals (Ministry of Health, 2016c)), waiting time, and medical specialty using New Zealand NBRS data from 2004 to 2007. Valentine (2011) finds large variations in median waiting times among North and South island patients and concludes the determinants of access were hospital resource availability, the willingness of a patient to pay for private treatment and the ability of clinicians to manipulate the public prioritisation system. Valentine was unable to correlate specialty admission rates and waiting times, due to information gaps or coding errors by DHB administrators. Since the NBRS derives patient ethnicity and deprivation information from the National Health Index (NHI) at the time a booking record is loaded, it is a common assumption that NHI information about ethnicity and deprivation is current, accurate and recorded consistently. However, based on personal knowledge of the NHI in 2009, when it was estimated that 20% of ethnicity codes on the NHI had data quality issues, there is a higher margin of error in the NHI data on ethnicity and deprivation than many researchers realise.

Even when publicly funded health rationing mechanisms are designed to be equitable, international studies have found there is evidence of socioeconomic inequity. For example, in England, within hospitals, there is evidence of the higher educated being treated more quickly than the less educated. Across hospitals, there is evidence of higher income patients being treated more quickly than lower income patients (Laudicella, Siciliani, and Cookson, 2012). In Norway, there is evidence of education, gender and geographical inequities (Kaarboe and Carlsen, 2014). However, both the English and Norwegian studies use

administrative patient data. Kaarboe and Carlsen point out that socioeconomic status data tends to be collected at a household level rather than at an individual level, making it difficult to conclusively analyse an individual's socioeconomic status and socioeconomic inequity.

2.3.4.3 Increased supply of elective services.

The RWT Strategy recognises that increasing the supply of elective services, particularly surgery, is integral to reducing waiting times. Cumming and Scott (1998) observe that the accountability framework developed for the health system in the 1990s was intended to strengthen the position of funders and purchasers relative to providers. However, any strengthening of position would only be achievable if the health care funder, which at that time was the Health Funding Authorities, was committed to specifying required output levels and expected terms of access. In 2000, hospital service contracts specified a volume of elective services for a given price, and it was recognised that this incentivised output but did not assure nationally equitable access to a reasonable level of elective service. Furthermore, if a population-based funding formula was to be used to allocate DHB funding without any requirement to ensure adequate elective service levels, then potentially unacceptable inequities in access to elective services across the country might occur (Ministry of Health, 2000, pp. 21-22).

A population-based funding model was introduced in 2003. In 2006, the key principles and recommendations of a Protecting Elective Volumes Working Group report provide insight into the approach New Zealand decided to take to ensure a minimum level of elective services is delivered (Ministry of Health, 2006b, pp. 14-15). The working group made a number of recommendations, namely that elective service baselines be agreed in order that a future target could be negotiated; target volumes for elective case-weighted discharges (CWDs) in each surgical specialty would be set at DHB level; specialty-based working groups would identity key marker conditions; and equity of service access would be measured using standardised discharge ratios.

The setting of service volume baselines occurred in the 2005/06 financial year and enabled the Ministry of Health to set an annual minimum output target for elective surgery discharges, and to address historical inter-regional inequity through additional funding. In

2008, the government introduced the Improved Access to Elective Surgery Health Target (Ministry of Health, 2011c), (hereafter referred to as the Electives Health Target). Since 2009 DHBs have been required to collectively increase the number of surgical operations by an average 4000 surgical operations per year. The goal is to achieve a total of 190,000 scheduled operations in 2025/26 (OAG, 2011, p. 72).

In 2011, the OAG (2011, pp. 71-76) concludes that good progress has been made with the use of devolved funding to increase elective service supply. Whilst there has been increased funding for FSA, an increase in FSA volumes may not be a meaningful measure of improvement because lower volumes could signify the better management of a patient's condition in primary care (which is a more effective health system outcome). The audit also highlights DHB's have differing capacity to treat their own patients (OAG, 2011, p. 89), and inter-DHB service provision dependencies can mean that progress in service supply can stall.

One approach to addressing concerns about the sufficiency of service supply is to offer funding incentives for specific procedures. The Orthopaedic (Major Joint) Initiative and Ophthalmology Cataract Surgery Initiative are examples of productivity boost initiatives offered from 2004-2008. Gandar (2008, p. 3) found both initiatives were successful in increasing service levels but had unintended consequences. Both initiatives created inequities of access for other conditions and services struggled to sustain capacity. In particular, the Cataract Surgery initiative created service access issues for patients of working age with chronic eye conditions that caused permanent vision loss. This was an unintended consequence because vision loss from cataracts is recognised as reversible (pp. 68-69). Gandar also noted that hospital managers and Boards were viewing the delivery of elective services as discretionary (p. 3).

2.3.4.4 Service redesign.

Other approaches to increasing service supply include the outsourcing of service delivery to the private sector (Ashton, 2010) and the introduction of new models of care in public hospital service delivery. Cullen, Bramley, Armstrong, Butler, Rouse et al. (2012) claim a new model of care for total hip and knee arthroscopies by Waitemata DHB significantly increased productivity and reduced overall costs for non-complex elective surgery. Waitemata DHB also introduced a new package of care, which included incentive-based, risk-sharing

contracts, throughput targets, and the use of patient cohorts (Ashton, 2010; Ashton, Bramley, and Armstrong, 2012). According to Gorman and Horn (2012, p. 606) the key elements of process that underpinned Waitemata's success were a clinical champion to lead the programme, the recruitment of surgical teams from a "coalition of the willing", and the use of other core tactical measures, (such as operating at a new campus, and the exclusion of student doctors from surgical teams).

Service redesign is largely constrained by the capability of the clinical workforce. The Health Workforce New Zealand reviews of seven health specialties identify service areas where opportunities exist for specialist role substitution (Health Workforce New Zealand, 2011a, 2011b, 2011c, 2011d, 2011e, 2013, 2014). The reviews recommended greater education could be provided to GPs in dermatology, diabetes, and musculoskeletal medicine and the optometrist workforce could support ophthalmology. However, it was not considered appropriate to shift anaesthesia, gastroenterology and plastic surgery services to a primary care setting.

According to the Ministry of Health (2014k, p. 60), DHBs are required to improve the supply of elective services by fostering primary and secondary relationships, service redesign, better demand management, benchmarking their service provision with other DHBs, and, in consultation with primary care, evaluating and managing unmet need.

The Ministry of Health's elective service guidelines and toolkits includes case studies on the use of GPs with special interest (GPwSIs) at Counties Manukau and Otago DHBs (Ministry of Health, 2012a). According to Malik (2006), a *GPwSI* is a GP working as an intermediary between primary and secondary care, who has additional training and experience in a specific clinical area and takes referrals for patients who may otherwise have been sent directly to a specialist. A GPwSI may work in a hospital outpatient clinic or in a primary care setting. Despite the Ministry of Health encouraging their use, there have been few New Zealand studies about the efficiency or cost-effectiveness of GPwSIs clinics.

There have been a number of evaluations of New Zealand's efforts to shift services to a primary care setting. Moore, Black, and van Essen (2009) find the redesign of diagnostic tests in GP referral pathways offered opportunities for DHBs to reduce costs. Salmon, Mortimer, Rademaker, Adams, Stanway et al. (2010) compare skin excision clearance rates

for a Bay of Plenty DHB skin cancer excision pilot and conclude that the GP's role should be determined according to their recognised diagnostic and surgical training. McGeoch, Sycamore, Shand, and Simcock (2015) describe Canterbury DHB's skin lesion training approach which reduced the number of specialist minor skin lesion referrals, decreased hospital waiting times, and improved primary and secondary care clinical working relationships. Canterbury DHB has also introduced sleep clinic assessments in the community, which has increased the number of available assessments and shortened treatment waiting times (Epton, Kelly, Shand, Powell, Jones et al., 2017; McGeoch, Sycamore, Shand, and Simcock, 2015). As Timmins and Ham (2013) observe in the case of Canterbury DHB, the challenge for any evaluation of impact to waiting times is that service changes seldom occur in isolation, which makes it difficult to attribute change in outcomes to a specific intervention.

GPwSI clinics were introduced in the UK around 2000 with the aim of fast-tracking patients with un-complicated problems to intermediate practitioners (Imison and Naylor, 2010, p. 8). Taneja, Singh, Tan, Hill, Connolly et al. (2014) find there is an acceptable level of care and improved access but little evidence of cost-savings for hernia and skin lesion surgery. Rosen, Jones, Tomlin, and Cavanagh (2005) find patient satisfaction, (attributable to faster service access times), was high in a UK hospital study of the use of GPwSIs. However, issues were found with non-standard service administration arrangements, delayed assessment by hospital specialists, patient consent, limited clinic audit and evaluation, and concern about the impact of GPwSIs taking time out from their GP practices. Relationships amongst GPwSIs, hospital specialists, and staff varied from near universal support to outright hostility and resistance.

Roland et al. (2006, cited in Winpenny, Miani, Pitchforth, Ball, Nolte et al. (2016)) find secondary to primary care transfer and strategies intended to change GP referral behaviour are often effective in improving outpatient effectiveness and efficiency. However, relocating specialists to primary care and developing joint working arrangements amongst primary and secondary clinicians was largely ineffective. In a follow-up study, Winpenny, Miani, Pitchforth, Ball, Nolte, King, Greenhalgh, and Roland (2016) find the safety and effectiveness of primary care minor surgery reflects the skill and training of the GP. Therefore, it should not be assumed that using GPwSIs and transferring services to primary care will reduce

costs because demand for services may actually increase as primary care addresses previously unmet need. Whilst telemedicine and telecare services, (particularly for dermatology), are regarded positively, there is little robust economic analysis of alternative service delivery models. Winpenny et al. conclude shifting care into the community can be justified only if consideration is given to patient convenience, and if community clinics are operated on an efficient cost-reduction scale. Services are often reconfigured without adequate evaluation, and Winpenny et al. recommend data should be collected to show whether value for money, service quality, and patient and staff experience have been enhanced as a result.

In the Netherlands, van Dijk, Korevaar, Koopmans, de Jong, and de Bakker (2014) find that critical factors for reducing specialist referrals and the providing more services in primary care are the absence of negative financial consequences to either GP or specialist; agreement that specialist services can be managed in general practice; appropriate GP training; and patient confidence that the GP is able to perform the service.

2.3.4.5   The management of the primary-secondary care interface.

A referral is a temporary transfer of some or all responsibility for a patient's care for a particular purpose (Warren, Yulong, Day, Pollock, and White, 2012). A referral for public hospital specialist services in New Zealand must be formally documented, made by a registered medical practitioner, and receipt of the referral must be acknowledged.

In a public health system, the GP can be seen to assume a dual role when referring a patient for limited specialist services. Firstly, they are acting as an expert clinical agent, and secondly, they are acting as a rationing agent or gatekeeper on behalf of the health care purchaser (Imison and Naylor, 2010, p. 5). There is a clear demarcation between GP and specialist roles in New Zealand's health system. The GP's role is to supply patient primary health care services and the specialist provides advice, assistance and specialist services when needed (Ministry of Health, 2014i). Therefore, GP referrals to public hospitals tend to be made when primary care diagnostic or therapeutic options are exhausted (Ministry of Health, 2014e).

Prior to the RWT Strategy, GPs were uncertain about hospital specialist elective services' availability and access criteria (Fraser, Alley, and Morris, 1993; OAG, 2011). An intra-

professional hierarchy within medicine tends to place specialists above generalists (Martin, Currie, Weaver, Finn, and McDonald, 2017). McGeoch, Anderson, Gibson, Gullery, Kerr et al. (2015) observe there is evidence of New Zealand hospital and community-based clinicians being dismissive of each other's referral prioritisation decision-making. Specialists regard referral quality as an indication of GP's professional competence, whilst GPs are critical of specialists' decisions to decline service requests or to follow-up patients unnecessarily.

Derrett (2005; p. 48-53) identifies gaps in New Zealand research about primary-secondary referral practices. For example, little is known about the use GPs make of DHB hospital service referral guidelines, GP advocacy for patients, FSA prioritisation outcomes, and the level of unmet need for FSAs. In a New Zealand study Raymont, Morgan, McLeod, Dowell, van Rij et al. (2008) find referrals for elective surgery are a significant proportion of GP workload, but over half (53%) of referrals are requests for advice, not for FSA. However, this study's findings are inconclusive because the GP survey response rate was low and district selection was non-random.

Although public hospital elective service referral guidelines have been promoted in New Zealand since the 1990s, it is the work of the Canterbury DHB that has received the most attention (Ministry of Health, 2012a, pp. 11-18; Timmins and Ham, 2013). Following the forced removal of 5,000 Canterbury DHB patients from the electives booking system in 2006, Canterbury DHB and Pegasus Primary Health Organisation (PHO) extensively reviewed referral practices and found GPs were unaware of the DHB's service access criteria, and specialists were unaware of GP's skills. McGeoch, Anderson, Gibson, Gullery, Kerr, and Shand (2015) describe the development of HealthPathways, a primary care clinical pathways website tool, which provides guidance to general practice teams on clinical assessment and medical condition management. Primary care clinical pathways may not always be clinical best practice but are locally agreed best practice – that is the best the DHB can do for the patient given the resources it has (Timmins & Ham, 2013, p.22). At the time of the study, access to HealthPathways has been supplied to twelve New Zealand DHBs and to Australian health care organisations (Robinson, Varhol, Bell, Quirk, and Durrington, 2015). Whilst the remaining eight DHBs have opted to use Map of Medicine, (an alternative internationally developed tool). In 2017 it was announced that the international technology provider of the Map of Medicine tool in New Zealand was ceasing support for the tool in 2018.

The Ministry of Health (2014i) actively encourages DHBs to use primary care clinical pathways to manage elective service referral demand and the development of primary care clinical pathways reflects the intent of the RWT Strategy that joint/primary-secondary projects develop solutions that provide appropriate access to specialist assistance.

From a systematic review of literature on GP referral management interventions relevant to the UK context, Blank, Baxter, Woods, Goyder, Lee et al. (2015) concluded that GPs referral behaviour is influenced by previous experience, satisfaction with the specialist service, and perceptions of current waiting times. Providing better quality information in referrals results in better process outcomes. Publishing referral guidelines was found to have only a short-term impact in situations where referral criteria were already unambiguous, and where patients presented for services in a consistent clinical state. GP peer review and specialist feedback on referral quality was found to be more effective than publishing guidelines or offering GP training. Funding GPs to deliver diagnostic and minor surgical procedures and the provision of community-located specialist clinics were also effective. However, evidence was not strong for reducing service demand by employing additional primary care staff and using GPwSIs. Blank et al. (2015) synthesised an evidence-based logic model and sought stakeholder feedback on findings before publication of their study. They received positive feedback about conclusions, but stakeholders said the model lacked feedback loops, was visually too complex and intervention groupings were too narrowly categorised. The study is somewhat limited in the conclusions that can be drawn about referral demand management intervention effectiveness because referral decision-making and outcomes are influenced by a range of factors and different contexts.

Ball, Greenhalgh, and Roland (2016) examine factors that influenced perceptions of the effectiveness of referral management centres in the UK. The study evaluates quality of care, reduction in referral numbers, and referral processing efficiency. Ball et al. find tensions existed between clinical and managerial roles, due to lack of clarity about the purpose of the centres and GPs scepticism and resistance to feedback about referrals. In all cases there was a reduction in the number of secondary care referrals, but it was unclear if this represented better use of resources. It was also unclear the impact the centres had on GP referral patterns and whether GPs had the option to provide services locally.

Health information sharing is another intervention believed to improve the primary-secondary interface. New Zealand's four health information strategies from 2000-2016 have been concerned with improving the sharing and integration of patient information (Health Information Strategy Steering Committee, 2005; IT Health Board, 2010; Ministry of Health, 2013c; The Wave Advisory Board, 2001).

Public hospital referral demand management has benefited from the introduction of electronic referral (eReferral) capability. An eReferral enables relevant patient information to be populated in an online form and sent to the DHB over a secure internet connection. Referral decision support guidelines may be embedded in the process, which helps the GP to better understand DHB referral criteria and primary care management options (Yulong, Warren, and Orr, 2014). Early pilot studies found GPs valued improved knowledge of hospital processes, and hospital specialists valued improved readability (Docherty, 2008). The benefits of eReferrals are improved referral management workflow, improved communication between referrer and specialist, and, in some cases, reduced need for specialist assessment (Warren, Yulong, Day, Pollock, and White, 2012). It is generally recognised that DHBs have varied information technology capability and have taken different approaches to implementing eReferrals. A lack of DHB benchmark data has made comparative analysis of service improvement difficult (Warren, Yulong, White, Day, and Pollock, 2011). Corwin and Bolter (2014) claim eReferrals increase administration time and conclude it is specialist feedback to GPs that leads to improved referral quality but their findings were confined to the West Coast DHB district, so may be geographically limited. Kim, Chen, Keith, Yee Jr, and Kushel (2009) report referrers who spend six minutes or more completing an eReferral are less likely to report improved patient care.

New Zealand has no national standard for the minimum clinical content required in eReferrals, which may account for variation in implementation approaches. As yet, there are no studies examining whether DHBs are using eReferral clinical information to reliably predict the likelihood of treatment or a procedure. There is also no national reporting of whether a patient has followed a clinical pathway prior to referral. Gaps in the literature include eReferral cost-benefit realisation and the contribution of eReferrals to regional co-ordination of elective services.

2.3.4.6   Nationally consistent clinical prioritisation.

The OAG (2011, p. 49) recognises that the conditions required to support the achievement of nationally consistent clinical assessment goals include: the need for all patients to be prioritised for treatment using suitable national tools, the setting of clinically appropriate minimum thresholds, and the regular auditing of prioritisation decisions for consistency.

Siciliani et al. (2013, p. 65) find New Zealand has been at the forefront of the rigorous use of clinical thresholds, whereby patients below the threshold are not offered publicly funded surgery. New Zealand's use of service access thresholds relies on two RWT sub-strategies: Nationally Consistent Clinical Assessment (Ministry of Health, 2000, pp. 7-9) and Giving Patients Certainty (pp. 12-13). Both sub-strategies are intended to ensure transparency in decision-making and equity in service access.

CPAC tools are multi-dimensional instruments which integrate "objective and subjective clinical and social measures for specific conditions or specialties" (Cumming, 2013, p. 207). Two sets of national tools are needed: one to select patients for FSAs and another to prioritise patients for treatment. In 2010, the OAG (2011, p. 52) did not find up-to-date tools for selection of FSA. As of November 2016, there were 123 CPAC scoring tools listed on the Ministry of Health website. There were 55 nationally developed tools, 67 tools locally developed but nationally recognised by the Ministry of Health, and one tool that denotes that the patient was not scored. These tools were specialty, procedure, or condition specific.

According to Cumming (2013), the use of CPAC scores to set priorities can only work if specialists accept the validity and legitimacy of the process, if CPAC tools are used appropriately and consistently, and if gaming is not prevalent. Studies of CPAC tool implementation find there is little evidence-based validation. McLeod, Morgan, McKinlay, Dew, Cumming et al. (2004) claim the use of consensus to develop CPAC tools initially may have been a barrier to tool acceptance. Some specialties developed integrated CPAC tools, whereby conditions were ranked against each other and specialists used a visual analogue scale to rank patients (Roake, 2003).

The evolution of tool development and identification of criteria and importance weighting is described by Barber, Hansen, Naden, Ombler, and Stewart (2012). The OAG (2011, p. 68) find that relying on a consensus of experts to manage the development lifecyle of CPAC

tools is sub-optimal. The audit recommended that clinical associations and colleges increase their role in tool development and professional endorsement. This recommendation has since been adopted by the Ministry of Health (2014f).

In practice, the use of a score suggests there is a decision-making level that is used in absolute terms. Government publications define *access threshold* as a score derived from the use of a clinical prioritisation assessment criteria (CPAC) tool (Ministry of Health, 2014f, p. 11). The derivation of access threshold should exclude the scores of patients exempt from treatment within the maximum timeframe, (patients in staged or planned categories). Cumming (2013, p. 208) observes that a distinction is sometimes made between clinical and financial threshold. A *financial threshold* is concerned with what the health system and DHB can afford to publicly fund, whilst a *clinical threshold* is set by doctors.

In theory, the use of a score should facilitate the measurement of equity, but in practice there has been strong clinician opposition to access threshold use (Gravelle and Siciliani, 2008). Mechanic (1997) argues that clinical thresholds are impractical and complicate clinicians' overall decision-making.

A series of studies was commissioned in late 2000 by the Health Funding Authority (HFA) to evaluate the attitudes of clinicians to CPAC and explicit prioritisation (Dew, Cumming, McLeod, Morgan, McKinlay et al., 2005; McLeod, Morgan, McKinlay, and Dew, 2004; McLeod, White, McKinlay, Dew, Cumming et al., 2002). These studies highlight a number of significant issues at that time. There was GP uncertainty about what services were available in the public system and a lack of understanding of how prioritisation systems worked. There was a lack of evidence to support objective assesment of need and ability to benefit. There were difficulties with giving patients certainty of a procedure date until close to the time of surgery. There were different regional approaches to CPAC tool development for the same specialties and national tools were sometimes variants of local tools. Gaming or strategic responses had developed, for example clinicians were only referring or scoring patients they felt would receive services, surgeons were choosing not to clinically override score, surgeons were delegating scoring to the nurse or booking clerk or defying scoring altogether and continuing to use urgent, semi-urgent and routine priorities.

Derrett (2005, pp. 18-37) provides a comprehensive review of CPAC tool evaluation studies and inter and intra-reliability issues. Notably clinicians were uncertain about tool purpose (Derrett, 2005; Dew, Cumming, McLeod, Morgan, McKinlay, Dowell, and Love, 2005). Dew, Cumming, McLeod, Morgan, McKinlay, Dowell, and Love (2005) argue that implicit rationing would continue to play a major part in surgeon decision-making unless valid and reliable CPAC tools could be developed.

Another aspect of tool acceptance is the usability of CPAC tools in clinical consultations. Dew, Stubbe, Macdonald, Dowell, and Plumridge (2010) highlight the challenges in conversation analysis of surgeon-patient consultations and find there was no explicit use of prioritisation tools when patients were present because the surgeon's efforts were focussed on carefully managing the consultation to ensure patient and professional understandings aligned. This research highlights the difficulties of applying rigid prioritisation protocols in a consultation setting. Dew et al. argue that if the goal of the electives policy is to influence clinician behaviour, then greater attention must be paid to the interactional demands of the consultation process. This study did not include surgeon or patient feedback on study findings, so it is unclear whether surgeons or patients considered whether any prioritisation process, applied either at the consultation or subsequently, had been fair and transparent.

There are few recent studies about the performance of the CPAC tools. The use of CPAC has gained acceptance in some specialties, notably in publicly funded fertility treatment (Gillett, Peek, & Herbison, 2012). Many CPAC tools have a component which considers the impact of a condition on a patient's quality of life. A study of the impact on life sub-component of an orthopaedic CPAC tool has found it compared favourably with other validated patient-rated health measures (Chan, Bezuidenhout, Walker, and Rowan, 2016). However, the study does not appear to be a validation of an entire CPAC tool. Cumming (2013) argues more studies are needed to assess the performance of CPAC tools to ensure confidence in their use. In particular, Cumming suggest studies are needed into how much inter-DHB access thresholds differ and fluctuate year to year.

Another area of concern is patients placed in an active review booking status on the NBRS. Active review patients have not been given certainty and the DHB should have a realistic expectation that their condition will worsen and that they will reach the threshold for treatment within eighteen months. The OAG (2011, p. 117) finds DHBs used the active

review booking status inconsistently; either using it as intended, or using it as a "holding pen" for patients not yet ready for surgery. Some DHBs were found to use active review to hold up to a month's worth of patients in active review as insurance against interruptions to service delivery that could affect compliance with delivering procedures within the maximum required waiting time. In some cases, DHBs have banned its use altogether in order to prevent its misuse. The OAG considers this is inappropriate, as in some cases it is both more effective and more efficient for patients to be cared for by specialists. Any reluctance to give patients certainty denies patients the opportunity to make timely decisions about their own needs, means, and requirements for care. The specialist who incorrectly leads a patient to believe that they will receive publicly funded treatment by being in active review potentially stops the patient from actively seeking other available care.

Derrett, Cousins, and Gauld (2013) observe the culling of patients from one third of DHBs public hospital booking systems in mid-2006 raises important questions about whether nationally consistent clinical assessment is achievable. Derrett et al. claim the culling is evidence that some DHBs had been more affected by waiting list difficulties than others. Perrett et al.'s study relies on media sources, which are not first-hand accounts of DHB decision-making, but their analysis effectively highlights that there is a lack of alignment between local decision-making and national control. July 2006 marks the beginning of a period of change for DHB performance evaluation because it is the date from which ESPI compliance is mandatory. As yet, there is no comparable analysis of media coverage post 2006.

2.3.5 Elective service data collection activity.

Details about the purpose of Ministry of Health national data collections and the data reported to them are outlined in *Electives resources pack: Module eleven – national collections reporting* (Ministry of Health, 2014h). Public hospitals have been required to report elective service booking data to the NBRS since 1 August 2000, but the collection is only considered complete from 2003. DHBs are required to ensure all providers of publicly funded medical or surgical elective services submit data to NBRS. In cases where private specialist or hospital service providers are unable to report booking data then DHBs must report data on their behalf.

The NBRS is comprised of a transactional information system and a reporting data warehouse. The latter is used to determine service wait times and to prepare DHB monthly performance reports. FSA referral acknowledgement and the confirmation that an FSA has been provided within the required waiting timeframe are submitted at specialty summary level. Elective procedure or treatment booking information is submitted as detailed patient data to the NBRS transactional system.

DHB performance is published as compliance with Elective Service Patient Flow Indicators (ESPIs). The OAG (2011, p. 46) was critical of the value of ESPI reports and Derrett, Cousins, and Gauld (2013) observe the media do not refer to published ESPI results. The reasons for this lack of reporting could be the complexity of patient flow, but it could also be because the website provides no insight into how local contextual issues or DHB policies are affecting the shape and function of the booking system. There is no literature on DHB compliance with Ministry of Health ESPI performance expectations or how DHBs use ESPIs to monitor patient flow through the inpatient booking system.

There are three other national collections that elective service details are reported to: hospital inpatient services are reported to the National Minimum Dataset (NMDS), outpatient clinic services are reported to the National Non-admitted Patient Collection (NNPAC) and, since July 2014, patient level detail on most aspects of the end-to-end patient journey, are reported to National Patient Flow (NPF).

Singh (2014) identifies that the focus of national health data collections is on publicly funded hospital services, and she examines the reasons why over four hundred New Zealand private hospitals do not report service details to national collections. The barriers to data reporting include clarity of reporting purpose, the costs of clinical reporting requirements and limited benefits to changing existing coding systems. As a result, researchers and analysts do not have a complete picture of how elective services are delivered to DHB populations, or whether private specialist services are provided out of choice or in response to unmet public sector need.

2.3.6 Application of performance criteria.

There are three types of performance measures in use in New Zealand's health system: output measures are concerned with quantity; outcome measures are concerned with the

effectiveneses of health care interventions; and process measures are concerned with the efficiency, sequence and timing of activities and events. Output measures are generally easy to obtain as they are routinely collected as part of accounting for service delivery. According to Goddard, Davies, Dawson, Mannion, and McInnes (2002a) outcome measures are beneficial because they focus clinician attention and promote collaboration, and tend to be immune from service provider manipulation. However, their main disadvantage is their insensitivity to the quality of health care delivery and it is therefore difficult to attribute health outcomes to service delivery. In contrast, Goddard et al. observe process measures, are easier to interpret, are more readily attributable to health care service providers and can be used to incentivise service delivery. However, their main disadvantage is they are vulnerable to mis-representation by service providers, process can also become ritualised, and they can inhibit the adoption of new models of care.

With the exception of government guidelines (Ministry of Health, 2006a, 2016b), there is no literature discussion of how performance criteria are applied to DHB reported data to derive performance indicators.

2.3.7   Creation of performance information.

Information about DHB elective service performance is presented on the Ministry of Health's website in the form of quarterly Electives Health Targets and monthly ESPI reports. The Ministry of Health also publishes a suite of reports relating to electives activity which only DHBs can access. The purpose of reports and other guidelines is outlined in the *Electives resources pack: Module nine – electives reporting* (Ministry of Health, 2014g).

The OAG (2011) finds ESPIs are not measures of patients' actual waiting time data and there is no public reporting of DHB actual waiting time data. The OAG encouraged the Ministry of Health to change its reporting to consider the total time taken for patients to progress their elective care pathways (p. 46) and to consider if waiting time scatter graphs would provide richer information about waiting times and whether DHBs are treating patients in priority order.

2.3.8 Decision-maker intervention.

As discussed in Chapter One, section 1.2, decision-maker concerns are different at the macro, meso and micro levels of the health system. The literature on how New Zealand's systematic approach influences operational decision-making is limited.

A review of the New Zealand literature on electives policy achievements in the early 2000s finds central government, DHB clinicians, and health researchers had different perspectives on how clinical prioritisation and hospital booking systems had been implemented. Hefford and Holmes (1999) provide a Ministry of Health perspective, and claim the booking system was a major improvement on waiting list systems, since it introduced minimum timeliness standards, gave patients certainty of treatment, and shifted the focus of public system clinicians to service-level appropriateness and to consistency of service access. Roake (2003) provides a practicing clinician perspective and argues that system transparency and the balancing of supply and demand goals are an improvement but that a primary-secondary care integrated approach and careful evaluation and management of the system is still required. Gauld and Derrett (2000) provide a health researchers' perspective that is critical of the implementation, observing it was top-down and poorly managed. Gauld and Derrett argue that policy makers need to pay attention to the nationally consistent development of priority criteria and service access thresholds, to clarify the purpose of the booking system, and to pilot any system before a national system is created.

Following the publication of the performance audit by the OAG in 2011, Tony Ryall, the then Minister of Health requested assurance that the pursuit of the elective waiting time goals had not led to unintended consequences for patient care. A high-level review was carried out by Connolly, Nacey, Dunham, and Adamson (2013), who concluded that there is no evidence of unintended consequences. However, Connelly et al. acknowledge that they cannot come to a definite conclusion because there is no outcome data on patients declined for FSA or treatment, and DHBs do not consistently collect quality measures specific to elective services waiting times.

2.3.9 Comparative public hospital performance management research .

A review of the literature on public hospital service delivery performance management finds the experiences of the UK's NHS highlight the performance paradoxes that can arise when

targets are used to incentivise national delivery of services. The NHS implemented an annual star ratings system in the early 2000s and the introduction of the system, at the same time as private sector providers were allowed to supply elective services, contributed to a culture of competition within the NHS. The system became known as a 'Targets and Terror' policy because Chief Executives were rewarded or sanctioned according to their performance (Bevan and Hood, 2006a; Propper, 2012). Francis (2013) describes the damage a star ratings system can inflict on service quality and organisational function in his review of the mid-Staffordshire NHS Foundation Trust. A reduction of star ratings from a three to zero rating in 2004 was wrongly attributed to poor record keeping and the use of balanced scorecard performance reporting, when star ratings were actually intended as principal measures of service delivery waiting times and financial performance. Francis reports a number of system failings but finds that the high priority placed on achievement of targets produced a climate of management fear and contributed to dysfunctional management and clinician relationships.

The devolution of service funding to the four UK countries meant the star ratings system could not be implemented as a single national system. Each UK country implemented the system according to different premises. Connolly, Bevan, and Mays (2011) find it impossible to make meaningful country comparisons about elective service waiting times due to definitional waiting time statistics differences. Bevan (2010) classifies the different assumptions each UK country made in respect of the star rating system according to Le Grand's (2003) 'Knightly' and 'Knavery' dichotomy. Bevan observes the governments of Scotland and Wales assumed 'knightly' behaviour, whereas England's government assumed 'knavery' behavior. Bevan (2010) argues that for a performance measurement system to have a change impact it needs to have potential to inflict reputational damage from reliable well understood and publicly available information. Propper, Sutton, Whitnall, and Windmeijer (2009) estimate the 'Targets and Terror' policy significantly reduced waiting times in England compared to Scotland but find it impossible to reach any conclusions on whether targets, managerial sanctions or a greater focus on performance contributed to change in England. These UK studies highlight the difficulties of evaluating service improvement when a performance monitoring system engenders fear in management.

However, the use of targets and active performance management does effect change, and it should not be assumed that unintended consequences are inevitable. In a New Zealand comparative study of the influence of the two-year-old immunisation Health Target and the shorter stays in emergency department Health Target, Tenbensel, Chalmers, and Willing (2016) demonstrate that performance measurement system design and implementation setting influence target process consequences. Positive consequences are found for the immunisation target because inter-organisational and inter and intra-professional collaboration were stimulated by "virtuous circles". DHBs are accountable for the target but are not immunisation service providers (after the birth of the patient), and a third-party information system is used to collect data. This reduces the prevalence of gaming.

Conversely, the Health Target for emergency department stay improved ED staff working relations with other services but placed significant pressure on DHB senior management and challenged medical hierarchy. Chalmers (2014) reports medical specialist's resisted changes in work practices because the target threatened to shift their authority and decision-making about how patients progressed through the acute care system. The need to achieve the target sometimes trumped clinical decision-making, causing 'ward churn', which impacted clinician's ability to maintain quality care and increased clinical risk. DHBs gamed the system, by stopping the clock or admitting patients before the target was breached. Whilst government officials recognised the ED target could be gamed, they chose not to monitor the system for gaming because the impetus for change had come from ED clinicians (Adage (2010, cited in Tenbensel, Chalmers, and Willing (2016)). The Tenbensel, Chalmers, and Willing (2016) study does not discuss *effort substitution*, (the diversion of attention from important services that are not explicitly prioritised), and it does not consider the impact of performance management on related services, organisations, or staff.

2.4 Chapter Two Summary

This chapter has separately described the literature on the organisational discipline of performance management; New Zealand State sector performance management; and health system and elective health service delivery performance.

The review of the literature discussed in this chapter highlights that much of the research and evaluation work that has taken place in New Zealand occurred in the early years of the

implementation of CPAC tools and hospital booking systems. There are gaps in the literature about how performance measures are used, in the evaluation of interventions designed to improve the primary-secondary interface, and in how DHBs use performance feedback. It is also unclear whether the implementation of CPAC tools have fundamentally changed the prioritisation of patients and improved health outcomes, or whether there have been other benefits. Cumming (2013) argues New Zealand's elective service policies have resulted in the eradication of long elective waiting lists and times and have increased elective service supply but there is little publicly available information on unmet need. The literature review highlights that determining allocative equity of service access from service production volumes for organisations that have differing capacity and capability is difficult and there appear to be gaps in the literature about this topic. In order to understand what influences organisation performance, the research needs to understand the perspectives of different stakeholders at different levels of the health system and how system components interact as a whole to achieve performance results. There is growing interest in international health performance benchmarking but, in order for benchmarking activities to be useful, performance management frameworks and data collection and reporting processes require explicit description (Smith and Papanicolas, 2012).

Chapter Three: Theoretical Framework

The purpose of this chapter is to describe the institutional theoretical framework used in this study. The chapter has four sections: Neo-Institutional Theory (section 3.1), Institutional Logics (section 3.2), a description of the blended theory used in the study (section 3.3) and a chapter summary (section 3.4).

3.1 Neo-institutional theory

Institutional theory is not a single theory but a set of ideas that has evolved from economist thinking in the 19th century. Economist theory tended to see human behaviour in purely economic and rational terms. Scott (2014) provides a comprehensive overview of the evolution of institutional theory, recognising the interdisciplinary origins of the theory but what do we understand an institution to be? According to Veblen (1919, p. 239; cited in Scott 2014 p. 4), an *institution* is the "settled habits of thought common to the generality of man". Hughes (1939, p. 319; cited in Dormer 2010) recognises that "institutions exist in the integrated and standardised behaviour of individuals".

Contributors to institutional theory include Max Weber, who was concerned with understanding how cultural rules define social structures and govern social behaviour; Talcott Parsons, who observed that a system of action was institutionalised to the extent that individuals aligned their actions to normative standards and were motivated to obey an institutional norm because of the moral authority it exercises over them; and. Herbert Simon and James G. March, who contributed theories on the nature of rationality in organisations and administrative behaviour (Scott, 2014; pp.14-17, 29-30). Ritzer (2005, p. 409) identifies a common set of assumptions that underpin institutional arguments: institutions are governance structures that embody rules for social conduct; groups and organisations that conform to institutional rules are accorded legitimacy; and institutions tend to be change-resistant and regard historical contingency as important.

In the late 1970s, neo-institutional theory emerged as an offshoot of the sociological branch of institutional theory. Neo-institutional theory recognises the significance of institution interconnectedness and regards institutions as open systems that are influenced by

legislation, public policy, management professionalisation, public opinion, and social activism (Bromley and Powell, 2012, p. 2).

Neo-institutional theory was influenced by the seminal work of Meyer and Rowan (1977) who recognised that organisations accept external institution power structures and relations in order to preserve legitimacy, resources, and survival. However, Meyer and Rowan observed that organisations find that external requirements and actual technical work are often incompatible. Although organisations may resist and reject incompatible external requirements, in the long term such a tactic is often untenable. Resist and reject tactics require the severing of relations with the external requirement-setting body; leading to organisation isolation, difficult cross-boundary exchanges, leadership loss of legitimacy, and organisational structural breakdown (p. 356). Meyer and Rowan argue a common organisational response is for the decoupling of external requirements from actual technical work in order to avoid disputes and conflicts. Instead, external institutional rules are ceremonially adopted; there is an outward appearance of rule implementation, but inwardly there is low actual internalisation of rule value. External rules are seen as "rationalised myth" (Meyer and Rowan, 1977; van den Broek, Boselie, and Paauwe, 2014).

The neo-institutional theory concepts included in this study's theoretical framework include the organisational field (section 3.1.1); organisation isomorphism (section 3.1.2); the coupling of practices and priorities (section 3.1.3); and managerial behavioural responses to multiple stakeholders (section 3.1.4). The use of neo-institutional theory in performance management studies is discussed in section 3.1.5.

3.1.1 Interconnectedness: the organisational field.

DiMaggio and Powell (1983, p. 157) observe that the approach of Meyer and Rowan (1977) neither explains how the struggle for organisational power and survival arises or organisation interconnectedness. DiMaggio and Powell draw on the concept of the *organisational field*, an empirically defined group of organisations that are involved in a common enterprise, producing similar services, and sharing key suppliers, resources and product consumers (p. 148). There are four processes that lead to the formation of structures that lead to the constitution of an organisational field, namely: an increase in organisational interaction; the emergence of sharply defined interorganisational structures

of domination and patterns of coalition; an increase in information load (reporting requirements); and consensus among participants in a set of organizations that they are involved in a common enterprise. Scott (2014, p. 219) believes that "no concept is more vitally connected to the agenda of understanding institutional processes and organisations than that of the organisational field," since the relational and cultural positioning of an organisation in an organisational field determines its survival prospects.

In this study, elective service planning and delivery by the twenty DHBs is considered to constitute an organisational field. The organisational actors that make rational decisions within the field include Board members, senior executives, Funding and Planning portfolio managers, hospital provider arm service managers, clinicians (hospital specialists, nurses and GPs), clerical administrators and information management specialists. Elective service delivery as a common enterprise is evidenced in the Service Coverage Schedule (Ministry of Health, 2013d, p.72), which requires DHBs to "provide the amount of elective operations, procedures and assessments agreed to in their Annual Plan . . . to ensure the right level of service is delivered for the people in the region." DHBs are of different sizes (populations, hospital provider capacity) but are required to produce similar services, have the same public funding mechanism (a population-based funding formula), performance expectations and operational guidelines.

DiMaggio and Powell (1983) argue the extent of organisational interdependency within an organisational field also influences capacity for change, since organisations compete for vital resources. However, Scott (p. 224) observes that early formulations of organisational fields overstressed relational systems and neglected cultural connections. The creation of an organisational field is a mixture of top-down and bottom-up processes and in reality, most organisations engage, not with one, but with multiple fields. Chapters Five, Six and Seven of the thesis will highlight the emperical investigation that has led to the identification of an elective services organisational field and Chapter Nine (Section 9.3.1) discusses how the presence of an organisational field impacts the influence of active performance management.

Greenwood, Raynard, Kodeih, Micelotta, and Lounsbury (2011, p.318) recognise that organisations have to manage the complexity that arises from incompatible institutional logics and, using literature, they discuss how the structure of organisational fields and

organisational characteristics influence how an organisation experiences and responds to complexity. This is especially relevant to developing an understanding of the complexity inherent in planning elective service delivery and clinical prioritisation activities (identifying which patients will receive services and the timing and method of service delivery). Greenwood et al. are interested in how organisations cope with the tensions inherent in managing seemingly incompatible, socially derived, expectations. Greenwood et al. claim that organisations within a field experience complexity differently. Drawing on the observations of Scott (2014) that organisational fields shape processes and that the pattern of complexity is dynamic, Greenwood et al. observe that mature organisational fields which include multiple institutional logics are more likely to have reached truces. They propose an analytical framework, shown in Figure 3.1 (next page), in which *Institutional Pluralism*, is the situation faced by an organisation that plays in more than one sphere or game at the same time:

> Such an organization is subject to multiple regulatory regimes, embedded within multiple normative orders, and/or constituted by more than one cultural logic. It is a participant in multiple discourses and/or a member of more than one institutional category. It thus possesses multiple, institutionally derived identities which are conferred upon it by different segments of its pluralistic environment." (Karats & Block (2008, cited in Kraatz and Block (2017, p. 533))

Greenwood et al. (2011, p. 319) claim that organisations that dominate an organisational field (by virtue of their size and high status) often face the greatest challenge in terms of managing complexity because they face greater exposure to multiple institutional logics and stakeholders target them. Paradoxically, their size and resourcing insulates them from pressure, whereas smaller organisations are more vulnerable to institutional pressures (because of their limited resources).

Greenwood et al. (2011, p. 332) observe the level of complexity that regulatory rules create for an organisation is dependent on the fragmentation, formalisation and centralisation of an organisational field. *Fragmentation* refers to the number of dependencies and range of demands organisations in an organisational field may have. *Formalisation* refers to how field

constituents specify their demands. *Centralisation* refers to the unification of the environment and the clarification of organisational rules. Institutional complexity can be reduced through coalitions, and through any mechanisms that formalise expectations and reduce the uncertainty associated with inter-organisational transactions.

In general, the greater the uncertainty in a field, the more discretion organisations have in their efforts to symbolically or substantively comply with expectations. The more specific the expectations, and the more standardised a field is, the more problematic compliance becomes for highly complex institutions. Pache and Santos (2013b) observe the highest levels of complexity are in highly fragmented and moderately centralised fields. Organisational fields differ enormously, and the complexity in emerging fields is assumed to be greater than in mature fields. Greenwood et al. expand on this framework using institutional logics, which are discussed later in this chapter.
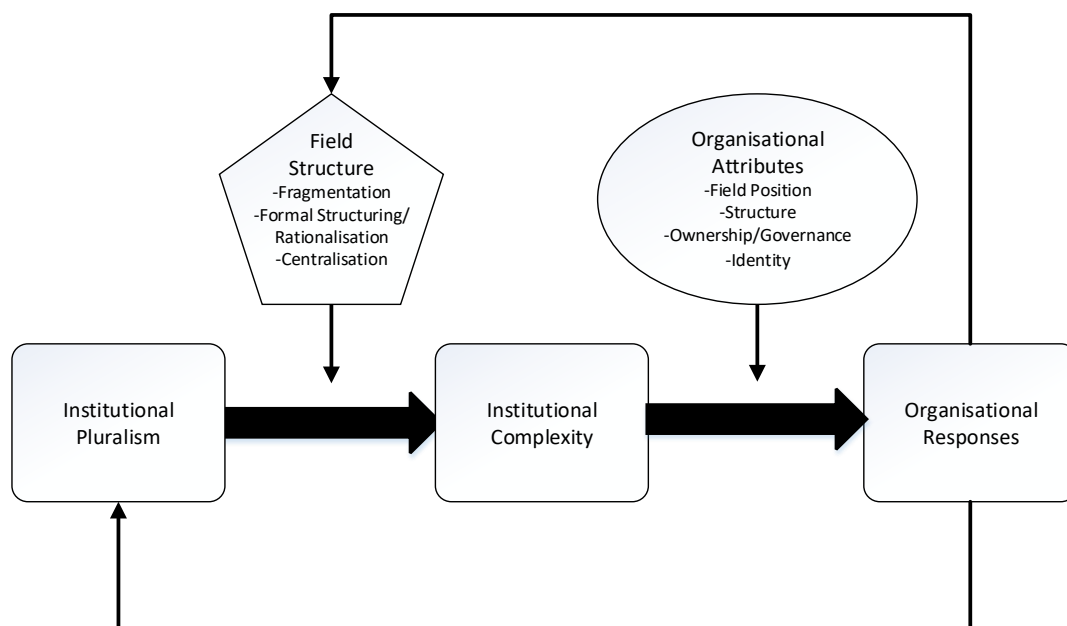
Figure 3.1: Greenwood, Raynard, Kodeih, Micelotta, and Lounsbury (2011, p. 324). Institutional Complexity and Organisational Responses.

The seminal work of Meyer and Rowan (1977) was extended by DiMaggio and Powell (1983) who argue that powerful organisations, such as the State and professional associations, shape an organisational field by forcing power structures and relations onto the field. DiMaggio and Powell explain institutional isomorphism as the outcome of external shaping, whereby organisations adopt similar structures and become easier to manage and control.

DiMaggio and Powell claim coercive, mimetic and normative forces play a role in shaping an organisational field and arise from a need for management to control. Coercive forces are usually political in origin and seek to control legitimacy; mimetic forces arise from uncertainty and the need to control process variation; and normative forces arise from professionalisation and the need to manage individual behaviour.

The extent of isomorphism is predicated by factors which influence field fragmentation, formalisation and centralisation. Organisations become similar when they face competition for vital resources, they have similar levels of interaction with the State, and have limited options for alternative operational models. Factors which influence the rate at which isomorphism occurs include the existence of coalitions, the centralisation of resources, standardisation of goals, certainty about technology, the extent of professionalisation, and the level of structure within an organisational field (DiMaggio and Powell, 1983, pp. 154-156).

In this study, the extent of professionalisation is considered an important factor because the DHB is highly professionalised and reliant on credentialing and the support of professional associations. DiMaggio and Powell (1983, p. 152) define professionalism as "the collective struggle of members of an occupation to define the conditions and methods of work, to control the 'production of producers' and to establish a cognitive base and legitimation for their occupational autonomy." According to Scott (2008, pp. 223-227), health professionals are pre-eminent institutional agents because of the control and belief systems exerted by professional associations over providers of designated services. However, the literature also recognises that the role of professionals in health care is evolving. As Goodrick and Reay (2011, p. 373) discuss, health care professionals involved in service delivery are increasingly expected to meet standards of both effectiveness and efficiency rather than being primarily valued for their expertise.

Yang, Fang, and Huang (2007) claim health care organisations are particularly responsive to isomorphic forces, given the regulated nature of health service delivery and the reliance of professions on clinical networks and group decision-making based on membership. They argue that standardisation is used as a mimetic and coercive force, whilst professional membership and the use of clinical networks is a normative force. It is unclear whether these propositions have been proven empirically because their study was based on a

literature review. The influence of standardisation and membership is relevant to this study because patient flow indicator compliance requires standardisation of practices and there is increased reliance on clinical networks to innovate service delivery.

3.1.2 Interconnectedness: the coupling of policy and outcomes to practices.

The term *Coupling* is used to describe the responsiveness and distinctiveness of two variables in an organisational system relative to one another (Orton and Weick, 1990, p. 205). There are four coupling strengths, depicted in Figure 3.2. When two variables are neither responsive or distinctive to one another they are noncoupled; when responsive but not distinct, they are tightly coupled; if distinct but not responsive they are decoupled; and if distinct but responsive they are loosely coupled.
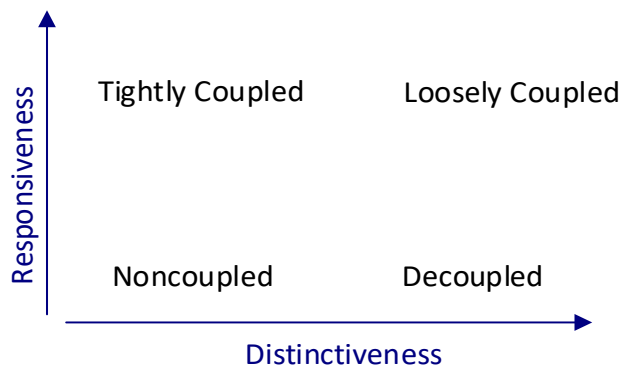
Figure 3.2: Institutional and Technical Decoupling Strengths
Note: Adapted from Orton and Weick (1990, p. 205)

As mentioned earlier in this chapter, Meyer and Rowan (1977) described the strategic decoupling of external requirements from actual technical work. However, policy-practice decoupling is widely criticised in the literature because it is unsustainable. As Johansen, Olsen, Solstad, and Torsteinsen (2015) observe, the concept of policy-practice decoupling firstly assumes that organisation identities agree that policy and practice are incompatible and secondly, that audits and external scrutiny can be avoided. Bromley and Powell (2012) acknowledge that policy-practice decoupling does occur but claim it is more likely early in the policy adoption process, when the capacity to implement policy is weaker and the inter-relationships amongst externally imposed goals, institutional identities, and practices are immature and the need for legitimacy is high. Hirsch and Bermiss (2009) predict managerial reliance on professional discretion increases the likelihood of policy-practice decoupling. For example, early research studies of New Zealand's booking system implementation

highlighted policy-practice decoupling, where administrators assigned clinical prioritisation scores on behalf of clinicians (McLeod, Morgan, McKinlay, and Dew, 2004; McLeod, Morgan, McKinlay, Dew, Cumming, Dowell, and Love, 2004; McLeod, White, McKinlay, Dew, Cumming, Dowell, Perera, Love, and Raymont, 2002).

Bromley and Powell (2012) argue that decoupling occurs at both the policy-practice and means-ends level. In *policy-practice decoupling* there is little or no relation between formal policies and daily practices (p. 9) and in *means-ends decoupling* formal policies are implemented in daily practices but there is little or no relation to intended outcomes (p. 15).

Bromley and Powell (2012, pp. 26-27) claim means–ends decoupling is more likely to occur in siloed environments that rely on standardisation and performance benchmarking, where activities and outcomes are difficult to measure, where procedures are emphasised over outcomes, funding streams are fragmented, and professional authority is perceived to be fragile. Data collection and reporting for monitoring purposes is given as an example of means-end decoupling. Data collection and reporting are intended to lead to organisational learning, but instead the collection of data become an end in itself (Bromley and Powell, 2012, p. 19; Feldman and March, 1981). The expanded view of the coupling of two system variables to encompass policy-practice and mean-end interconnections is of interest to this study because DHB elective service delivery is evaluated, standardised and benchmarked, and there is high public interest in the information.

Modell (2004) argues that performance measurement in public sector organisations is often seen as rationalised myth. Often a strategic, multi-dimensional approach to performance management is taken to try to mitigate the perception that performance measurement is pure accounting. However, any change in performance management approach is rarely without a vestige of the old "ghost myth" remaining. Modell concludes (p. 49) that often the outcome of changing to a multi-dimensional approach is that one set of myths (accounting) is displaced with another. The reason for this is that a performance measurement system by itself does not make a substantive contribution to organisational change. Change only occurs when individuals learn and unlearn and, for this to occur, there needs to be a collective understanding about new ways of working; a framing process, which narrows down possible options for change.

3.1.3 Managerial behavioural responses.

The role of management in effecting external rules and policy is also significant. Pratt and Foreman (2000, p. 22) argue that in order to meet the expectations of multiple external and internal stakeholders and to keep the costs associated with multiplicity to a minimum, an organisation needs to manage its multiple identities. There are situations which are favorable to multiple identities being involved in practices, namely: when there is support for collaboration by critical or powerful stakeholders; and when there is synergy between highly inter-dependent identities; or where there is future political or strategic value in an identity being involved (pp. 25-26). When organisations face strict resource constraints, the involvement of multiple identities is not always favoured.

Pratt and Foreman (2000, pp. 25-35) posit four types of managerial behavioural responses to the management of multiple organisational identities and competing demands. Table 3.1 summarises these responses in terms of an organisations need for multiple identities (roles) to remain distinct, (often based on stakeholder support and the legitimacy and strategic value of a role in a practice), and the need for responsiveness, (often based on the compatibility of roles, the need for synergy, and the level of resource constraints). The four types of identity (role) managerial behavioural response are:

- Aggregation, favoured when management wants roles to remain distinct but needs to create synergy and co-ordination. Aggregation requires roles to collaborate and co-ordinate efforts and decreases the potential for conflict but is resource intensive.

- Compartmentalisation, favoured when management wants roles to remain distinct and does not require synergy. Compartmentalisation increases the overall responsiveness of the organisation to multiple stakeholders but does not facilitate collaboration and does not reduce the potential for conflict.

- Integration, favoured when management wants to amalgamate roles in order to create high levels of synergy. It lessens the alienation organisation roles experience when they are no longer required, it reduces competing demands for resources and uncertainty but an organisation is less flexible as a result of role integration.

- Deletion, favoured when managers have little concern for collaboration or synergy between roles. It allows the organisation to focus on its primary mission and to conserve resources.

Table 3.1: Managerial Behavioural Responses

Managerial Behavioural Response	Identity Plurality (Distinctiveness from others)	Identity Synergy (Responsiveness to others)
Compartmentalisation	High stakeholder support High legitimacy/strategic value of identities	Independent identities Low resource constraints
Deletion	Low stakeholder support Low legitimacy/strategic value of identities	Independent identities High resource constraints
Aggregation	High stakeholder support High legitimacy/strategic value of identities	Interdependent identities Low resource constraints
Integration	Low stakeholder support Low legitimacy/strategic value of identities	Interdependent identities High resource constraints

Note: Adapted from Pratt and Foreman (2000)

3.1.4 Neo-institutional theory in performance management studies.

As a theoretical lens in this study, a strength of neo-institutional theory is its consideration of the relationships between policy and practice and its recognition of organisation interdependence. The usefulness of the organisational field as an analytical construct is highlighted in a study of the re-establishment of organisational relationships following major health sector reform in Canada (Reay and Hinings, 2005, 2009).

A major criticism of neo-institutional theory is that, with its focus on macro-level structures, it fails to adequately explain subjective, micro-level processes (Jensen, Kjærgaard, and Svejvig, 2009). Overall, DiMaggio and Powell's (1983) isomorphism theory is criticised in the literature for its failure to account for personal motivation and for its depiction of overly passive, conforming organisational behavior.

In a study of managerial responses to externally imposed performance in the NHS, Chang (2006) found the Oliver (1991) framework of individual and organisational behavioural responses useful for analysing managerial responses to institutional pressures but disagreed that policy-practice decoupling was a pro-active tactic. Other studies have found understanding policy-practice influences to be complex (Chang, 2006; Lemieux-Charles, McGuire, Champagne, Barnsley, Cole, and Sicotte, 2008; Modell, 2001; Yang, Fang, and Huang, 2007)

Dormer (2010) and Gill (2011) recognise from their case-studies that any theoretical lens used to study performance management needs to account for agency function, organisation identities, and the purpose of performance management. In recognition of the criticisms of neo-institutional theory, this study has incorporated institutional logics as a systematic approach because it takes account of both macro- and micro- level processes.

3.2 Institutional Logics

Institutional logics can be referred to as a concept, as metatheory, and as an analytical research method, (often referred to as the institutional logics approach (Thornton and Ocasio, 2008)). As a concept, institutional logics are organising principles, "sets of 'material' practices and symbolic constructions" at the inter-institutional, organisation, and individual level (Friedland and Alford, 1991, p. 248). Institutional logics integrates structure and practices, which is a point of difference with the stance of neo-institutional theory which separates institutional structure from symbolic and material practices. Institutional logics metatheory explains how institutional ideas, organisational mandates and individual thoughts and actions influence, and effect change in new and existing institutional practices (Shaw, Kontos, Martin, and Victor, 2017). As a research method, institutional logics is often used to examine how institutions, such as the State, influence organisational and individual behaviour.

The Institutional Logics Perspective (ILP) is an analytical framework developed by Thornton, Ocasio, and Lounsbury (2012), that integrates institutional logics with organisation structure and processes in a system. The ILP consists of two models: the first, a cultural emergence model, is described next; and the second, a cross-level model, is described in section 3.2.2.

3.2.1 Cultural emergence model components.

The cultural emergence model of field-level institutional logics, as posited by Thornton, Ocasio, and Lounsbury (2012, p. 151), is shown in Figure 3.3. In this model, Societal and External Logics represent the external institution power structures, (expected goals, procedures and power structures) of an external requirement-setting body. These external institutional logics are transmitted via two pathways; firstly, they are theorised or translated into Theories, Frames and Narratives, and secondly, they are culturally constructed into the Resource Environment that supplies resources to organisation Practices.

Throughout this thesis the variables in the ILP Combined Model (organisational practices, sets of practices, resource environment factors and institutional logics) are formatted in title case and italicised (*District Planning)*; and core elements of the ILP Combined Model are formatted in title case (Theories, Frames and Narratives).

Thornton, Ocasio, and Lounsbury (2012) describe Theories, Frames and Narratives as the organisation's interpretation of external expectations. Theories are general explanations of how institutional structures and practices should operate; Frames are more concrete, shared ideas which are communicated through meaningful social interactions and negotiations; and Narratives are descriptions of how events and human actions are seen as a whole and over time. Practices are meaningful activities, performed by institutional identities. Vocabularies of Practice are used to semantically represent Field-Level Institutional Logics, which are the internalised beliefs and practices of the institution.
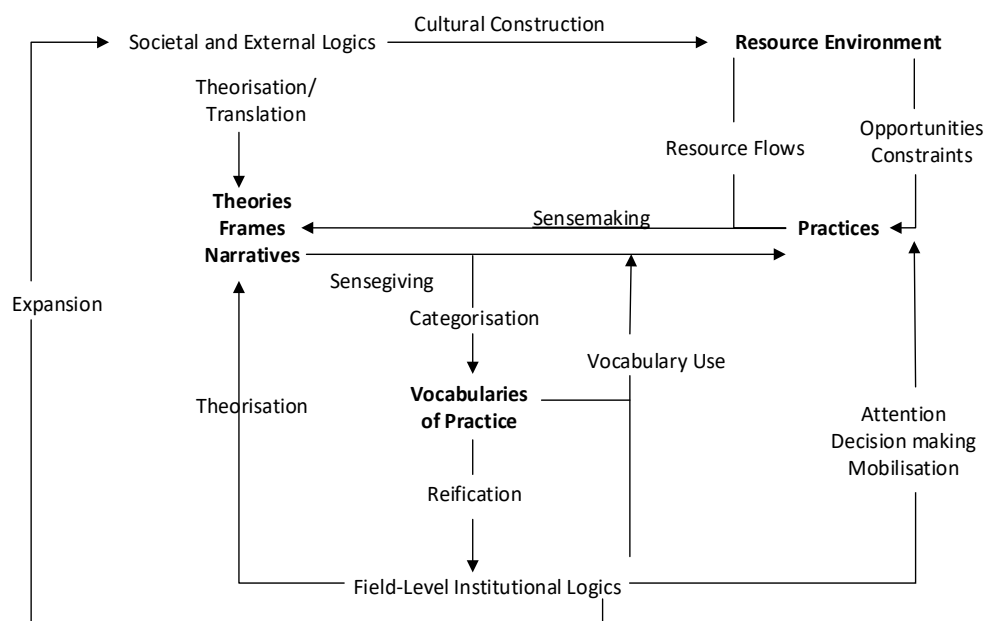
Figure 3.3: Thornton, Ocasio, and Lounsbury (2012, p. 151) Cultural Emergence of Field-Level Institutional Logics. Copyright Oxford University Press (2012).

3.2.1.1 *Sensemaking and sensegiving.*

The ILP uses sensemaking and sensegiving to explain how identities in the organisation reconcile Practices and Theories, Frames and Narratives. *Sensegiving* is the process whereby another party attempts to influence the sensemaking of an individual or group towards a preferred definition of organisational reality (Gioia and Chittipeddi, 1991, p. 442).

Sensemaking is the ongoing retrospective development of plausible explanations to rationalise what people are doing (Weick, Sutcliffe, and Obstfeld, 2005). Sensemaking "allows people to deal with uncertainty and ambiguity by creating rational accounts of the world that enables action" (Maitlis, 2005, p. 21).

Weick, Sutcliffe, and Obstfeld (2005, p. 409) describe how sensemaking efforts become explicit when there is a disconnect between the current and the expected state of the world. People look to make sense of the disconnect to determine whether to remain in an action. Reasons are pulled from organising frameworks, such as traditions, premises, and acceptable justifications. If no sense can be made from an organising framework, then people either substitute actions or continue to deliberate.

In a study of British symphony orchestras, Maitlis (2005), discerns meaningful patterns in leadership and stakeholder accounts of sensemaking. These patterns are based on the levels of social interaction animation and control and the reconciliation of accounts and actions. Maitlis proposes a typology comprised of four sensemaking types: guided, fragmented, restricted, and minimal (shown in Table 3.2). Guided sensemaking is typified where meetings are formal and by high levels of animation, (feedback reporting and dialogue). Restricted sensemaking occurs in less formal settings where its discussions are directed by leaders. Fragmented sensemaking also occurs in less formal meetings and is typified by stakeholders having more to say than leaders. In minimal sensemaking there is a light flow of information and a lack of overall awareness of issues. This is a useful typology and contributes to theory and research on multi-party negotiation and social interaction.

Table 3.2: Types of Sensemaking

Sensemaking Type	Process Characteristics	Outcomes
Guided	High animation and high control: High levels of sensegiving by both leader and stakeholder	Unitary, rich account Emergent, consistent series of actions
Restricted	High animation and low control: High leader sensegiving and low stakeholder sensegiving	Multiple, narrow accounts Emergent and inconsistent series of actions
Fragmented	Low animation and high control: Low leader sensegiving and high stakeholder sensegiving	Unitary, narrow accounts, One-time actions or a planned series of consistent actions
Minimal	Low animation and low control: Low levels of sensegiving by both leader and stakeholder	Nominal accounts One-off compromise actions

Note: Adapted from Maitlis (2005, p. 32)

3.2.2 Cross-level model components.

The cross-level model, as posited by Thornton, Ocasio, and Lounsbury (2012, p. 85), is shown in Figure 3.4. This model is concerned with representing how an individual's attention is focussed by Organisational Practices and the Social Interaction between individuals and groups. An individual's attention can be focussed either by the Availability/Accessibility of the Field-Level Institutional Logics they subscribe to (see Chapter Four, section 4.5.2), or by organisational practices and identities. Focus of attention can be automatic, habitual, or controlled.

Field-level institutional logics influence an individual's focus of attention because the logics signal the priority that should be given to issues (for example in this study, an individual may be aware (or not) of active performance management and the RWT Strategy). The salience of a situation to an individual is also important. *Salience* is what is important to the individual and any "noticeable and distinctive changes from past situations" (Thornton, Ocasio, and Lounsbury, 2012, p. 84). The *Accessibility* of institutional logics and organisational practices refers to the knowledge and information that comes to mind. "Individuals who are deeply embedded in a particular institutional logic through identification and socialisation are more likely to invoke knowledge that is part of that institutional logic" (p. 84).
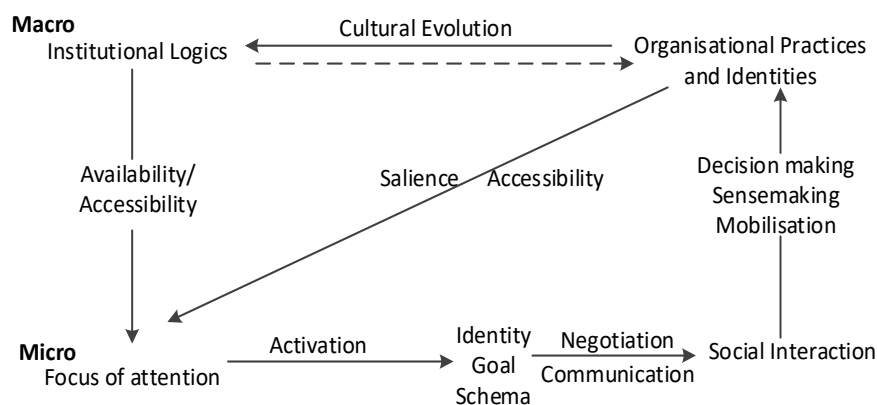
Figure 3.4: (Thornton, Ocasio, and Lounsbury, 2012, p. 85) A Cross-Level Model of Institutional Logics Combining Macro-Micro and Micro-Macro Levels

Thornton et al. (2012) explain that an individual may invoke more than one institutional logic in a situation. *Bounded Intentionality* is the term used to describe an individual's identity, goal, and cognitive schema. *Mobilisation* is a form of social interaction undertaken

by a collective group in order to acquire resources and achieve shared goals. A shared focus of attention within a group leads to co-operation and mobilisation. Mobilisation is a mechanism by which groups' change or contest existing arrangements and develop alternative thinking or behaviour.

3.2.3   Combined institutional logics perspective model.

Martin, Currie, Weaver, Finn, and McDonald (2017) observe that an exclusive focus on macro-level interactions 'fetishizes' (p. 107) the role of organisational structure, whilst a focus on micro-level interactions fetishizes the role of individual agency. Identifying the building blocks that bridge the macro and micro-level perspectives has been missing in institutional logics work to date (p. 104). Both macro-level and micro-level perspectives are important to this study and, in order to emphasise cohesiveness, the Cultural Emergence and Cross-Level ILP models have been merged into a single model with two lenses, shown in Figure 3.5.
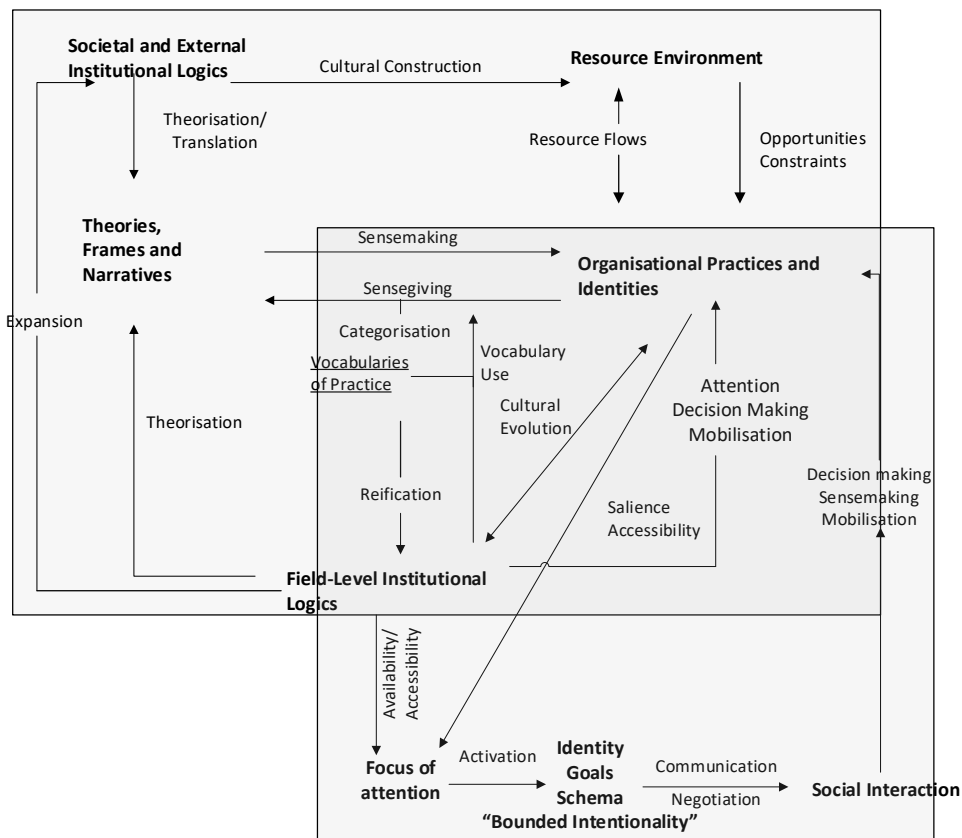
Figure 3.5: Combined Institutional Logics Perspective Model

Note: Adapted from Thornton, Ocasio, and Lounsbury (2012, p. 85 and p. 151))

3.2.4 Institutional logics theory in hybrid, complex institution studies.

As a theoretical lens in this study, a strength of institutional logics is its consideration of the interconnectedness of a system. It recognises attention focussing and social interaction and the dynamic nature of influence. However, what is less clear is how institutional logics can be studied in a hybrid institutional setting. As Johansen, Olsen, Solstad, and Torsteinsen (2015) explain, organisational identities in hybrid institutions have to cope with multiple interpretations of reality with multiple definitions of success and failure; they also have to interact with institutional stakeholders who may advocate differing institutional logics. Denis, Ferlie, and Van Gestel (2015) report the literature on hybridity in public-sector organisations is generally undeveloped and favoured by four theoretical lenses: governance theory, institutional theory, social interactions behind hybridity (such as actor network theory), and identity perspectives. A general criticism of institutionalist approaches to hybridity is a lack of concern for agency and an understanding of structure-agency and human-agency relationships.

Several studies that have used institutional logics as an analytical framework have considered whether the interplay of institutional logics can best be described in terms of domination or collaboration (Currie and Guah, 2007; Reay and Hinings, 2005, 2009). Other studies have suggested the interplay between logics is akin to co-existence (Goodrick and Reay, 2011; Martin, Currie, Weaver, Finn, and McDonald, 2017; McDonald, Cheraghi-Sohi, Bayes, Morriss, and Kai, 2013).

Goodrick and Reay (2011, pp. 403-404) claim it is the overall positioning, the constellation of institutional logics relative to each other over time, that is important. Pache and Santos (2013b) argue that hybrid organisations are more likely to display patterns of interaction and co-existence, rather than to exhibit patterns of rivalry, where institutional logics are seen to dominate. Martin et al. (2017) describes the role of a decision maker in determining how priorities are transmitted or filtered using the analogy of a prism. Transmitting priorities results in external and internal institutional logics being unchanged, leaving it to the individual actor to resolve any contradictions. Filtering (refracting) priorities results in the refocussing or shielding of individuals from competing logics. The process of refraction is similar to that of decoupling (Meyer and Rowan, 1977) but Martin et al. prefer the term conscious uncoupling and recognise that it is a deliberate action.

3.3 The Case for Blending Theory

In summary, there is no single theory or approach for examining how a government strategy influences DHB service delivery decision-making. The blending of theory has been guided by Flood and Fennell's (1995) recommendations that a health care organisation inquiry should seek to understand system boundaries, organisational differences, activities, decision-making, individual behaviour, system change and performance evaluation. The theoretical framework in this study accounts for an examination of these as follows:

- Neo-institutional theory accounts for system boundaries and organisational differences. The study will use the organisational field construct (section 3.1.1) to examine differences between DHBs by exploring the extent of fragmentation, formalisation, and centralisation in an organisational field (section 3.1.2). System change is understood by recognising how policy and performance measurement change impact the organisational field and individual behaviour. The study will use quantitative analysis and examine sensegiving and sensemaking of change and use isomorphism (section 3.1.2) and managerial behavioural response to change (section 3.1.4) to explicate DHB response to change.

- The study will use Pratt and Foreman's (2000) classification (section 3.1.4) and Martin et al.'s (2017) perspective of institutional logics being refracted at the organisation level (section 3.2.4) to account for activities, decision-making and individual behavioural influences. The top-down lens of the ILP Combined Model will support examination of sensemaking and sensegiving and will use Maitlis' (2005) sensemaking typology (3.2.1); the bottom-up lens of the ILP Combined Model will be used to examine attention focussing and social interaction (3.2.2). Coupling strength (3.1.3) will be used to assess the connectedness of institutional logics to specific organisational practices.

- The study will use Pollitt's (2013) basic elements of a performance management system to explicate how performance is managed across supply, demand and the primary-secondary interface. Performance evaluation is understood from quantitative analysis of DHB publicly reported performance and interviewee accounts of evaluation.

3.4 Chapter Three Summary

This chapter has described the theory that has been selected to underpin this study of how the DHB responds to the government's active performance management of elective service delivery. A theoretical framework has been created from a blend of neo-institutional and institutional logics theories.

Neo-institutional theory recognises there is often tension between external demands and actual technical work. An organisation has to determine how it will meet external demands and manage the complexity that such demands create. A strength of neo-institutional theory is its consideration of the relationships between policy and practice and its recognition of organisation interdependence, but its weakness is it does not take account of micro-level processes and individual agency. Neo-institutional theory offers a number of analytical tools to the researcher: namely, the concept of the organisational field, and explanations of institutional isomorphism to comprehend an organisation's capacity for change (DiMaggio and Powell, 1983), and explanations of how the structure or an organisational field is influenced (Greenwood, Raynard, Kodeih, Micelotta, and Lounsbury, 2011).

An institutional logics approach recognises that organising principles at every level of a system influence organisational and individual behaviour. The ILP is an analytical framework developed by Thornton, Ocasio, and Lounsbury (2012), which examines the interconnectedness of a system, external and field-level institutional logics, and organisational practices. The analytical tools supporting the use of institutional logics include: the classifications of managerial behavioural responses to the competing demands of multiple organisational identities (Pratt and Foreman, 2000); the classifications of sensemaking type which explain differences between leader and stakeholder sensemaking and sensegiving (Maitlis, 2005); and coupling strength to explain the association between policy, practices, and outcomes (Bromley and Powell, 2012; Meyer and Rowan, 1977; Weick, Sutcliffe, and Obstfeld, 2005). Institutional logics supports understanding of whether active performance management dominates or complements the DHB's propensity to prioritise its elective service work.

Chapter Four: Research Design

This chapter describes the research design and methods used to collect and analyse data. It is divided into seven sections: strategies of research inquiry (section 4.1); data collection methods (section 4.2); recruitment of organisations and participants (section 4.3); data synthesis and analysis (section 4.4); the definition of institutional logic ideal type (section 4.5); research validity and reliability (section 4.6); and ethical considerations (section 4.7).

4.1   Strategies of Research Inquiry: Pragmatism and Mixed-methods

The philosophical stance of a research design reflects the underlying core beliefs of the researcher about how research should be conducted. This research has taken pragmatism (Cresswell, 2009, pp. 10-11) as its philosophical stance. Pragmatism favours the use of mixed-methods and is concerned with the phenomena that arise out of actions, situations, and consequences. The pragmatism stance considers knowledge to be the fallible and constantly revised product of experience (Biddle and Schafft, 2015; Biesta, 2010). Pragmatism requires that the researcher should accept the relative, ambiguous nature of the phenomena being studied (Feilzer, 2010). It therefore commits the researcher to uncertainty, even when causal relationships are unknown. The researcher acknowledges that any knowledge gained from research is transitory (Biddle and Schafft, 2015). According to Cresswell (2009), pragmatism offers the researcher choice in selection of methods and alternatives to the dichotomous choice of post-positivism or social constructivism.

A mixed-methods research inquiry involves the integration of quantitative and qualitative methods and determines the logic that will be used to answer research questions (Cresswell, 2009, p. 14). The mixed-methods research paradigm recognises that some research questions cannot be answered by a quantitative or qualitative paradigm alone (Leech and Onwuegbuzzie, 2009). Greene, Caracelli, and Graham (1989) have developed a mixed-methods conceptual framework which describes the use of mixed-methods to support triangulation (the testing of data from more than one perspective), complementarity (the elaboration or enhancement of the results of one set of data with another), development (the use of data from one method to inform the sequential use of another method), initiation (to uncover paradox and contradiction in data) and expansion

(the expansion of the scope of methods). The disadvantages of the mixed-methods paradigm is that it is time consuming to complete and often requires extensive data collection and analysis. The integration of methods in research write-up can also be challenging (Bryman, 2007).

Quantitative research is concerned with objectivity, observation, and measurement using numbers and statistical methods. In this study, the researcher has collected actual performance data and analysed it to understand how published feedback on performance may have influenced decision-making. For example, did ESPI non-compliance contribute to any noticeable corrections? How have performance measures changed over time? How have changes impacted the significance of ESPI values?

Qualitative research is contextual and involves collecting data in natural settings (Gray, 2009, p. 166). Patton (2015, p. 15) outlines several purposes of qualitative research:

- To illuminate meaning
- To understand how systems work
- To understand people's perspectives and experiences of how things function
- To understand context and why things matter
- To make comparisons
- To recognise themes and patterns in research data

The use of qualitative data in this study helps the researcher to understand how active performance management influences individuals, how electives policy shapes DHB priorities and defines organisational practices, how different measures influence different stakeholders, and how the monitoring of DHB performance influenced stakeholder behaviour.

The transformative mixed-methods strategy used in this research consists of four phases:

- The first phase involved the collection of quantitative data in order to identify four case study DHBs.
- The second phase involved concurrent qualitative and quantitative data collection. In this phase there was a greater emphasis on qualitative rather than quantitative data.

- The third phase involved the integration of both data sources and the synthesis of the research narrative.
- The fourth phase involved the analysis of the research narrative using the theoretical framework described in Chapter Three.

The study has used a case-study approach which, according to Patton (2015), is an empirical inquiry of a phenomenon in its real-life context. A case study provides a richly detailed story about a unit of analysis (a case), usually from multiple perspectives (Patton, 2015; Yin, 2014). The first step in the approach is to determine an appropriate sample.

4.1.1 Purposeful Sampling.

Purposeful sampling is the selection of "information-rich cases that by their nature and substance will illuminate the inquiry question being investigated" (Patton, 2015, p. 264). In this inquiry, purposive sampling aimed to identify four case study DHBs. A sample size of four was considered appropriate, given that up to ten interviews were needed for each case. The purposive sampling process aimed to identify a DHB that had consistently maintained ESPI compliance, a DHB that had consistently struggled to maintain ESPI compliance, a DHB that had improved its compliance and a DHB that was involved in a regional or sub-regional initiative. A preliminary dataset was prepared from DHB ESPI reports provided by the Ministry of Health for the timeframe July 2006-June 2013. July 2006 was selected as the start date because after this date DHBs were required to consistently maintain ESPI compliance or face financial sanctions.

Ministry of Health ESPI reports are published each month on the Ministry of Health web-site. Each of the reports supplied by the Ministry of Health for this study is for a July-June financial year. Nelson Marlborough DHB's Orthopaedics ESPI performance for the 2013/2014 financial year is shown in Figure 4.1. A Microsoft Access database was used to create a database record for each DHB, Specialty, and ESPI in a financial year. Figure 4.2 shows the Access database template and record that corresponds to ESPI 6, as highlighted in Figure 4.1

MoH Elective Services Online

Summary of Patient Flow Indicator (ESPI) results for each DHB

DHB Name: Nelson Marlborough

Orthopaedics

	2013 Jul			2013 Aug			2013 Sep			2013 Oct			2013 Nov			2013 Dec			2014 Jan			2014 Feb			2014 Mar			2014 Apr			2014 May			2014 Jun		
	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.
1. DHB services that appropriately acknowledge and process patient referrals within ten working days.	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0
2. Patients waiting longer than the required timeframe for their first specialist assessment (FSA).	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	1	0.3%	-1	0	0.0%	0	2	0.6%	-2	0	0.0%	0	0	0.0%	0	1	0.3%	-1
3. Patients waiting without a commitment to treatment whose priorities are higher than the actual treatment threshold (aTT).	7	0.7%	-7	4	0.4%	-4	2	0.2%	-2	1	0.1%	-1	1	0.1%	-1	1	0.1%	-1	1	0.1%	-1	1	0.1%	-1	1	0.1%	-1	1	0.1%	-1	1	0.1%	-1	1	0.1%	-1
5. Patients given a commitment to treatment but not treated within the required timeframe.	0	0.0%	0	1	0.4%	-1	0	0.0%	0	0	0.0%	0	4	1.3%	-4	4	1.4%	-4	3	1.2%	-3	2	0.9%	-2	2	0.7%	-2	4	1.4%	-4	3	1.1%	-3	0	0.0%	0
6. Patients in active review who have not received a clinical assessment within the last six months.	11	31.4%	-11	3	10.7%	-3	1	4.0%	-1	0	0.0%	0	5	23.8%	-5	6	30.0%	-6	0	0.0%	0	0	0.0%	0	1	6.7%	-1	0	0.0%	0	0	0.0%	0	0	0.0%	0
8. The proportion of patients treated who were prioritised using nationally recognised processes or tools.	80	100.0%	0	71	100.0%	0	73	100.0%	0	67	100.0%	0	76	100.0%	0	70	100.0%	0	92	100.0%	0	96	100.0%	0	71	100.0%	0	87	100.0%	0	83	100.0%	0	98	100.0%	0

Figure 4.1: DHB Summary Level Electives Patient Flow Indicator (ESPI) results

Note: Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

Figure 4.2: Access Database Form (used in this study to record DHB ESPI compliance)

Note: Data entry shown refers to ESPI 6 in Figure 4.1

ESPI reports are colour-coded to indicate whether a DHB has achieved compliance against the Ministry of Health's expected performance standard. Green denotes the specialty is fully compliant in the month, yellow denotes partial compliance, and red denotes non-compliance. In some cases, the ESPI is not reported and the indicator is coloured white or is marked with an "X".The traffic-light colour of a DHB's actual ESPI performance was transformed to a score (Green – 3 points, Orange or Yellow – 2 points, Red – 1 point and white/"X" – 0). An annual total was calculated by adding each monthly score (maximum annual total was 36). Figure 4.2 shows Nelson Marlborough DHB has 6 months of full compliance, five months of partial compliance and one month of non-compliance, equating to an annual total of 29.

The preliminary ESPI dataset (July 2006 – June 2014) was keyed into the Access database. There were two steps in the purposive sampling process. The first step was to understand how DHBs might be compared. Table 4.1 shows the number of specialties reported to NBRS for FSA attendances in the 2013/14 financial year. DHBs are placed in their geographical health care region and the table is sorted in descending order by number of specialties. This table shows services supplied, rather than services purchased.

Table 4.1: DHB Specialties Reported to National Booking Reporting System (2013-14)

Northern Region DHBs	Total	Midland Region DHBs	Total	Central Region DHBs	Total	Southern Region DHBs	Total
Auckland	32	Waikato	26	Capital and Coast	22	Southern	28
Waitemata	20	Taranaki	22	MidCentral	22	Canterbury	27
Counties Manukau	20	Bay of Plenty	21	Hawkes Bay	16	Nelson Marlborough	21
Northland	14	Lakes	17	Hutt Valley	14	West Coast	18
		Tairawhiti	17	Wairarapa	13	South Canterbury	13
				Whanganui	9		

Note: DHBs are grouped by health region (Northern, Midland, Central and Southern).
Specialty totals are derived from analysis of ESPI2 performance.
Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

Although the total specialties in Table 4.1 suggests it might be relatively straightforward to compare ESPI compliance annual totals, this was not the case. An FSA for a medical specialty does not always translate into an elective surgery procedure, in some cases the number of months a DHB had reported to NBRS was not directly comparable, there is a need to

recognise if the DHB supplies tertiary level services, the number of patients seen, and if the DHB is a regional service provider. In practice, it made more sense to place DHBs in one of four sampling clusters, which recognised tertiary-level service provision, population size (medium (> 150,000 people) or smaller (150,000 people or less)), and a special interest category. A DHB could be included in one or more sampling clusters. Table 4.2 summarises the purposive sampling clusters.

A core set of six specialties are offered by most DHBs (Dental, Otolaryngology (Ear Nose and Throat), General Surgery, General Medicine, Orthopaedics and Paediatric Medicine). Compliance in the core specialties was compared and the number of specialties was expanded where possible in a cluster. In some cases, the only way to make a meaningful comparison of compliance was to use ratios, (which considered the ESPI annual total points in a specialty relative to the annual points that were possible across a period for full compliance). A pragmatic approach to ESPI analysis resulted in the identification of four cases.

Table 4.2: Research Design: Purposive Sampling Strategy

Sampling Cluster Size	Sample Category	Number of DHB selected from Cluster	Case Study Number	Selected DHB accepted Invitation to participate in study
4	Tertiary	1	1	Yes
6	Medium-Sized Secondary	1	2	Yes
9	Smaller Sized Secondary	1	3	Yes
5	Special Interest	1	4	Yes

Note. The population of a medium-sized secondary DHB is >150,000.

4.2   Data Collection Methods

Cross-case analysis involves examining themes and differences across cases (Mathison, 2005, p. 96). Both contextual and theoretical information are needed to support a cross-case analysis. Contextual information about organisational practices and DHB experiences of performance management is provided from case study interviews, and information about performance measurement is provided from quantitative data sources. Theoretical information about performance management, measurement, and reporting is obtained from documentary sources. Quantitative data was obtained from the Ministry of Health and, in most cases, was either online, or had been published online.

In addition to ESPI performance reports, the study has used the following data sources: the Electives Health Target quarterly reports (2008-2016), Caseload Monitoring Datasets (2012-2014), Standardised Discharge Ratio reports (2013-2016), and a subset of anonymised NBRS cardiothoracic data (2007-2015) was obtained to support inquiry into CPAC tool use. Documentary data sources included: DHB Annual Plans and Annual Reports, DHB Board and Hospital Advisory Committee meeting minutes, and government documents (statements of intent and strategies, reports by the OAG, and DHB Nationwide Service Framework library documents).

Qualitative data was obtained from semi-structured interviews. Interviewing provides benefits over other data collection methods, such as questionnaire surveys because it enables the researcher to better understand the interviewee's knowledge, attitudes, feelings and behaviour, to test a theory or hypothesis, and to identify the relationships amongst variables (Cohen and Manion (2000, cited in Gray (2009, p. 370).

4.3   Recruitment of Organisations and Participants for Case Study

Interviews were sought with people in a cross-section of roles at each DHB. Roles were selected based on an institutional, managerial, and technical functional framework described in other studies (Gill, 2011; Lemieux-Charles, McGuire, Champagne, Barnsley, Cole, and Sicotte, 2008). The roles targeted for semi-structured interviews include:

- DHB Board Chair or Board Member (coding prefix BM)
- Executive leadership team member (Chief Executive/Chief Operating Officer/ Chief Information Officer) (coding prefix EL)
- Funding and Planning Portfolio Manager or nominated representative (coding prefix FP)
- Service Manager (coding prefix ESM and GSM)
- Clinician Specialist (coding prefix MD)
- Primary Care Advisor/GP Liaison (coding prefix PCR)
- Decision Support Analyst/Manager (coding prefix DS)
- Information Analyst / Information Services Representative (coding prefix C)
- Shared Service Manager (coding prefix S)

Nine interviews were also sought with individuals in non-DHB settings, such as the Audit Office, Ministry of Health, and information system suppliers who were familiar with national data collection reporting. DHB participant demographics and roles are summarised in Table 4.3.

Table 4.3: DHB Study Participant Demographics

Role	Number of Participants	DHB Case represented	Other Characteristics
DHB Board Member	4	1, 2, 3, 4	1 government nominated 3 community elected
Executive Leadership Team	6	1, 2, 3, 4	4 in post 2 ex post
Funding and Planning Manager	4	1,2,3,4	4 in post
Service Manager	10	1,2,3,4	8 in post 2 ex post
Decision Support	3	1,2,3	3 in post
Clinician (Specialist)	7	1, 4 and non-case	5 in post 2 ex post
Primary Care Representative	6	1, 2, 3, 4	5 in post 1 ex post
Information Management	7	1,2,3	6 in post 1 ex post

4.4   Research Narrative and Analysis

The quantitative analysis of ESPI data has relied on Excel spread-sheeting techniques to identify longitudinal patterns in ESPI compliance and to analyse DHB Electives Health Target ranking position over time. This analysis has provided a picture of DHB actual performance, as it has been evaluated by the Ministry of Health.

A cross-case pattern approach was used with the thematic coding of interview data. The actions, perceptions, experiences, relationships, and behaviour associated with a person in a particular role was associated with DHB organisational practice or performance domains, (increasing elective supply, improving the primary-secondary interface and managing patient flow). The core elements of the top-down and bottom-up lenses in the ILP Combined Model (Figure 3.5, page 66) were used as coding nodes. Data coded to the top-down lens elements was used to synthesise narrative on the inter-relationships between government priorities, organisational practices and the resource environment. Data coded

to the bottom-up lens elements was used to synthesise narrative on how government and field-level institutional logics, and organisational practices influence attention-focussing and social interaction. The analysis of actual performance data is integrated with interview research narrative and presented in Chapters Five, Six and Seven.

In Chapter Eight, the research narrative is first analysed using Maitlis' sensemaking typology and then analysed using Pratt and Foreman's (2000) managerial behavioural response classification. The sensemaking type analysis is based on interview data and is role-based, but the managerial behavioural response takes account of management preferences and is an institutional logics based analysis (see the next section for definition of institutional logics examined in the study). The sensemaking type and managerial behaviour response analyses contribute to an understanding of the coupling strength of an institutional logic to an organisational practice, (whether it be tight, selective, loose, decoupled, or non-coupled). The broader theoretical framework described in Chapter Three, section 3.3 is then applied to the findings of the cross-case analysis to formulate discussion in Chapter Nine.

4.5   Definitions of institutional logic: ideal type and pattern matching.

Thornton and Ocasio (2008, p. 108) conclude that the imprecise definition of institutional logics can be a major weakness of studies that adopt an institutional logics approach. This study has examined the interplay of six institutional logics, (two government and four field-level logics) and the definition of these logics is described in this section.

The ideal type method, which is commonly associated with Max Weber, is a favoured method of defining institutional logics. The ideal type method involves the creation of a theoretical model that references the real world, and then classifies how an ideal would be represented, if it was executed according to its rationality. The ideal type definition then serves as a benchmark against which research data can be systematically compared (Goodrick and Reay, 2011).

Reay and Jones (2016) evaluate three techniques that are commonly used to identify a theoretical model and to define institutional logics: pattern deducing, pattern matching, and pattern inducing. The pattern matching method involves researchers identifying patterns from existing literature and is favoured in this study, because it is easier for inexperienced researchers and supports study comparability (p. 443). Thornton, Ocasio, and Lounsbury

(2012, p. 156) demonstrate the use of the pattern matching method by presenting the Friedland and Alford (1991) inter-institutional orders as ideal types. A tenet of institutional logics is that all logics have their origins in one of the inter-institutional orders. For this reason, the State, Professions, and Corporation inter-institutional ideal types are shown in Table 4.4 as these orders are traceable to the six logics examined in the study.

Table 4.4: Inter-institutional Orders as Ideal Type

Attribute	State	Professions	Corporation
Root metaphor	Redistribution mechanism	Relational network	Hierarchy
Sources of legitimacy	Democratic participation	Professional expertise	Market position
Sources of authority	Bureaucratic domination	Professional association	Top management
Sources of Identity	Social and economic class	Association with quality of craft Personal reputation	Bureaucratic roles
Basis of norms	Citizen membership	Associational membership	Firm employment
Basis of attention	Status of interest group	Status in profession	Status in hierarchy
Basis of strategy	Increase community good	Increase personal reputation	Increase size of form
Informal control mechanisms	Backroom politics	Celebrity professionals	Organisation culture

Note. The attributes in the first column of the table instantiate the ideal type definition.
Note: Adapted from Thornton, Ocasio, and Lounsbury (2012, p. 156)

Since the strategic use of active performance management is the focus of this study, an ideal type of the *logic of active performance management* needed to be defined before data collection. The definition of field-level institutional logics was deferred until the data analysis phase, allowing the investigator to become familiar with research narrative in order to define the ideal types based on pattern matching in the literature. Deferring the development of field-level logics also counteracts criticism that the selection of attributes that define an ideal type "constrain a researchers' insight" into data (Reay and Jones, 2016, p. 448).

4.5.1 Government institutional logics: ideal types

The definition of government institutional logics started with the four public-sector performance measurement and management models developed by Dormer (2011, p. 182). These are shown as ideal types in Table 4.5. Since medicine is practised by a highly professionalised workforce, it might be assumed that the professional services performance model would be the default model for the *logic of active performance management*. However, the literature on New Zealand's elective performance metrics outlined in Chapter Two (section 2.3) suggests that an administrative control performance model is more appropriate since this model is concerned with 'rules and fixed targets' and performance is controlled using rules and regulations.

Table 4.5: New Zealand State Sector Performance Models : Ideal types

Performance model	Administrative control	Rational goal	Professional services	Multiple constituency
What is measured?	Inputs and processes	Outputs	Processes and outputs	Outcomes
Criteria of performance management	Objectivity and facts	Formal rationality	Subjectivity, interpretation and judgement Cultural and cognitively based controls	Subjectivity, interpretation and judgement Cultural and cognitively based controls
Type of regulative control	Rules and fixed targets	Objectivity and facts	Flexible targets and learning	Flexible targets and learning
Political Saliency	High	Low	High	Low
Type of sense-making	Externally directed	Internally directed	Internally directed	Externally directed
Public Capital	Low	High	Low	High
Autonomy level	Low	Reasonable	Limited	High

Note: Adapted from Dormer (2011, p. 182)

Since DHBs are also required to innovate and share learnings from service innovation (Ministry of Health, 2014k, p. 58), a second set of institutional logics, the *logic of service improvement* is acknowledged. The *logic of service improvement* is not dominant and co-exists alongside the *logic of active performance management*. The ideal type for the *logic of service improvement* is based on the Professional Services performance model (see Chapter Two, section 2.2.2, pp. 18-19). Both the *logic of active performance management* and the *logic of service improvement* are understood to have their origins in the State/Corporate inter-institutional order (Friedland and Alford, 1991).

Table 4.6 presents the two government institutional logics as ideal types. The *logic of active performance management* is posited as a hybrid of the administrative control and professional services performance models, since ESPIs monitor the use of CPAC tools and management of clinical prioritisation decision. The sensemaking type of the logic of active performance management is externally directed and the autonomy level is moderate. While the sensemaking type of the *logic of service improvement* is internally directed and the autonomy level is high (suggestive of a hybrid professional services and multiple constituency model). Following data analysis, these ideal type definitions are refined (see Chapter 9, section 9.5).

Table 4.6: The Active Performance Management and Service Improvement Institutional Logics (Ideal Types)

Government level Institutional Logic	Active Performance Management	Service improvement
Root metaphor	Redistribution mechanism	Redistribution mechanism
Sources of legitimacy	Democratic participation	Professional expertise / Market Position
Sources of authority	Bureaucratic domination	Top management / Professional association
Basis of attention	DHB elective service prioritisation, fairness, clarity, timeliness and equitable access to services	Development of public hospital capability
Basis of strategy	Reduce waiting times	Optimise resource utilisation
Informal control mechanisms	Backroom politics	Backroom politics
Performance measurement and management	Administrative Control / Rational Control hybrid	Professional Services
What is measured?	Processes and outputs	Processes and outputs
Criteria of performance management	Government defined; standardised processes	Subjectivity, interpretation and judgement; cultural and cognitive based controls
Type of regulative control	Rules and fixed targets	Flexible targets and learning
Political Saliency	High	High
Type of sense-making	Externally directed	Internally directed
Autonomy level	Moderate	High

4.5.2 Definitions of Field-Level Institutional Logics

The four field-level institutional logics selected for examination in this study are the *logic of population health management*, the *logic of service management*, the *logic of Integrated Care* and the *logic of medical professionalism*. The ideal types for these institutional logics are shown in Table 4.7.

The *logic of population health management* is presented as a blend of corporate and market inter-institutional logics. The ideal type for this study is based on a UK study of general dental practice by Harris and Holt (2013, p. 66). The source of legitimacy is the redistribution of resources based on a population-based health funding model. Important beliefs are the need for equity of service provision. The basis of norms includes the need for government accountability, transparency, meeting targets, managing resources according to need not demand, being public policy strategy oriented, sub-contracting to others, and applying dispassionate, issue-based decision-making. Sensemaking is externally directed and this institutional logic has a high level of autonomy in its decision-making.

The *logic of service management* reflects the 'bounded intentionality' and sensemaking type of the Decision Support analyst or manager and the Service Manager role (discussed in sections 5.5 and 7.5 and in section 8.1 and section 8.1.3). The *logic of service management* is a blend of corporation and professional inter-institutional logics. The literature review found studies that describe health service management as business-like health care (Reay and Hinings, 2005; van den Broek, Boselie, and Paauwe, 2014), with a reliance on efficiency and 'lean thinking' (Hultin and Mahring, 2014). The source of legitimacy comes from a hierarchical management system. Important beliefs are effective and efficient service delivery and the need to maintain the flow of the patient through the health system. The basis of norms are resource use and service delivery efficiency and reliance on standard business processes. In this logic managers, not professionals, evaluate performance, service coverage and price (Goodrick and Reay, 2011). Sensemaking is both internally and externally directed and this institutional logic enjoys a high level of autonomy.

The *logic of integrated care* reflects the 'bounded intentionality' and sensemaking type of the Primary Care Representative role (discussed in section 6.5 (page 151) and in section 8.1.2). The *logic of integrated care* is an emerging field-level institutional logic and it is a

blend of the *logic of population health management*, the *logic of service management* and the *logic of medical professionalism*. The ideal type in this study is based on studies of the implementation of primary care pathway systems (Dent and Tutt (2014) and a study of population health based medicine (McDonald et al. (2013). Its source of legitimacy is professional expertise. The most important component of the system is the 'doctor-patient' relationship and the need to provide all 'medically' necessary services to the patient. The basis of norms is clinical knowledge. Its goals are the increased integration of primary and secondary health services in the New Zealand health system. This institutional logic focuses on health care service delivery improvement and aims to better co-ordinate service delivery and improve the patient experience. Sensemaking is internally directed and this institutional logic enjoys a high level of autonomy.

The *logic of medical professionalism* reflects the 'bounded intentionality' and sensemaking type of the Specialist role (discussed in section 7.5 (page 205) and in section 8.1.3). The *logic of medical professionalism* is based on the profession inter-institutional logic and is characterised by the deference senior medical professionals receive from managers, patients and lower-status clinicians (Martin, Currie, Weaver, Finn, and McDonald, 2017; Reay and Hinings, 2009). According to Friedland and Alford (1991) and Goodrick and Reay (2011) the profession inter-institutional logics relies on abstract knowledge to conduct practice, either solely or in association with others of the same profession. The literature review found several studies that contrast the *logic of medical professionalism* with other institutional logics. It has been contrasted with: Corporate institutional logic in an implementation of primary care pathway systems (Dent and Tutt, 2014); with Nursing Professional logic in the implementation of a hospital ward quality improvement programme (van den Broek, Boselie, and Paauwe, 2014); with Business-like health care (Reay and Hinings, 2009); with Population Health based medicine (McDonald, Cheraghi-Sohi, Bayes, Morriss, and Kai, 2013) and with managerialism logics in the implementation of the UK National Programme for IT (Currie and Guah, 2007). Its source of legitimacy is professional expertise. The 'doctor-patient' relationship and the need to provide all 'medically' necessary services to the patient is paramount. The basis of norms is clinical knowledge. Sensemaking is internally directed and this institutional logic also enjoys a high level of autonomy.

Table 4.7: Field Level Institutional Logics Ideal Types

Field-Level Institutional Logic	Population Health Management	Medical Professionalism	Integrated Care	Service Management
Root inter-institutional order	State/Profession hybrid	Profession	Profession	Corporation
Sources of legitimacy	Redistribution mechanism	Professional expertise		Hierarchy
Governance	DHB Board Senior leadership team	Professional associations and colleges	Professional associations and colleges. Alliance leadership model governs DHB-PHO relationship	DHB Board Senior leadership team
Principal service planner and decision-maker	Funding and Planning Manager	Clinical Specialist	Physician PHO – publicly funded services	Service Manager
Beliefs on most important system component(s)	Population health outcomes Prioritised decision-making	'Doctor-patient' relationship Provide all 'medically' necessary services.		Effective and efficient service delivery Maintain patient flow
Basis of norms	Government accountability, legislative power, control of funding and standards of performance and effectiveness	Physician abstract knowledge – autonomy and position: physicians use knowledge to request or order services.		Efficient use of resources, standard business processes
What is measured?	Service Volumes (Outputs)	Clinical outcomes (effectiveness)		Patient flow Processes and outputs
Type of sense-making	Externally directed	Internally directed	Externally directed	Internally and externally directed
Autonomy level	High	High	High	High

4.6 Research Validity and Reliability

The use of an integrated mixed-methods approach in this research reinforces the research's validity and reliability. Construct validity is important when research questions are concerned with how individuals experience institutional life (Yin, 2014). Questions of internal validity have been addressed by referring to Ministry of Health data dictionaries, specifications and in the use of standard interview questions (Appendix C) to ensure consistency. Handling concept ambiguity is important in this study and the review of the literature has highlighted that terms such as *performance*, *prioritisation,* and *health equity* are value-laden and ambiguous. Throughout this thesis the researcher aims to recognise

where concept ambiguity exists, to define concepts clearly, to be consistent, and to elaborate on the meaning and use of concepts as required.

An organisational field is determined by an investigator empirically and this can raise questions of research reproducibility and reliability (Thornton, Ocasio, and Lounsbury, 2012). These concerns can only be addressed through detailed descriptions of research methods. Since the research question is concerned with explaining influence and meaning, this study requires detailed descriptions of data and the highlighting of any differences in interpretation. Therefore, any issues arising from lack of clarity around organisational field definition should be mitigated.

4.7   Ethical Considerations

Ethical approval was granted by the Human Ethics Committee on 16 July 2014 (Ethics Approval: RM#21107). Permission was sought to interview DHB and Ministry of Health employees and other parties, such as information system vendors, and shared service agencies. Ethics approval was also obtained from DHB research committees. Interviewees were sent an information sheet (Appendix A) and asked to sign a consent form (Appendix B) prior to the interview. Participants are not identified in the write-up of the research. Where quotations have been used that might identify someone, details have been changed, and/or composite quotations used to in order to anonymise interviewees.

4.8   Chapter Four Summary

This chapter has outlined the transformative, mixed-methods research strategy underpinning this empirical enquiry into how active performance management impacts the real-world of the DHB. The use of multiple-case studies and cross-case analysis supports the development of an institutional logics perspective narrative, which recognises the meaning specific actors assign to events and activities. The use of DHB actual elective service performance data provides context for how performance has been measured and reported over time, and of DHB's responsiveness to compliance expectations. The chapter has also used a pattern matching technique to define the ideal types of the six institutional logics examined in this study.

Chapter Five: Increasing Electives Supply

5.1 Introduction

This chapter is the first of three chapters that describes, for a set of DHB activities, how the government has used active performance management, (to set accountability, monitor performance and facilitate change through networks); how priority setting is perceived by decision-makers at different levels of the health system; and how attention is focussed and social interaction is managed. Each chapter presents narrative about a set of DHB activities that constitute a domain of performance. Narrative is developed from the thematic coding of interview data and reference documents using the ILP Combined Model as a coding framework.

The narrative in this chapter describes the *Increasing electives supply* set of activities. According to the RWT Strategy objectives, the intended outcome of performance management in this domain is an increase in the supply of publicly funded elective services, improvement to public hospital productivity, and the ability to monitor national equity of service access. The increase in elective supply objective described in this chapter is concerned with both the purchase and provision of elective services. The chapter describes the annual process of government allocation of population-based funding and how DHBs determine and negotiate the supply of elective services. Services provided by other DHBs are financially accounted for as Inter-district flows (IDFs), a nationally agreed case-weight price for a service event. IDFs can be a means for DHBs to generate additional funding.

This chapter is organised as follows: section 5.2 describes how government priorities are theorised as non-financial performance expectations and become embedded in DHB district and regional service plans; section 5.3 describes the sensegiving and sensemaking of government priorities by specific DHB roles; section 5.4 describes the interdependencies between the resource environment and organisational practices; section 5.5 describes the bounded intentionality of the roles associated with practices; section 5.6 describes how organisational practices and specific roles focus decision-maker's attention; section 5.7 describes social interaction with external and internal stakeholders; and the chapter concludes with a summary in section 5.8.

5.2   Translating Government Priorities into DHB Priority Outcomes

The focus of the top-down lens in this, and subsequent chapters, is on the interconnections between: government External Logic; Priorities; Theories, Frames and Narratives; Organisational Practices; and the Resource Environment.

Figure 5.1 shows the ILP Combined Model overlaid with fifteen variables associated with the *Increasing elective supply* performance domain. The focal point of this section is on the theorisation and translation of government priorities into DHB priority outcomes.
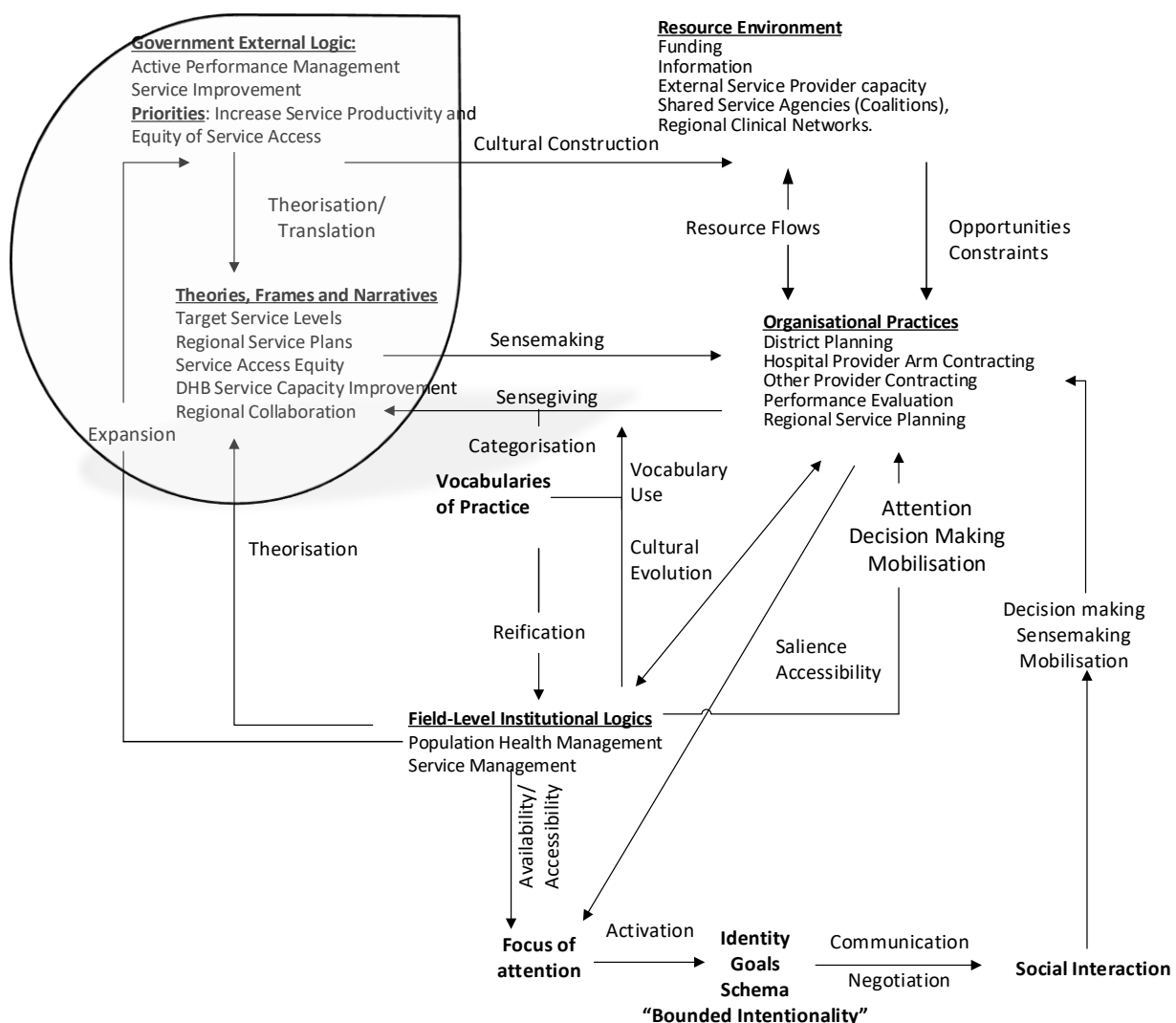
Figure 5.1: Theorisation of Priorities: Increase Elective Supply

5.2.1 Theorisation and translation of government priorities for increased elective service supply into annual plans.

The five Theories and Frames selected for detailed examination using the top-down lens are: *Target service levels*, *Service access equity*, *DHB service capacity improvement*, *Regional service planning*, and *Regional collaboration*.

Several study participants confirmed that developing the DHB's District Annual Plan was the responsibility of the DHB's Funding and Planning unit. One Board member confirmed that the Board has an opportunity to provide feedback on draft plans:

> We do rely heavily on the Planning and Funding people and they come forward with a draft. . . That keeps coming back to the Board and the Board then approves it . . . A lot of it is set by templates provided by government. We fill in the blanks. Some of it is more our own words and some of it does localise or regionalise the flavour of the information that is provided from central government. . . So we do have quite a lot of input, or the capability of quite a lot of input. (BM4) (Role of Board Member, Planning, Theorisation/Translation)

A DHB Chief Executive observed that there is a very modest level of discretionary input to DHB plans and strategy:

> For DHBs, 95% of the decision on what the priorities are, what they have to deliver and what they have to report on is determined. . . there is not an opportunity for the Board to sit down and say "oh heck, we have got another $10 million. What are we going to do?" It's more "oh heck, we are actually $10 million short of what we need" (EL1) (Resource Environment Constraints, Population-based Funding, Theorisation/Translation)

A Shared Services Agency Manager observed that the modest level of discretionary input into annual plans means there is an unspoken ambiguity about annual plan ownership:

> This is the DHB's Annual Plan, but actually 90% of it is prescribed by the Ministry and has to be delivered. Who owns those plans is kind of one of those questions that never gets asked, but is one of those key questions. (S2) (Schema, Regional Service Planning, Theorisation/Translation)

At the regional level, priorities differ and plans are observed to focus on the need to protect vulnerable specialties, (vulnerable in terms of specialty workforce and financial viability); the development of regional data warehouses, and the facilitation of regional and sub-regional clinical networks. A Shared Services Manager commented:

> [Government said] "Use the systems that you currently have, rather than here is a nationally prescribed approach" . . . There is nothing to stop us, except what grasps our attention really. . . . To date it has been left to DHBs to drive collectively, from DHB Chairs and CEs. (S2) (Regional Service Planning, Theorisation/Translation)

5.2.1.1 *Target service levels.*

There are two performance measures concerned with targeting and monitoring service supply: a minimum (base) level of elective case-weighted discharges, and an Improving Elective Surgery Volumes Health Target (Electives Health Target). The base level was introduced in July 2006, and followed recommendations from the Protecting Elective Volumes Working Group (Ministry of Health, 2006b). Base-level volumes are renegotiated every three years and are funded according to the DHB district where a patient lives. This means that the services a public hospital provides to patients from other DHBs do not contribute to the DHB's base-level or Electives Health Target volumes. Therefore, tertiary service providers are expected to prioritise the achievement of target production levels for their own population before agreeing supply levels with other DHBs who wish to use their services.

The Improving Elective Services Health Target was introduced in 2007/08 and, in its first year, was concerned with DHBs achieving their base-level volumes and being ESPI compliant. In 2008/09, the name of the target changed to the 'Improved Access to Elective Surgery Health Target', reflecting a shift in the focus of the target to improving access to surgery. Initially, the target aimed to increase surgery base levels by 2%, but by the 2010/11 financial year it was recognised that the national average level of discharges needed to increase by 4000 case-weighted discharges per annum to keep up with population growth. The target is comprised of a district and regional level of volumes. The Electives Health Target aims to achieve a total of 190,000 scheduled operations in the 2025/26 financial year (OAG, 2011).

The New Zealand government uses two measures to evaluate the appropriateness of service mix that is delivered to a DHB's target population. The first measure, Standardised Discharge Ratios (SDRs), were introduced in 2006/07. SDRs are historical ratios intended to inform DHB understanding of national equity of service access in relation to surgery and are national averages of procedure volumes, standardised to take account of a DHB's target population's age, sex, ethnicity and level of social deprivation. Initially, SDRs monitored eleven elective procedures, since hip and knee (major joint), cataract, and cardiac surgeries were covered by separate funding initiatives, but these procedures were absorbed into the SDRs once the separate funding initiatives were discontinued. At the time of the study, there are fourteen quarterly reported SDR procedures. Table 5.1 summarises the minimum, maximum and standard deviation for surgical procedures purchased from 2013 to 2016 (Ministry of Health, 2016c). The average national rate is represented as 1. the lowest and highest DHB purchased volume in a given year are shown to signal variation.

Table 5.1: Standardised Discharge Ratios (2013-16): Minimum, Maximum and SD

Surgical Procedure	2013/14			2014/15			2015/16		
	Min	Max	StDev	Min	Max	StDev	Min	Max	StDev
Coronary artery bypass graft (CABG)	0.63	1.47	0.2422	0.61	1.21	0.1628	0.5	1.23	0.1738
Angioplasties	0.71	1.35	0.1597	0.49	1.34	0.2099	0.66	1.25	0.1728
Total hip replacement	0.67	1.34	0.1748	0.68	1.36	0.1567	0.62	1.36	0.1828
Total knee replacement	0.67	1.32	0.2285	0.55	1.75	0.3091	0.69	1.3	0.1906
Prostatectomies	0.72	1.42	0.1957	0.62	1.43	0.2115	0.76	1.72	0.2390
Cataracts	0.76	1.62	0.2402	0.73	1.56	0.2547	0.72	1.61	0.2192
Grommets	0.53	1.34	0.2262	0.58	1.4	0.2377	0.66	1.28	0.2081
Repairs of hernia	0.76	1.67	0.2459	0.67	1.65	0.2404	0.83	1.41	0.1720
Tubal ligation	0.19	2.35	0.6109	0.19	2.87	0.7014	0.2	3.02	0.8034
Hysterectomies	0.71	2.3	0.3720	0.63	1.73	0.2998	0.55	1.67	0.2915
Cholecystectomy	0.71	1.28	0.1473	0.68	1.35	0.1569	0.67	1.48	0.1883
Tonsils and adenoids	0.78	1.26	0.1604	0.82	1.3	0.1743	0.79	1.26	0.1591
Carpal tunnel procedures	0.49	1.46	0.2938	0.51	1.74	0.3143	0.45	1.51	0.2780
Heart valve replacements and repair	0.56	1.57	0.2327	0.41	1.34	0.2235	0.82	1.31	0.1336

Note: Standardised Discharge Ratios from Ministry of Health. (2016c). A rate of 1 indicates provision of the average New Zealand rate, greater than 1 indicates above the average rate and less than 1 indicates below average rate.

Table 5.1 shows that the range and SD from the mean for 11 procedures (non-highlighted) is low. This suggests DHB capacity to supply these services is nationally even. The three procedures with the highest variation are highlighted (Tubal ligation, Hysterectomies, and Carpal tunnel procedures). In 2015/16, one DHB supplied 20% of the average volume of tubal ligations to its population target, whilst another supplied three times the average. Where a DHB's SDR for a procedure is 0.95 or less, the Ministry of Health requires a variance exception report. A DHB may choose to either justify its service delivery or propose a remediation plan to bring volumes in line with the national average. The differences between the DHBs with the highest and lowest SDRs appear to be considerable but there is no discussion of reasons for variation on the Ministry of Health's website.

The second measure, Standardised Intervention Rates (SIRs), were introduced in 2007/08 and set a target level of intervention per 10,000 head of population for five groups of procedures. Table 5.2 shows SIRs over a seven-year period from 2010/11 to 2016/17. While cardiac procedure rates have increased slightly over the seven-year period, intervention rates have remained constant for major joint replacement and cataract surgeries.

Table 5.2: Standardised Intervention Rates per 10,000 of Population

Procedure	2010/11-2011/12	2012/13	2013/14	2014/15-2016/17
Major joint replacement procedures	21.0	21.0	21.0	21.0
Cataract procedures	27.0	27.0	27.0	27.0
Cardiac procedures	(at least) 6.23	6.2-6.51[1]	6.2-6.51	6.5
Percutaneous revascularization	10.8	at least 11.9	at least 11.9	at least 12.5
Coronary angiography services		at least 32.3	33.9	at least 34.7

Note: [1] DHBs with rates of 6.5 per 10,000 or above in previous years were required to maintain this rate. Standardised Intervention Rates from Ministry of Health (2009a, p. 12), Ministry of Health (2013b, p. 61), Ministry of Health (2014c, p. 85), 2012/13 rates were obtained from review of several DHB District Annual Plan.

The use of SIRs and SDRs offers a proxy measure of equity of service access but is not as sophisticated as measuring need and the ability to benefit from health care (Cumming, 2013, p. 215).

5.2.1.3 Improving hospital capacity.

DHB District Annual Plans describe service capacity constraints such as increases in acute demand, district population growth, operating theatre shortages, and issues with clinical workforce retention. Plans also mention initiatives to improve capacity such as outsourcing to the private sector, increasing elective day-case surgery, managing length of stay, improving discharge planning, moving non-complex activity into a community-based setting, implementing lean-thinking processes to remove capacity bottlenecks, the introduction of new assessment approaches (such as non-contact FSAs), and primary care options for direct access to surgery and medical treatment.

5.2.1.4 Regional service planning and collaboration.

According to the Ministry of Health (2014d), DHBs are required to commit to regional service delivery goals, to collaborate, to focus on the reduction of access inequity and care variation, and to protect vulnerable services. Examples of key actions that a region might undertake to improve access include:

- supporting the achievement of local intervention rates, maximising regional capacity, making optimal use of specialist resources and sub-specialist capability, increasing direct access to less complex surgery
- developing consistent pathways, access criteria, and clinical protocols for individual services
- establishing and delivering sub-regional agreement to facilitate cross-boundary patient care
- implementing sub-regional referral management and scheduling systems, and delivering actions agreed to in regional Elective Services Productivity and Workforce Programme contracts.

5.2.2 Government priorities: planning.

A total of fifteen variables, (five Theories, Frames and Narratives; five Organisational Practices; and five Resource Environment factors), have been selected for detailed examination in this chapter. These variables are either referred to in Nationwide Services Framework Library documents or in the RWT Strategy.

Under Section 38 of the New Zealand Public Health and Disability Act 2000, each DHB has a statutory obligation to prepare a District Annual Plan, which must be approved by the Minister of Health.

The purpose of a District Annual Plan is to document how the DHB will meet government priorities, and to demonstrate how the DHB, as a funder and service provider, will meet its performance targets for all measures within the performance monitoring framework (Ministry of Health, 2014k). As stated in Chapter Two (Section 2.2.4), there is a generic set of tier-one specialist services specified in the Service Coverage Schedule that all DHBs are required to supply. The Operational Policy Framework for the 2014/15 financial year (Ministry of Health, 2014k, pp. 12-14) outlines the context for the government's elective service supply expectations:

- The DHB must supply service volumes that are aligned to population growth,
- The DHB must evaluate that the right mix of services are being delivered to a DHB's target population,
- The DHB must improve hospital capacity through changes to service delivery and use of available regional and private sector capacity.

The New Zealand Public Health and Disability (Planning) Regulations (2011) also require DHBs to participate in *Regional Service Planning* and to produce Regional Service Plans. The aim of a Regional Services Plan is to document how the DHBs in a region will intentionally collaborate and align service and capacity planning. According to Regional Service Plan Guidelines (Ministry of Health, 2014d), a regional service plan is a conduit for DHBs to document and align their collaboration efforts around regional service planning and capacity planning. At the time of interviews, Ministry of Health guidelines were signalling the need for "line of sight" alignment between district and regional planning activity (Ministry of Health, 2014b, 2014d).

5.3 Sensegiving and Sensemaking of Government Priorities and DHB Practices

The focus of the top-down lens is now turned to the five DHB supply-side organisational practices, and to research participants' sensemaking and sensegiving of government priorities. The focal point of Figure 5.2 is the sensegiving and sensemaking of Theories and Frames and the five Organisational Practices: *District Annual Planning*, *Hospital Provider Arm Contracting*, *Other Provider Contracting*, *Regional Service Planning*, and *Performance Evaluation*.
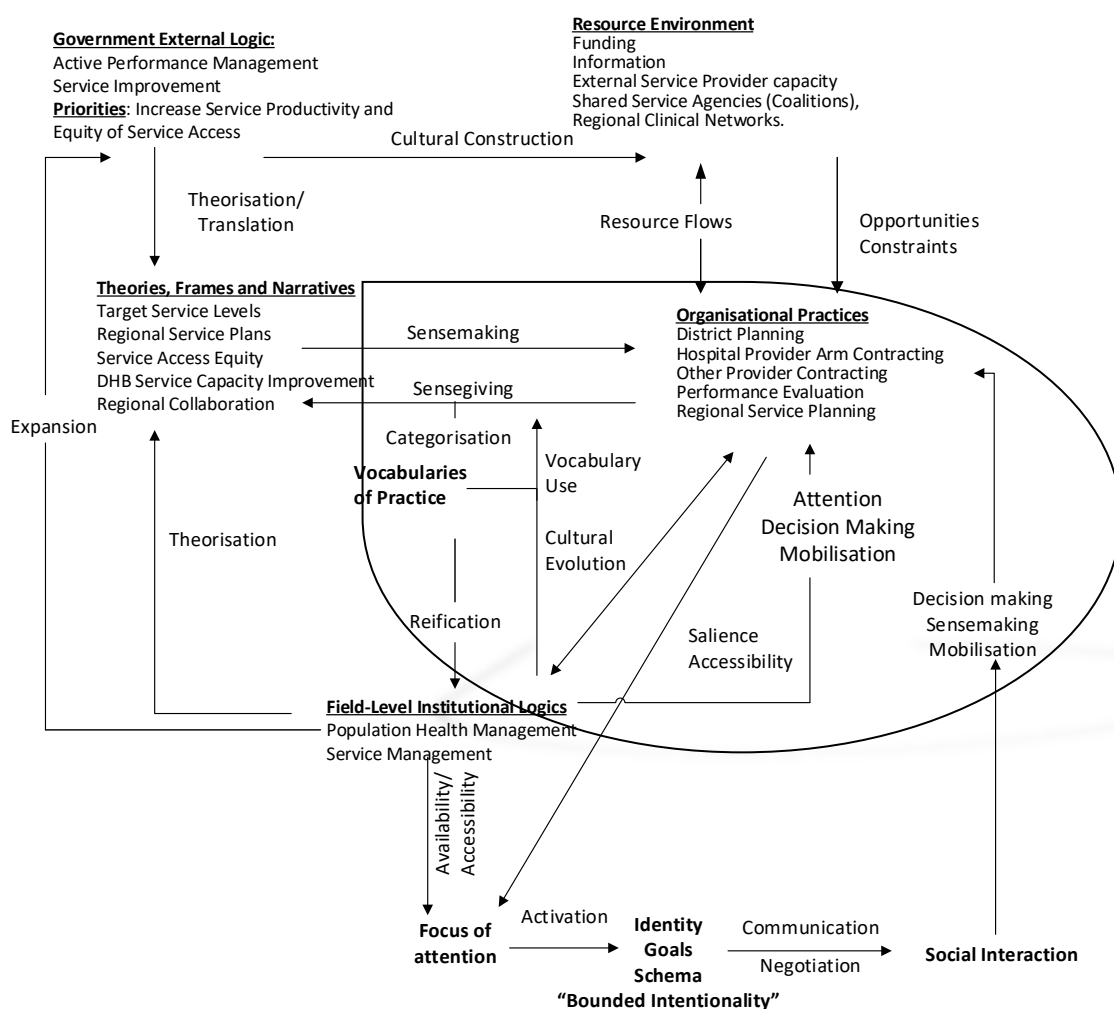
Figure 5.2: Making Sense of Organisational Practices: Increase Elective Supply

5.3.1 District annual planning.

Usually around October, the Ministry of Health releases the DHB planning package; a suite of documents designed to assist the DHB to meet its accountability requirements. DHBs are subsequently notified of population health funding allocations via a 'funding envelope', which indicates the amount of money a DHB will receive at the next budget.

Funding and Planning Manager interviewees confirmed that annual plans are prepared to tight timeframes and that any delays in the receipt of government funding advice complicates contracting, in particular inter-DHB service contracting:

> We have to make certain planning decisions according to one timeframe but we are still planning months after that point. It is quite difficult to make changes in your relationships or other arrangements with DHBs, if you need to, because they tend to get locked and loaded in advance of the completion of the planning process. (FP1) (Planning Timeframes, Sensemaking, Other DHB Provider Contracting)

Interviewees said that the Ministry of Health has usually signalled in advance if there are areas of concern and a need to increase service volumes. The DHB financial year starts in July, and negotiation of plans may continue up until the month prior.

Historical trends and Ministry of Health targets guide the negotiation of contract volumes:

> It is looking at what activity has been done, how it compares with other DHBs in terms of intervention rates, capacity issues, but also within the constrained envelope . . . There will be some areas where they set a target intervention rate and there will be others where they will simply compare it to the national average. But, the majority of that is locally set, sent to the Ministry and then they would feedback if any areas weren't acceptable. (FP2) (Planning, Schema, Intervention Rates, Centre Guidance, Social Interaction)

Base-level volumes appeared to be accepted by Funding and Planning interviewees. However, as one Executive interviewee observed:

> There are some (smaller) DHBs that historically had high intervention rates; they are not allowed to reduce those to get back to their fair share. (EL1) (Base Level)

The Minister of Health is advised by the Ministry of Health national and elective services team. A Ministry of Health interviewee emphasised that the Electives Health Target is set by the Minister of Health and is not negotiable:

> We have a view of equity and what an equitable share of that total delivery looks like . . . For some of the DHBs we have had to set some very significant stretch targets for them. . . . They don't nominate the Health Target they think they can deliver. We set a target for them based on what we think they need to do. (M1) (Service Access Equity)

Several interviewees observed that the planning process is strongly guided by central government and their framing of service delivery:

> I have a target to meet that is predicated on a particular model of service delivery, which is inpatient focussed. There are opportunities here to deliver services in other ways, but if they are not going to be recognised and contribute towards my target do I pursue that option? It doesn't align to how performance is measured and counted. (FP1) (Service Redesign)

5.3.2   Regional service planning.

Responsibility for *Regional Service Planning* lies with the Shared Service Agency. Several DHB stakeholders observed that DHBs struggling to achieve district goals cannot deliver regional change and questioned if the system was designed for regionalisation:

> Regionalising internally is our first obligation to the public for the DHB . . . because when you have got inequity in a [district] scenario then that is the first thing any DHB should be addressing. . . I don't think there are incentives [for regionalisation]. (DS1), (Regionalisation)

> Our responsibilities are not fundamentally to deliver regional change. It is to deliver the benefits to our populations mandated under the Act. So there is complete misalignment of responsibility. (C4) (Regional Service Planning)

Board Members described different opportunities and challenges. Efficiencies had been gained through regional contracting:

> Working together to reduce cost to maximise efficiencies, who can argue with that? In reality it is very hard work. You have parochial interests that get in the way . . . Enabling that person to have one appointment and work across the (sub-region)? That is good efficiency, it cuts down your overheads . . . but it is taking a long time to get that all in place. (BM4) (Regional Service Planning)

There are also concerns about future population growth and how this will change the shape of regions. One Board Member said that this is a concern for *Regional Service Planning* and will impact future investment decisions:

> There are different things playing out in different regions. Rurality is an issue, poverty is an issue, and they are different in different regions and parts of regions, which is a challenge for us. . . All growth in the future will be between [city A and city B]. The rest of the region will actually shrink and get into significant difficulty if we don't do something. So we have to deal with those two worlds. (BM3, Regional Service Planning)

A Shared Services Manager (S1) was aware that there is the perception that regional service agencies are taking over and cannibalising DHB work. As regional projects progressed, this manager believed there would be an improved understanding and acceptance of the role of Shared Service Agencies.

5.3.3   Hospital provider arm contracting.

All Funding and Planning interviewees expressed a preference for contracting services with their own hospital specialist service provider:

> We will engage with our local provider first and foremost, under the principles of the Better, Sooner, More Convenient strategy. There is also an element of forward planning. When you are funding another DHB to deliver a service, you are helping to build their capacity and capability, potentially at the expense of building the capacity and capability locally. (FP1) (Sensemaking, Hospital provider arm contracting)

The process of negotiating service delivery contracts with a DHB hospital specialty occurs over several months and involves Funding and Planning Portfolio Managers, the Decision Support role, Service Managers and Clinicians. The Decision Support role assists the hospital service provider with contracting and service management decision-making, ensuring business processes are followed consistently and maintaining the price-volume schedule, which is used in production planning.

DHBs use price volume schedules to inform the Ministry of Health about their expenditure and planned activity to meet local health care service demand and government priorities. Information is at an aggregated level on the volume of services to be purchased/provided by the DHB and the price of these services. Volumes are casemix-adjusted and DHBs report at the same level (Statistics New Zealand, 2010, p. 123).

Case study DHBs differed in their use of the national price-volume schedule to set funding expectations. One DHB described the price-volume schedule as a surrogate legal agreement which set an obligation for national prices to be paid:

> I have spoken to other DHBs, where they don't even know what the contracted volume is for a particular specialty. It is done at such a high level by a group of people sitting in back offices. (DS1) (Sensemaking, Hospital provider arm contracting)

A Funding and Planning interviewee at another DHB described actively avoiding using the schedule when negotiating with a hospital service:

> We don't talk about price at all because we don't want to get into a fee for service model. We need them to think that the expectation is that they are covered with all their costs and so they are free then to innovate and do more. (GSM2) (Sensemaking, Hospital provider arm contracting)

The negotiation of service volumes is also based on Ministry of Health reference information:

> When we go in to talk about the rules of engagement with the funder, we have to do all of the reference information that we negotiate on, based on the national intervention rates and where the Ministry perceives we sit. It's not always right. (DS1) (Sensemaking, Hospital provider arm contracting, Information)

Understanding historical service delivery trends and whether the base level is fair requires inside knowledge of whether what has been delivered is the 'norm' for a service. As one interviewee observed about the use of the 2005/06 year for base levels:

> What was that year all about? . . . Did you have all your doctors recruited? Did you not provide that much of a service to that specialty because you had two leave and you couldn't get locums so your service went down? Did you have a run on something that caused the numbers to be inflated? . . . Nobody asked the question: "Here's your baseline target. Was there anything unusual about that year?" (DS1) (Base Volumes, Sensemaking)

The base line target around the mid-2000s was based around the number of procedures a DHB was performing, not population health need. Interviewees acknowledged that at the time of interviews it was based more on population needs.

A decision support interviewee observed that clinicians are involved to a lesser extent in negotiation at some DHBs:

> There is not the transparency at the clinician level, it is just not there. . . (Clinicians) understand the overlying concept that there is only so much money to go round. They only know their own specialty and they only see their own groups of patients; they don't understand the issues another specialty might be having. They are patient-focussed in most instances, and want to do the best for their patients, so they don't appreciate getting told to raise thresholds or that you can't accept more referrals than what you can commit to seeing within a particular timeframe. (DS1) (Sensemaking, Hospital provider arm contracting, Internal Relationships)

Service Management-Clinician relationships were described as challenging. Two clinician interviewees said they were "told what they had to deliver" and said that service contracting was not a negotiation:

> When you say do I work with Funding and Planning? The answer is "No". They come back at me and tell me what they think is appropriate and I then plead and say we are going to run out, we need a few more. There is no sitting down in a systematic way. . . . To my mind it is too complex a calculation to be done . . . We live in a

perpetual state of anxiety. (MD1) (Sensemaking, Hospital provider arm contracting, Internal Relationships)

5.3.4   Other provider contracting.

DHBs also contract for service provision with DHBs in their own region, out-of-region and with private service providers. Funding and Planning interviewees did not discuss the extent of other DHB and private service provider outsourcing. The 2011 performance audit by the OAG included details of patients treated between 2005/06 and 2009/10, and the findings of the audit are summarised in Appendix D.

All public hospital inpatient services must be reported to the Ministry of Health's National Minimum Dataset (NMDS) national data collection and are categorised as either acute, planned, or elective inpatient admissions. A picture of where patients are treated has been compiled from Ministry of Health Caseload Monitoring Reports which detail inpatient elective case-weighted discharges between 1 July 2012 and 30 June 2015. This data is publicly available for download from the Ministry of Health website (Ministry of Health, 2013a, 2014a, 2015a). The analysis has analysed volumes based on case-weighted discharges, rather than number of patients receiving treatment, case-weights takes into account the complexity of the treatment given to each patient. For this reason volumes in Appendix D are not directly comparable to the 2011 performance audit.

5.3.4.1   *Caseload Monitoring Reports Analysis: Elective discharges 2011/12 to 2014/15*

Firstly, the analysis aimed to understand the region of New Zealand where patients receive elective inpatient services. Table 5.3 shows that just over a third of patients are treated by Northern region DHBs, almost a quarter of patients are treated by the South Island region DHBs, and a fifth of patients are treated by the Midland and Central region DHBs.

Table 5.3: National Elective Case-Weight Discharges by Region per annum

Region	2012-13		2013-14		2014-15	
	Actual CWD	% CWD	Actual CWD	% CWD	Actual CWD	% CWD
Northern	73699.614	33.33%	75456.1164	33.54%	77781.3674	33.84%
South Island	55231.2094	24.98%	56315.2809	25.03%	56332.6903	24.51%
Midland	46922.8649	21.22%	47573.5692	21.15%	49086.0682	21.35%
Central	45134.2884	20.41%	45275.9259	20.12%	46474.7961	20.22%
Unknown	150.8707	0.07%	359.9269	0.16%	196.1504	0.09%
Grand Total	221138.8474	100.00%	224980.8193	100.00%	229871.0724	100.00%

Note: Table sorted in descending order by % CWD in 2014/15 financial year.
Data for elective Case-Weight discharges from Ministry of Health (2013a; 2014a, 2015a)

Secondly, the analysis aimed to understand the proportion of national elective services provided by DHBs. There are two perspectives of this information, services supplied and services purchased. Table 5.4 shows the proportion of national discharges supplied by each DHB. Services are supplied to both DHB residents and non-residents.

Table 5.4: National Elective Case-Weight Discharges by DHB of Supply per Annum

District Health Board	2012-13		2013-14		2014-15	
	Actual CWD	% CWD	Actual CWD	% CWD	Actual CWD	% CWD
Auckland	36566.3175	16.54%	36660.7234	16.30%	38426.0487	16.72%
Canterbury	26340.0478	11.91%	26716.2037	11.87%	26507.323	11.53%
Waikato	22416.8234	10.14%	23852.8497	10.60%	24513.6233	10.66%
Capital and Coast	18924.7537	8.56%	18819.8554	8.37%	19697.3716	8.57%
Counties Manukau	18548.7968	8.39%	18630.1879	8.28%	18447.9045	8.03%
Waitemata	15492.2742	7.01%	17393.9607	7.73%	17392.1467	7.57%
Southern	15065.8218	6.81%	16082.8284	7.15%	15830.4904	6.89%
Bay of Plenty	10425.8488	4.71%	9847.2308	4.38%	10215.5759	4.44%
MidCentral	7944.0219	3.59%	8226.2638	3.66%	8170.6007	3.55%
Nelson Marlborough	7245.7225	3.28%	7015.0149	3.12%	7373.9892	3.21%
Northland	7206.6316	3.26%	6776.5796	3.01%	7360.1096	3.20%
Hutt Valley	6975.0989	3.15%	6906.4194	3.07%	6956.7092	3.03%
Hawkes Bay	6179.2457	2.79%	6434.0563	2.86%	6791.1716	2.95%
Taranaki	4608.09	2.08%	4662.1038	2.07%	4702.7229	2.05%
Lakes	4086.2817	1.85%	3861.077	1.72%	4293.5138	1.87%
Whanganui	3470.3688	1.57%	3387.2722	1.51%	3380.1301	1.47%
South Canterbury	2706.4053	1.22%	2804.8677	1.25%	2694.6468	1.17%
Tairawhiti	1856.1052	0.84%	1781.0495	0.79%	2036.0125	0.89%
Wairarapa	1545.5239	0.70%	1535.0981	0.68%	1442.8365	0.63%
West Coast	1271.0857	0.57%	1262.6232	0.56%	1264.1819	0.55%
Non DHB providers	2263.5822	1.02%	2324.5538	1.03%	2373.9635	1.03%
Grand Total	221138.8474	100.00%	224980.8193	100.00%	229871.0724	100.00%

Note: Table sorted in descending order by % CWD in 2014/15 financial year.
Data for elective Case-Weight Discharges from Ministry of Health (2013a; 2014a, 2015a)

Table 5.4 shows that the four tertiary DHBs (Auckland, Waikato, Capital and Coast, and Canterbury) deliver almost half of the national inpatient Case-weighted discharges.

Table 5.5 shows the proportion of discharges purchased by each DHB. Canterbury, Waitemata and Counties Manukau DHB each purchase just over ten percent of the national elective services (purchasing one-third of all elective services in the 2015/16 financial year). The overall ranking position of Auckland DHB and Capital Coast DHB changes when services purchased is considered. (Auckland DHB is ranked 1st in services supplied and 6th in services purchased, while Capital and Coast DHB is ranked 4th in services supplied and 8th in services purchased).

Table 5.5: National Elective Case-Weight Discharges by DHB of Purchase per Annum

District Health Board	2012-13		2013-14		2014-15	
	Actual CWD	% CWD	Actual CWD	% CWD	Actual CWD	% CWD
Waitemata	23482.919	10.62%	25453.885	11.31%	25985.6977	11.30%
Canterbury	23692.7321	10.71%	24489.4186	10.89%	24109.8476	10.49%
Counties Manukau	22754.4658	10.29%	22599.22	10.04%	23392.3677	10.18%
Waikato	18308.5945	8.28%	19560.4311	8.69%	19942.2512	8.68%
Auckland	17417.8038	7.88%	17670.6745	7.85%	17837.7013	7.76%
Southern	16045.2704	7.26%	16936.6458	7.53%	16707.6455	7.27%
Bay of Plenty	13530.245	6.12%	13127.6209	5.83%	13690.1902	5.96%
Capital and Coast	12061.4435	5.45%	11798.928	5.24%	12630.8755	5.49%
Northland	10044.4254	4.54%	9732.3369	4.33%	10565.6007	4.60%
MidCentral	9454.4416	4.28%	9726.4533	4.32%	9789.3501	4.26%
Nelson Marlborough	9319.2459	4.21%	8610.3177	3.83%	9240.4466	4.02%
Hawkes Bay	8467.8497	3.83%	8623.3999	3.83%	8800.3514	3.83%
Hutt Valley	7679.8185	3.47%	7479.4462	3.32%	7775.6067	3.38%
Taranaki	6377.4243	2.88%	6377.6299	2.83%	6457.0565	2.81%
Lakes	5971.7013	2.70%	5760.2758	2.56%	6019.5882	2.62%
Whanganui	4736.2215	2.14%	4740.4991	2.11%	4603.3048	2.00%
South Canterbury	3787.6164	1.71%	3875.181	1.72%	3904.4171	1.70%
Tairawhiti	2734.8998	1.24%	2747.6115	1.22%	2976.9821	1.30%
Wairarapa	2734.5136	1.24%	2907.1994	1.29%	2875.3076	1.25%
West Coast	2386.3446	1.08%	2403.7178	1.07%	2370.3335	1.03%
Unassigned/Overseas	150.8707	0.07%	359.9269	0.16%		0.00%
Grand Total	221138.8474	100.00%	224980.8193	100.00%	229871.0724	100.00%

Note: Table sorted in descending order by % CWD in 2014/15 financial year.
Data for elective Case-Weight discharges from Ministry of Health (2013a; 2014a, 2015a)

Finally, the analysis has aimed to understand the proportion of elective services a DHB's supplies to its own DHB residents. Based on a regional analysis, detailed in Appendix D,

Table 5.6 summarises services supply as a proportion of services purchased and highlights outsourcing trends, (shown as either an increase, decrease or static over the three year). One third of DHBs have increased their outsourcing (Wairarapa, South Canterbury, Northland, Tairawahiti, Counties Manukau and Bay of Plenty), one fifth have reduced their outsourcing (Waitemata, Lakes, Hawkes Bay and Nelson Marlborough DHBs) and one half have remained static. DHBs with a smaller population size, such as West Coast and Wairarapa, are very dependent on other DHBs in their region for surgery supply. The analysis shows that outsourcing trends are not changing significantly, suggesting DHB other provider capacity is constrained. Auckland and Capital and Coast DHB rely heavily on service insourcing.

Table 5.6: Elective inpatient Case Weighted Discharges supplied to DHB residents (Proportion and Trends)

DHB	2012-13	2013-14	2014-15	StDev	Outsourcing Trend
Wairarapa	57.00%	53.02%	50.63%	0.0263	⇧
West Coast	54.36%	53.78%	54.55%	0.0033	⇔
Hutt Valley	61.77%	62.73%	61.87%	0.0043	⇔
Waitemata	64.21%	67.00%	65.44%	0.0114	⇩
South Canterbury	71.47%	73.71%	69.91%	0.0156	⇧
Northland	72.11%	70.15%	70.11%	0.0093	⇧
Lakes	68.62%	69.56%	71.49%	0.0119	⇩
Whanganui	72.03%	70.01%	72.31%	0.0102	⇔
Tairawhiti	75.15%	70.57%	72.41%	0.0188	⇧
Counties Manukau	74.00%	75.85%	72.48%	0.0138	⇧
MidCentral	77.67%	78.45%	78.28%	0.0033	⇔
Hawkes Bay	79.02%	79.24%	81.04%	0.0090	⇩
Bay of Plenty	85.11%	83.11%	81.99%	0.0129	⇧
Taranaki	81.96%	85.06%	82.59%	0.0134	⇔
Nelson Marlborough	88.31%	91.57%	89.26%	0.0137	⇩
Capital and Coast	91.69%	92.12%	92.50%	0.0033	⇔
Southern	94.78%	95.18%	94.96%	0.0016	⇔
Auckland	94.46%	94.76%	95.01%	0.0022	⇔
Waikato	98.35%	98.71%	98.19%	0.0022	⇔
Canterbury	98.92%	98.62%	98.37%	0.0022	⇔

Note: Data for elective Case-Weight Discharges from Ministry of Health (2013a; 2014a, 2015a)

5.4 Performance evaluation

The Ministry of Health derives its performance supply information from DHB inpatient event data reported to the NMDS national data collection. Funding and Planning and Decision Support Representatives said they rely on both Ministry of Health performance feedback and on DHB internal analysis of service data. All Funding and Planning interviewees agreed that supply increases and productivity improvement targets are both defined and closely monitored by the Ministry of Health.

All Funding and Planning interviewees said they had a high level of confidence in their DHB's data quality and information management practices. Several interviewees said that data quality improves as information is used. Interviewees said there was DHB interest in using data analytic tools to forecast and model service demand and understand hospital capacity, but tools were not used because of the many variables and known complexity of forecasting.

Analysis of Board meeting and Hospital Advisory Committee meeting agendas and minutes shows that all DHBs provide regular updates on service delivery production to Board members. Interviewees were asked how they thought the Electives Health Target and other performance measures influenced individual behaviour and decision-making. Board members and DHB Executive interviewees were divided on whether targets motivate and inspire performance:

> I must admit I think the targets are great, they give you something to go for. . . . Of course, the challenge is that once everybody achieves . . . it becomes meaningless. . . . I have seen real changes in behaviour purely by having a target. (BM1) (Sensegiving, Health Targets, Focus of attention, Mobilisation)

> Yes, [targets] have their downsides and they have their unintended consequences. They have also been fundamental in shifting the whole sector. . . . People do own it really well. (EL1) Sensegiving, Health Targets, Focus of attention, Mobilisation)

> I do not see a lot of outcome measures. . . The relevance of them can vary significantly in terms of the stakeholder engagement. . . . Sometimes it does feel like

a paralysis through analysis sort of approach to life. (C1) (Sensemaking, Sensegiving, Performance Evaluation)

Perceptions of how targets focus attention and influence service provider decision-making also differ:

I know that, when you start putting in targets in any area in health, it incentivises DHBs to chase a target. Whether they are doing that with the patient in mind, or whether they are doing it purely because it is a target, and they know that if they perform badly they are going to get put under intense scrutiny . . . I have always found it is like walking on a tightrope and there is all these different things pulling you in different ways. At best you have got to try to be average at everything, as opposed to good at something (Sensegiving, Health Targets, Incentives, Focus of attention) (DS1)

A Ministry of Health interviewee attributed the success of targets to a focus on system processes and the DHB understanding its information:

The DHBs that perform well on elective services perform well generally on their hospital performance because you can't isolate it. Various DHBs have particular challenges but I think really it is about focus: redesigning their processes and systems, and increasing focus on the patient. . . It's all about production planning so, if you are getting that right you are getting your acute and your electives right. . . We find we often have better information than some of the DHBs have about how they are actually performing. . . We have often been able to have the conversation with DHBs and say "look you have got an issue here" and they say "I don't think that is too bad" and then once they actually have a look they [realise] . . . which probably just says that the person isn't over the data. (M2, Sensegiving, Performance Evaluation)

However a DHB Decision Support Representative was less confident about the sense the Ministry of Health can make of the data:

If we can't understand our own acute growth at the moment, there is nothing, nothing the Ministry could possibly get from our dataset that will answer that question. (DS1) (Sensemaking, Performance Evaluation)

Other interviewees considered that the relevance of the data is at the clinical level:

> When we were looking at our plan for this year we were doing benchmarking with everybody else and comparing with everybody else. We spent weeks and weeks on this, and frankly at the end of the day you found damn all difference. For me it is not until you dive down into the outcomes and practices of individual clinicians and individual patients that you begin to get the richness of what is, and is not, working Making performance data visible is a big driver of change . . . That requires a certain culture, that people feel safe in that environment. I'm not sure whether we are there or not. (BM3) (Sensemaking, Performance Evaluation)

> It is really a matter of getting into the room with [clinicians] . . . [It's] being able to say: "We have got an issue here". . . You don't want the model to drive the behaviour, but you want to be able to [understand an] on-flow effect . . . People only tend to see it as "I need more resource to do X". (FP4) (Sensemaking, Performance Evaluation)

Performance evaluation as an accounting mechanism was also discussed:

> We meet quarterly to monitor progress because we wash up with our funder, which means we have to pay money back if we under-deliver. Generally they don't pay us more if we over-deliver and often in an acute scenario we can't not. . . . Whatever reporting gets sent or monitored, we need to understand it before it gets there . . . We already know about it at specialty level in the month that it occurred. So by the time you get to having to explain something, you have understood it, you have tried to put in place an action to rectify it if appropriate. A lot of DHBs aren't in that space because they have such trouble getting their information out. (DS1) (Performance Monitoring)

DHB benchmarking within a health region was observed to be difficult because DHBs do not all use the same information systems and have different information management practices:

> Until we can actually properly standardise information in a way that we can connect and collect and understand that all the DHBs are counting things, at least within

ballparks of each other; until you can do that you, are probably never going to get to the recommendations of how do you show you are delivering benefits. (S1) (Sensemaking, Benchmarking, Standardisation)

We can't compare ourselves with anyone else because everyone does things so differently . . . you would have to wade through pages of information to understand how their system functions to then know if it is something we could benchmark with. (DS1) (Sensemaking, Benchmarking, Standardisation)

5.4.1.1 *The Electives Health Target – Reported performance.*

Table 5.7 shows Electives Health Target Quarter 4 achievements between 2009 and 2015 and DHBs' mean ranking position at 30 June 2015. With few exceptions (MidCentral DHB (2009/2010) and Canterbury DHB (2010/2011)), the Electives Health Target has been consistently met and often exceeded. What is interesting about the ranking of DHBs is that Canterbury, Capital and Coast, and Auckland DHBs are at the bottom of the ranking table but, as discussed in Section 5.3.4, these DHBs are known to supply considerable volumes to other DHBs. In the Northern Region, Northland is ranked first, Counties Manukau fifth, Waitemata fifteenth, and Auckland twentieth. Yet, without knowledge of the interdependencies amongst DHBs for service supply, one might think that Auckland DHB is the worst performing DHB in New Zealand. The impact of government's supply expectations appears to have not been lost on the Auckland DHB Board, whose 18 February 2015 Board Meeting Minutes report that over half the electives work done by Auckland DHB's hospital provider arm is done for patients from other DHBs. Auckland also has a higher acute admission rate and one of the lowest publicly funded intervention rates in New Zealand (p. 82).

> This has led to a requirement over the last four years to increase the volume of elective surgery each year at a rate greater than demographic growth. Further work is needed to understand why there are lower rates of referral to some services provided by ADHB than is experienced in other populations with a similar demographic profile. (18 February 2015 Board Meeting Minutes, p.112)

Table 5.7: Improved Access to Elective Surgery Health Target results (% of target baseline volume achieved, Quarter 4)

DHB	2009	2010	2011	2012	2013	2014	2015	SD	Mean	Rank
Northland	118%	119%	115%	124%	125%	127%	122%	3.96	121.43%	1
Taranaki	101%	106%	120%	112%	113%	121%	114%	6.61	112.43%	2
Lakes	105%	111%	121%	115%	114%	108%	102%	5.99	110.86%	3
Waikato	105%	102%	107%	115%	111%	116%	119%	5.82	110.71%	4
Counties Manukau	106%	108%	111%	111%	112%	108%	109%	1.98	109.29%	5
Whanganui	108%	116%	108%	100%	106%	108%	113%	4.72	108.43%	6
Hawkes Bay	104%	103%	108%	117%	104%	102%	105%	4.76	106.14%	7
Bay of Plenty	100%	104%	105%	108%	106%	109%	110%	3.16	106.00%	8
West Coast	100%	107%	110%	106%	106%	108%	103%	3.06	105.71%	9
Wairarapa	108%	112%	102%	100%	104%	107%	104%	3.73	105.29%	10
Tairawhiti	101%	101%	101%	105%	105%	108%	116%	5.03	105.29%	10
MidCentral	96%	106%	106%	106%	109%	107%	105%	3.85	105.00%	12
Southern	110%	101%	105%	102%	106%	103%	107%	2.90	104.86%	13
Hutt Valley	104%	102%	101%	105%	106%	108%	105%	2.19	104.43%	14
Waitemata	106%	103%	108%	101%	102%	104%	106%	2.31	104.29%	15
South Canterbury	101%	101%	104%	106%	104%	105%	101%	1.96	103.14%	16
Nelson Marlborough	105%	100%	103%	100%	103%	104%	105%	1.96	102.86%	17
Canterbury	109%	97%	102%	106%	101%	101%	103%	3.57	102.71%	18
Capital and Coast	102%	103%	100%	101%	101%	101%	104%	1.28	101.71%	19
Auckland	104%	100%	100%	101%	101%	100%	101%	1.31	101.00%	20

Note: 2008/09 has been excluded as the target's first reported year has exceptional variation.
Data for Quarter 4 Health Target from Ministry of Health (2011-2016)

The Electives Health Target also has a regional component. Regional Health Target Quarterly results shown in Table 5.8 show that the Midland region has ranked first since 2011/2012.

Table 5.8: Regional Health Target Quarter 4 Achievements

Financial Year	Northern	Midland	Central	South Island	National
2010/2011	106.0%	103.9%	105.4%	99.5%	103.8%
2011/2012	107.6%	109.5%	103.9%	103.6%	106.2%
2012/2013	106.8%	111.9%	105.6%	103.8%	106.9%
2013/2014	107.5%	110.1%	104.6%	102.9%	106.3%
2014/2015	107.0%	113.3%	104.5%	102.8%	106.8%
2015/2016	107.5%	113.7%	105.5%	104.1%	107.6%

Note: Data sourced from Ministry of Health (2011-2016)
Data for Quarter 4 Health Target from Ministry of Health (2011-2016)

5.5 Resource Environment and Organisational Practices Interdependencies

The next area of focus for the top down lens is the interdependencies among resource environment and organisational practices shown in Figure 5.3. Resource environment variables selected for examination include *Funding*, *Information*, *External service provider capacity*, *Shared Service Agencies*, and *Regional clinical networks*.
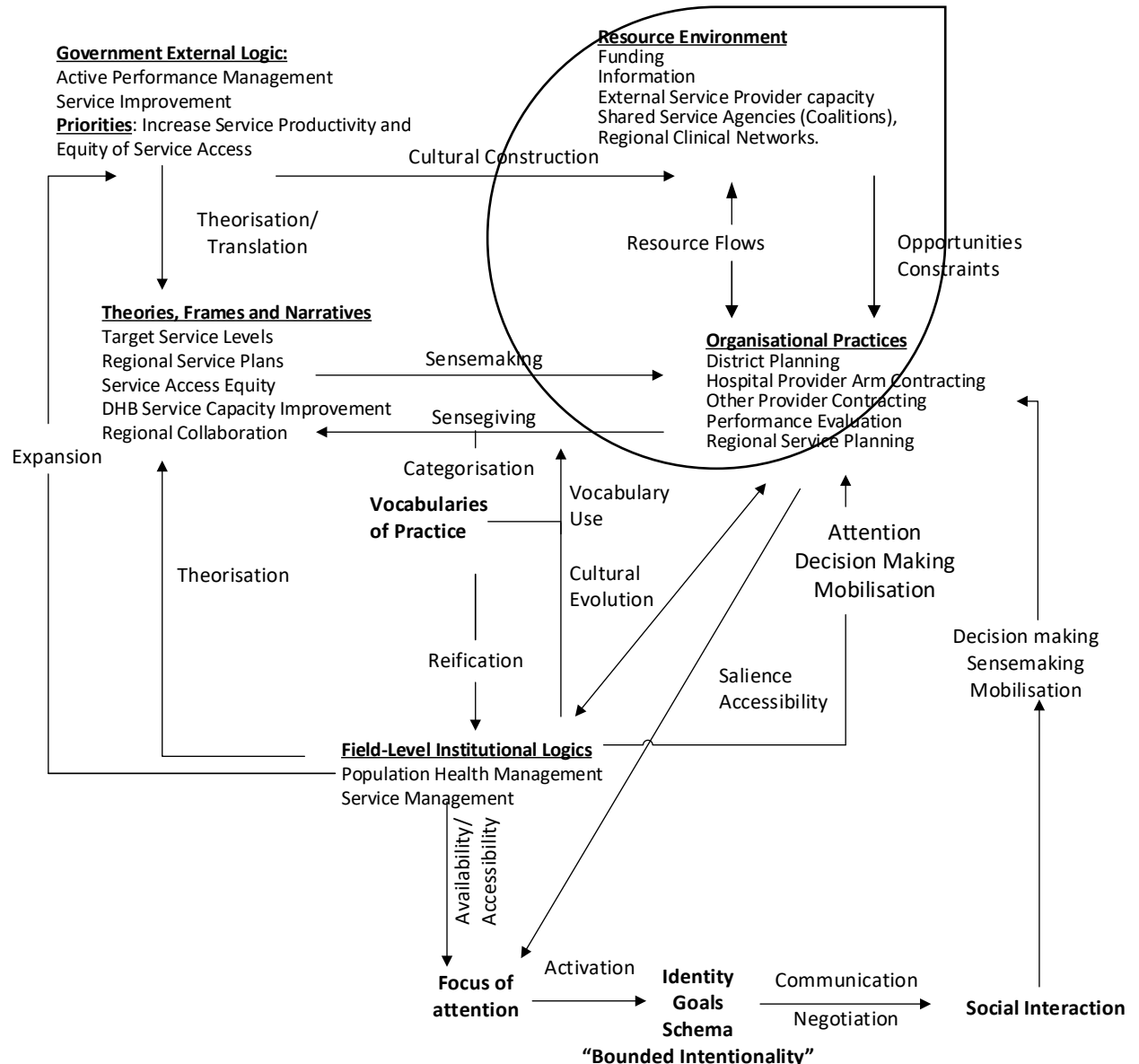
Figure 5.3: Resource flows: Increase elective supply

5.5.1 Funding

All Funding and Planning interviewees indicated they would exceed the level of budgeted elective services if they felt able to do so, since demand for most services far exceeds what a DHB can supply.

Achievement of a DHB's Electives Health Target is only partially achieved from government additional electives funding. A Ministry of Health interviewee confirmed that DHBs fund supply increases out of their 'population health funding envelope':

> Delivery against a target is much better year on year than we've ever asked for and we are not paying for that difference. So it's coming from innovation, improvements that are home-based in DHBs. Because how else could it be achieved and be affordable? (M1) (Funding, Service Improvement)

However a Board Member interviewee considered that results were driven through compliance rather than innovation:

> There is a tension between solutions driven from the centre and the risk to innovation. . . There are areas of innovation, but it does feel more like a compliance-driven sector rather than a leadership sector." (BM3) (Sensemaking, Sensegiving, Centre Guidance)

There is often a gap between contractual commitments and available resources which leads to intense scrutiny of any service budget deficits and an obsession with financial break-even:

> You can pretend and not budget for them (resources), but then you have to explain why your financial performance is over. . . We know which services lose money and which services make money and we have to understand the reasons and benchmark that. (DS1) (Funding, Sensemaking, Planning Influences)

Both Funding and Planning and Decision Support Representatives agreed there is a tension between acute demand and elective delivery:

> It is the same resource providing the service to the patient. So there is all these different ways of looking at it . . . when it comes to the payment mechanism for the provider arm, the average case weight for an event for a patient for an acute

orthopaedic event is half of the average case weight for an elective event. From a ward's perspective, you might have 200 patients in your ward . . . but when you have a movement from elective workload to acute workload the payment is completely different . . . We have to understand that right down to the DRG level . . . we have to put an equal amount of resource and monitoring into understanding what has occurred. (DS1) (Bounded Intentionality, Schema, Focus of Attention)

5.5.2 External Service Provider Capacity

DHBs need to enter into contractual arrangements with other DHBs where a service or speciality is not provided by the DHB provider arm or there is an anticipated service delivery shortfall. Funding and Planning interviewees confirmed that contracting with other DHBs generally occurs for tertiary level services. Outsourcing is also influenced by *acuity*, the seriousness of a patient's health condition and nursing care requirements. An interviewee at a tertiary DHB said acuity limits the options the DHB has to outsource:

> We have tried to send stoma closures to [another DHB]; they keep saying they aren't run of the mill stoma closures and won't do them. . . . If that is the case, then there is actually no regional effort in some of the stuff we do . . . Otherwise our system doesn't work. We end up with lots of gaps in theatre because we don't have small cases. (Capacity Constraints) (GSM2)

The outsourcing of elective surgery in order to achieve the Electives Health Target can create tensions between secondary and tertiary DHBs:

> Where we have a particular target (level of intervention) for a specialty, we acknowledge that if it is a regionally delivered service, that target cannot be committed to because there might be cases in other DHBs that take priority. There is a tension there, we may get criticism from the Ministry saying "you didn't meet your target" but if it is beyond our control how those cases get prioritised, we do concede that point. It is something the regional service provider has to manage. (FP1) (Sensemaking, Health Target)

Service provision interdependencies among DHBs also has a flow on effect for performance evaluation and regional relationships:

You have got to keep in mind that our elective services requires us to rely on other DHBs. . . . So if (they) don't perform, we don't perform. . . . So that has led to some tensions that have needed to be managed well . . . we have got all of this sort of manipulation of services. (BM4) (Sensemaking, Health Target, Regionalisation, Other DHB Provider Contracting, Performance Recognition)

One interviewee observed that hospital capacity issues are often seasonal and there is very little 'spare capacity' in other DHBs when it is needed. Government directives, in the form of The Better, Sooner, More Convenient policy (Ryall, 2007) and the Electives Health Target are for DHBs to develop electives capacity closer to home:

It's not going to change for the next 20 years based on the current method for allocating those 4000 cases . . . If (smaller DHBs) have to keep their own people going full capacity to meet (targets), how can they do any more for somebody else? . . . Ultimately, the direction the Ministry is telling us to go (is to) have a capacity available for the people here. That's the right thing to do for the health system. Otherwise we have got people travelling, we have got more costs involved, and you've got capacity in the wrong location. (GSM2) (Sensemaking, Hospital provider arm contracting, Regionalisation, Constraints)

Several DHBs have recognised that a neighbouring DHB's public hospital is often closer to a community and, where a neighbouring DHB has service capacity available, some DHBs have entered into cross-boundary service delivery arrangements:

It's a win/win for me because my elective service looks much better. I've reached the targets. It's good for you because you get the money. For the region it has to be good. (EL2) (Regionalisation, Sensemaking, Other DHB Provider Contracting)

However such arrangements have faced strong clinical resistance:

They (the clinicians) said, "Never send my patients, nobody else can do them, it's got to be me that does them" (ESM1, Service Improvement Innovations, Negotiation, Sensemaking)

A clinician described cross-boundary arrangements as 'robbing Peter to pay Paul' and being counter to the objectives of electives funding initiatives and the Electives Health Target,

which were intended for the DHB to build its own internal service capacity. Another interviewee said the issue was related to clinical practice:

> Some of the problems we have, particularly around electives, is that doctors want to see them right through the process. The guys who do surgery want to do the FSA. I have to say we are still working on that, because not everyone is ready for that yet. It takes a lot of time. (FP3) (Planning, Regionalisation)

Cross-boundary arrangements are also difficult to manage under existing funding rules:

> Planning and Funding didn't like it because it is IDFs, and you know it goes away from normal practice and all those bad things. But if you wait to ask for permission you will do nothing. . . . The problems occur when you are relying on a smaller DHB, suddenly somebody goes off sick or leaves, then *their* capacity to be able to meet your need becomes a constraint and then you have to look to outsource. (EL2) (Regionalisation, Sensemaking, Other DHB Provider Contracting)

> The original work that was done was perhaps not as well calculated as it should have been. So when there have been other changes, we have now created a process, where we are working out the data. It may still be wrong, but at least everyone will know exactly how it was done. (FP2) (Sensemaking, Other DHB Provider Contracting)

One electives service manager considered cross-boundary arrangements had not achieved the momentum expected by DHB Senior Leaders. Patients often preferred to go to private hospitals that required travelling further travel distances and it was unclear why the patients preferred this. It was also observed that administering the arrangement with the private hospitals was much easier than administering the cross-boundary arrangement.

5.5.3   Private Specialist Provider Contracting

Private specialist provider contracts for FSA and treatment delivery are also used by some DHBs to increase elective service capacity. The use of private sector capacity requires management of any conflicts of interest, when specialists work in both the public and private sector. The reasons for outsourcing to a private provider are not always because there is an issue with the specialty being outsourced. The benefits can include the availability of additional resources, such as an intensive care unit or easier transfer of

patients. There were different perspectives on the cost of private specialist contracting. One interviewee said they could often outsource privately for less than the IDF price:

> We find we can outsource privately [cheaper] than case weight prices. The patients don't have to travel to other DHBs then. . . . Don't get me wrong, we can have discussions with the other DHBs and we have. . . . We say: "We would like you to do this, but here is what it would cost us to do it outsourced here. We will only give you that amount". They say: "No, we want the IDF". We say "Sorry no". It doesn't make sense on any level. (GSM2) (Private Outsourcing)

However, one Board Member spoke of private outsourcing treatment being considerably higher than an IDF, resulting in other DHB services subsidising the Electives Health Target (service substitution). Private outsourcing towards the end of the financial year was also a concern to a Ministry of Health interviewee:

> I see some DHBs that end up outsourcing quite significant volumes towards the end of the year . . . That is expensive and, because it is expensive means, it is not a wise expenditure. (M2)

Information about the cost of DHB private outsourcing is not publicly available and was a concern to DHB executive and Board member interviewees:

> We have spent millions and millions of dollars as a DHB, and even more millions as a country, sending patients to private organisations to get their surgery done to meet the target . . . Absolutely massive and that is a very hidden fact. (E2, Private Outsourcing)

5.5.4   Shared Service Agencies (Coalitions)

Each of the New Zealand's four regions has a Shared Service Agency, a coalition entity owned by the DHBs in the region. The Shared Services Agency assists with *Regional Service Planning* and provides project management resources to regional clinical networks, information technology work programmes and other areas (as specified in Regional Services Plans). The *Regional Service Planning* environment consists of a regional governance tier, a management action group and a Regional Clinical Network (see next section).

Recommendations from clinical networks flow upwards to the management action group and on to final approval by the governance group.

Information Technology (IT) capability was seen as a major constraint at three of the case-study DHBs and was observed by one Board Member to have caused 'a lot of heartache' (BM4). A Chief Information Officer described the root cause of issues and implementation delays as lack of regional governance of information, fragmented participation in regional projects by DHBs and unrealistic implementation timeframes:

> If in year 3 you haven't made any substantive progress, then the strategy is often viewed as a failure. The strategy is far from a failure, it is the execution of that strategy that is a failure. (C4) (Regionalisation, Constraints)

However, an issue with comparative analysis is variation and non-standardised processes:

> If you can't talk about the same CT Scan or clinical process and you don't have clinical note visibility, there is no way you are going to get regional collaboration because they can't see each other's patients. (S1) (Regionalisation, Change Management)

5.5.5   Regional Clinical Networks

Regional Clinical Networks are clinical leadership networks, established to guide *Regional Service Planning*. They are comprised of clinical directors, any clinical staff the network deems are required, and hospital and service managers.

A Shared Services Agency Manager considered that the most important regional work is being done at the clinical network level. Clinical networks have different strategies and focus. In some cases, the focus is on having visibility across the continuum of care; in other cases, it is looking at medication use, reducing outpatient clinic non-attendance, streamlining clinical pathways, reducing service variation, clinical prioritisation tool scoring, and identifying spare capacity.

One benefit of looking at things regionally is identifying best performers and understanding the reasons for service delivery variation:

> You might highlight out that one particular procedure has an average length of stay, which is 20% higher for 2 of the DHBs, and the other 3 DHBs do it 20% lower. So you

can highlight that out to the clinical network and you can have a discussion . . . You might have justified clinical outcomes for that variation . . . But the tool allows us to cut into data very, very well. (S1) (Sensemaking)

However, this manager observed any information analysis of national datasets was to prompt further investigation:

> We are using it with clinicians and their clinical knowledge to cut information in a way to give them confidence that there is something more that needs to be looked into. . . I would understand that the national datasets aren't a whole source of truth. Some people do take them as being a source of truth. They are just used for Ministry reporting and funding . . . You can make forward assumptions but you can't get down to the level of detail (for clinical decision-making) that would give me a high level of confidence. (S1) (Information, Regional Clinical Networks)

The time required to develop regional clinical networks and lack of a national policy direction were recognised as a constraint:

> Generally, it takes around 3 years . . . If we have a national network of clinicians, who can then link in and be informed by a regional group, not just clinicians but also service managers and executive . . . then you can begin to have a credible system for effecting standardisation across individual DHBs. . . . The challenge has been that individual regions have started from a position where there hasn't been a national policy direction." (S2)

A Shared Services Agency Manager described incentivising service delivery innovation by allowing the network to retain a percentage of cost-savings for use in future innovation:

5.6   Bounded Intentionality

The bottom-up lens, shown in Figure 5.4, is used to examine data and interviewee accounts of real-world work in order to understand cultural and social norms, and social interaction. Perspective is explored using 'Bounded Intentionality', the amalgamation of an individual's 'Identity', 'Goal', and cognitive 'Schema'.

Government External Logic:
Active Performance Management
Service Improvement
Priorities: Increase Service Productivity and
Equity of Service Access

Resource Environment
Funding
Information
External Service Provider capacity
Shared Service Agencies (Coalitions),
Regional Clinical Networks.

Cultural Construction

Theorisation/
Translation

Resource Flows

Opportunities
Constraints

Theories, Frames and Narratives
Target Service Levels
Regional Service Plans
Service Access Equity
DHB Service Capacity Improvement
Regional Collaboration

Sensemaking

Sensegiving

Categorisation

Organisational Practices
District Planning
Hospital Provider Arm Contracting
Other Provider Contracting
Performance Evaluation
Regional Service Planning

Expansion

Theorisation

**Vocabularies
of Practice**

Vocabulary
Use

Cultural
Evolution

Reification

Salience
Accessibility

**Attention
Decision Making
Mobilisation**

Decision making
Sensemaking
Mobilisation

Field-Level Institutional Logics
Population Health Management
Service Management

Availability/
Accessibility

Activation

**Focus of
attention**

**Identity
Goals
Schema
"Bounded Intentionality"**

Communication

Negotiation

Social Interaction

Figure 5.4: Cross Level (bottom-up) Lens: Increase Elective Supply

Funding and Planning interviewees described their identity and goals in terms of activities concerned with using funds to optimise population health, health system integration, the facilitation of change in service delivery models and the evaluation of performance. An important aspect of the role is relationship management, understanding government priorities, reconciling those priorities with DHB district population needs and contracting with service providers.

Decision Support Representatives described their identity and goals in terms of activities focussed on service delivery, cost analysis and service budgeting. The role requires a detailed understanding of the inter-relationships amongst activity funding, costs and contracts.

Board Member identity and goal may differ according to whether community-elected or government-appointed. All interviewees were members of their DHB Hospital Advisory Committee, which is one of the three statutory advisory committees DHBs must establish (according to sections 34-36 of the New Zealand Public Health and Disability Act 2000). All interviewees were familiar with board-level discussions on hospital operational issues and performance. Several interviewees observed they are obligated to represent government interests, but a tension exists between doing the will of government and speaking out on behalf of community interests:

> Now if government Policy says do 'A' then, even though the community is yelling and screaming that they need 'B', we have to look after 'A' to fulfil our obligation of being an agent of government. However, that doesn't mean we can't exert some influence on government to consider what the community wants and needs. (BM4) (Schema, Decision-making, Role of Board Member)

5.7 Focus of Attention

This section examines themes found in interview narrative which highlight how attention is focussed by the accessibility and salience of the five organisational practices themselves. The influence of institutional logics on focus of attention is discussed in Chapter Eight, Section 8.4.

Funding and Planning interviewees gave the principal account of *District Annual Planning* practice. The DHB annual planning package makes government performance expectations explicit. The tight timeframes for finalising plans and obtaining Minister of Health approval creates a sense of urgency and focuses attention in decision-making. The Ministry of Health's setting of base level volumes is based on historical service delivery volumes and is not population demand-based. Several interviewees said this creates issues:

> When we look at what we can deliver, we can't match that rate because we don't have 4 surgeons sitting around doing nothing to fill out an acute roster. We get criticised because we don't have that intervention rate level, but it's actually not driven by the needs of people . . . That is sometimes where the regional stuff comes unglued . . . If we wanted to create equality, then actually (some DHBs) might need

to do less and we would need to do more. (ESM2) (Sensegiving, Intervention Rates, Regionalisation)

Allowing enough time for service providers to develop capacity for increased service supply was observed to be important:

Where you do have a target intervention rate and you are at odds with that rate, I suggest that you need to plan over a number of years . . . if you were to do it too quickly it just creates real issues for those providers. (FP1, Standardised Intervention Rates, Sensegiving, Constraints)

Several interviewees discussed how the need to target an intervention rate for a procedure can be problematic where there is not local population demand for the procedure. This has been the case with major joint and cataract surgery:

At one point the target couldn't be renegotiated . . . we knew that the target wasn't realistic. . . . the onus was on us to put forward the argument and say "This is the reality and this is where we think the target should be". We did manage to negotiate it down. (FP1) (Sensegiving, Intervention Rates, Negotiation)

One interviewee described how inpatient data can be manipulated so that it counts towards the Electives Health Target:

It is very simple to manipulate data in health because an arranged admission can become an elective admission. All you have to do is go back and retrospectively put in a referral and pull that event off a treatment list. It just has to have a score and a grade, so that an arranged admission becomes an elective admission for counting purposes . . . We don't manipulate data because, if you start manipulating it and going down that slippery slope, how do you then ever know if you have improved on anything? It's just nonsense data. . . If you can't submit best to accurate then the data is useless. (DS1) (Sensemaking, Performance Recognition, Gaming, Data Quality)

Deciding where to locate services to ensure equity of service access was discussed. Funding and Planning interviewees agreed they delegated decisions about where services will be delivered to the hospital service provider. The Ear Nose and Throat specialty was highlighted as an example at two DHBs:

It's not possible for us to say: "We want all those ENT procedures to be done", just because that is what the Ministry sheds some light on. We know, from the provider arm's perspective, they don't have a workforce that could do it and, more importantly, there isn't a demand for it coming through from their perspective. (FP3) (Sensemaking, Hospital provider arm contracting)

When asked questions about equity and unmet need, several interviewees queried what was meant by equity, (whether the question referred to equity of health outcomes, service access equity, or clinical prioritisation equity). Ambiguity about equity is consistent with the findings of previous studies (McLeod, Dew, Morgan, Dowell, Cumming, Cormack, McKinlay, and Love, 2004)

Ministry of Health performance feedback is seen to focus interviewee attention but interviewees from three DHBs said they struggle to make sense of standardised data:

There are some things we would have to query with the Ministry, whether it made sense . . . Our non-standardised rate always looks better than our standardised rate, and Auckland is the one that seems to move in the opposite direction to the rest of the country. (FP2) (Sensemaking)

Differences of opinion also existed about the appropriateness of government intervention rates:

Our orthopaedic surgeons are saying we are quite good in the major joint rates, but [MOH] say our intervention rates are terrible. (FP4) (Sensemaking, Standardised Intervention Rates)

Some DHBs, but not all, provide commentary on the achievement of SIRs in their Annual Reports. For example, Waikato DHB's 2015 Annual Report suggests there are multiple reasons for actual demand differing from preferred SIRs:

The overall conclusion that can be drawn from the health target (more surgery delivered overall than required) and the reduction in wait lists to four months is that the mix of actual demand differs from the preferred standardised intervention rate at a procedural level. More work is required to determine whether that reflects the characteristics of the local population relative to the national average, whether it

reflects disproportionality in the rates of referral for these conditions from primary care, or whether the rate of acute (rather than elective) treatment of these conditions is higher than the national norm. (Waikato District Health Board, 2015, p. 61)

One Decision Support Representative considered feedback on SDRs would be better if it were focussed on understanding variation and improving, rather than being used as a yardstick of equity of service access:

> The difficulty is that for some people the benchmarking is based on a target that is an absolute rather than understanding what variation is normal within districts . . . even if you did analyse it to the event level, you need clinicians and other change management people with specialist skills to understand how to change process, how to get people on board and how to convince people that change is necessary. (DS3) (Sensegiving, Intervention Rates)

The majority of interviewees said they were not influenced by their Electives Health Target ranking position because where the DHB is positioned in the ranking table is outside of their control. Two interviewees queried, whether delivering more than 100% of a budgeted level of volumes is, in fact, good performance.

5.8 Social Interaction

5.8.1.1 *Relationships with Ministry of Health electives team.*

All Funding and Planning interviewees described their relationship with the Ministry of Health elective services team as positive. The broad experience and knowledge of team members and willingness to give advice was recognised.

As discussed, the two areas that sometimes cause tension in the relationship are the late release of funding package details (section 5.3.1), which impacts the ability of the DHB to plan in advance, and the need to justify SDR variances (section 5.3.5). The appropriateness of matching national levels of service access for procedures when there is no actual demand was questioned (as in the case of tubal ligation and hysterectomy gynaecology procedures). One interviewee described discussions with Ministry of Health staff about the need to increase supply as being non-confrontational but not 'mincing' words.

We tend to be tactful about it and say, "Actually this is a very good thing I don't know why the Ministry would want us to do that" but answering takes away from the stuff they actually really need to be doing. (GSM2) (Social Interaction, Benchmarking, Standardisation)

An interviewee at another DHB explained the difficulties with private insurance and supply of services:

There are a lot of people who use private insurance here, that's not necessarily the case in every other DHB . . . there isn't a good way for the Ministry to combine the information they get from the private hospitals with what they are seeing happening in the public system. They have got a lot of the information but they need to code and make it current . . . We constantly have this argument: "We don't have those people on our waiting lists - they are not there!" But we are told, "Well they must be there because that is what we see coming through everywhere else. Go and find these people, it must be in your system. GPs can't be doing their best doctoring or there is something wrong with how the whole referral process works." It gets a little frustrating. We can't prove what we think is going on. (Sensemaking, Intervention Rates, Benchmarking, Standardisation) (FP3)

SSA Managers confirmed they also had a very collaborative relationship with the Ministry of Health elective team and found the Ministry staff were responsive to feedback:

Especially if a Ministry contract objective contradicts what our clinicians end up saying, or if we stumble across some bizarre process, such as one area of health is funded in a different way than another, such as if all prosthetics are funded under one specialty but not under another. Often it gives the Ministry a chance to fix up some of their own processes. (S1) (Social Interaction, Sensemaking)

5.8.1.2 *Internal DHB stakeholder relationships*

Two executive leadership interviewees observed that a tension can and should exist between a DHB's Funding and Planning and hospital service provider function:

The fact that both of those functions are vested in one organisation and they come together at the CE means that very often the funder will say, "Well, for our

population, we don't think the population needs more of this." But the provider has got a whole different set of tensions and factors that need to be considered, including even just maintaining a clinical work roster. (EL1) (Sensemaking)

In all cases Funding and Planning interviewees said they aim to delegate decision-making about how services will be delivered to the hospital service provider. In one case the interviewee said the DHB is trying to be proactive in letting clinicians lead decision-making on production improvement matters and service management.

The existence of tension in the Funding and Planning and service provider relationship was more evident in interviews with Decision Support Representatives and Primary Care Representatives (discussed in next chapter).

One interviewee observed that part of the problem is that government funding does not always trickle down into DHB work practices as anticipated:

> They can start with all these new ideas of what they want to promote to the public as far as health targets and the politics behind it. But by the time the money gets into the planning and funding divisions, who then contract with their provider arms and various entities to provide the services, it may not quite look like their original intent. It is only as good as the planning and funding divisions doing the contracting. (DS1) (Funding Flows, Sensemaking, Hospital provider am contracting)

It was observed that the Funding and Planning managers are at arms-length from the conflict and tensions that result from the need to ration health care at the patient level:

> It is really difficult for us at provider arm level to make decisions that are going to impact ultimately on the patient. It is very simple for Planning and Funding to sit there and say "If you want more of those, you are going to have to pick where you are taking it out of." That is not very useful because, if they had to sit there and say that to a Head of Department or a Clinician, they would struggle to come out of the room without being torn to shreds." (DS1) (Sensemaking, Hospital provider arm contracting, Internal Relationships)

All Funding and Planning and Decision Support Representatives expressed a high level of confidence in DHB information management and analytics capabilities.

5.8.1.3   Shared service agency relationships

A Funding and Planning interviewee was supportive of regionalisation in principle but critical of the level of engagement around regionalisation as a strategy:

> The overall strategy I think probably needs a bit more socialisation . . . we do have to be involved because we are responsible for some of the budgetary elements which may or may not support some of those proposals. (FP1) (Regionalisation, Sensemaking)

There were mixed perspectives on the role played by SSAs and overall progress:

> I have an issue with entities that pop up and expect DHBs to fund them to exist and then start building empires to justify their existence. Sometimes they start looking at things just for the sake of it. (DS1) (Regionalisation, Sensemaking)

> The [region] electives is treading water – up-front there is a lot of parochialism and secondly they have asked stuff of the [region] elective work-stream that is not their responsibility. (GSM2) (Regionalisation, Sensemaking)

A Board member and SSA manager agreed that tensions occur because of boundaries and because top-down solutions deter bottom-up innovation:

> There is no question in my mind that the moment you draw a line on the map, you get irrational behaviour across that line . . . there is an interest in protecting the revenue of your organisation versus the other organisation. (BM3) (Sensemaking, Sensegiving, Centre Guidance)

The challenges of hybrid institutions working in regional context and the importance of social interaction was emphasised by A Shared Services Agency manager who observed:

> Everyone has their own unique ways of doing things. I tend to find that the best way is the importance of relationships, of physically being there and going to visit face to face and understanding different environments . . . each work in the regional space in their own unique way. (S1) (Social interaction)

5.9 Chapter Five Summary

This chapter has described how government concerns about the supply of elective services are managed. Section 5.2 describes how each DHB is accountable for delivering a minimum volume of elective services and for ensuring there is national equity of service access. Other priorities include improving the capacity of public hospitals, evidenced in *'Hospital Provider Arm Contracting',* and improving the sustainability of regional vulnerable services and ensuring regional services are well coordinated, evidenced in *Regional Service Planning*.

Table 5.9 (page 128) summarises the interconnections amongst five practices, which are found in the thematic coding of interview data using the top-down lens in the ILP Combined Model. The sensegiving and sensemaking of government priorities and DHB organisational practices described in section 5.3 is analysed in detail in Chapter Eight. Active performance management as an action is associated with accountability setting in *District Annual Planning* and *Regional Service Planning* practices, securing the delivery of the minimum volume of elective services in *'Hospital Provider Arm Contracting'* and *Other Provider Contracting* practices, and with the ongoing monitoring of performance in the *Performance Evaluation* practice. The facilitation of change through networks is evidenced in *Regional Service Planning*. Performance monitoring is predominantly of production volumes and performance measures are prescriptive (alarm-bell like in nature). The monitoring of equity of service access through SDRs is expected to be proscriptive (dial-like in nature) but is problematic. Whilst equity of service access is a key objective of the RWT Strategy, the Caseload Monitoring Report analysis in section 5.3.4.1 highlights that there is not equity of service capacity amongst DHBs. Study participants confirmed that variation in service demand, coupled with variation in service capacity, means delivering services according to the government's perspectives of equity of service access is challenging.

Table 5.9 shows interdependencies between resource variables and organisational practices. Funding is critical for planning activity and several interviewees said there needs to be a relaxation of inter-district flow funding rules in order to improve *Regional Service Planning.* There are two types of information: first, there is information of an accounting nature that is critical to support production planning and monitoring; second, there is information that is of a clinical nature that is critical to support *Regional Service Planning*. Service planning and provider contracting are also constrained by external capacity. The lack

of available capacity elsewhere has a direct influence on a DHB's decision to develop its own hospital provider capability. Overall, the management of government elective service supply appears to be very tightly controlled and monitored. The use of DHB cross-boundary arrangements, where patients receive services at neighbouring DHB facilities that are in closer proximity to a community, appears to be an example of flexible management of service delivery.

An in-depth analysis of how individual attention is focussed through sensegiving, sensemaking, and role interaction in organisational practices is provided in Chapter Eight.

Table 5.9: Combined model top-down ILP lens interconnections: Increasing elective supply practices

Organisational practice	District Annual Planning	Hospital Provider Arm Contracting	Other Provider Contracting	Performance Evaluation	Regional Service Planning
Organisational field	District	District	District, Regional, National	District	Regional
Theories, Frames	Delivering a minimum required volume of services Achieving service equity of access	Delivering a minimum required volume of services Achieving service equity of access Improving the capability of public hospitals	Delivering a minimum required volume of services Achieving service equity of access	Delivering a minimum required volume of services Achieving service equity of access	Delivering a minimum required volume of services Achieving service equity of access Regional service planning and co-ordination Improving regional service capability
Active performance management action	Accountability setting	Delivery of the required level of elective services	Delivery of the required level of elective services	Ongoing performance monitoring	Accountability Setting Facilitation of change through networks
Performance measures (year introduced)	Electives Health Target (2007/08) Base level volumes (2006/07) SIRs (2007/08) SDR (2006/07)				
Resource environment variables	Funding Information	Funding Information External service provider capacity	External service provider capacity Funding Information	Information	The role of Shared Service Agencies Regional Clinical Networks Service provider capacity at regional DHBs
Opportunities	Alternate service delivery models	Alternate service delivery models			Relax IDF Funding rules Cross-boundary arrangements
Constraints			Available capacity when required Complexity of patient condition	Information integration Information standardisation	Clinical information integration

Chapter Six: Improving the Primary-Secondary Care Interface

6.1 Introduction

This chapter focuses on the primary-secondary interface, the point of communication and action between primary and specialist health care service providers. The RWT Strategy recognises that there is a need for GPs to work within the public hospital setting; to be involved in initiatives to improve referral quality and appropriateness; to have a greater role in public hospital follow up activities and assessments, and to be involved in the development of care plans for common clinical conditions (Ministry of Health, 2000, p. 17). This chapter examines how communication between hospital and community-based clinicians has improved, as perceived by study participants in the GP Liaison or Primary Care Advisor (Primary Care Representative) and DHB Service Manager role. The Primary Care Representative role is a dedicated operational or strategic employment position established to assist a DHB with the integration of primary and secondary health services (Ministry of Health, 2014e; Ratcliffe, 2007).

The narrative in this chapter is developed from thematic coding of interview data and reference documents using the top-down and bottom-up lens elements in the ILP Combined Model (see Figure 3.5, page 65). Section 6.2 describes how five government priorities for improving the primary-secondary interface are presented in DHB District Annual Plans. The chapter then describes the sensegiving and sensemaking of these priorities and five DHB organisational practices in section 6.3, the interdependencies between the resource environment and organisational practices in section 6.4, the bounded intentionality of study participants in section 6.5, how organisational practices and specific roles focus the attention of roles in section 6.6, social interaction with external and internal stakeholders in section 6.7 and the chapter concludes with a summary in section 6.8.

6.2 Translating Government Priorities into DHB Priority Outcomes

This section uses the top-down lens of the ILP Combined Model, outlined in Figure 6.1, to examine the translation of government priorities into DHB priority outcomes. The lens was used to examine government policy, DHB Annual Plans, and interview narrative. The five Theories, Frames, and Narratives examined in the study are *Performance standards*, the *DHB-PHO alliance leadership model*, *Service redesign*, *Electives clinical pathways implementation*, and *Health information integration*. Interview discussion did not include the planning process and the documenting of government priorities into DHB annual plans and strategies.
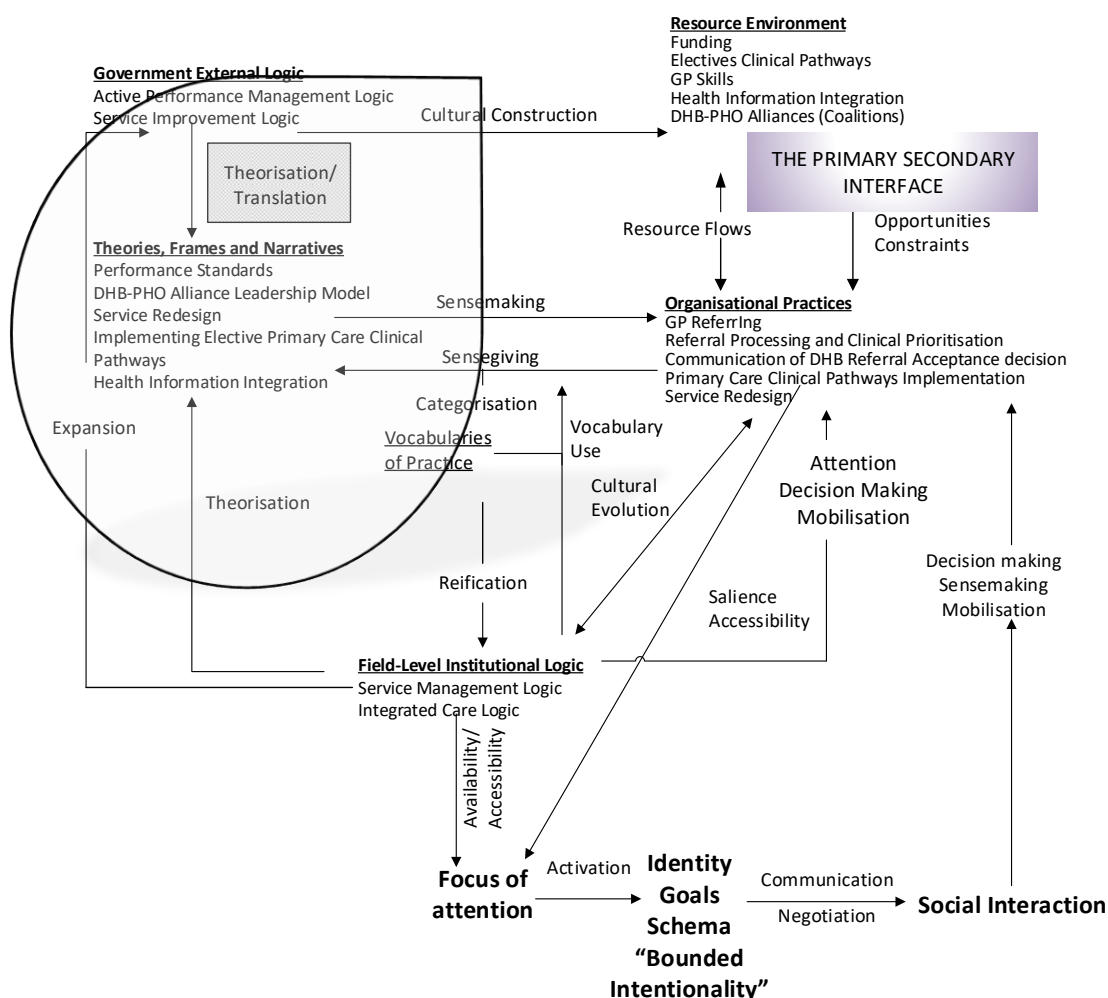
Figure 6.1: Theorisation of Priorities: Improve the Primary-Secondary Interface

6.2.1 Government priorities: improving liaison.

The goals of an improved primary-secondary interface are reiterated in the *Primary Care Health Strategy* (Ministry of Health, 2001), Ministry of Health Statement of Intent (Ministry of Health, 2007, 2009b) and the Nationwide Services Operational Framework (Ministry of Health, 2014k, p. 60). The Better, Sooner, More Convenient Health Discussion Paper (Ryall, 2007), describes the need for more *integrated care*. Whilst there is no single definition of integrated care, it is generally understood to be health care that is patient-centric, well-co-ordinated, to involve cross-service provider collaboration and to result in a patient experience that is likened to a 'seamless' journey (Cumming, 2011, p. 2).

6.2.1.1 *Performance standards.*

There are no publicly reported performance measures of the improvement of the primary-secondary interface. However, government procedural performance standards exist for elective service referral processing and acknowledgement. The Elective Services Toolkit: Module 2 describes the Ministry of Health's expectations for referral management (Ministry of Health, 2014e, pp. 7-12). DHBs are required to have clear administrative processes, including processes to manage alternate scenarios such as referrals for advice, and referrals for direct access to treatment. Referrals must be registered in administrative and clinical information systems and should be triaged within five days of receipt. The patient and GP/referrer should then be advised about decisions on referral acceptance. Processes should be in place for managing inappropriate or poor-quality referrals and there should be communication with the GP/referrer in such cases. Service acceptance criteria are expected to be made explicit to referrers. If a DHB cannot meet the ongoing demand for specialist services within maximum waiting time and funding constraints, it must provide referrers with current information that indicates the services and level of patient need that is likely to be accepted for care (Ministry of Health, 2014k).

DHB District Annual Plans were found to include general statements of intent about Elective Service Patient Flow Indicator (ESPI) compliance. However, the focus of any ESPI compliance in plans is on meeting service delivery timeframes and referral processing and responsiveness timeframes appear to be taken for granted. Analysis of DHB ESPI 1 compliance is detailed in section 6.3.6.

6.2.1.2   DHB-PHO alliance leadership model.

DHBs are not directly involved in the operational management of General Practice health care delivery. Publicly funded General Practice health care services are funded via a patient-enrolment model which is administered by Primary Health Organisations (PHOs).

A study by Barnett, Smith, and Cumming (2009, p. 64) finds PHO Board members had mixed views of PHO-DHB relationship, which was generally seen to be in a development phase. Following the election of a national-led coalition government in 2008, a Ministerial Review Group (2009) recommended that the role of PHOs be clarified. Since 2006, the number of PHOs has reduced from 80 to 32 in 2015. However, the number of DHB-PHO relationships varies. Analysis of DHB-PHO associations finds that in the 2015/16 financial year the median number of relationships was two; Counties Manukau DHB had five PHOs, whilst eight DHBs had one PHO.

Since 1 July 2013, the DHB-PHO relationship has shifted from being a mainly contract-for-services and payment-for-performance model to an alliance leadership governance model. The aim of this model is to strengthen clinical services integration (Ministry of Health, 2015c, p. 20). The model has two leadership levels; an Alliance Leadership Team (ALT), which is comprised of senior DHB and PHO leaders, and Service Leadership Alliance Teams (SLATs), who report to the ALT. A SLAT is comprised of clinically-led expert teams, who work on specific terms of reference, such as service redesign and equity of access to services (Ministry of Health, 2014d).

Gauld (2017) recognises the alliance model originates in large construction industry projects and is typically concerned with collaboration, a joint work programme, professional leadership and a focus on whole system planning (as opposed to organisation self-interest). The shifting of services from hospital locations into primary care settings requires strong inter-professional links, relies on collegial professional relationships, on the availability and willingness of health professionals to engage, and on safe, supportive processes. Gauld's review is descriptive and is based on first-hand insights gained as a Chair of Alliance South (a partnership between Southern DHB and WellSouth Primary Health Network). Gauld observes differences in theory and practice of the model (notably in cost-savings and establishment time). An Alliance model is a very different model to an administrative model

(which is staffed by full-time FTEs) and progress moves at a different pace and is yet to be monitored in a systematic way.

6.2.1.3 *Service redesign.*

As discussed in Chapter 2, (section 2.3.4.4), DHBs are required to improve the supply of elective services through service redesign. At the time of study interviews, government priorities for service redesign were focussed on patient long-term health condition management, diabetes care improvement, and maternity and child health services. The budget holding for some community-referred tests had been transferred to primary care (Ministry of Health, 2015c, p. 9).

Case-study DHB annual plans describe the relocation of some hospital services to primary care. Examples mentioned include minor skin lesion removal, minor gynaecological procedures, sleep studies, pulmonary function tests (spirometry), and post-operative and follow-up assessments. Referrers can also obtain direct access to some hospital radiology tests and procedures, to colonoscopy procedures, and to carpal tunnel surgery. Direct access means that a patient does not have to be seen and assessed by a specialist first. Service acceptance of a referral is conditional on specific criteria being met by the patient. Alternative models of specialist service delivery are also mentioned in DHB annual plans and reports. Examples include non-patient contact (virtual) FSAs, (where the patient is not present and the referrer receives a comprehensive written plan of care), and tele-medicine (video) assessments. There is also mention of an increase in the number of nurse- and physiotherapist-led outpatient assessment clinics.

6.2.1.4 *Primary care electives clinical pathways.*

The Electives Resource Toolkit: Module One (Ministry of Health, 2014i, p. 11) discusses the role of integrated care pathways and primary care clinical pathways in DHB management of the primary-secondary interface. The use of primary care pathways is seen to support a system of horizontal (GP-GP) and vertical (GP-Hospital) referring and to improve the quality and appropriateness of referrals. Pathways provide GPs with guidelines on how to best manage patient conditions in primary care and advise how to access DHB elective services.

Case-study DHB annual plans and reports describe how primary care clinical pathways have facilitated faster access to diagnostic tests and direct access to certain elective procedures

without FSA. Examples of elective procedures that have associated clinical pathways are colonoscopy, cataract surgery, carpal tunnel surgery, deep vein thrombosis diagnostics, gynaecological biopsies, iron infusion for anaemia and bone density scanning.

However, at the time of interviews, the Operational Framework makes only one mention of clinical pathways, under a section headed 'Clinical Effectiveness' (Ministry of Health, 2014k, p.87). Clinical pathways are seen a mechanism to reduce mortality and morbidity.

6.2.1.5   *Health information integration.*

Chapter 11 of the Operational Policy Framework (Ministry of Health, 2014k, p.102-103) requires DHBs to plan for, report on, invest in and operate information systems such that the requirements, expectations and deliverables set out in the National Health IT Plan (IT Health Board, 2010; Ministry of Health, 2013c) can be achieved. Government information strategies, such as the National Health IT Plan, have emphasised the need for primary and secondary health information integration at the local and regional level to support clinical decision-making and provide insights to DHB leadership about service planning, service redesign, and the effectiveness of service improvement interventions.

One example of health information integration prioritised in the National Health IT Plan is the implementation of eReferrals, which can improve the efficiency of referral processing and triage decision-making. However, the role of health information sharing in improved primary-secondary care liaison is not explicitly referred to in section 5.9, Management of Elective Services (Ministry of Health, 2014k, p. 58).

In summary, this section highlights that government priorities in liaison improvement are explicitly stated in government policy (evidenced in the Operational Policy Framework) in terms of compliance with referral processing performance standards, the adoption of a DHB-PHO alliance model, and the need for service redesign. Government expectations for the implementation of clinical pathways and the integration of health information are not explicitly expressed as government elective policy priorities.

6.3   Sensegiving and Sensemaking of DHB Frames and Practices

The focal point of the top-down lens, shown in Figure 6.2, now turns to the sensegiving and sensemaking of DHB Theories and Frames and the five Organisational Practices: *GP referring, Referral processing and clinical prioritisation, Communication of DHB referral prioritisation decision, Primary care clinical pathways implementation*; and *Service redesign*.

Figure 6.2: Making sense of organisational practices: Improve the primary-secondary interface
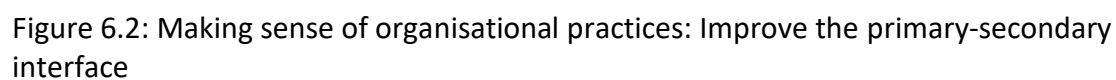
6.3.1 GP referring.

According to Ministry of Health (2014e) guidelines, GPs should be able to refer to the DHB for the following elective services: a first specialist assessment (FSA); a procedure or investigation without an FSA; hospital diagnostic tests; a follow-up assessment, and nurse or allied health assessments; or advice on the clinical management of a patient's condition.

All case study DHBs confirmed they have websites which advise GPs of service access thresholds and, in some cases, there are primary care clinical pathways associated with conditions and direct access to procedures (see Section 6.3.4 for more details).

The Ministry of Health considers an eReferral to be the optimal method for referring patients to secondary care (Ministry of Health, 2014e, p. 15). Section 2.3.4.5 describes the process for creating an eReferral. Many DHB services have developed referral templates that are specific to the service or a patient's clinical condition and require the referrer to answers specific questions related to the condition's impact on a patient's lifestyle.

All Primary Care Representatives agreed that eReferrals have greatly improved the referring process. One Primary Care Representative wished that all DHB services accepted eReferrals and that inter-DHB referrals were available. In three cases, Primary Care Representatives described frustrations with receiving online advice from hospital specialists:

> You can refer saying you just want advice. We often don't get advice, we just get an appointment offered to the patient. So you think, "What is the point of setting up a system when you don't read the letter?" It has actually been admitted to me at times that it was much easier to just offer them an appointment! (PCR6) (Advice, Need, Performance Constraint, Avoidance, Sensemaking gap)

When asked about GP criticisms of service responsiveness to referrals requesting advice, a Service Manager observed:

> The guys are often writing for the ones they are declining . . . But sometimes that information back doesn't translate to the GP doing anything different with the patient. So the patient says "Why is my referral declined?" and you say the triager has suggested you might like to try ... "Oh my GP hasn't told me that". So it's not quite flowing. (ESM5) (Referral Processing, Advice)

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The reasons for difficulties in obtaining advice were discussed by one Primary Care Representative:

> I think it is very hard to do it in a way that actually is meaningful . . . Some of the services here have used semi-retired specialists and they are just on the phone the whole time explaining to GPs . . . I know that a lot of the problems are to do with anomalies in the system that means it involves more work for the specialist (than seeing the patient). (PCR3) (Referral Processing, Funding, Advice)

Two hospital specialists agreed that GPs need to have confidence in consistent service decision-making:

> The trouble with referrals and waiting lists is they are fluid. GPs will refer people they expect to be seen, they won't waste their time referring people they know won't be seen. (MD5) (Clinical Prioritisation, Sensegiving)

6.3.2 DHB referral processing and clinical prioritisation.

Following referral receipt in the DHB Patient Administration System (PAS), the DHB has to ensure the referral is prioritised by the appropriate DHB service. Referral prioritisation may be carried out by one or more specialists within a service, or by other health care providers (such as a GP Liaison, nurse specialist), who prioritise under the delegated authority of a responsible specialist.

Several Primary Care Representative interviewees were critical of the DHBs' ability to prioritise and communicate with them electronically:

> We don't have electronic processing, viewing and grading. So there isn't a slick method of having a conversation between a referrer and a specialist as to what could be done and to discuss alternatives to an FSA. (PCR1) (eReferrals, IT Capability, Performance Constraint, Sensemaking gap)

Referral appropriateness and quality was discussed by several interviewees. The GP Liaison role would typically work closely with DHB services and has first-hand experience of variation in referral quality:

> I literally read thousands and thousands of referral letters, many of them from people I know very, very well . . . The variation in information was very interesting. (Some variation) you can fix by using an electronic referral system and [clinical pathways], but what you can't fix is the individual GP's previous experience, their comfort with their level of expertise in that particular subject . . . There were big differences in referral patterns between individual GPs and between practices. . . . The whole feedback loop has got to have quite a bit of information in it to be educational enough to help that person manage those kinds of patients in the future without needing to refer them. (PCR3) (Referral Inappropriateness, Salience, Focus of Attention)

Referral appropriateness also extends to whether the patient is willing to accept the offer of service:

> There are exceptions, when a surgical opinion and no surgery is useful . . . but, on the whole, getting a surgeon to see somebody when they are not going to be able to do the operation is a futile exercise. That is wasteful for patients and the system. (PCR4) (Referral appropriateness, DHB Communication)

One service manager observed that inappropriate referring can be seen as gaming and also as GPs not preparing patients to receive service:

> Everyone was saying '? Melanoma' . . . They weren't even spots that needed to be taken off. So there is gaming by GPs. . . . sometimes they say "This person is really bad", but they haven't been offered things like a walking stick, a raised seat - any of the practical things . . . we are working with GPs, not only a fit for surgery service, but also an 'are you fit for a FSA?' Some of them are coming in that have other medical conditions that are very unstable. (ESM5) (Referral Inappropriateness, Referral Management, Clinical Prioritisation)

Other forms of system gaming by GPs were described:

> (GPs) can manipulate the system, based on their experience . . . hence the scattergun referral. They will just send in four referrals to get the patient in and seen and then bring up other issues and rely on that consultant doing another referral internally. . . It was the same group referring directly to (the tertiary DHB) . . . having an understanding between DHBs that they only accept referrals from a (DHB) clinician has made it better because that has then meant that our funder can redirect money to the DHB. (DS1) (GP Referring Practice, Sensemaking)

6.3.3 Communication of DHB referral prioritisation decision.

The DHB communicates the referral prioritisation decision to both the patient and the referrer by letter. The importance of timely acknowledgement and communication was emphasised by a Primary Care Representative interviewee:

> It's a terrible thing for somebody's referral to be sitting for three weeks because somebody only goes there every four weeks . . . It is actually really important to be able to tell a patient whether you will be able to see them or not within a timeframe. Because, as a GP, I know that many of those people will make a choice to look at an alternative if they can't be seen in the public system. (PCR3) (Referral Processing, DHB Communication)

Several Primary Care Representative interviewees said they don't always understand the rationale for service decision-making and DHB decision-making is sometimes inconsistent. Two Primary Care Representatives attributed inconsistency to electives performance targets:

> Often what we will get is the target driving the behaviour of the hospital before we have had the decent clinical conversation around the referral criteria, what it should be, so that they can decline the right ones. Sometimes you know they have declined them because they can't hit this target and they have fudged their answers. You think "Well, no! You've got the information what are you talking about?" (PCR6) (DHB Communication, Sensemaking gap)

Decline, decline, decline. . . . 'Declined, because it doesn't meet criteria!' and you say "What about this doesn't meet the criteria?" So you wish for more information. (PCR5) (DHB Communication, Sensemaking gap)

The quality and clarity of information to the patient was seen as a concern:

(The patients) don't know why they are declined . . . it's just this capacity thing. We will try again. That is what they (the DHB) will say: "Just refer again". Oh, that is not wasting anyone's time of course! . . . (The letter) is read by the patient as 'I will see you in 4 months', which annoys them because that seems like quite a long time to wait if you have got pain. That is not certainty and there is usually misunderstanding about it. . . So I don't think there is a lot of rejoicing amongst the consumers in this so called certainty. (PCR5)

At one DHB, the situation was seen to have greatly improved:

People (GPs) will still talk about it being still really hard to get this or that, but they are not as angry or frustrated, because in this area they do actually know what is going on because the communication is so much better than it used to be. (PCR4, Social Interaction)

6.3.4 Primary care clinical pathways implementation.

All Primary Care Representatives agreed that their DHB's implementation of primary care clinical pathways was changing referring behaviour. The implementation of pathways is important because it standardises the referring process and has resulted in the better utilisation of scarce public hospital resources

The work of Canterbury DHB and the Canterbury Clinical Network was considered as an exemplar of health system integration by several interviewees:

The Canterbury model shows that providers not only can do their job better together . . . the patient gets all that information that they are sharing and has an ability to look at their own information rapidly. . . . If you think of what the Canterbury Network did, it was mostly human behaviour, it was about trust development, it was about getting together innovation camps, it was about changing

the paradigm . . . putting the patient at the centre which, you can see through the results, has been successful. There wasn't a top-down KPI, here's your health services plans for the next 15 years. (DS3) (Clinical Pathways)

Several interviewees observed that doing things the 'Canterbury Way' was not without its challenges:

[At Canterbury] a lot of people from primary and secondary were involved and consulted, they had skin in the game if you like. . . . Whereas, here it doesn't really matter if it's a DHB person or a primary care person or somebody from management, it is still being imposed from outside; somebody saying "Boy, have we got the pathway for you". (PCR5) (Clinical Pathways Implementation, Social interaction, Mobilisation)

However, DHBs do not simply copy the work of Canterbury. *Primary care clinical pathways implementation* involves the localisation of an existing clinical pathway, adapting an existing pathway to ensure it matches a DHB's resources. One Primary Care Representative cautioned that the significance of localisation in pathway development needs to be understood:

If you are going to get value out of pathways they have to be locally based. . . . You have to be really careful about "this is the pathway". It might be the right thing to do, but can we, within our DHB, actually cope with that and manage that? (PCR2) (Attention, Sensemaking, Clinical Pathway Development, Vocabulary of Practice)

The linking of pathways to PHO funding was also seen as crucial to pathway uptake. Other success factors discussed by interviewees were: the alignment of pathways with DHB service access thresholds (PCR1); embedding the use of a clinical pathway into DHB referral acceptance criteria, and providing GP feedback if a referral has been declined because a pathway has not been followed (PCR6); removing any GP Practice patient co-payment, which otherwise favours the patient opting for free hospital services (PCR5); General Practice site visits and ongoing GP education on pathway use (PCR1), (PCR2), (PCR5); and employing a pathway co-ordinator to support change management (PCR5).

Whilst the *Implementation of primary care clinical pathways* was described positively, it was not without its critics. A Clinical Specialist interviewee cautioned that clinical pathways may deter GPs from referring:

> GPs, I realise are very busy. They have to process people very quickly. Somebody comes in with a hernia. The GP goes to (the website) sees they are not treating these at the moment and the GP says it is not even worth me writing the letter. . . . I think that educational aspect is excellent. I think the more covert one of reducing expectations is not good." (MD2) (Pathway Implementation, DHB Communication, Unmet Need)

It was recognised that, even when implemented, primary care clinical pathways are not always followed:

> I think there is much greater clarity around the intent . . . they describe the intended journey but at any point in time, for a whole raft of reasons, those things don't happen the way they are meant to happen. (ESM8) (Pathway Implementation, Salience, Accessibility)

> I think, on the whole the clinicians think Health Pathways are a good thing to provide for the GPs. Some of them haven't got a lot of confidence in the GP assessment skills . . . they can't say that having the information there has made the quality of referral any better. (ESM5) (Service Redesign)

Both Primary Care Representatives and Funding and Planning interviewees confirmed there had been very little DHB evaluation of clinical pathway use:

> It is all very well doing pathways; . . . but if no-one looks at them there is not a lot of point . . . I don't know if it is working. Because to me, even though there are (multiple) PHOs involved, it's not that the GPs have requested it. (PCR2) (Accessibility)

6.3.5 Elective service redesign.

Primary Care Representatives at three DHBs discussed *Service redesign* in terms of the shifting of service delivery to a primary care setting (in the case of skin lesion removal) and the use of alternative models of service delivery in the public hospital (such as nurse assessment clinics). The funding and GP skill requirements for service delivery to be relocated to primary care are discussed in Sections 6.4.1 and 6.4.2.

One Primary Care Representative described mixed experiences with nurse-led clinics and considered it was delaying patients' access to specialist advice:

> In cardiology and rheumatology and to a lesser extent respiratory there has been enormous growth in the nurse led follow up clinics. For respiratory I think they work really well because the respiratory assessment times seem to be quite good . . . In rheumatology I don't think they work very well at all. A stable rheumatology patient doesn't need to be seen by a nurse to be told "Yes, you are stable, come back in six months", that is a waste of that patient's day . . . (other times) the patient says "I have been hanging out for some help" and I'm not getting help because that is just a follow up person, not an actual registered specialist/rheumatologist who can change stuff." . . . How is that actually helping anybody? I do get quite cynical about the reason for the existence of some of those clinics. (PCR5) (Sensemaking, Service Redesign)

6.3.6 Performance evaluation.

This section examines Ministry of Health's ESPI 1 compliance results as a sensegiving measure of DHB FSA referral responsiveness. Each month DHBs are required to submit an Outpatient Return File to the National Booking Reporting System (NBRS) confirming the volume of FSA referrals accepted for each specialty and that all referrals have been acknowledged by a speciality within ten working days to the referrer and patient.

Between July 2006 and June 2012, ESPI 1 compliance was achieved if 90% of a DHB's elective specialities had acknowledged FSA referrals within ten working days. From July 2012, the buffer for compliance increased to 100% of FSA referrals acknowledged with ten

working days (increasing to fifteen calendar days from 1 July 2016). Monthly reports of DHB ESPI 1 compliance are published on the Ministry of Health's website.

Table 6.1 shows the incidence of DHB ESPI 1 red non-compliance months between July 2006 and June 2016. With the exception of Waitemata and Waikato, DHBs appear to have little difficulty with achieving ESPI 1 compliance. Waikato DHB's Referral Centre had an issue with a referral backlog which impacted its ESPI 1 compliance until Dec 2015 (This issue was reported in the Waikato DHB Dec 2015 Hospital Advisory Committee Meeting Minutes). Since compliance is reported as a Yes/No response, there is no indication how many referrals were acknowledged outside of the ten working day timeframe and the reason for non-compliance. A DHB may have a month where the number of full-time specialists has been reduced or a service may have had an unexpected spike in the number of referrals to a service.

Table 6.1: ESPI 1 (DHB Summary) Red Non-Compliance months by financial year (2006-2016)

Row Labels	06/07	07/08	09/10	12/13	13/14	14/15	15/16	Grand Total
Auckland				2				2
Hawkes Bay			1					1
MidCentral	1							1
Northland							1	1
Waikato	1						6	7
Waitemata	2	1		1	2			6
Grand Total	**4**	**1**	**1**	**3**	**2**	**0**	**7**	**18**

Note: Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

NBRS does not hold patient-level information about referrals and the reasons why they are declined. In July 2014, the government, aware of these information gaps, introduced the National Patient Flow (NPF) national data collection. NPF collects information about accepted and declined referrals. It aims to build a picture of a patient's end-to-end elective health care journey, including demand for diagnostics tests, direct access procedures, advice, follow-up assessments and nurse or allied health assessments. NPF will eventually replace the NBRS data collection. The Ministry of Health has published a sub-set of DHB FSA prioritisation data (shown in Table 6.2 below). Whilst this data indicates that the majority of FSA referrals were accepted (87.4%), 10.1% of referrals were declined. However, when the reason for referrals being declined is examined in detail, just under half (4.6% of total

referrals) were declined because clinical priority was below the service acceptance threshold, in a third of cases (3.4% of total referrals) an FSA was not required and other reasons were that the patient was ineligible (0.4%) or there was insufficient information in the referral (1.8%). This data highlights there is variation in FSA referral acceptance rates, ranging from 75% (Hutt Valley DHB) to 100% (Wairarapa DHB). It is unclear what the service acceptance thresholds were and, if an FSA was not required (3.4%), whether the patient went on to receive another service (such as a diagnostic test, elective procedure, or advice).

Table 6.2: First Specialist Assessment referral prioritisation outcomes

DHB*	Total FSA Referrals Received	Total Accepted		Total Declined		Not Determined		Transferred	
Auckland	22,739	19,964	87.8%	1,120	4.9%	434	1.9%	1,221	5.4%
Bay of Plenty	10,813	8,709	80.5%	1,703	15.7%	215	2.0%	186	1.7%
Canterbury	14,352	13,520	94.2%	832	5.8%	0	0.0%	0	0.0%
Capital & Coast	15,197	13,721	90.3%	1,253	8.2%	0	0.0%	223	1.5%
Counties Manukau	11,790	11,177	94.8%	507	4.3%	0	0.0%	106	0.9%
Hawke's Bay	7,697	6,214	80.7%	958	12.4%	162	2.1%	363	4.7%
Hutt Valley	4,084	3,061	75.0%	814	19.9%	23	0.6%	186	4.6%
Lakes	4,148	3,720	89.7%	298	7.2%	0	0.0%	130	3.1%
MidCentral	5,831	5,148	88.3%	646	11.1%	37	0.6%	0	0.0%
Northland	7,725	6,706	86.8%	632	8.2%	84	1.1%	303	3.9%
South Canterbury	2,016	1,844	91.5%	156	7.7%	0	0.0%	16	0.8%
Southern	5,767	4,862	84.3%	889	15.4%	11	0.2%	5	0.1%
Tairāwhiti	2,359	2,178	92.3%	158	6.7%	4	0.2%	19	0.8%
Taranaki	4,563	3,696	81.0%	853	18.7%	14	0.3%	0	0.0%
Waikato	14,511	12,161	83.8%	2,348	16.2%	1	0.0%	1	0.0%
Wairarapa	3,273	3,272	100.0%	1	0.0%	0	0.0%	0	0.0%
Waitemata	14,352	12,254	85.4%	2,041	14.2%	0	0.0%	57	0.4%
West Coast	1,606	1,422	88.5%	162	10.1%	0	0.0%	22	1.4%
Whanganui	3,598	3,102	86.2%	465	12.9%	0	0.0%	31	0.9%
	156,421	136,731	87.4%	15,836	10.1%	985	0.6%	2,869	1.8%

*Nelson Marlborough DHB is excluded from this table because NPF data was incomplete across the reporting period.

Note: First Specialist Assessment referral prioritisation outcomes data from Ministry of Health (2016d)

6.4   Resource Environment and Organisational Practices Interdependencies

Figure 6.3 shows the next focal point of the top-down lens examination, the flow of resources across the primary-secondary interface. The five Resource Environment factors selected for examination are: *Funding*, *Electives clinical pathways*, *GP skills*, Health *information integration*, and *DHB-PHO Alliances (Coalitions)*.

The purpose of this lens examination is to understand resource flows and the opportunities and constraints for the *Improving the Primary-Secondary Interface* set of practices.
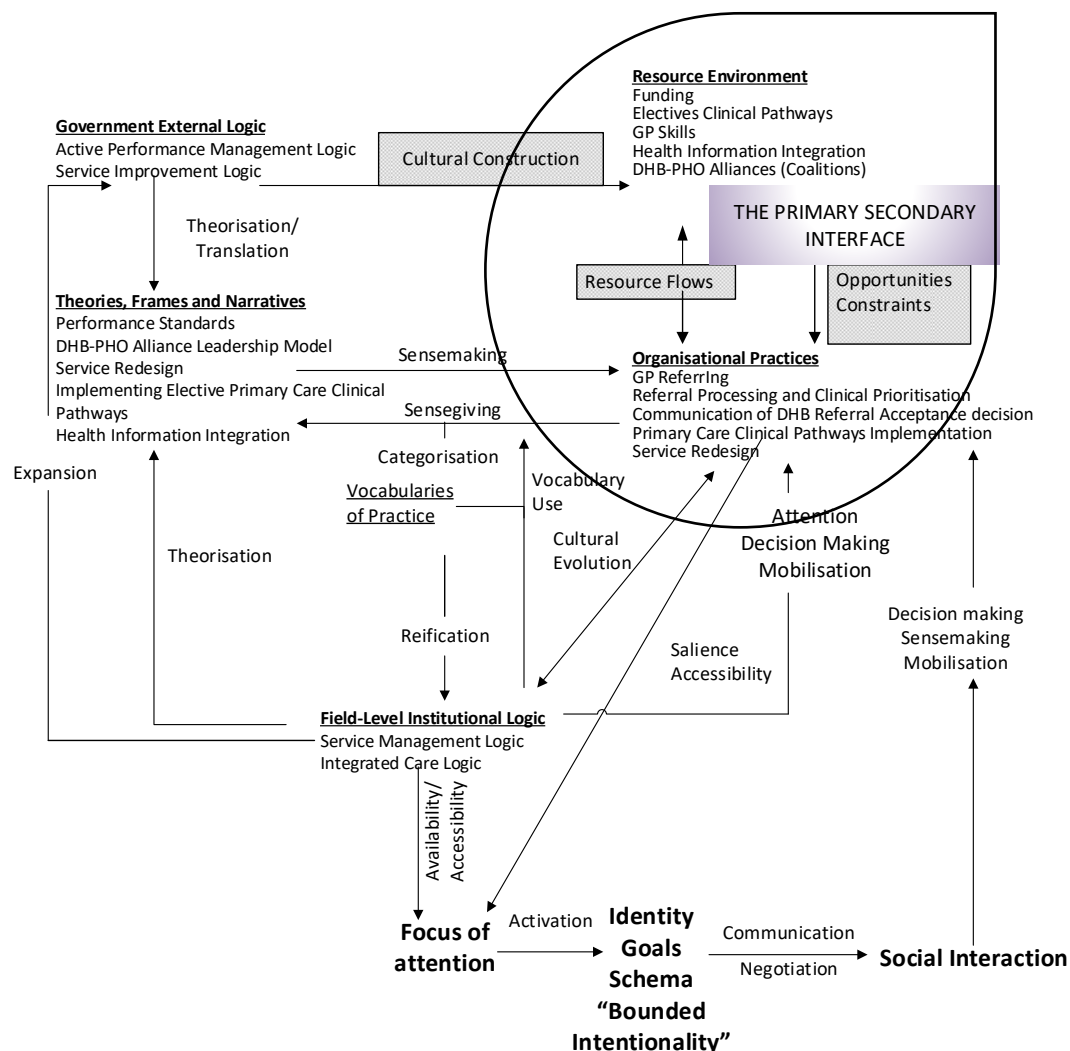
Figure 6.3: Resource flows: Improve the primary-secondary interface

6.4.1 Funding.

A DHB's willingness or reluctance to fund and devolve elective service delivery to primary care was discussed by several Primary Care Representative interviews. One Primary Care Representative compared their DHB's reluctance to shift funding to that of the Canterbury DHB:

> In Canterbury there has been a shift of funding. The funding has followed the patient . . . you get a package of care . . . the way they got over it in Christchurch was they just deficit funded it. They said, "This is good and we will pay". (PCR5) (Funding, Resource Environment Constraint)

At another DHB, the Primary Care Representative considered funding was an issue but the issue was also fear of the change impact on hospital services:

> It's often relationships, Planning and Funding not necessarily understanding the return on investment argument. They are so locked into "We haven't got any money, so we can't spend to save money" . . . The hospital departments are still very much in the "It's all about my service", they don't look at the big picture . . . you get barriers and road blocks and politics . . . The integration of generalist and specialist care underpinned by the better, sooner, more convenient movement is a little bit caught by individual clinicians, individual services protecting their own patch." (PCR6) (Clinical Pathways, Salience, Social Identity, Manipulation, Sensegiving)

A senior DHB manager agreed that the DHB was fearful of the financial implications of shifting services to primary care:

> Where we struggle, is in terms of the question of alternative forms of delivery - that has got huge economic implications for players and we dance around the edges . . . there is a fear of the unknown. . . . We find it really hard to anchor in accountabilities. (GSM1) (Service Redesign, Funding, Focus of Attention)

Negative financial consequences for both the GP and hospital service are seen as a constraint to service redesign.

Determining which procedures to perform in primary care and a fair funding system was seen as an issue:

> When (the GP says to the DHB) "Why don't you resource me to do it. Just send me $30 and I'll see them?" The DHB says, "What would you want me to close in order for me to send you $30 to see them? How many plastics surgeons do you want me to sack?" (PCR5) (Service Redesign, Funding)

> If 80% of minor procedures are done in primary care and the top 20% come to the DHB, how do you actually then move into the new environment and work out which is the 80% that should still pay in primary care? . . . If there is part-charging on a skin lesion removal service in GP land but you can get it done at the hospital for free, from the patients' point of view, you might get patients choosing to go to the public hospital. But, with the public hospital, you have taken a chunk out of their work. So you lose some core capability but you don't lose all the patient demand. (ESM2) (Service Redesign, Funding)

6.4.2   Elective primary care clinical pathways.

Clinical pathway implementation was the most widely discussed interview topic with Primary Care Representatives. Whilst much of the pathway activity was at the DHB local level, there was some discussion of regional level clinical pathways development. The benefits of regional development were summarised by one interviewee:

> As a region we need to make sure that we develop as far as we can, to standardise the clinical pathways and standardise eReferral forms . . . to ensure that we are using our resources appropriately. Because if we have (*X* number of) DHBs all creating different pathways and (X) different forms then it costs (X) times as much and we have (X) times the clinical variation, which we don't want. (PCR6) (Regionalisation, Clinical Pathways)

However, some Primary Care Representatives were critical of efforts to regionalise referral development because it was delaying district level implementation and was diverting resources away from what could presently be achieved.

6.4.3 GP skills.

The implementation of pathways affords an opportunity for GP upskilling, but not all GPs are interested in diversifying clinical practice. Service managers were concerned about the quality of services in primary care and the impact on public hospital capacity:

> However well trained GPs are, they won't do [skin lesion removal] as well as plastic surgeons. . . . Is that a good trade-off? . . . With the public hospital you have taken a chunk out of their work so you lose some core capability but you don't lose all the patient demand. . . . You have got to really tease out where the best place is to do things is. I'm not saying it is always in hospital. (ESM2) (Service Improvement, Service Redesign, Schema)

Another interviewee considered the shift of services to primary care was positive for GPs but was possibly setting false expectations for patients:

> [The big risk is] of creating a kind of sub-set of specialists, who actually do not see the volumes of that specialist level. . . . If you look at the evidence out of the UK, it's not compelling. It is for one or two specialist areas, but it's not compelling. I think what it does is, more than anything else, it maybe helps some people not to become burned out in general practice. (PCR3), (Sensemaking, GP Skills, Service Redesign, Schema)

Another Primary Care Representative considered there needed to be support and recognition of where resources were best placed:

> You need a co-ordinator; that was my perception in Christchurch. The reason it worked so well there was the co-ordinator. The individual nurses and doctors could take up as much or as little of the pathways that they felt able but it didn't impact on the patient. The patient ended up with good treatment whether their doctor was an 'intravenous king' or not. They still ended up with good home-based treatment. (PCR5) (GP Skills, Service Redesign, Resource Environment - Opportunity)

6.4.4 Health information integration.

The disparity between primary care and secondary care health information systems was observed by two Primary Care Representatives:

> The IT stuff that I have always been given is always really helpful. I have been given a patient dashboard that will tell me the gaps in care as soon as the patient comes into the room. A clinical pathway where I can just hit a button and it just opens if I need it. . . . so the IT that I have used has always been built around my needs. (PCR6) (Information Integration)

> I think the biggest problem for the specialist is a system that actually works: That does what they need it to do in an integrated way . . . a system that crosses the primary and secondary care (interface). (PCR3) (Information Integration, Resource Environment - Constraint)

In some cases eReferrals and Clinical Pathways have been integrated in the Primary Care Practice Management Information System:

> Some of the pathways have led to the development of an eReferral form. By default, by using the eReferral form, the GP is using the pathway because they are filling in the information that is required by the pathway in order to get their referral. In some of the eReferrals it has got decision support built-in . . . if you haven't done all the things that are required, it will identify that you have to do this first before you can get your referral in. (PCR2) (Health Information Integration)

6.4.5 DHB-PHO alliance (coalitions).

Board Member interviewees acknowledged that DHB-PHO relationships were greatly improved as a result of the introduction of the Alliance Leadership Model in 2013. Two Primary Care Representatives agreed that one reason the relationship had improved was that a lot of energy used to go into contract management and the DHB-PHO alliance model had reduced the contract fighting. Another Primary Care Representative agreed progress had been made but considered change was still 'painfully slow'.

6.5 Bounded Intentionality

The Primary Care Representative walks in two worlds: as a part-time GP, they experience what it is like to refer patients into the hospital; and in their Primary Care Representative role they understand the challenges faced by hospital specialists.

The role of the Primary Care Representatives at case-study DHBs varied. In all cases, the role was concerned with acute and elective service liaison work. Primary Care Representatives described their DHB work with a strong sense of advocacy on behalf of General Practice and a clear focus on health system integration.

One interviewee observed the very different working styles of the GP and the specialist and public hospital:

> It's a different kind of personality who chooses to do those (specialist) things and we work in different ways . . . We have a secondary system, that works in very much what people call silos . . . you have that approach, and then try to fit it with a primary care approach. (PCR3) (GP Specialist Relationships, Bounded Intentionality)

The Primary Care Representative's reputation with peers and DHB staff, as well as the hierarchical positioning of the role were seen as critical for the effectiveness of the liaison role:

> You need to be a GP who is very well regarded by the senior medical staff within the hospital and the DHB . . . A hard bit of that is the clinician aspect of it. There is always that management/clinician interface all the DHBs work on all the time. . . . (with) some of the services that I did some intensive work in that was a help, because it was a clinician-to-clinician conversation." (PCR3) (GP Liaison Role, Bounded Identity).

> If you are too high up in the DHB, then you are clearly a DHB person and your street cred for primary care disappears. A lot of your energies are involved inevitably in DHB focussed stuff. . . . In that sense it can be a poisoned chalice. (PCR5) (GP Liaison Role, Organisational Field Structure)

6.6   Focus of Attention: Availability / Accessibility

Several Primary Care Representatives said their attention was focussed on services that were difficult for GPs to access. Primary Care Representatives mentioned orthopaedics:

> Orthopaedics is really poor. There are lots of orthopaedic surgeons, but they run around doing ACC work. . . . You can actually get a hip and knee done way before you can get your foot done . . . I think it is being done for political reasons. I am well aware that cataracts, hips and knees provide for best QALYs[1] and all that sort of stuff but that doesn't mean there aren't other people with less common conditions, like sore feet, that would benefit from surgery, would get them back to work." (PCR4) (Salience, Accessibility, Stakeholder Sensemaking gap, Sensegiving trigger)

Primary Care Representatives described liaising with GPs about referrals that had been declined and the consequences for the DHB of being unable to meet need:

> In my role I get numerous complaints every week about access to services and concerns about access. . . . So there is that sort of obvious unmet need there and then there is the unknown, unmet need for those services which have really low levels of accepting referrals . . . the knock on isn't necessarily on General Practice, except they have to see extra patients. It may well be on the acute service, because the person who has been declined for a neurology appointment is then trying to get to a GP, can't get that, so comes into ED. (PCR1) (Unmet Need, Focus of Attention)

The definition of 'Need' and 'Unmet Need' and the difficulty of accessing some specialties were also discussed by DHB senior leaders:

> There has always been a concern around the elective service framework about unmet need and I don't think the Ministry, and certainly in Wellington, have really got to grips with that. I know that it has been one of the factors that clinicians have talked about for a long time . . . When you turn a patient down for surgery there is an element of unmet need and nobody is counting those figures or understanding or

---

[1] Quality Adjusted Life Year (QALY), a measure of health derived from standard life tables that takes account of the duration of life and the impact of living with a disease or death (a year of perfect health equates to a QALY of 1.0 and as the quality of life diminishes towards zero).

quantifying the impact of that. I think in time that will be something that is going to be much more of an issue. (ELT2) (Unmet Need)

The implementation of primary care clinical pathways is being championed by the PHOs. The need to incentivise GP use of clinical pathways, to make funding available and accessible, was emphasised:

> The mantra that came out of the South Island is to make as strong as possible case that you need to make it easy for people to do the right thing. . . I can look where the [DHB] localised pathways are . . . In the time it has taken me to do that, I could have said "Go to the emergency department. Here's a note, see you!" Done. How can you make it easier for the busy person to do the right thing by the patient? Sending you to ED is not the right thing for you. (PCR5) (Focus of Attention, Accessibility, Availability)

Several Primary Care Representatives described their attention being focussed by a need for specialist advice and access to diagnostic services. A number of Primary Care Representative interviewees considered GPs could do more specialist work:

> I think the terminology we use is often not helpful . . . when I reach something I can't deal with as a generalist then I refer to a specialist. The fact that that specialist is a GP working at the practice down the road doesn't mean they are any less of a specialist. . . . I still see that as being a specialist service. It is just where it is located." (PCR1) (Focus of Attention, Service Redesign, Schema, Vocabulary of Practice)

> You can have GP specialists in the community. I can easily see how this would work but you get barriers and road blocks and politics. (PCR6) (Service Redesign, Schema, Vocabulary of Practice)

6.7 Social Interaction

The bottom-up lens in the ILP Combined Model has been used to examine the social interaction between GPs and the DHB and between GPs and hospital clinicians.

6.7.1 Primary care – DHB relationships.

Primary Care Representative interviewees agreed that GPs have very little interest or knowledge of how government monitors DHB elective service performance. One Primary Care Representative observed that a reason for lack of interest is that GPs do feel an affiliation to the DHB:

> Ten to fifteen years ago I wouldn't even have known there was a funding and planning side [to the DHB]. . . . The older GPs still don't feel part of a public health system, we were encouraged not to be, until relatively recently. So their awareness and knowledge of it, and affinity with it or desire to make it work better, is not necessarily great. (PCR4) (Organisational Field Structure, Primary Care DHB Funding and Planning Relationships)

Another interviewee expressed frustration at the DHB's lack of focus on primary care:

> One of the things we have tried to keep emphasising to everyone who will listen is that H in DHB does not stand for Hospital, it stands for Health. . . . I want the DHB to be responsible for the health of the whole community. Yes, they have got a hospital they look after but they have also got primary care they look after, liaise with. (PCR5) (Organisational Field Structure, Primary Care DHB Funding and Planning Relationships)

6.7.2 Primary and secondary care clinician interaction.

Primary and secondary care clinician interactions were mainly described in arms-length terms. One Primary Care Representative considered the RWT Strategy had negatively impacted the GP-specialist relationship:

> They actually damaged a fundamental tenet of medical care, which is that a generalist refers to a specialist as a consultant. I don't think anybody really thought about the consequences of doing that . . . it markedly distorted that way of working,

and was fiercely resisted and disliked, by particularly specialist colleagues, who subverted the policies. (PCR4) (GP Specialist Relationships, Government Elective Strategy, Institutional Logics, Schema)

One Primary Care Representative observed that being encouraged by a hospital specialist to learn new skills was very empowering, but there was also fear of failure:

> You get that criticism for not doing it the 'right way' and you say "Oh, I don't want to end up being told off. (PCR5) (Advice, Need, GP Specialist Relationships, Sensemaking gap)

A Clinical Specialist discussed the low level of confidence that GPs had in diagnosing and managing patients for their specialty, which impacted the appropriateness of referrals to the service. This specialty had done considerable work in defining access criteria and had offered education sessions for primary care. This Clinical Specialist was aware that their service was criticised for holding on to patients but felt it was important not to discharge patients into the care of GPs when ongoing specialist care was required.

A Primary Care Representative observed that the return of a patient back to their GP requires a certain level of trust and confidence by a Clinical Specialist that patients will be well managed and observed:

> Sometimes the specialists in the hospital have been 'bitten' by people going back to primary care and being badly managed, being neglected, or ignored. (PCR5) (GP Specialist relationships, Service Redesign, Schema)

Therefore, a factor that influences service redesign is the confidence both GPs and specialists have in primary care skills.

6.8   Chapter Six Summary

This chapter has described how the case-study DHBs have addressed government concerns that GP liaison be improved and that public hospital services communicate their elective service capacity transparently and honestly. These government priorities are aligned to the health system responsiveness performance domain (Smith et al., 2009).

Table 6.3, (page 158), summarises the interconnections found in the thematic coding of interview and reference document data using the ILP Combined Model. The five organisational practices selected for examination span the primary-secondary interface, two are hospital service focussed and concerned with responsiveness to requests for elective services; two are concerned with supporting GP liaison and decision-making to ensure requests for service are appropriate. *Service redesign* is concerned with ensuring DHB decisions about alternative models of service delivery are made in consultation with primary care. Active performance management can be seen in three actions, namely: the development of national performance standards for *DHB referral processing and clinical prioritisation;* the ongoing monitoring of DHB service compliance with the *Communication of DHB referral acceptance decision* in ten working days; and the facilitation of change through networks associated with the Primary care clinical pathways implementation and *Service redesign*.

ESPI 1 compliance analysis was described in section 6.3.6 and does not highlight any issues in respect of referral prioritisation timeliness. District Annual Plans do not reference their intent to be ESPI 1 compliant, and the ability to be responsive to service requests appears to be largely taken for granted.

The DHB has been required to operate an Alliance Leadership Model since 1 July 2013. The model is intended to strengthen *Service redesign* and *Primary care clinical pathways implementation*. Government health information strategies, such as the National Health IT Plan (IT Health Board, 2010; Ministry of Health, 2013c), have also played an important role in influencing DHB's health information integration priorities.

Primary Care Representatives discussed two main constraints: (i) hospital information system and service responsiveness capability and (ii) DHBs' reluctance to shift funding to primary care. Opportunities for improving the primary-secondary interface and resolving

these constraints included: the enhancement of hospital information system capability so that specialists can more readily respond to requests for advice; the development of regional primary care clinical pathways; the use of data analytics to predict elective services demand and analyse the consequences of unmet need; and for primary care to assist the hospital with follow up assessments, where appropriate.

It was recognised that the impact of primary care clinical pathways in elective service delivery had not been evaluated and several Service Managers discussed the decision-making challenges of shifting funds to primary care. *Service redesign* may have significant financial implications for GPs, the hospital and the patient since shifting parts of a DHB's service may have negative financial consequences for any party. As described in Chapter Five, some activities in a DHB service are operated at a deficit and some at a surplus, therefore implications have to be carefully considered.

The detailed analysis of the interconnections found between organisational identities and workflow practices is described in Chapter Eight (see sections 8.1.2, 8.2.2, and Figure 8.3).

Table 6.3: Top-down institutional logics perspective combined model interconnections: Improve the primary-secondary care interface

Practice	Clinical Pathways Implementation	GP Referring	Referral Processing and Clinical Prioritisation	Communication of Referral Prioritisation Decision	Service Redesign
Organisational field	District/Regional	District/Regional	District/Regional	District/Regional	District/Regional
Government priorities	Improved GP liaison Implement Electives Clinical Pathways DHB-PHO Alliance Model Service Redesign	Improved GP liaison Health Information Integration	Responsiveness to Service Requests	Responsiveness to Service Requests	DHB-PHO Alliance Model Service Redesign
Active performance management action	Facilitation of change through networks		Compliance with performance standards Ongoing performance monitoring	Compliance with performance standards Ongoing performance monitoring	Facilitation of change through networks
Performance measures (year introduced)				ESPI 1 (1990s)	
Resource environment variables	Funding Clinical pathways GP Skills Health Information Integration	Health Information Integration			DHB-PHO Alliance Funding GP Skills
Opportunities	Regional pathway development	Communication of advice (electronic)	Electives demand forecasting Analysis of unmet need		Follow up assessments Shift of funding to primary care
Constraints	Shift of funding to primary care Evaluation of pathway outcomes GP time to research care options	Hospital information system capability Electronic triage of referrals Analysis of unmet need			Patient co-payments in primary care Agreeing financial accountability for service delivery Loss of hospital core capability Clinician trust

Chapter Seven: Maintaining Patient Flow

7.1 Introduction

This chapter focuses on DHB patient flow management practices and includes a ten-year analysis of Ministry of Health DHB ESPI performance compliance. Like the two preceding chapters, research data is examined using the top-down and bottom-up lenses of the ILP Combined Model (shown in Figure 3.5 on page 65).

Section 7.2 describes hospital booking system national data collection reporting, patient flow performance monitoring, and Ministry of Health ESPI compliance reporting. Section 7.3 describes the sensegiving and sensemaking of patient flow management. Section 7.4 describes the resources required to support the organisational practices, namely Clinical Prioritisation Access Criteria (CPAC) and capacity management tools; the capability of the DHB's specialist and information management workforce; and service innovation pilots. Section 7.5 describes the bounded intentionality of study participants which leads the discussion of how attention is focussed in section 7.6 and social interaction in section 7.7. The chapter concludes with a summary in section 7.8.

The main source of information about government performance metrics and patient flow priorities are the RWT Strategy, ESPI Management Guidelines (Ministry of Health, 2006a, 2016b) and the Electives Resources Pack and Toolkit (Ministry of Health, 2012a, 2014g, 2014h, 2014j).

7.1.1 Translating Government Priorities into DHB Priority Outcomes.

The focal point of the top-down lens in Figure 7.1 is on five Theories, Frames and Narratives, namely *ESPI Compliance*, *Nationally Consistent Clinical Prioritisation*, *Service Delivery Improvement*, *Standardised Booking Processes* and *National Data Collection Reporting*.
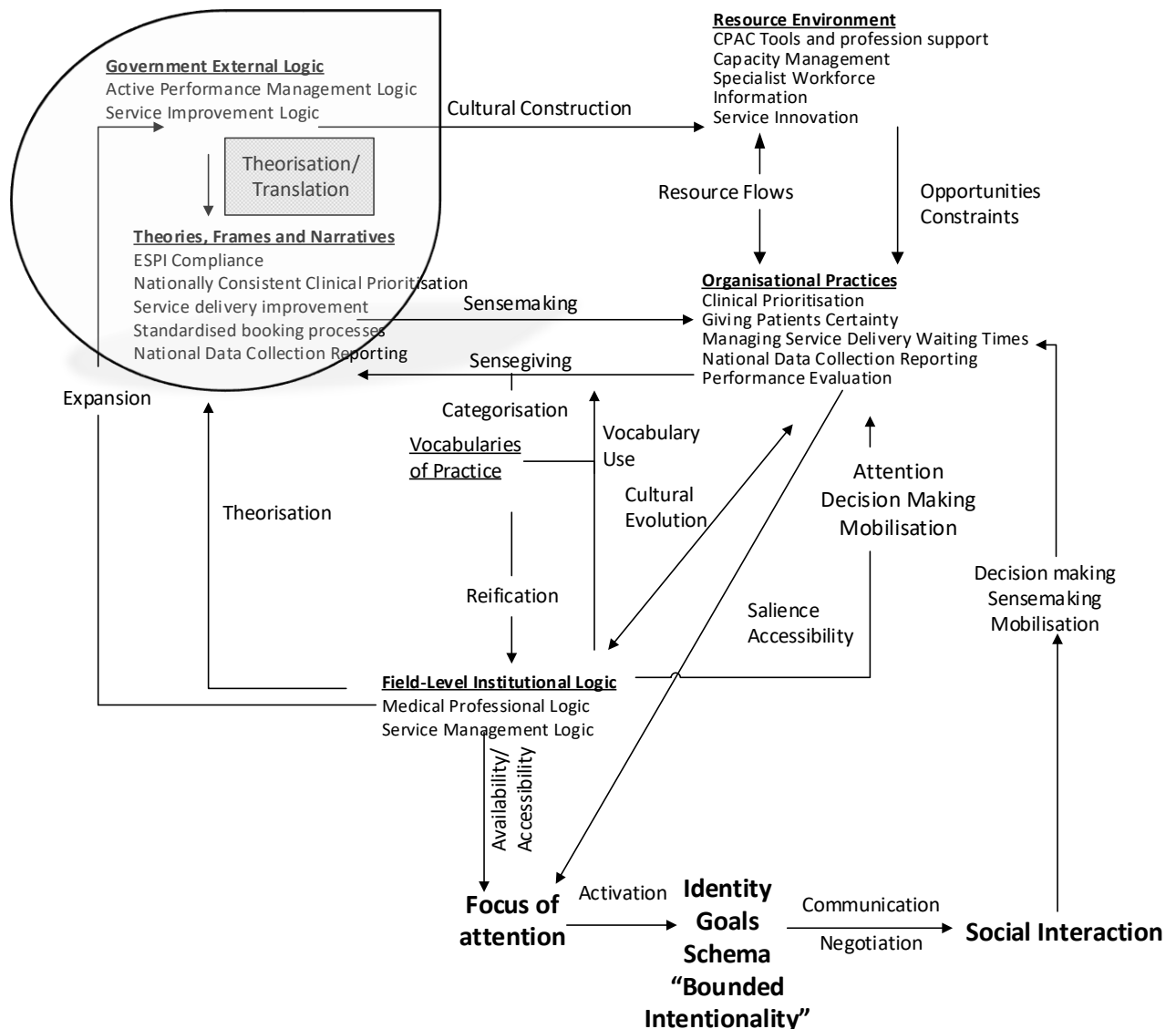
Figure 7.1: Theorisation of Priorities: Manage Patient Flow

7.1.2 **National Booking Reporting System reporting requirements.**

A metro map is a useful analog for depicting the management of patient flow. This section describes the reporting of local hospital booking system data to the NBRS national data collection. Figure 7.2, the first of two maps, depicts the first stage of the elective service journey and is concerned with the decision to refer the patient and DHB service referral acknowledgement. As with all metro maps, journey duration is not reflected in the map scale and a patient's journey may start at different points. For example:

- for many patients a referral to public-funded DHB secondary care starts with a GP Assessment. A GP may arrange diagnostic tests and consult a primary care clinical pathway before deciding to create a Referral to a Specialist. The GP may refer directly to the DHB service (green line), or

- if the patient prefers, the GP may refer the patient for a Private Assessment, and a private specialist may refer the patient to the public system (grey line), or

- a patient can be referred from a public hospital specialist (red line) (Intra- or Inter-DHB Specialty Referral).

Once the DHB service receives the referral, the process is as described in Chapter Six (sections 6.3.2 and 6.3.3). The end-point of this journey is Referral Acknowledged.
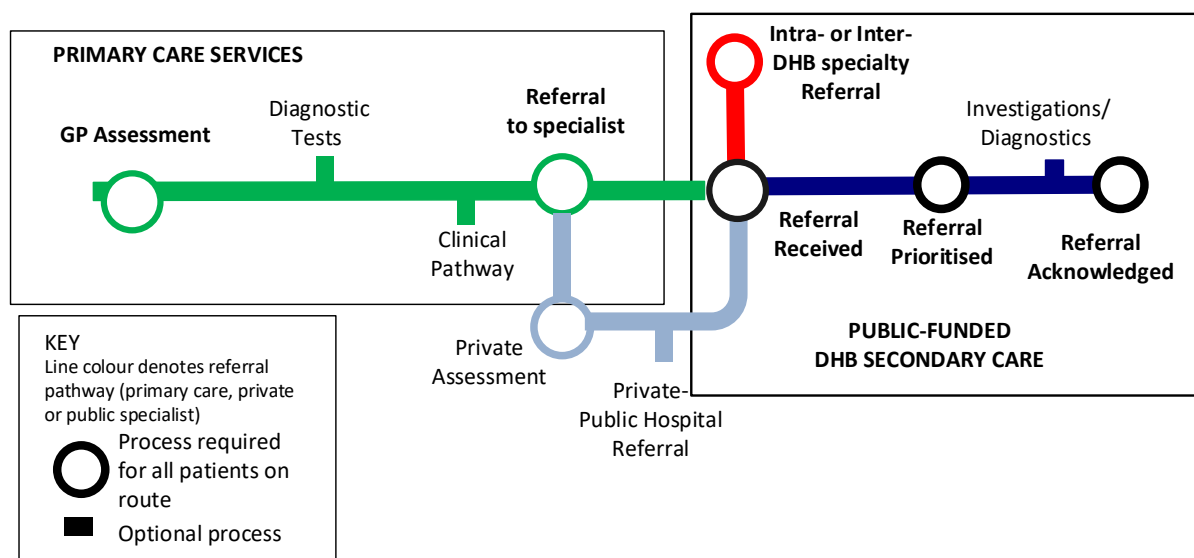
Figure 7.2: From Referral to DHB Service Referral Acknowledgement Elective Service (Elective Service Journey: Part A)

Public hospitals have been required to report their elective booking system data to the National Booking Reporting System (NBRS) since 1 August 2000 (Ministry of Health, 2011a, p. 7). Patient, prioritisation, procedure, and booking details are sent for all patients who are likely to receive publicly funded elective medical or surgical treatment or procedures (Ministry of Health, 2011b).

Figure 7.3 illustrates the remaining journey from assessment to treatment. The boxed boundary signifies the journey for publicly-funded treatment or procedures and journey stages are numbered to indicate their NBRS booking status. The area outside the boxed-boundary detail FSA service delivery and any subsequent services (such as Diagnostic Investigations and Follow-up Appointments) prior to referral for treatment or surgery.

Prior to entering the boxed boundary, the patient receives an FSA and a CPAC Assessment. As described in Chapter Six, some DHBs now offer direct access to treatment or a procedure, however the proportion of patients accessing treatment directly is not publicly-reported.

- At an FSA, the specialist determines if the patient needs and would benefit from surgery or treatment. If the patient does not require treatment they are returned to the care of their GP (discharged). If required, the patient may receive further diagnostic investigation or follow-up assessments.
- If the specialist considers the patient requires elective surgery or treatment, then a CPAC Assessment is performed. The assessment can be done at an FSA (or subsequently) by a hospital specialist or a delegated health care professional. The output of an assessment is a CPAC score.

The patient's CPAC score, relative to the DHB's service access threshold, is used to determine the patient's eligibility for publicly funded surgery or treatment. If a patient's CPAC score is below the service access threshold, then the patient is returned to the care of their GP (discharged) with the option of re-referral if their condition changes. If a patient's CPAC score is above the access threshold then the patient is:

- Booked (1): The patient is offered and has accepted the date to receive the procedure; or

- Given Certainty - (2): The patient has been offered a procedure and can expect to receive it within the maximum required waiting time (four months since January 2015); or the patient may be offered a procedure that is planned, staged or for surveillance, in which case the patient will receive the service outside the normal maximum required waiting time.

- If a patient's CPAC score is slightly below the access threshold they may be placed in Active Review (4). According to the Ministry of Health (2016b), 'Active Review' is a "clinical monitoring programme for patients whose condition is likely to deteriorate, such that the patient will qualify for treatment in the near future". Patients placed in Active Review have not met a DHB's treatment threshold and are not eligible for treatment with their current priority. Patients in Active Review must be reassessed every six months, and any changes to priority are reported as a booking status reassessment (7). If the patient reaches the service's access threshold, then their booking status is changed to Certainty Given *(2)*.

Summarising the above and relating it to Figure 7.3, the starting point for elective treatment can be either Procedure/Treatment Booked (1), Certainty Given (2) or Active Review (4).

- If the booking is cancelled, the patient is in a Deferred (5) or Rebooked (6) status. These patients are at a higher priority than patients with Certainty Given (2).

- Only one exit stop (20) is shown in Figure 7.3, but in reality, once in the boxed area, a patient may exit their journey at any point. NBRS exit categories not shown on the map include an exit due to a change in patient circumstances, the patient is treated acutely, or the patient is deemed to be unfit for surgery.

PUBLIC HOSPITAL ELECTIVE SERVICES

Referral Accepted

Time to First Specialist Assessment (ESPI 2)

FSA

Diagnostic Investigations

Follow-up Assessment(s)

CPAC Assessment

NATIONAL BOOKING REPORTING SYSTEM

Reassessment **7**

4 Active Review
CPAC Score decision outcome (ESPI 3)

Timely reassessment in Active Review (ESPI 6)

One Way

2 Certainty Given

1 Procedure/ Treatment Booked

5 Deferred

6 Rebooked

20 Time to Exit with treatment (ESPI 5)

KEY

Outpatient Clinic FSA-CPAC assessment

Active Review

Given Certainty to exit with treatment activity

National Booking Reporting System Booking Status

Figure 7.3: From Assessment to Treatment (Elective Service Journey: Part B)

7.1.3 Patient flow performance monitoring: ESPI compliance.

The Ministry of Health compiles DHB ESPI compliance reports from NBRS data and publishes them on its web site each month. In July 2006, the start of the study's ten-year compliance analysis, there were eight ESPI measures. ESPIs signal that the DHB has met the following performance expectations:

- A DHB service has appropriately acknowledged and processed 90% of FSA referrals within ten working days (ESPI 1). Compliance is reported at the service level (as a Yes or No response). Therefore, ESPI 1 does not measure the proportion of patients who have had referrals acknowledged within ten working days.

- The proportion of patients waiting for longer than the required timeframe for their first specialist appointment has not been exceeded (ESPI 2).

- The proportion of patients placed in Active Review when their CPAC score is greater than the actual treatment threshold has not been exceeded (ESPI 3).

- The proportion of patients who do not know whether they will be treated or not (Residual Booking Status) has not been exceeded (ESPI 4).

- The proportion of patients given a commitment to treatment but not yet treated within the required timeframe has not been exceeded (ESPI 5).

- The proportion of patients in an Active Review status, who have not received a clinical assessment within the last six months has not been exceeded (ESPI 6).

- The number of patients who have not been managed according to their assigned status and who should have received treatment has not been exceeded (ESPI 7).

- The proportion of patients exiting NBRS treated who were prioritised using nationally recognised processes or tools has been met (ESPI 8).

ESPI 4 and ESPI 7 were discontinued from 1 July 2012 and are excluded from the ten-year analysis.

Table 7.1 summarises changes to the scope of surgical and medical specialty NBRS reporting between July 2006 and June 2016. Initially the focus of DHB NBRS reporting was on surgical specialties. From July 2010, medical outpatient FSAs were reported. Since July 2012, cardiology and gastroenterology treatments and diagnostic procedures have been reported.

Table 7.1: National Booking Reporting System and Patient Flow Compliance: Specialty Scope (2006-2016)

Timeframe	Surgical Specialty ESPIs	Medical Specialty ESPIs
July 2006-June 2010	ESPIs 1 & 2 (Outpatient) ESPIs 3, 4, 5,6,7,8 (Inpatient)	
July 2010 – June 2012	ESPIs 1 & 2 (Outpatient) ESPIs 3, 4, 5,6,7,8 (Inpatient)	ESPIs 1 & 2 (Outpatient)
July 2012 – June 2016	ESPIs 1 & 2 (Outpatient) ESPIs 3, 5, 6 & 8 (Inpatient)	ESPIs 1 & 2 (Outpatient) ESPI 5 (Inpatient)

Note: ESPI is an Elective Service Patient Flow Indicator. Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

ESPI compliance buffer levels are shown in Table 7.2. The definition of an ESPI is important when considering the significance of a buffer. The definitions of ESPI 1 and ESPI 8 are phrased to describe an expectation that a performance standard will be met in a proportion of cases. Whereas ESPIs 2 to 7 are phrased to describe an expectation that a proportion of patients will not meet a performance standard. Some buffers were reduced in August 2010; ESPI 2 by 0.5% and ESPI 5 by 1%. From July 2012, the performance standard became that all patients must comply with government performance expectations. Maximum waiting times were reduced from six months to five months in July 2013 and from five months to four months in January 2015.

Table 7.2: ESPI Compliance Buffers (July 2006-June 2016)

	Jul 2006-Jul 2010	Aug 2010-Jun 2012	Jul 2012-Jun 2013[1]	Jul 2013-Dec 2014[2]	Jan 2015 – June 2016[3]
ESPI 1	>90%	>90%	100%	100%	100%
ESPI 2	<2%	<1.5%	0%	0%	0%
ESPI 3	<5%	<5%	0%	0%	0%
ESPI 4	<5%	<5%	-	-	-
ESPI 5	<5%	<4%	0%	0%	0%
ESPI 6	<15%	<15%	0%	0%	0%
ESPI 7	<5%	<5%	-	-	-
ESPI 8	>90%	>90%	100%	100%	100%

Note: [1] Required service delivery timeframe: six months. [2] Required service delivery timeframe: five months.
[3] Required timeframe for service delivery was four months. Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

Whilst DHBs have been required to be compliant against all ESPI buffers, the Ministry of Health (2016b, p. 4) cautions that the achievement of full ESPI compliance does not mean a DHB service does not have service access issues.

7.1.4   The reporting of performance: DHB summary and specialty level reports.

The study has analysed DHB ESPI compliance reports from 2006-2016. These reports are compiled by the Ministry of Health from NBRS national collection data. The reports are published monthly on the Ministry's website. There are two types of monthly ESPI reports: standardised and non-standardised. Figure 7.4 (next page) is an example of a standardised report for July 2013. The purpose of standardisation is to support DHB comparison. Figure 7.5 and Figure 7.6 provide examples of non-standardised ESPI reports.

DHB ESPI performance should be read from top to bottom and traffic-light colours provide an 'at-a-glance' view of compliance. The three columns associated with each ESPI are: Level; Status %; and Improvement Required. The following explanations are useful when examining these reports.

Level: The number of specialties or patients who were not managed in line with the expectations described by that ESPI at the end of the reporting month.

Status: Status achievement (shown as a percentage); the status cell on the report is colour-coded according to compliance achievement. Green indicates the DHB has fully met the compliance target level. Yellow indicates near to, but not yet reached. Red, indicates non-compliance.

Improvement Required: The number of patients or specialties needed to meet the compliance goal.

Whilst the use of traffic-light colours facilitates the understanding of compliance status, ESPI reports do not indicate the total volume of patients on DHB booking systems or the ratio of acute and elective service delivery for a particular month.

National comparison of DHBs for July 2013

	1. DHB services that appropriately acknowledge and process patient referrals within ten working days.			2. Patients waiting longer than the required timeframe for their first specialist assessment (FSA).			3. Patients waiting without a commitment to treatment whose priorities are higher than the actual treatment threshold (aTT).			5. Patients given a commitment to treatment but not treated within the required timeframe.			6. Patients in active review who have not received a clinical assessment within the last six months.			8. The proportion of patients treated who were prioritised using nationally recognised processes or tools.		
	Level	Status %	Imp Req.	Level	Status %	Imp Req.	Level	Status %	Imp Req.	Level	Status %	Imp Req.	Level	Status %	Imp Req.	Level	Status %	Imp Req.
Auckland	33 of 33	100.0%	0	24	0.2%	-24	0	0.0%	0	18	0.4%	-18	0	0.0%	0	1814	96.7%	62
Bay of Plenty	22 of 22	100.0%	0	0	0.0%	0	0	0.0%	0	4	0.2%	-4	0	0.0%	0	880	100.0%	0
Canterbury	27 of 27	100.0%	0	334	3.7%	-334	59	0.3%	-59	91	2.1%	-91	0	0.0%	0	1618	100.0%	0
Capital and Coast	23 of 23	100.0%	0	0	0.0%	0	1	0.0%	-1	1	0.0%	-1	0	0.0%	0	955	100.0%	0
Counties Manukau	20 of 20	100.0%	0	0	0.0%	0	15	0.1%	-15	0	0.0%	0	9	2.6%	-9	1507	100.0%	0
Hawkes Bay	17 of 17	100.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	385	100.0%	0
Hutt Valley	15 of 15	100.0%	0	20	0.7%	-20	4	0.1%	-4	31	2.4%	-31	45	24.6%	-45	458	100.0%	0
Lakes	16 of 16	100.0%	0	8	0.3%	-8	0	0.0%	0	1	0.1%	-1	0	0.0%	0	377	100.0%	0
MidCentral	23 of 23	100.0%	0	2	0.0%	-2	32	0.5%	-32	15	1.0%	-15	2	4.1%	-2	629	100.0%	0
Nelson Marlborough	21 of 21	100.0%	0	0	0.0%	0	18	0.3%	-18	0	0.0%	0	12	11.2%	-12	484	100.0%	0
Northland	15 of 15	100.0%	0	12	0.4%	-12	2	0.0%	-2	14	0.6%	-14	1	8.3%	-1	629	100.0%	0
South Canterbury	14 of 14	100.0%	0	0	0.0%	0	1	0.0%	-1	1	0.2%	-1	0	0.0%	0	226	100.0%	0
Southern	28 of 28	100.0%	0	68	1.0%	-68	106	1.2%	-106	16	0.6%	-16	61	13.5%	-61	313	100.0%	0
Tairawhiti	17 of 17	100.0%	0	0	0.0%	0	1	0.1%	-1	0	0.0%	0	0	0.0%	0	154	100.0%	0
Taranaki	21 of 21	100.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	355	100.0%	0
Waikato	25 of 25	100.0%	0	32	0.3%	-32	1	0.0%	-1	137	2.6%	-137	0	0.0%	0	1443	99.9%	1
Wairarapa	14 of 14	100.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	101	100.0%	0
Waitemata	19 of 20	95.0%	1	14	0.2%	-14	26	0.2%	-26	24	0.8%	-24	0	0.0%	0	897	100.0%	0
West Coast	17 of 18	94.4%	1	4	0.6%	-4	0	0.0%	0	4	1.6%	-4	0	0.0%	0	150	100.0%	0
Whanganui	10 of 10	100.0%	0	0	0.0%	0	0	0.0%	0	2	0.3%	-2	0	0.0%	0	233	100.0%	0
Total:				518			288			359			130			13610		

Notes:
1. Before July 2013 the required timeframe for an FSA for ESPI 2 is 6 months, after July 2013 the required timeframe for ESPI 2 is 5 months.
2. Before July 2013 the required timeframe for treatment for ESPI 5 is 6 months, after July 2013 the required timeframe for ESPI 5 is 5 months.
3. ESPIs that apply from 1 July 2012.
4. ESPI results do not include non-elective patients, or elective patients awaiting planned, staged or surveillance procedures.
5. ESPIs 3 and 8 assess surgical specialties where patients are prioritised using nationally recognised tools.
6. Medical specialties are currently included in ESPI 1, 2 and 5 results but excluded from other ESPI results.
7. ESPI 1 and 8 will be Green if 100%, Yellow if between 90% and 99.9%, and Red if 90% or less.
8. ESPI 2 will be Green if 0 patients, Yellow if greater than 0 patients and less than 0.39%, and Red if 0.4% or higher.
9. ESPI 3 will be Green if 0 patients, Yellow if greater than 0 patients and less than 4.99%, and Red if 5% or higher.
10. ESPI 5 will be Green if 0 patients, Yellow if greater than 0 patients and less than 0.99%, and Red if 1% or higher.
11. ESPI 6 will be Green if 0 patients, Yellow if greater than 0 patients and less than 14.99%, and Red if 15% or higher.
Please contact the Ministry of Health's Electives team if you have any queries about ESPIs (elective_services@moh.govt.nz).

Data Warehouse Refresh Date: 31/Aug/2013
Report Run Date: 02/Sep/2013

Figure 7.4: National comparison of DHBs: Patient flow indicators (ESPI) monthly report

Note: Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

Summary of Patient Flow Indicator (ESPI) results for the 12 months to July 2013

DHB Name: Hutt Valley

	2012 Aug			2012 Sep			2012 Oct			2012 Nov			2012 Dec			2013 Jan			2013 Feb			2013 Mar			2013 Apr			2013 May			2013 Jun			2013 Jul		
	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.	Level	Status %	Imp. Req.
1. DHB services that appropriately acknowledge and process patient referrals within ten working days.	15 of 15	100.0%	0	15 of 15	100.0%	0	15 of 15	100.0%	0	15 of 15	100.0%	0	15 of 15	100.0%	0	15 of 15	100.0%	0	15 of 15	100.0%	0	15 of 15	100.0%	0	15 of 15	100.0%	0	15 of 15	100.0%	0	15 of 15	100.0%	0	15 of 15	100.0%	0
2. Patients waiting longer than the required timeframe for their first specialist assessment (FSA).	11	0.3%	-11	29	0.8%	-29	15	0.4%	-15	18	0.5%	-18	13	0.4%	-13	22	0.6%	-22	20	0.6%	-20	9	0.3%	-9	13	0.4%	-13	38	1.2%	-38	0	0.0%	0	20	0.7%	-20
3. Patients waiting without a commitment to treatment whose priorities are higher than the actual treatment threshold (aTT).	79	1.5%	-79	64	1.2%	-54	62	1.2%	-62	61	1.2%	-61	60	1.2%	-60	52	1.0%	-52	54	1.0%	-54	4	0.1%	-4	4	0.1%	-4	4	0.1%	-4	5	0.1%	-5	4	0.1%	-4
5. Patients given a commitment to treatment but not treated within the required timeframe.	22	1.8%	-22	14	1.1%	-14	6	0.5%	-6	15	1.1%	-15	13	0.9%	-13	17	1.3%	-17	13	0.9%	-13	12	0.8%	-12	10	0.7%	-10	10	0.7%	-10	0	0.0%	0	31	2.4%	-31
6. Patients in active review who have not received a clinical assessment within the last six months.	6	2.8 %	-6	7	3.3 %	-7	8	3.8 %	-8	17	7.6 %	-17	11	4.7 %	-11	19	8.8 %	-19	32	14.5 %	-32	53	23.0 %	-53	75	34.2 %	-75	18	8.4 %	-18	23	11.3 %	-23	45	24.5 %	-45
8. The proportion of patients treated who were prioritised using nationally recognised processes or tools.	460	100.0%	0	427	100.0%	0	471	100.0%	0	453	100.0%	0	342	100.0%	0	419	100.0%	0	404	100.0%	0	455	100.0%	0	516	100.0%	0	553	100.0%	0	347	100.0%	0	458	100.0%	0

Notes:
1. Before July 2013 the required timeframe for an FSA for ESPI 2 is 6 months, after July 2013 the required timeframe for ESPI 2 is 5 months.
2. Before July 2013 the required timeframe for treatment for ESPI 5 is 6 months, after July 2013 the required timeframe for ESPI 5 is 5 months.
3. ESPIs that apply from 1 July 2012.
4. ESPI results do not include non-elective patients, or elective patients awaiting planned, staged or surveillance procedures.
5. ESPIs 3 and 8 assess surgical specialties where patients are prioritised using nationally recognised tools.
6. Medical specialties are currently included in ESPI 1, 2 and 5 results but excluded from other ESPI results.
7. ESPI 1 and 8 will be Green if 100%, Yellow if between 90% and 99.9%, and Red if 90% or less.
8. ESPI 2 will be Green if 0 patients, Yellow if greater than 0 patients and less than 0.39%, and Red if 0.4% or higher.
9. ESPI 3 will be Green if 0 patients, Yellow if greater than 0 patients and less than 4.99%, and Red if 5% or higher.
10. ESPI 5 will be Green if 0 patients, Yellow if greater than 0 patients and less than 0.99%, and Red if 1% or higher.
11. ESPI 6 will be Green if 0 patients, Yellow if greater than 0 patients and less than 14.99%, and Red if 15% or higher.
Please contact the Ministry of Health's Electives team if you have any queries about ESPIs (elective_services@moh.govt.nz).

Figure 7.5: DHB summary of Patient Flow Indicator (ESPI) results 12 monthly report

Note: Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

Summary of Patient Flow Indicator (ESPI) results for each DHB

DHB Name: MidCentral

Ophthalmology

	2012 Jul Level	Status %	Imp. Req.	2012 Aug Level	Status %	Imp. Req.	2012 Sep Level	Status %	Imp. Req.	2012 Oct Level	Status %	Imp. Req.	2012 Nov Level	Status %	Imp. Req.	2012 Dec Level	Status %	Imp. Req.	2013 Jan Level	Status %	Imp. Req.	2013 Feb Level	Status %	Imp. Req.	2013 Mar Level	Status %	Imp. Req.	2013 Apr Level	Status %	Imp. Req.	2013 May Level	Status %	Imp. Req.	2013 Jun Level	Status %	Imp. Req.
1. DHB services that appropriately acknowledge and process all patient referrals within ten working days.	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0	1 of 1	100.0%	0
2. Patients waiting longer than six months for their first specialist assessment (FSA).	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	2	0.5%	-2	0	0.0%	0	1	0.2%	-1	4	1.0%	-4	5	1.1%	-5	3	0.8%	-3	1	0.3%	-1	0	0.0%	0
3. Patients waiting without a commitment to treatment whose priorities are higher than the actual treatment threshold (aTT).	0	0.0%	0	0	0.0%	0	0	0.0%	0	3	0.3%	-3	0	0.0%	0	1	0.1%	-1	1	0.1%	-1	12	1.2%	-12	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0
5. Patients given a commitment to treatment but not treated within six months.	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0
6. Patients in active review who have not received a clinical assessment within the last six months.	0	X	0	0	X	0	0	X	0	0	0.0%	0	0	X	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	X	0	0	X	0	0	X	0	0	X	0
8. The proportion of patients treated who were prioritised using nationally recognised processes or tools.	76	100.0%	0	99	100.0%	0	82	100.0%	0	68	100.0%	0	95	100.0%	0	83	100.0%	0	84	100.0%	0	102	100.0%	0	97	100.0%	0	102	100.0%	0	100	100.0%	0	81	100.0%	0

Data Warehouse Refresh Date: 07/Aug/13
Report Run Date: 07/Aug/13

Notes:
1. ESPIs that apply from 1 July 2012.
2. ESPI results do not include non-elective patients, or elective patients awaiting planned, staged or surveillance procedures.
3. ESPIs 3 and 8 assess surgical specialties where patients are prioritised using nationally recognised tools.
4. Medical specialties are currently included in ESPI 1, 2 and 5 results but excluded from other ESPI results.
5. ESPI 1 and 6 will be Green if 100%, Yellow if between 90% and 99.9%, and Red if 90% or less.
6. ESPI 2 will be Green if 0 patients, Yellow if greater than 0 patients and less than 0.39%, and Red if 0.4% or higher.
7. ESPI 3 will be Green if 0 patients, Yellow if greater than 0 patients and less than 4.99%, and Red if 5% or higher.
8. ESPI 5 will be Green if 0 patients, Yellow if greater than 0 patients and less than 0.99%, and Red if 1% or higher.
9. ESPI 6 will be Green if 0 patients, Yellow if greater than 0 patients and less than 14.99%, and Red if 15% or higher.
Please contact the Ministry of Health's Electives team if you have any queries about ESPIs (elective_services@moh.govt.nz).

Figure 7.6: DHB specialty Patient Flow Indicator (ESPI) results 12 monthly report

Note: Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

7.2 Sensegiving and Sensemaking of Priorities and Practices

This section uses the top-down ILP lens to examine how study participants described the government's performance expectations and the five organisational practices shown in Figure 7.7. The five patient flow management practices were: *Clinical Prioritisation*, *Giving Patients Certainty*, *Managing Service Delivery Waiting Times*, *National Data Collection Reporting,* and *Performance Evaluation*. Practices are described in the sequence they occur in the patient journey, and the DHB ESPI compliance analysis is integrated with interview narrative.
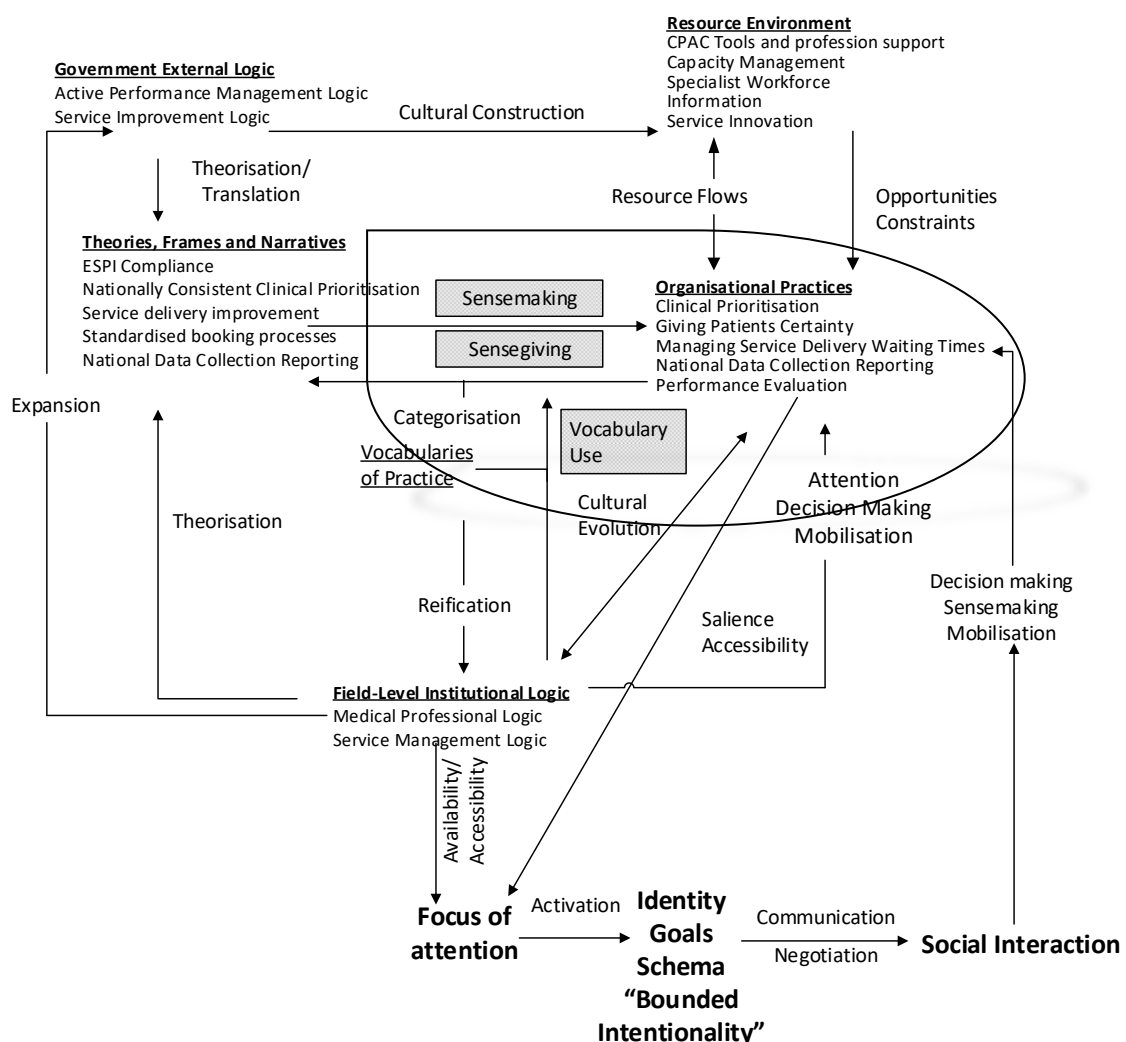
Figure 7.7: Making sense of organisational practices: Manage patient flow

7.2.1   Nationally consistent clinical prioritisation.

The nationally consistent clinical assessment RWT sub-strategy (Ministry of Health, 2000, p. 7) aims to ensure that clinicians are using assessment criteria that: supports consistent decision-making, service delivery is prioritised in order of need, the DHB does not provide futile or marginal procedures, and that prioritisation data informs accurate inter-regional comparisons. As discussed in section 7.2.1, the hospital booking system relies on CPAC score and the use of a service access threshold to determine a patient's service coverage. According to the Ministry of Health (2014f, p. 8), prioritisation assessment tools are designed to cover 90 – 95% of patient conditions.

Several specialist interviewees in this study described how they were actually supportive of the principle of service prioritisation but were cynical about system implementation:

> It is a good system, but it is flawed, that would be the best way to describe it. I think there is an understanding in the public that they have free and relatively complete health care, but the reality is they don't by a long shot . . . The politicians trumpet how well they are doing and say how badly an individual DHB does, but no-one is actually coming out and saying what's not done.(MD3) (Sensegiving, Clinical Prioritisation)

Other interviews described their concerns about transparency with patients around service access:

> It's stressful and uncomfortable to say to a patient , "We can't actually help you." . . . It's morally reprehensible to say to somebody: "You will have an operation. I will put you on the waiting list" with no expectation that you can actually deliver it. (MD4) (Sensemaking, Clinical Prioritisation)

Two interviewee described the 'soft-selling' of the RWT Strategy to specialists. The root cause of the problem was seen to be the management of clinician and patient expectations about the purpose of clinical prioritisation:

> I think we were fed all sorts of half-truths and led to believe that this was going to be a simple system that would help us to do the job. That was the Ministry's message. But those of us who looked at the literature had a different view. . . . we are doing is

rationing and we are not allowed to say it. Waiting lists became waiting times and suddenly it was not appropriate to use the term rationing, so we used prioritisation. I think the public can accept the truth. If the system is as expensive as is claimed, and I don't agree with that, then they deserve to be told. (MD2) (Sensemaking, Clinical Prioritisation)

It was introduced, as we often do with service improvement, on a gentle basis . . . there is going to be no penalty if you don't. Just see if it makes sense to you. It begins to drive things . . . they were trying a lot to rearrange systems in the guise of governance . . . Of course they got caught in the trap of making people accountable, but not giving them any responsibility. (MD4) (Sensegiving, Clinical Prioritisation)

Several Specialists were concerned about deferring treatment and the impact on patients' long term health needs:

At the end of the day, if a 100 people need a joint replacement then a 100 people need a joint replacement. A tool doesn't change that. It is meaningless. It is not a helpful thing to do. The implication is that we only do the worst patients, and we need a tool to tell us who the worst patients are. We can only do what we can manage. But that's not public health care. That is not solving the bigger issue problem. It might solve this year's budget but it doesn't solve health care. (MD3) (Sensemaking, Clinical Prioritisation)

The government has a 3-year performance cycle; medicine has a much longer performance cycle. So putting off care early on does not save money. When it comes back, it comes back with more complications, costing more. It would have been cheaper to treat it initially. (MD2) (Sensemaking, Clinical Prioritisation)

The practicalities of scoring patients and tool reliability were also discussed in interviews:

We have a rule that the nurses do the prioritisation. . . The tool is out in referral agencies . . . If it is not completed we send it back, and say we need to have this CPAC completed. Partly on the basis of that, we decide whether we are going to see them or not. Because our score at any one time . . . sets the level at which we say we will see them. (MD1) (Assessor Scoring)

The process of prioritisation was described in terms of a combined scoring system:

> Most of the score is made up of patient responses and a proportion is made up by the surgeon. So there are flaws in both of that. The surgeon response is based on the last three patients they have seen. You cannot remember the last 100 patients and have an even scoring system. All I can do is to say "I think you need surgery, I think you need surgery badly, or I don't think you need surgery.". . . Priority is either on or off . . . That's not a prioritisation tool. It is not being used as it was developed to be used. It's being used to restrict surgery and that's what make it iniquitous. (MD3) (Clinical Prioritisation, Sensegiving)

One clinician (MD3) described the situation as a 'surgeon lottery' and one where *pooled surgery* could not be easily done. Pooled surgery is where a patient's procedure is performed by the next available clinician. The clinician assessing the patient may not be the clinician performing the surgery.

> It is so iniquitous . . . if you see surgeon A and surgeon A has seen a lot of patients, his score threshold will rise. If you see surgeon B, who has seen fewer patients, his threshold will be lower because his waiting list is being processed more effectively. You should send surgeon A's patients to surgeon B. But, because there is no observed inter-reliability on the scoring system, you can't necessarily say the score that surgeon A's patient got would be the same score as surgeon B . . . That is a failed system. There is nothing good about a system that allows that to happen. (MD3) (CPAC Score, Reliability, Focus of attention, Sensemaking)

Where exceptional circumstances exist, the clinician can legitimately override a patient's booking status. If a tool has produced a score that a clinician does not agree with, clinical over-ride can be used. DHB practices for using clinical over-ride varied.

> I don't over-ride my patients because I can't do everyone that comes to see me needing surgery - not even close. In fact, I can't do most of them. So overriding patients just wrecks the whole system, so I don't do that. (MD3) (Sensemaking, Clinical Prioritisation)

Another area of interview discussion was the sensegiving of priority using the CPAC score. The value of scoring a patient precisely on a scale of 0-100 was questioned by several interviewees who considered a simpler system would be more beneficial:

> I think it is worthwhile to have a tiered system . . . maybe three categories, from elective all the way to urgent. . . . People are quite good, if given a series of clinical scenarios, at reliably putting them in order . . . but when it comes to writing down strict criteria, under which you categorise them, I think you frequently find great diversity in interpreting those. (MD2) (Sensemaking, Clinical Prioritisation)

Several service managers observed that the CPAC score is not always an indication of the actual priority and required waiting time for a patient:

> Sometimes the score doesn't indicate (waiting time) priority, it determines whether you will receive surgery or not . . . You might get a score of 100 for a spinal condition, but clinically you can still wait 4 months. Other services will score cancers at 100 and they will need to be done within 4 weeks. (ESM2)

Another Service Manager agreed:

> If you just look at the scatter plots of CPAC score against time to treat, and universally there is no pattern, it is no different than before they were invented . . . if you look at how CPAC tools are used in reality . . . they will all, universally, get translated into some kind of maybe 3, 4, or 5 buckets of priority. (GSM1) (Sensemaking, Clinical Prioritisation)

The RWT Strategy aims to achieve nationally consistent clinical prioritisation and equitable access to services. However several Service Manager interviewees observed the sensegiving and sensemaking of CPAC are not aligned in practice:

> My view of it is that DHBs have put in these tools to a varying degree and they use them in an 'individual DHB kind of way' and so, if you have a score of 90 from [one DHB] and you are trying to compare that to a 90 from [another] you wouldn't be comparing apples to apples. (ESM2) (Sensemaking, Clinical Prioritisation)

They might be using the tool in a similar way but they make the score based on their financial threshold, it's not on acuity. (P1) (Clinical Prioritisation, Sensegiving)

Several Service Managers agreed that the clinicians had been led to believe that acceptance for services would be on the basis of clinical need and ability to benefit. This conception has been virtually impossible to shake off:

A lot of them (the specialists) are still in the mind-set where they are dealing with the patient in front of them, "Would they benefit from surgery or not?" That is the one question they are asking. If they say "Yes", then they think they should go on the waiting list. (ESM2) (Sensegiving, Clinical Prioritisation)

Executive interviewees acknowledged the clinical prioritisation process challenges the specialists:

I think the view in Wellington and our views in reality are very different . . . a lot of the ops managers and service managers will have told you, people game the system. That's the problem with electives, the system is gameable and it's gameable by the people you are reliant on to treat the patients. So it's all care and no responsibility for them. One of the ways of managing is, obviously, to increase the treatment threshold and tighten the front door, and that's what we had to do with a number of services. (ELT2) (Clinical Prioritisation, Gaming)

7.2.1.1   *ESPI 8 compliance analysis.*

The OAG (2011, p. 53) observed that the use of local tools restricts the use the Ministry of Health can make of prioritisation data to monitor progress in national equity of service access. However, the Ministry of Health's own ESPI guidelines state that ESPI 8 is neither a measure of equity of access nor a measure of the quality of procedures being reported to NBRS (Ministry of Health, 2006a, p. 21; 2016b). Therefore, the Ministry of Health appears to be conceding that the value of ESPI 8 compliance may be limited. The purpose of ESPI 8 compliance analysis in this study is to understand what ESPI 8 signals about DHB performance.

Table 7.3 presents a summary of ESPI 8 compliance at the DHB Summary Level. Over the ten year timeframe, there have been three definitions of ESPI 8 full compliance:

1. Between 1 July 2006 and 30 June 2012, DHBs were fully compliant if more than 90% of patients were prioritised using nationally recognised processes or tools. 60% of DHBs managed to maintain full compliance for the entire 72 month timeframe. By 30 June 2012 all DHBs had managed to maintain 12 months of ESPI 8 full compliance.

2. From 1 July 2012, DHBs were fully compliant if all patients were prioritised using nationally recognised processes or tools. Over a period of 36 months, 70% of DHBs were able to maintain full compliance and the remaining 30% managed to achieve greater than 95% compliance.

3. From July 2015, the number of approved CPAC tools were notably reduced (Ministry of Health, 2016b, p. 21). The number of DHBs fully compliant for this period dropped to 35% (7). All DHBs achieved compliance 95% of the time.

Table 7.3: ESPI 8 Compliance Analysis

Timeframe	Months in timeframe	DHBs – Fully Compliant	95-99% Compliant	<95% Compliant
July 2006-June 2012	72	12	5	3
July 2012-June 2015	36	14	3	3
July 2015-June 2016	12	7	5	8

Note: Otago and Southland DHB merged in 2010 and the ESPI 8 performance of these DHBs has been classed as Southern DHB's results.
Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

What is interesting about Table 7.3 is that when a buffer is 100%, only one patient, an administrative error, or a procedure that does not have a recognised tool, can result in a DHB being ESPI 8 non-compliant. Since the Ministry of Health (2014f, p. 8) acknowledge prioritisation assessment tools are designed to cover 90 – 95% of patients, it is unclear why the buffer is 100%. How can a DHB with a specialty CPAC tool that does not cover all procedures ever be fully compliant?

Table 7.4 shows the frequency, by specialty, of ESPI 8 red status. From 1 July 2012, nationally recognised tools were well-established. Table 7.4 shows that the specialties with apparent long-standing issues are Vascular Surgery (Auckland DHB) and Cardiothoracic Surgery.

Table 7.4: ESPI 8 red compliance status: specialty-DHB count (2006-2016)

	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
Cardiothoracic	2	1		1			2	2	1	2
Dental	3	1								
Ear Nose Throat	1									2
General Surgery		5	2					1		
Gynaecology	2		1							
Neurosurgery	1							1		
Orthopaedics	2	1	1	2	1					
Paediatric Surg.	1	1	1						1	
Plastics	1	1								
Thoracic			1	1						
Urology			2							
Vascular			3	1	1	1	1	1	1	1
Fin. Year Total	13	10	11	5	2	1	3	5	3	5

Note: Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

Whilst ESPI 8 data was being entered, an unusual compliance pattern was noticed with Cardiothoracic Surgery. Cardiothoracic Surgery is offered by five DHBs: Auckland, Canterbury, Capital and Coast, Southern and Waikato. Table 7.5 illustrates ESPI 8 compliance. Capital and Coast and Southern DHBs have been fully compliant over the ten-year timeframe. However, Auckland, Canterbury and Waikato DHBs' compliance have been variable. Partial compliance can only be explained where there are procedures that do not have a nationally recognised CPAC tool.

Table 7.5: Cardiothoracic Surgery ESPI 8 Traffic Light Compliance Indicator % Distribution by DHB and Financial Year (2006-2016)

	Green	Orange /Yellow	Red
Auckland	38%	28%	34%
Canterbury	75%	13%	12%
Capital & Coast	100%		
Southern	100%		
Waikato	66%	31%	3%

Note: Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

The significance of ESPI 8 cardiothoracic non-compliance was investigated using a subset of NBRS data (non-patient identified) for the financial years 2006/07-2013/14. The dataset is for patients exiting NBRS with an exit code of 11 (Patient received publicly funded elective

treatment) and Health Specialty Code of S15 (Cardiothoracic Surgery). NBRS data was refreshed twice, on 26/12/2014 for data from July 2006 to May 2010; and on 26/12/2015 for data from June 2010 to June 2014.

The purpose of the analysis was to examine consistency of the CPAC tool with a procedure over time. Table 7.6 shows National CPAC tools have been available for use by the cardiothoracic surgery specialty since 2006/07, and it shows the number of cardiothoracic procedures submitted for each CPAC tool. CPAC tool type can be locally recognised (Local), nationally recognised (National) or locally developed but nationally recognised (Local/National). There were five Local, two Local/National tools and nine National developed tools over an eight year timeframe. CPAC tool 0143 was used only by Auckland DHB and CPAC tool 0263 was used only by Canterbury DHB. Both these tools were discontinued from July 2008.

Table 7.6: Cardiothoracic Procedures: CPAC tool reporting (2006/07-2013/14)

CPAC Tool	CPAC Tool type	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	Grand Total
0120	Local	3	6	11	6	13	17	18	20	94
0143	Local	87	6							93
0145	Local	3	7	4	8	10	5	4	1	42
0262	Local	6	30	21	44	60	83	64	98	406
0263	Local	282	263							545
8023	Local/National			35	88	108	123	150	108	612
8054	Local/National		40	212	144	42	24	27	30	519
9071	National	280	241	415	393	403	400	350	308	2790
9072	National	116	111	165	189	225	177	182	154	1319
9073	National	55	50	98	59	56	83	79	77	557
9074	National	99	171	224	279	222	322	321	341	1979
9075	National	61	100	113	119	134	133	167	130	957
9076	National	120	259	305	256	227	252	273	169	1861
9079	National								17	17
9082	National						4			4
9260	National	2	1			5		1		9
Grand Total		1114	1285	1603	1585	1505	1623	1636	1453	11804

Note: CPAC tool type can be locally recognised (Local), nationally recognised (National) or locally developed but nationally recognised (Local/National).
Cardiothoracic procedure data from cardiothoracic anonymised NBRS Dataset (Ministry of Health, 2014l).

In order to examine whether a Local CPAC tool has been used because a National tool was unavailable, the analysis has focussed on Canterbury DHB's use of the 0145 CPAC tool.

Table 7.7 shows fifteen ICD procedures, (60 cases), that have been submitted to NBRS with the 0145 CPAC tool. For eleven ICD procedures (18 cases), the 0145 tool was used exclusively. For three highlighted ICD procedures (20 cases), the 0145 tool was discontinued after the 07/08 year and a Local/National (8023) or National (9074 or 9075) tool has been used instead. For one procedure, ICD Code 3855603 (22 cases), a National (9074) tool was used once in 2010/11, but the 0145 tool has continued to be used. It is not known if the latter was an administrative error, since this procedure is only reported by Canterbury in the dataset.

Table 7.7: Cardiothoracic specialty Local CPAC Scoring Tool (0145) Canterbury DHB Pattern of Use (Number of Cases for Procedure by financial year)

Clinical Code (ICD10)	CPAC Tool	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	Total Cases	Tool Type
3317200	0145					1		1		2	Local
3414500	0145							1		1	Local
3845200	0145						1			1	Local
3845606	0145		1					2		3	Local
3847701	0145				1					1	Local
3848903	0145				1					1	Local
3855601	0145			1						1	Local
3856501	0145						1			1	Local
3864700	0145			1	1					2	Local
3874202	0145	1			3					4	Local
9020103	0145		1							1	Local
3848300	0145	1								1	Local
	8023						1	1		2	Local-National
	9074								4	4	National
3855603	0145	1	3	2	2	9	3		1	21	Local
	9074					1				1	National
3856503	0145		1							1	Local
	8023				1					1	Local-National
	9074					2		1		3	National
	9075							1		1	National
3865308	0145		1							1	Local
	8023							3	3	6	Local-National

Note: Cardiothoracic tool data from cardiothoracic anonymised NBRS Dataset (Ministry of Health, 2014l).

From this analysis, it would appear that Canterbury DHB is choosing to use a Local tool to code selected procedures because the National tool is unsuitable. Therefore, the DHB is ESPI 8 non-compliant for reasons that are out of its control.

The Ministry was asked why Local tools have not been nationally recognised and gave the following response:

> Where National Clinical Prioritisation Tools haven't existed, which is still the case in some specialties, DHBs have been able to develop local clinical prioritisation tools, which then needed to be 'nationally recognised' before being deemed acceptable for use. Some DHBs (such as Auckland in General Surgery) developed local tools that may not cover all conditions. So possibly, these patients who were non ESPI-8 compliant could have consciously been omitted from use of the local tool as it wasn't suitable; or there was an administration or data error (where an incorrect tool code was submitted or not submitted at all); or the patient may have presented acutely and then just been put on an elective waiting list without the formal prioritisation step. (January 2016, Personal Communication)

7.2.2 Giving patients certainty.

The Giving Patients Certainty sub-strategy of the RWT Strategy is concerned with the development of minimum patient information requirements to ensure patients are given clarity in respect of a service being provided by a public hospital.

Interviewees were asked questions about the clarity given to patients in respect of services, the setting of procedure/treatment service access thresholds, and the use of CPAC scores to determine which patients are Given Certainty and which are placed in Active Review.

A Clinical Specialist and Primary Care Representative observed that the reduction in waiting time to four months had actually reduced patients' level of certainty:

> I think now what people hate about the current system is that they can't even get seen by a specialist; because some mysterious person, whom they don't know, has decided their case isn't important enough to get an assessment. I think they find that very unnerving . . . a small group have absolute certainty and a very large group have no certainty at all." (MD2, Give Patients Certainty)

The two determinants of access to publicly funded treatment are: (1) if clinical assessment determines treatment is the best option, and (2) the DHB has capacity to provide treatment within the required timeframe (Ministry of Health, 2014f, p. 11). Each DHB service needs to

specify its own access thresholds and once in place, thresholds should be used to match service demand to service capacity. The Ministry of Health also expects that a DHB service will set its acceptance threshold at a procedural level, to optimise its achievement of any standardised intervention rates and standardised discharge ratios.

A DHB might increase its financial investment in a service level or it may lower its service access threshold score to increase delivery of a procedure. As discussed in Chapter Two, service access threshold is the score or priority, at or above which, assessment or treatment will be supplied to a patient. All incumbent Service Managers said they try not to alter the service access threshold, since this creates an impression to referrers that a service is being reactive. Determining the service access threshold also needs to take into account any seasonal variation in the service, such as December/January holidays and other special leave, such as conferences.

One service manager described deciding to change the access threshold as being done rather 'crudely' by sight:

> When I see the third folder filling up . . . So then I will go through a process of consultation and then go to the Clinical Director . . . It is trimmed like the sails from time to time. (ESM3) (Access Thresholds)

Some Service Managers described tensions that arise between clinicians and management over determining access threshold. One manager observed that the access threshold score was sometimes used as the default score. This makes it very difficult for a service to define access threshold based on clinical evidence:

> They were saying, "You know I might see someone today and think she is not that bad, but over the week she is the worst patient I have seen." . . . You can't go "I am going to see 40 people over a week, and I am going to pick 3 of them." If you use the tool and all of the 40 score above (the threshold), then actually we need to look at that. But we never had really clear, accurate evidence to say "You want the target (access threshold) to be this." (ESM1) (Service Access threshold)

Another manager observed that clinicians do not always have visibility of their service's capacity when scoring patients:

> It's not clear for the guys in the clinic. They see a patient in front of them who has a surgical need who, if they score honestly, will score above the threshold; which means they can put more people onto their list than they can physically take off. There is no way I can restrict them because it is a clinical decision. So, I can't say to them, "Actually you can only put 5 on because on average you do 5 a month. They will say patients 6, 7 and 8 really need their surgery." . . . Before you could have a couple of patients that fell out for whatever reason . . . [now] you have to be compliant every month. (ESM5) (Access Thresholds)

Another interviewee described uncertainty by the triaging clinician:

> There is always that grey zone around the boundary. . . The triagers are always asking us, "Can I put 1 more on?" I understand where they are coming from; they get 11 people and they have got 10 slots . . . So they hold them over to the next week. Then yet again, we get another 11 people - so now they have got 2 to say "no" to. . . . I would say "Maybe we can let 11 in, if there is a good turnaround time but, if you push me for a number it is going to be 10 because then we won't bow out." (GSM2) (Giving Patients Certainty)

One Service Manager described how difficult it is to tell patients the DHB does not have capacity to treat them:

> Part of it is getting those words right. You don't just tell someone that they can't have surgery. You absolutely acknowledge they would benefit from it, but we don't have the capacity to do the surgery, so someone misses out. (ESM7)

Several interviewees said 'Active Review' was no longer being used because of the four month waiting time:

> We are stopping the use of Active Review because, in reality, we are never going to get to you . . . The benefits of shorter waiting times are that if you have really deteriorated and you have become either urgent or semi-urgent, then waiting times are short and you are going to get treated. (ESM6) (Active Review)

Inevitably many patients are not Given Certainty (NBRS booking status). Declining patients for service leads to GP dissatisfaction and public backlash. This was a concern for a Service Manager, who reported angry GPs and patients writing to politicians (ESM2). A Board Member also commented:

> It's sad for the public to understand. . . they think that people don't understand that they are in pain every night . . . They feel anti the staff who have rejected them, and they don't understand quite how that works. I think researchers need to understand that too. Your electives and your ESPIs are a way of managing the needs/the demands. (BM4) (Referral Processing, Unmet Need)

7.2.2.1 ESPI 3 and ESPI 6 Compliance

ESPI 3 and ESPI 6 are concerned with monitoring decision-making consistency around the offer of treatment or a procedure. Each DHB surgical specialty has an *actual treatment threshold (aTT)*, defined as the 10th centile priority score for patients electively treated by the DHB in the past 12 months. According to the Ministry of Health (2016b, p. 12), ESPI 3 monitors that patients with a priority score above the DHB service's aTT are Given Certainty, and are not placed in Active Review. Ministry of Health guidelines state that the aTT is influenced by sub-specialisation, list fillers, and poor prioritisation practices. The aTT score should not be interpreted as a DHB's level of service appropriateness (Ministry of Health, 2014f, p. 10). It should also not be the service access threshold.

Table 7.8 shows ESPI 3 compliance over four time periods. Until 30 June 2012 1.5% of patients in Active Review were allowed to have a CPAC score greater than the aTT. With the exception of the 2006/07 year, all DHBs managed to maintain full ESPI 3 compliance until 30 June 2012.

Since 1 July 2012, the buffer for ESPI 3 has been zero, meaning no patients should be in Active Review with a score higher than the aTT. In the twelve months following the introduction of a zero buffer, only 10% of DHBs were able to maintain full compliance.

In July 2013 the maximum waiting time for assessment and treatment reduced to five months and in January 2015 it reduced to four months. There was some recovery of DHBs able to achieve ESPI 3 full compliance but Table 7.8 shows that the majority of DHBs have been unable to sustain full compliance since June 2012.

Table 7.8: ESPI 3 Compliance (DHB Summary Level, 2006-2016)

Financial Year	Months in timeframe	DHBs – Fully Compliant	95-99% Compliant	<95% Compliant
2006-2007	12	9	6	6
2007-2012	60	20	-	-
2012-2013	12	2	2	16
2013-2014	12	7	2	11
2014-2016	24	1	8	11

Note: Otago and Southland DHB merged in 2010 and the ESPI 3 performance of these DHBs has been classed as Southern DHB's results. Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

Until 1 July 2012, the compliance buffer for ESPI 6, (the monitoring of patients receiving a timely re-assessment whilst in Active Review), was set at 15%. From July 2012, the buffer reduced to zero. Between July 2007 and June 2012, 70% (14) of DHBs were able to be fully ESPI 6 compliant. After July 2012, comparisons of compliance become meaningless because DHB use of Active Review significantly declines from this point. ESPI 6 compliance reports do not indicate how many patients the DHB has in Active Review, how many patients in Active Review go on to receive publicly funded treatment or how long they wait for treatment.

Table 7.9 shows that some DHBs appear to be phasing out the use of Active Review. The table shows the number of months when the DHB Summary Level Report indicates there are no patients in Active Review (a count of 12 means the DHB has not had any patients for the full year). DHBs are not required to use Active Review and do not have to justify its discontinuation. If a DHB service is not using Active Review, then it is ESPI 3 compliant by default. Non-use of active review could be because the DHB is able to meet all service demand, or it may be because it does not have resources to review patients and is relying on GPs to re-refer patients. The non-use of Active Review appears to have increased from 1 July 2013. This is indicative that DHBs may have discontinued its use whilst they managed waiting time reduction.

Table 7.9: Discontinuation Trends by DHB: Number of months in year when active review not used.

DHBs not using Active Review	10/11	11/12	12/13	13/14	14/15	15/16
Wairarapa		7	12	11	12	12
Hawkes Bay				8	10	12
West Coast	10	4		8	11	12
Auckland				3	4	11
Lakes			9	11	6	11
Waitemata						11
Whanganui				12	12	4
Bay of Plenty			6	12	11	9
Tairawhati			5			9
Nelson Marlborough						8
Hutt Valley						5
Northland					4	3

Note: Shading denotes DHBs have not used Active Review for 12 consecutive months
Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

However, the use of Active Review has not been completely phased out and Table 7.10 shows its continued use by DHB specialty. The specialties that appear to consistently use Active Review are Orthopaedics, Ophthalmology, General Surgery, and Ear, Nose, and Throat.

Table 7.10: Use of Active Review by Specialty: Number of DHBs reporting one or more months of patients in active review

Specialty	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
Cardiology		4	4	7	8	5	5	6	6	4
Cardiothoracic	5	5	5	6	4	4	3	2	3	2
Dental	15	15	11	11	12	9	7	4	2	6
Ear Nose and Throat	20	17	17	18	18	16	12	9	7	9
General Surgery	21	21	20	18	17	17	13	14	12	9
Gynaecology	21	20	18	19	18	15	12	10	10	6
Neurosurgery	4	4	3	4	3	2	2	3	3	3
Ophthalmology	18	16	18	20	16	16	11	10	11	9
Orthopaedics	21	21	20	19	19	18	16	12	13	12
Paediatric Surgery	5	3	4	5	3	5	3	4	3	2
Plastics	9	8	7	8	7	8	5	6	6	5
Urology	13	12	12	12	13	10	8	5	5	4
Vascular	4	4	5	4	4	4	4	3	2	3

Note: Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

The compliance analysis of ESPI 3 and ESPI 6 suggests that relevance of Active Review as a benchmark of the Giving Patients' Certainty sub-strategy has eroded over time. The setting of zero buffers from July 2012 appears to be an example of definitional drift. DHBs can avoid non-compliance with two ESPIs (ESPI 3 and ESPI 6) by opting to not use Active Review. The issue is no performance reporting of CPAC scores of patients who are returned to the care of their GP and it is unclear what happens to these patients, and if they go on to receive publicly funded treatment, or how long they wait.

7.2.3   Managing service delivery waiting times.

Sub-strategy Four (Improve Public Hospital Capability) of the RWT Strategy aims to develop performance standards that will ensure "patients seeking surgery are tracked, cared for, and reviewed in appropriate timeframes." (Ministry of Health, 2000, p. 15). As discussed in Chapter Two, section 2.3.2.1, New Zealand uses a fully-conditional maximum waiting time guarantee and requires that all patients, except those with a planned or staged certainy flag, should receive assessment or treatment within a required timeframe.

Interviews were conducted around the time DHBs were transitioning to the four month waiting time. Whilst several Primary Care Representatives endorsed the transition to four months, Service Managers and DHB leaders were concerned that it would be difficult for the health system to sustain a four month waiting time:

> What a lot of DHBs will do; there will be a massive rush to the finish line, so that they
> don't get penalised financially. Sustaining that is absolutely critical because, if you are
> not managing your front door, you have got to have no more than a two month
> waiting list to be able to constantly deliver on four months. That is totally and utterly
> impossible in a health system, certainly at the likes of [our DHB], that has a mixed
> model with acute and elective all in the same facility. (ELT2, Waiting Time
> Management)

Several interviewees spoke of the effort in achieving waiting time reduction and the transitory nature of achieving a deadline:

> I think everyone came to grips with 5 months . . . 6 months was easy but we got
> down to 5 months and thought: "No, no we can do this." But 4 months has been a

huge hurdle. To get to 4 months we had to do extra sessions, get locums all over the
place. It has cost us a lot of money . . . (ESM6) (Waiting Time Management)

As soon as you have got (compliance) then the bottom drawer gets opened. (FP5)
(Waiting Time Management)

An underlying assumption of patient flow management is that once a patient is Given
Certainty they will be ready for surgery when offered a date. Several interviewees observed
this is not always the case and patients are unaware of the implications for the DHB if the
patient cannot be treated within the maximum required timeframe:

Now we are being tough on the patients. Because if you are not available for surgery,
now we are a little annoyed at you, because you are on the list for someone else's
spot and now you are not ready . . . We have been very clear that the patient has a
responsibility to be fit and available for surgery. . . We don't have a good system for
keeping hold of those people. (ESM7)

Even if someone is away for a month out of your 4 months it cuts down your options
so much. You just can't do it. (ESM2)

A Primary Care Representative struggled to comprehend the logic that the DHB's
Orthopaedics service risked being financially penalised for ESPI non-compliance:

If they don't deliver on 4 months, they get punished for their lack of capacity by
having their capacity further reduced - having some outrageous sum of money
deducted from their budget . . . This seems like the most bizarre management
strategy in the history of the universe. I just do not understand how that is going to
help anybody. Orthopaedics have a capacity problem and, part of the problem as I
understand, they are being referred lots of people that are inappropriate. (PCR5)
(Sensemaking, Sensegiving, Performance Standards)

The OAG (2011) recommended that patients should receive FSAs and procedures in order of
their clinical priority, and within a clinically appropriate timeframe. Not only is there an
expectation that patients will not breach a required waiting timeframe, but there is also an
expectation that patients will be treated in priority order.

Only half of the Elective Service Managers interviewed were confident DHB patients were treated in priority order but half were not:

> So you could have somebody who is (scored) a 95, yet the clinician has made the decision that someone who is ranked as a 92 is getting their surgery first . . . and there are things like "this person wasn't available, and this person was". (GSM2)

> If you are talking about spinal surgery, actually the capacity of the spinal surgeon is the wait limiting factor, and he will have a waiting list threshold of 70 and it will be something quite different. (ESM7, Access Thresholds)

Several Service Managers said they rely on information system reports to guide administrators on booking patients in priority order:

> When I'm giving the booking clerk the list I'm saying "Shop off it. Just get it all done." I'm not going "That is a 100 score, that is an 80 score, but they've been on longer so do them first" (ESM7) (Information, Resource Environment)

> The waiting list was printed off . . . (The booking clerks were told) "You cannot book out of this sequence, you must book these. If you are going to book somebody else that isn't in here, you need to come to me first so I can approve you to pick somebody different". That's what it got down to. (ESM1)

7.2.3.1   ESPI 2 and ESPI 5: Timely Assessment and Treatment Performance Standard Data

ESPI 2 and ESPI 5 monitors that the DHB has not exceeded the proportion of NBRS patients permitted to wait for longer than the required timeframe for assessment or treatment. Table 7.11 highlights ESPI 2 compliance, and Table 7.12 highlights ESPI 5 compliance, showing that nearly all DHBs have struggled to maintain full-compliance since July 2012. Both tables show the buffer for patients permitted to exceed waiting time was stepped down gradually. Since 1 July 2013, the ESPI 2 buffer for FSA has been set at 0.4%, which equates to 2 patients in every 500, and for ESPI 5 treatment or procedure at 1%. Maximum required waiting time was also reduced, as for other ESPIs, to five months in July 2013 and four months in January 2015.

Table 7.11: ESPI 2 (First Specialist Assessment) DHB Summary Level Compliance

Timeframe	Buffer	Months in timeframe	DHBs – Fully Compliant	95-99% Compliant	<95% Compliant
July 2006-July 2010	2%	49	7	11	3
August 2010-June 2012	1.5%	23	12	8	-
July 2012-June 2013	0.4	12	3	3	14
July 2013–June 2014	0.4	12	7	1	12
July 2014-June 2016	0.4	24	0	1	19

Note: Otago and Southland DHB merged in July 2010. The number of DHBs reduces from 21 to 20 from July 2010. Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

Table 7.12: ESPI 5 (Treatment / Procedure) DHB Summary Level Compliance

Timeframe	Buffer	Months in timeframe	DHBs – Fully Compliant	95-99% Compliant	<95% Compliant
July 2006-July 2010	5%	49	8	12	1
August 2010-June 2012	4%	23	18	2	-
July 2012-June 2013	1%	12	1	0	19
July 2013–June 2014	1%	12	4	1	15
July 2014-June 2016	1%	24	1	0	19

Note: Otago and Southland DHB merged in July 2010. The number of DHBs reduces from 21 to 20 from July 2010. Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

Several interviewees said they considered that many DHBs made an extra effort to be compliant, either at year end or around the time of a transitional change. Table 7.13 examines this and finds some truth in this for ESPI 2 prior to June 2015, and for ESPI 5 after June 2014.

Several Service Managers referred to the risk of the DHB being financially penalised if it was not ESPI compliant. Electives Funding Policy (Ministry of Health, 2016a, p. 8) states that electives funding will be deducted if a DHB has red ESPIs for four months or more. Funding deductions increase on a scale of 2% of total funding per month of red status for 4 months of red status, and up to 10% where red status is 7 months or more.

There were no cases of a DHB being ESPI 2 or ESPI 5 non-compliant at the DHB ESPI Summary Level for three months or more prior to 1 July 2012. Table 7.14 shows that up to a quarter of DHBs have had issues with either ESPI 2 or ESPI 5 since July 2012. Canterbury DHB has consistently had issues at both the ESPI 2 and ESPI 5 level and the February 2011 earthquake and hospital rebuild are assumed to be the reason for these issues.

Table 7.13: Number of DHBs with ESPI full-compliance at transitional change date or Financial Year End

	ESPI2 100% Compliant	% DHBs	ESPI5 100% Compliant	% DHBs
June 2007	20	95%	21	100%
June 2008	20	95%	19	90%
June 2009	21	100%	21	100%
June 2010	20	95%	21	100%
August 2010	21	100%	21	100%
June 2011	19	95%	20	100%
June 2012[1]	20	100%	20	100%
June 2013	19	95%	18	90%
June 2014	12	60%	10	50%
December 2014	18	90%	10	50%
June 2015	8	40%	3	15%
June 2016	3	15%	2	10%

[1]Prior to June 2012 there were 21 DHBs in the sample. From July 2012 Otago and Southland DHBs had merged and there are 20 DHBs in the sample. Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

Table 7.14: DHB summary-level red non-compliance in three or more consecutive months: First Specialist Assessment attendance and procedure/treatment

Financial Year	First specialist assessment within required timeframe (ESPI 2)	Procedure/treatment within required timeframe (ESPI 5)
2012/13	Canterbury, Hutt Valley, Southern, West Coast	Canterbury, Hutt Valley, Southern, Wairarapa, West Coast
2013/14	Canterbury, Hutt Valley	Canterbury, Hutt Valley, Mid Central
2014/15	Canterbury, Lakes	Bay of Plenty, Canterbury, Mid Central, Northland
2015/16	Canterbury, Lakes, Southern, Waitemata	Canterbury, Hawkes Bay, Hutt Valley, Lakes, Southern

Note: Data of Patient Flow Indicator (ESPI) results for each DHB and Specialty from the Ministry of Health (2007-2016).

7.2.4 National data collection reporting.

Sub-strategy Six of the RWT Strategy aims to use 'a few strategically-chosen performance measures which will be applied to nationally 'verifiable information' that is collected and reported in order to provide 'an accurate impression of the quality and timeliness of hospital services' (Ministry of Health, 2000, pp. 20-21). The reporting of booking system

details to National Data Collections and the derivation of ESPIs relies on the consistent collection of data and DHB oversight of data quality.

Information Managers and Analysts said they had gained an understanding of electives policy from operational managers. Interviewees said the time they spend on national data collection reporting varies, according to how well DHB administrators understand business processes. Several Information Managers/Analysts discussed the challenges with data quality when the purpose of data collection and the meaning of information is not well understood by data entry clerks:

> They are told, "This is your job. Put them on the wait list, enter this data." but I don't think they are really educated what that data means. (IS1) (Data Collection, Data Quality)

> We used to only do monthly reporting and so every month there was a huge, big error report and it took a long time. If you didn't quite get through it all then it compounded. We don't do that now, we do weekly . . . It's not a big effort like it used to be. However, it does require constant monitoring. (ESM4) (National Data Collection Reporting, Data Quality)

DHBs also have to absorb the administrative cost for services that are not provided, such as referrals that are declined or patients who do not attend appointments.

> Referrals are left open and stuff is assigned to the wrong referral. . . . there is too much ambiguity with it all. A lot of work goes into processing and handling a referral and this might be a good outcome of the collection, but if the patient doesn't go on to have their assessment, it's a sunk cost. . . It is quite an impact on the people having to deal with it and record it. (IS6)

Whilst the rationale for collecting data made sense to interviewees, inconsistency amongst data collection processes, the sequential capture of data in real-time. and national data collection reporting was seen as an issue:

> I remember back, it was total chaos. The extracts were always rejected, events were rejected, and hours were spent cleaning up the data because nobody really understood it. Quite often when the Ministry give us some new data collection items

or give us a new collection they don't often think about the process, how we work with our patients. (IS1, NBRS Reporting, Government Elective Strategy)

It has been quite complex. I think some of the sequential stuff, because they want it in a sequence of events, is quite rigid and actually some of the events haven't been recorded in that way in real life. Even though you expect them to be, they are not. (IS3, Sensemaking)

Information is not always validated in information systems to enforce NBRS reporting at the point of data entry:

There are some validations that run across the tool that actually puts some DHB errors up, so we can fix those before we go, which is really good. . . . There could be some fields that should be mandatory, or if data is entered here, this becomes conditional. We lack that, to help our data people to get things right. (IS1)

DHBs said they had excellent quality data, in part because of the effort that goes into data quality:

For at least 15 years, I have had a mantra with my team that if you see anything that looks slightly suspicious, then we need to investigate it right, report it and get it back to the service and get it sorted. We have a very strong data integrity ethic in the team. We have automated hundreds of reports that are pushed out to clerical people that look at both, the main integrity, and more importantly logical integrity. (IS6)

Right at the start. They should be reviewed, DHBs that are out of line. There should be feedback around that. Not just integrity reports at an individual record kind of level, but at a high level to say, "How come you are saying there are three times the number of renal patients here compared to another DHB with a population of X?" That sort of logic and kind of feedback. That could be done a whole lot better. . . I totally am for standardised collections. It is the only way we can compare and plan and look to the future really. . . It needs to be able to be classified, it needs to be able to be consistent across all the DHBs and collected. The $ only goes so far, we can only do so much and get more results from it. (IS5)

Interviewees were asked how the Ministry of Health's requests for National Patient Flow data were impacting their DHB's understanding of capacity:

> We had to do a sell job on the coding. I'm not sure that all of us were convinced. Sometimes it is easy to go to the clinicians, because you understand the value in it and you feel strongly about what you are asking to be done. I can't say that about NPF. (ESM7) (National Data Collection Reporting, National Patient Flow)

7.2.5 Performance evaluation.

The evaluation of patient flow management is constrained by information collected about activities in hospital information systems and also by analytical capabilities. Service Managers at all DHBs said they are very dependent on reports about patient booking status. Reports are used to determine patient booking order, especially when the DHB is ESPI 2 or ESPI 5 non-compliant:

> On a weekly basis I get a dump of information from our patient management system. I get every inpatient, everybody that is on a wait-list and I'm looking at them, at who needs to be done . . . I add them up and I know how many are there and I can make a prediction at the beginning of the month about whether we are going to hit compliance or not. I know which services are going to have trouble . . . you have to protect some capacity for your urgent (cases), people who go on and off the wait list in 30-40 days. They never show in your end of month waiting list numbers." (ESM7)

Where there is more than one data warehouse then there is potential for different interpretations of the data. Working from a common data warehouse was seen as key for understanding and distributing consistent information:

> The theory is that everybody is looking at the same source of data . . . so there is not a number of different views. Which, when dealing with clinicians, is really important, because they have got their pet ideas about what they want to see. So it's useful to be able to show them, and say: "No, this is real, we know that this number is correct, where we are getting the data from is correct and any discrepancies can be sorted out. (IS4)

7.3 Resource Environment and Organisational Practices Interdependencies

Figure 7.8 shows the resource environment variables selected for examination. These variables support the five organisational practices. The examination of interview data using the top-down lens aims to understand how these variables provide opportunities and constraints for the improvement of patient flow management.
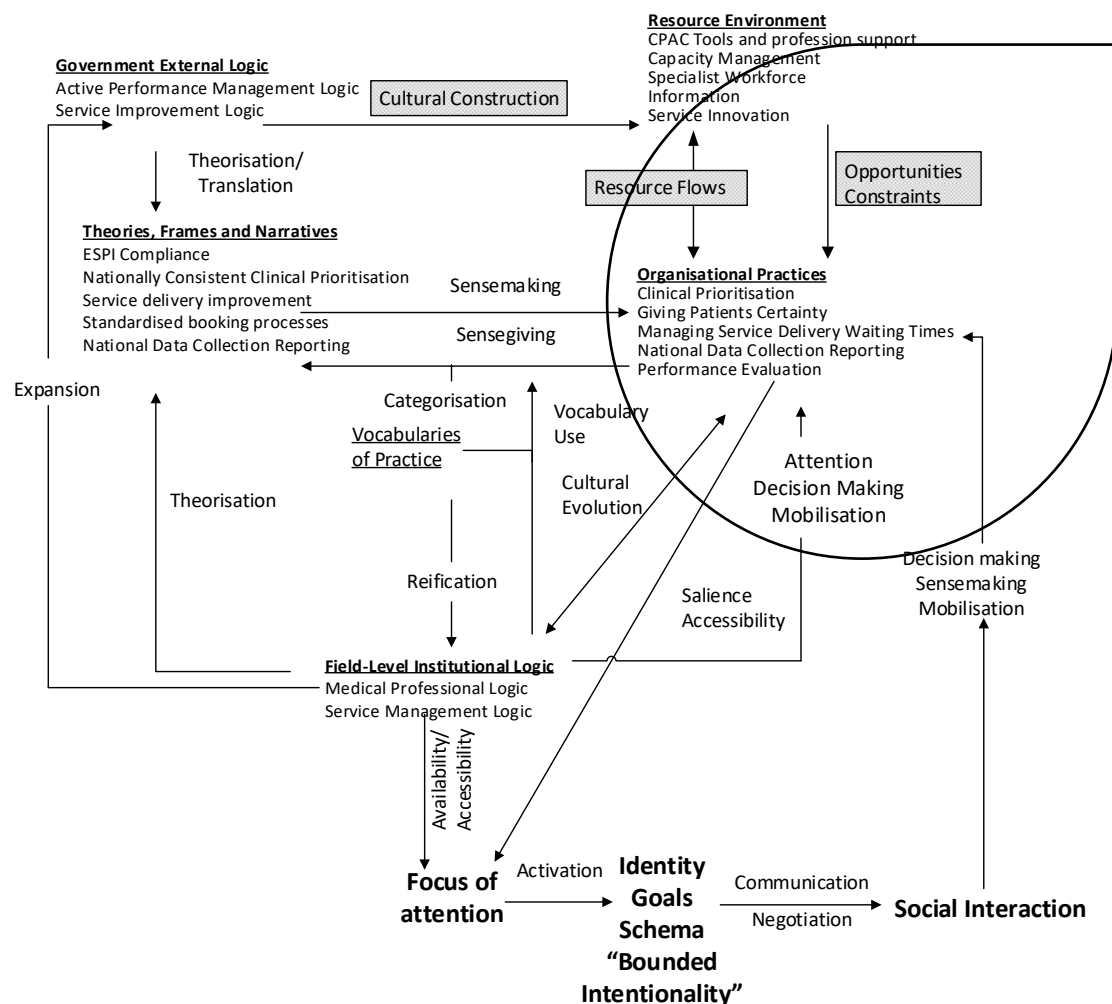
Figure 7.8: Resource flows: Manage patient flow

7.3.1 CPAC tool development and professional association support.

The OAG (2011, p. 49) recognises that the conditions required to support the achievement of nationally consistent clinical assessment goals include: the need for all patients to be prioritised for treatment using suitable national tools, the setting of clinically appropriate minimum thresholds, and the regular auditing of prioritisation decisions for consistency. The suitability of tools relies on their ongoing development and maintenance, which requires the support of the Ministry of Health, and of professional associations.

Since 2013, CPAC prioritisation tools have been accessible through a national prioritisation platform. The rollout of the national prioritisation platform was not discussed by specialists in interviews. One Service Manager mentioned the tools were being piloted at the time of interviews:

> The surgeons think it is so they can be spied on, to see if there is consistency between consultants. . . There has been quite a bit of opposition because it has been online and takes quite a bit longer. Also, for a couple of months, you have to double score, which is problematic. We have found some of them [clinicians] were only scoring with one tool, or the other and there wasn't enough patients to draw a comparison to get a threshold. (ESM2) (Tool development, Mobilisation, Decision-making, Sensemaking)

Two specialists described being personally involved in defining the prioritisation criteria for their specialty. Motivations for involvement in tool development included: a desire to highlight funding and resources scarcity for their specialty, a concern about service equity, a desire for improved prioritisation score inter-reliability among specialist team members, and a desire to improve service access clarity for GPs. Both specialists gave positive accounts of the experience of tool development and considered prioritisation tools and outcomes had been improved for their specialty.

A Group Manager interviewee was supportive of the Ministry's change in approach to tool development:

> The mechanisms the Ministry is trying to put in place in DHBs to rectify [tool improvement] are correct; they are working closely with the colleges around new

tools . . . the way they are doing that in the national website is going to enable much better peer comparison . . . I do hear clinicians talk about being disempowered by feeling uninvolved in the tool development. I think the Ministry is addressing that. (GSM1)

Several interviewees were divided on the value of CPAC 'Impact on Life' questions. Two clinicians considered impact on life criteria were very important, and two felt it was too difficult a decision for the assessor. Reasons for difficulty included: confusing for the patient, a patient's age was not considered in impact on life (which created an inequitable outcome), and one interviewee said once patients and referrers were aware of the criteria impact on life was open to gaming.

A service manager agreed that impact on life criteria were not well implemented in CPAC tools:

A lot of the daily living things that you cannot do and function until you have had your surgery are not captured in the score. (In gynaecology) You have got ladies in bed with such a bad period pain; they are in bed for 3 and 4 days a month. None of that is taken into account; that they are financially stricken. (ESM1) (Impact on life, Reliability, Focus of attention, Decision-making, Sensemaking)

One Service Manager also expressed concern about conditions being assessed by multiple specialties:

I have three services that do carpal tunnel. It is a random lottery as to which one of those services your GP sends you to as to whether or not you will get declined or accepted . . . actually a condition specific tool might lead to better ethical result (GSM1)

7.3.2   Capacity management.

Several interviewees said the ability to understand service capacity was critical to being able to manage patient flow. Capacity management needs to take account of case complexity, procedures times and surgeon skill and availability:

If you talked to the Minister of Health, he would go "What do you mean you don't know your own capacity?" Well you do, but there are so many variables . . . One operation might be 4 hours, one might be an hour and a half, another might be 5 hours and another might be 30 minutes. You are trying to take all of those and fit them into schedules . . . There are acutes that can be done by registrars, acutes that need to be done by specialists, and those acutes will get done on their elective lists because that is the only time the specialist is working in the hospital. (ESM2) (Capacity Management)

When you look at it, you think this is easy. There is a referral, then they go to outpatients and then they go onto surgery. But really there is multiple things happening . . . they might need some diagnostics . . . a certain proportion of outpatient FSAs will be seen again and again, and then a decision is made for surgery. Some will just be seen the once and go to surgery. Plotting this in a time-based way, actually tracking patients through our systems to see they went from here-to-here, it is quite difficult. (ESM7)

Several Service Managers said case complexity is not always visible in production planning data or even in the clinical coding of patient discharges:

People will do measures about the average length of surgery time per patient: Well on this site it is going up because what we have got left is all the complex (cases). Our very (simple cases) we have put out to others. (ESM7) (Capacity Management)

We are concerned . . . You are really depending on your coders to work with the clinicians to make sure that the right things are being written down. (ESM5) (Capacity Management)

Clinician accurate estimation of surgery time was also seen as an issue:

They will put in minutes, how long they think the operation is going to take when they put them on the wait list, but conditions deteriorate . . . ladies who have waited more than six months, who are now taking a full day's theatre list, where we could have got three of them done if we had go them done in the right time. (ESM1)

Increases in acute surgery also impact DHB capacity for elective service capacity and result in difficult decisions needing to be made about which surgery to cancel:

> If our acutes are increasing, then the only lever you have got is to decrease electives, or to find more efficiencies, expand your current capacity to cope with that. . . . ESPIs are very dependent on having the capacity right at the surgeon level . . . We quite frequently will have to make decisions like "Our acute board is full, we need to cancel some elective surgeries". Do I cancel one long case or do I cancel five short cases? From an ESPI point of view, I am better to cancel the one long case and sometimes we might do that from an ESPI point of view. From a clinical point of view, that one long case will be really difficult to book back in . . . We seem to have a really high % of acutes and we take on a lot of the acute work for the region for a variety of reasons. (ESM2) (Capacity Management)

Several interviewees discussed the feasibility of information forecasting, and the use of capacity planning techniques or analytical tools:

> The ideal would be to be looking at the number of referrals that are coming in, understanding the pattern of referrals, and what that means in terms of the flow on effect . . . The trick is knowing what that means for everything downstream . . . We are not just looking at discharge volumes, we are looking at the whole journey and being able to see what the inputs to that process are. So joining them all together rather than having them as very separate things. (ESM3) (Capacity Management)

A Primary Care Representative interviewee agreed that inadequate data was collected about referrals received:

> We don't plan our service based on patient need, we plan our services often on what we have already got and what we have been doing in the past, with no regard to what is presenting at the door. (PCR1)

Capacity planning tools to assist the DHB with the matching of demand to supply was described as a major issue by one Service Manager:

> The biggest issue is the need for a really good understanding/tool of what the demand and capacity are . . . Matching that with various things like leave. Surgeons

have said they want something magical that will tell them that. We have provided them with lots of opportunities and (they say): "That doesn't meet our needs or we don't understand." I don't think they want to understand. Whatever we put up for them, they are never going to be happy with it. So we have just left that behind and developed a tool that is useful for us. (ESM6)

One Service Manager described the difficulties of forecasting:

Forecasting is really difficult for waiting lists. You can forecast sizes of waiting lists but the waiting times within that is really difficult. I can forecast the size of a waiting list. I can say orthopaedics has got a waiting list that is 900 patients long, if our production is this, it will be 700 by whatever time. But, it's really difficult to say how many of those are going to be waiting over 4 months; and how many over 3 months. There are patients that come in every day, there are acute ones that need to be operated on straight away, there are ones that need to be done within 7 days; there are ones that need to be done within 4 weeks; there are some that need to be done within 6 weeks; and then there is the rest. So it is really difficult to forecast those time-based things under our current systems. (ESM2)

However, an Information Analyst considered there was more available capacity than the DHB realised:

I know when we have done modelling in the past; that simply following the first-in-first-out model actually keeps you green. As much as everyone turns around and says, "We don't have capacity", and all this sort of thing, it kind of turns out that we do. . . There has been some interesting analysis in terms of seasonal variation with certain departments . . . There a definite cyclical thing to electives." (IS3) (Capacity Management)

7.3.3   Specialist workforce.

Concerns about the limited health sector workforce and the ability of work to be done by non-specialists prompted a review of seven specialties by Health Workforce New Zealand (mentioned in Chapter Two, section 2.3.7 on page 47), which concluded some elective

services could be outsourced to GPs, optometrists and nurses but as observed by one Ministry of Health interviewee the public hospital work that can be outsourced is minimal.

The New Zealand health system allows specialists to work in both public hospitals and in private practice. When asked about the differences between working in the public and private sector one interviewee observed:

> Generally speaking, one observes private functioning more efficiently on a day to day basis. I am not talking about the overall costs or overall factors, but just as you arrive in theatre, you do more work, more efficiently. . . in public it is chaotic, difficult, slow inefficient; there are lots of roadblocks in the way. Some of the roadblocks are of the individual hospital's making and some are Ministry of Health things that have been placed. (MD3, Focus of Attention)

One Service Manager (ESM 4) observed it was difficult to get the DHB to increase the specialist workforce, use non-specialist service providers, or move services to the community. Part of the issue is funding distribution:

> We do not need a doctor to be seeing a diabetic patient every year to monitor their diabetes. It is quite appropriate for an optometrist to do that piece of work and to refer back to a clinician, if they feel a higher level of assessment is needed . . . What the DHB appears to be reluctant to do is to move that service into the community . . . I think it is to do with the funding. I think the money comes in but is there ever an audit as to how that money is distributed and where it goes? Are the funds being channelled in the right direction? . . . Orthopaedics they will do, because that is in their face the whole time. But that is the only service I am aware has been given additional resource to actually continue to do the work. (ESM 4) (Specialist Workforce)

As discussed in Chapter Five, outsourcing to the private specialist and hospital sector is a way to overcome public specialist workforce limitations:

> Outsourcing works well for me when it is a fix to an immediate problem. It is much more responsive than public responses and it works well for me when you are being entrepreneurial . . . When it comes to outsourcing entire services, the problem is the

asymmetry of knowledge . . . virtually universally, outsourcing is a cost additive response. (GSM1)

One Service Manager was critical of private sector outsourcing and considered it gives specialists a greater opportunity not to perform electively in the hospital. (ESM4)

The use of locums (a specialist who temporarily fills in for a provider who is absent) is found to be useful but careful management is required if the locum is assessing patients in an outpatient setting:

> So with locums you can get really good value for money here, but if you are putting them into the outpatients setting you have to be really careful about how much clinic to get them to do because they may create another list of patients and where do they go? Do they go onto someone else's list? (ESM6)

7.3.4 Performance standards and information management.

DHBs have to keep their health information systems up to date and maintain data warehouses to manage all of their health service reporting accountabilities. Data is not collected in hospital Patient Administration Systems (PAS) solely as it is reported to National Data Collections. Information management interviewees at case study DHBs said hospital booking system management, satisfying National Data Collecting Reporting requirements and ongoing PAS upgrades and maintenance creates a significant administrative and Information Services overhead for the DHB. Data is primarily collected for the purposes of coordinating health care delivery, (to schedule outpatient clinics, operating theatre time, for bed management). National Data Collection reporting requires that data is physically processed, mapped to Ministry of Health codes, and formatted as required.

DHBs said they were struggling with the burgeoning expectations of information reporting, notably the demands of National Patient Flow data collection and the costs of regionalising health systems:

> It is incredibly hard to link events. . . . if you extend it across all your patient events, the transactional overhead is just unsustainable. . . Most DHBs do not have information systems that enable a diagnostic and a referral to be linked in their information systems . . . the Ministry needs to enable the sector to get the linking

automation or agree to some business rules whereby we get it 80% right. . . I would love to be able to track from a primary GP office through our system back to the GP the complete cost of care or non-care and know what it has looked like and have that deliver different policy interventions. The reality is, if there is not an investment in the electronic means of doing that . . . it is doomed to failure and it is a waste of investment and I have concerns that that message is not being understood. (GSM1)

Information system management has been regarded by some politicians as a 'back-office function'. Whereas it seen as essential infrastructure by DHB managers and clinicians. As one CIO recalled:

I remember the first time we had an outage, it was a clinically oriented system. I went to see the Clinical Director . . . He said to me "I appreciate you coming up to see me. It doesn't matter, we don't count on those systems anyway. That's it." And by contrast, in one of those unplanned indicators of success, if we were to then roll five years on, we had an outage of the patient management system (clinical workstation) and it was on a Friday afternoon, about 4 o'clock and he rang me within about 5 minutes to say "It's down, we need it, we have got 60 people in emergency, we can't manage without it. When is it coming back up?" (C3)

Ministry of Health data definitions and agreement on concepts and data quality were seen to be an issue:

The reference documents are ok for checking but don't reflect how the business actually collects the information . . . some MOH staff have worked in the sector, but they may have only worked in one DHB and don't understand how data management varies across DHBs. (IS3)

There is nothing worse than going to look for a field that says 'Admission Date' and then you go to a page that says this is the admission date. There could be a bit more. (IS1)

Several Service Managers said they were satisfied and confident in the information they were provided by Information Services but it was recognised that data quality can be an issue:

> I am relatively confident in the information in our systems with a couple of exceptions . . . we haven't paid enough attention to data quality. (GSM1) (Information, Resource Management, Data Quality)

Information Technology resources were seen as somewhat separated from the realities of patient journey management:

> There are good people in IT, but they are just not close enough to the business to understand the journey that the patient takes through a system and how complicated some of those journeys might be. (ESM2) (Information, Resource Environment)

7.3.5 Service innovation.

The requirement for DHBs to innovate service delivery was discussed by several Service Managers. Funding for innovation projects was seen as a constraint by one Service Manager:

> The one thing I found at our DHB is financially . . . there is only a limited amount of money. We would put innovations in and make change, but we would only do 'this bit of it', we wouldn't actually complete it. So, it never actually worked. (ESM1)

Service managers described increased use of service improvement initiatives such as nurse-led pre-admission clinics to increase surgical capacity:

> A lot of it was based around turning the journey around for the patient and making it better for them. Pre-admission is the start of that elective journey. . . That was around enabling the nursing workforce to actually be getting to know the patients, sorting the patients so they knew exactly what they were in for. . . It was real and planned. You really knew in your assessment whether your patient was going to front up. (ESM1)

One Service Manager described positive outcomes from offering patients appointments at other DHB facilities and relocating skin lesion work to primary care:

> In the early days there was a huge outcry about (travelling to another facility). But actually there are a lot of people who are very happy to go, who receive very good care in a much quicker timeframe, and word gets out . . . we don't have as much trouble getting people to go there anymore. I think in terms of the skin lesion work that was sent to primary care. Similarly, to start with, people didn't think they were going to get a good job done unless it was done in the hospital. I think now the GPs are very experienced . . . there has been some really good outcomes. I think if people have better access and faster access to services, then in the long term they are happier. But it does take a bit of time. (ESM4)

Funding and affordability of health care was discussed by one service manager:

> Well, we are beyond the critical point, so we are beyond the point of affordability, and most DHBs are, and what has driven us there is the 4 month thing. So there is an enormous dishonesty in the sector, starting from the Minister's office, which is "thou shalt not raise clinical thresholds in order to get to four months" - well, come on! So, what you will find is that all DHBs have reduced access. Arguably, we reduce it less than others and that is why we continually have an ESPI problem. We are actively reducing it more. That is not necessarily a bad thing, what is bad about is there is no transparency about it. (GSM1) (Compliance Management, Actual Treatment Thresholds, Funding, Resource Environment (Constraints)

> We have got to think differently and the Ministry have to think differently how they fund us. Then I sit here and say that but in reality, the DHB gets a funding envelope and how they divvy up the money is for them. I think there are too many managers and there is too much money channelled into the wrong area. (ESM4)

7.4 Bounded Intentionality

This chapter has described patient flow management practices from the perspective of three stakeholders: the clinical specialist, the service managers, and the information analysts/managers. DHBs differ in their approach to service management, either they employ a single elective services manager, or more commonly, they employ several.

7.5 Focus of Attention – Availability / Accessibility

7.5.1 ESPIs as performance targets.

Service Managers described how the need to be ESPI compliant focussed their attention.

> It is the thing that keeps me awake most nights! It is the hardest of the targets. It's a target that is right in your face that is most in your face every day. . . so we have been perennially struggling on our electives, right from day one when it was put in, actually. Plus it has a pretty severe financial penalty that goes along with it. (ESM2)(ESPI 5)

Another interviewee observed that ESPI performance reports, and successive periods of non-compliance attract the attention of board members:

> It is very stressful. You are being asked "Please explain." Not only from the Ministry but from your CEOs and the Board, who are now getting reports: "Why are we red? Why can't we be green?" (ESM2)

Changes to the definition of ESPIs were seen to have improved

> I think in the past the ESPIs haven't been as valuable, partly because some of the ESPI's definitions changed and there was confusion around what they actually meant . . . Basically it is the waiting times, ESPIs 1, 2 and 5 that are the ones being focussed on the most. They are very straightforward now. (ESM4)

> The question would be how appropriate are ESPIs in today's environment? Because they are a stick that says: "You are, or you are not performing to the government requirements". Are they the right measures now? I wonder, I challenge that. I'm not sure . . . If you look at that argument of who has the duty of care? Is it the

organisation who provides the workforce to make that happen or is it the workforce who is here to do the work? I think that is the question? Let's set up a debate. (ESM5)

The focus of attention is the position at month end:

> (ESPIs) are actually snapshots done at the end of month. So that all that really counts is how many people are waiting at the end of each month that are outside of those timeframes. (ESM7) (Focus of Attention)

7.5.2 The private-public mix.

Clinicians who work in both private and public hospitals observed the difference between decision-making and operational efficiency of services delivered in public and private. This suggests that it is not the need to clinically assess and treat, based on capacity to benefit, but the need to comply with government priorities and the resource limited funding of services in the public hospital that accounts for different perspectives:

> Consultants will see patients in private . . . there is what they call queue jumping . . . although on the clinical scoring my knee might only have scored 50, which would not meet the clinical threshold for surgery, there is a process called clinician override and the doctors would override their own patients and suddenly you are urgent and you get on the list. . . Miraculously you can be seen in clinic on a Monday and you are suddenly semi-urgent and have to be seen on the Friday. (E2)

Another Clinical Specialist struggled with the concept of advising public patients of private options:

> I found that such an insult to patients as a concept! . . . Every man and their dog know there is private, but they can't afford it. When you have been a caregiver or a bus driver your entire life, private is a world that you can't even begin to access. . . That is kind of a cop-out frankly, it's not useful. (MD3)

7.5.3 Information as decision support.

Service Managers said they relied heavily on DHB Information Management and internal reports to monitor the DHBs ESPI compliance:

We have quite a big business units report, where we track information about referrals and patients added to the treatment list and whether they have been waiting more than 2, 3 or 4 months, just to give us a bit of a heads up. (ESM4)

One interviewee said they do not always show clinicians ESPI reports:

I don't tend to distribute them unless there has been a change. If they see too much red, then they are not very inspired to change . . . they are more used to our internal reports, which give a bit more information with a bit more time to process things before. (ESM4)

7.6 Social Interaction

7.6.1   Internal DHB stakeholder relationships.

All Service Managers agreed the principles of the RWT Strategy were relatively easy to understand and said they supported its principles:

There is no question that a cybernetic management approach, (feedback, act, react, all that type of stuff), is extremely effective and it works well in an elective context. What doesn't work well is that the framework itself is not comprehensive, so you can invent ways to hide patients in the system, and the classic, which the entire sector does, is around diagnostics. . . . No-one wants to know that the wait for a nerve conduction study is 18 months, unless you are the patient. The politician doesn't want to know. (GSM1)

One service manager observed that individual ESPIs may not be well understood by all clinicians:

I'm not sure that if you went to a clinical group they would know that it is driven by the Ministry of Health. They wouldn't be able to tell you what ESPI stood for, but they will be very clear that we have targets around waiting times and that a booking clerk is in their face with their list going "We need to do this because they are late. (ESM7) (Sensemaking, ESPIs)

An Executive Interviewee observed that the issue was piloting:

> The Senior Medical Officers in particular always saw it as a pilot . . . the medical staff
> seemed to have a view that, if we just ignore it, it will all go away. (E2) (Sensemaking,
> Clinical Prioritisation)

This highlights issues of ownership and whether the performance being measured is
clinically valid. One Service Manager described reluctance by clinicians to absorb extra
workload to meet the four-month waiting time deadline:

> Before we would say "Oh, we are a couple over this month, can you put a couple
> extra on your clinic?" and now they are getting really antsy and "No I am not going to
> do any extras. This is the Ministry's guidelines and not ours, and no, I won't." (ESM5)

Several Service Managers contrasted the change in clinician attitude as a result of financial
penalties for non-compliance:

> It used to be very, very difficult because they really didn't want to know, they didn't
> want anybody interfering in their service, particularly the Ministry and management.
> However, once there started to be financial implications they realised that actually it
> was serious and management were well and truly behind it. They know there is no
> tolerance from the Board for non-compliance, so it is actually quite easy to get their
> attention now. Although having said that, they will be interested for a while, and
> then they get over it. It is a bit cyclical. (ESM4) (Focus of Attention, ESPI Compliance)

> The engagement by the clinician is far greater now. They don't like it any more, but
> they have kind of got that actually it is here (to stay). If you become compliant, it is a
> noise that will go away. (ESM7) (Focus of Attention, ESPI Compliance)

Another Service Manager described the clinician-management relationship as one of
impasse:

> I think they are frustrated by the DHB. Years ago there was a good debate about who
> actually has the responsibility of this. . . the DHB should be required to provide
> adequate resource to meet that. So the clinician's argument is that there is not
> enough resource . . . The DHB is saying but you have to do that because we are being

monitored on it and so that is where the impasse sits. . . . We have done a lot of work with our lawyers . . . to say this is a DHB decision . . . You are operating within a system that the DHB has implemented. Your obligation is to apply that system appropriately, but also to give the DHB signals around whether the thresholds are too low or too high and that there are patients being harmed. (ESM3) (Communication, Negotiation)

A clinician described feeling bullied by management:

If we are thought to be getting behind . . . we get a visitation from a lady, who is often very aggressive and rude to my staff. . . There is a lot of altercation that goes on around this area and recrimination. (MD1)

7.6.2 Relationships with the Ministry of Health electives team.

Five Service Managers said they found the Ministry of Health's Electives Service team member assigned to their DHB supportive, but some managers considered the team had unrealistic expectations of their DHB's ability to be ESPI compliant:

There is a bit of disconnect between the reality of our world and what the Ministry require, it's really difficult. (ESM6) (Social Interaction, Ministry of Health Relationships)

I think they understand the issues. It doesn't stop "the target, you have to meet it" message. (ESM2) (Social Interaction, Ministry of Health Relationships)

A Senior Manager described the area of accountability as the issue:

So the problem for electives services is: It is a Ministerial target, it is managed by Wellington . . . it is the hospital system that is charged with the responsibility and it is clinicians who have to deliver. You have got a group of staff that don't agree with it, who believe it is just a tick box exercise to make a Minister look good, and you don't have the Chief Medical Advisors, who are the senior medical leaders in this country, and you don't have the colleges actually engaged in it. You have got a fundamental problem. At a governance level, at a system level, at a professional level, all the drivers are wrong. (ELT2)

Two service managers said they felt bullied. The implementation of a four month waiting time had brought a return to old behaviour:

> I know I feel micro-managed . . . But I will not say I can do something that I know I can't. I just say that (Yellow) is the worst you are going to be and that is the best you are going to be. End of story. (ESM3) (Social Interaction, Ministry of Health Relationships)

The Ministry's change management of the transition to a four month waiting time was also criticised:

> I have to say there was no evidence of the Chief Executive holding the Chief Medical Advisors and their clinical staff to account, to say "You are going to help management deliver on this." (ELT2, Change Management)

> There seems to be this kind of rather parent-child attitude from the Ministry to the DHB; that we are only here to cause general trouble. Which I guess probably stems from ten years or more ago. Rather than that people are trying their very best, and that often the people that are failing the ESPI targets, from a patient perspective, are usually people with incredible problems. Any factory can manage the cholecystectomies and things. It is the people with a second recurrence of a bowel cancer at the same time as they have had an episode of pneumonia, or their wife had died, the real people who don't meet 3-4 month targets. But actually, 3-4 months is fine and we are trying really hard . . . The trouble is you aim for 120 (days) and you are landing a jumbo jet and you have got 120 metres and you are trying to aim, there is a chance you are going to overshoot." (GM, CDHB)

7.6.3   Sharing knowledge and innovation with other DHBs.

Interviewees were asked about the extent to which knowledge and innovation is shared with other DHBs. Service Managers agreed they do discuss but it was agreed that some DHBs are quite secretive about how they manage their booking systems. One tertiary DHB manager said that the Health Roundtable data was useful but the main issue was that the DHB was a star performer on some metrics but not on others.

7.7   Chapter Seven Summary

Table 7.15 summarises the interconnectedness of system level, government priorities, active performance management, organisational practices, and resource environment variables identified in this chapter. The impact of these interconnections on organisational identities and workflow practices is discussed in detail in Chapter Eight.

DHB accountability for maintaining hospital booking systems and the use of nationally consistent clinical assessment processes is described in NSF documentation. All of the organisational practices described in this chapter are concerned with policy-practice compliance. There is a direct link of patient flow management practices to sub-strategies in the RWT Strategy. Therefore, NBRS is a strategic performance management system. District Annual Plans make general statements about a DHB's intent to be ESPI compliant and have also referred to recent CPAC tool development, service innovation projects, and the introduction of the National Patient Flow (NPF) data collection.

The Ministry of Health national data collection reporting specifications and data dictionaries serve to formalise information collection arrangements. Based on the researcher's personal experience, the information models DHBs have created in data warehouses have evolved over time and reflect the evolution of a particular DHB's information management capability. This is one contributing factor to the 'collaboration inertia' phenomenon (Denhardt and Aristigueta, 2008).

Table 7.15: Top-down institutional logics perspective combined model interconnections: Manage Patient Flow

Practice	Nationally Consistent Clinical Prioritisation	Giving Patients Certainty	Managing Service Delivery Waiting Times	National Data Collection Reporting	Performance Evaluation
Organisational field	District/Regional/National	District/Regional	District/Regional	District	District
Government priorities	Equity of Service Access				Service Delivery Improvement
Active performance management action	Facilitation of change through networks Ongoing performance monitoring	Ongoing performance monitoring	Reducing waiting times Ongoing performance monitoring	Ongoing performance monitoring	Ongoing performance monitoring
Performance measures (year introduced)	ESPI 8	ESPI 3 ESPI 6	ESPI 2 ESPI 5		
Resource environment variables	CPAC Tools and profession support Information	Availability of specialist workforce	Capacity management Availability of specialist workforce Service Innovatio n	Performance Standards and Information Management	Performance Standards and Information Management
Opportunities	Increased specialist collaboration in tool development		Using private provider capacity	National Patient Flow (unmet need)	
Constraints	Evaluation of tool validity	Understanding service capacity	Understanding service capacity Zero ESPI Buffers Mixed acute and elective service operational model Funding	Diagnostic information – referral linkages	

Chapter Eight: Cross-Case Analysis

According to Thornton, Ocasio, and Lounsbury (2012, pp. 155-156), narratives in an institutional logics perspective "reflect specific organising practices, their development, and their outcomes." Narratives are the meaning specific actors (DHB roles in this study) attribute to events and organising practices. The purpose of this chapter is to analyse the narratives of the Funding and Planning Portfolio Manager, Service Manager, Primary Care Representative and Clinical Specialist that have been described in Chapters Five to Seven. The goal of the analysis is to build an overall picture of how the DHB, as a hybrid institution, is influenced by the government's strategic use of active performance management.

In order to explore how the *logic of active performance management* influences individual and group behaviour, the research needs to understand how the logic focuses attention, (the availability/accessibility of institutional logics process shown in the combined ILP model), and how involvement in organisational practices and social interaction focuses attention, (the salience/accessibility of organisational practices and identities shown in the combined ILP model). In order to understand how institutional logics focus attention, the research needs to examine sensegiving and sensemaking, to understand how organisational practices and identities focus attention, and to understand how practices are managed and coordinated. By qualifying individual responsiveness to the *logic of active performance management,* and role interdependencies, the research can quantify the association between an institutional logic and organisational practice using coupling strength.

There are three steps in the analysis. The first step, described in section 8.1, involves examining leader and stakeholder sensegiving of government priorities in order to understand the type of sensemaking that is occurring. Leaders are defined as the people with greatest formal responsibility (Maitlis, 2005, p. 29) and stakeholders are defined as the people who perform the work. The second step, described in section 8.2, involves analysing how, in practice, the DHB chooses to manage the involvement of multiple DHB roles and to accommodate the need for synergy between roles. Both sensemaking type and managerial behavioural responses are precursors to coupling strength analysis, which is the third step that is described in section 8.3. Coupling strength analysis allows us to quantify the

interconnections between the six institutional logics and fifteen organisational practices examined in the study, and to compare how the institutional logics are influenced.

8.1 Sensemaking Type Analysis

In her study of the social processes of organisational sensemaking outlined in Chapter Three of this thesis, Maitlis (2005, p. 32) discerned patterns in leader and stakeholder narratives of British symphony orchestra meetings, rehearsals and tours. In this section, Maitlis' sensemaking typology is used to analyse the narratives of specific roles, in order to understand how the individual roles reconcile government priority and make sense of DHB practices.

Maitlis (2005, pp. 35-44) posited four sensemaking types:

- 'Guided', in which there is a high level of sensegiving by both leader and stakeholder. There is good knowledge of issues by both parties. Social interaction is typically controlled and formal and there are high levels of social interaction and feedback.
- 'Restricted', in which the leader has a high level of control and the stakeholder is largely accepting of the priorities. There are relatively few attempts by the stakeholder to provide alternative understandings or feedback.
- 'Fragmented', in which the leader has less control, the stakeholder raises issues and creates an independent account of the situation. There is little attempt by the leader to organise or control discussions.
- 'Minimal', in which both the leader and the stakeholder have a low level of sensegiving. Actions may therefore be inconsistent.

Sensemaking type analysis is used to analyse each of the fifteen DHB organisational practices described in Chapters Five to Seven from the perspective of an individual role. The analysis considers whether a role leads the practice or performs the work. Sensegiving is understood to be how accountability and performance expectations are defined. The levels of feedback and interaction described by Maitlis have been adapted slightly for fragmented sensemaking because (i) it is recognised that leaders do attempt to organise and control discussions; (ii) stakeholder and leader accounts of the situation differ, and (iii) the stakeholder is less influenced by the leader's priorities than the leader would like.

8.1.1 Increasing elective supply strategies: sensemaking type analysis.

Chapter Five describes the Funding Planning Portfolio Manager, Shared Service Agency Manager, and Decision Support Analyst/Manager narratives about government priorities and performance expectations in relation to practices concerned with increasing elective service supply. The interconnections amongst government priorities, DHB practices and the resource environment are summarised in Table 5.9 on page 128. The interdependencies between priorities, practices, and resources is high because DHB historical service delivery influences future expected service supply volumes.

8.1.1.1 District annual planning.

District annual planning is initiated and led by the Ministry of Health when the annual planning package is released. The planning package is a critical sensegiving tool because it provides the templates for annual plan development. The Funding and Planning Manager role negotiates targets for elective service volumes with the Ministry of Health. Funding and Planning Managers, Board Members and DHB senior leaders said the Ministry's sensegiving of the volumes required is significant. The Decision Support role, whilst not directly involved in negotiating target volumes, is influenced by District annual planning because all Funding and Planning managers said their DHBs prefer to contract for service delivery with their own hospital services if they can.

The role narratives in Chapter Five highlight how output targets influence a DHB's decision-making in a number of ways. Firstly, they incentivise the delivery of elective services in a hospital admitted setting, since these services 'count' towards target achievement. Secondly, some interviewees (Funding and Planning Managers, DHB Board members and Senior Leaders) consider that targets motivate the service provider and focus the attention of politicians on elective service delivery. The literature recognises that such 'tunnel vision' is a consequence of target setting (Mannion and Braithwaite, 2012; Smith, 1995). Thirdly, specific procedures contribute to the Ministry of Health's view of what equitable service delivery should look like. The Ministry has a view of what equitable service delivery should look like and Funding and Planning Managers said that it is difficult to step outside of those expectations.

Several Funding and Planning Manager and Decision Support Representatives observed that they struggle to make sense of standardised discharge ratios because the demand for services in their district is all they know. The ratios play a very limited role in influencing service volume supply because each DHB is limited in controlling where it is positioned in relation to other DHB's supply of services.

Referencing the Maitlis (2005) sensemaking type definitions, the Funding and Planning Manager's sensemaking, relative to the Ministry of Health negotiator, is 'Restricted', while the Decision Support role sensemaking, relative to the Ministry of Health negotiator, is 'Fragmented'. The Clinical Specialist and Primary Care Representative did not discuss involvement in District annual planning.

8.1.1.2   *Regional service planning.*

Regional Service Planning practices are led by the 'Shared Service Agency'. The achievement of the Regional Electives Health Target is understood to incentivise *Regional Service Planning*. Shared Service Agency Managers and Funding and Planning Manager interviewees described the formation of regional clinical networks, and the use of cross-boundary contracts. Several DHB study participants who have been involved in *Regional Service Planning* agreed that in theory it makes strategic sense, but in practice there are issues. Firstly, there are issues with role boundaries and a sense that the Shared Services Agency is encroaching on district elective accountabilities. Secondly, regional targets will be less of a priority if DHBs are facing challenges with achieving district production targets.

Other barriers to *Regional Service Planning* include time to build service provider capability: it takes several years to develop regional clinical networks. There is also a lack of regional capacity when such capacity is actually needed ("when our hospitals are full, other DHB hospitals are full"), and there are inflexible Inter-district flow funding rules around the movement of regional patients. The regional annual planning package, which the Shared Service Agency uses as a template for regional service plans provides some sense of government expectations but Shared Service Managers acknowledge that *Regional Service Planning* is in the early stages of maturity.

Referencing the Maitlis (2005) sensemaking type definitions, the Funding and Planning Manager and Decision Support role sensemaking type are 'Minimal'. The Clinical Specialists

interviewed in the study did not discuss *Regional Service Planning* but Shared Services Agency Managers described the involvement of the Clinical Specialist in regional clinical networks, and their interest in practice benchmarking. Based on the Shared Service Agency Managers' observations, the sensemaking of clinicians who are involved in regional clinical networks is 'Fragmented'. Primary Care Representatives did not discuss involvement in regional service activities.

8.1.1.3   Hospital provider arm contracting.

The *Hospital Provider Arm Contracting* practice is led by the Funding and Planning Manager. However, both the Funding and Planning Manager and Decision Support Representative work collaboratively to negotiate the elective supply volumes that will be delivered by the DHB hospital service provider. All Funding and Planning Managers said they prefer to deliver services locally and their focus is on developing DHB service provider capacity. The sensegiving of local service delivery as a priority comes from government's Better, Sooner, More Convenient policy (Ryall, 2007). The Decision Support role is concerned with ensuring a hospital service negotiates service delivery volumes that will ensure financial break-even. Understanding the impact of public hospital acute service demand on the service provider's elective capacity is also critical for both the Funding and Planning Manager and Decision Support roles. Two Clinical Specialist interviewees said that whilst they had participated in the service contracting process, they did not perceive the interaction had been one of negotiation. They were told what they had to deliver. A Decision Support Representative also confirmed there is limited transparency concerning the DHB contracting process with the Clinical Specialist role. Primary Care Representatives did not discuss having any involvement in the practice

Referencing the Maitlis (2005) sensemaking type definitions, *Hospital Provider Arm Contracting* is 'Guided' for the Funding and Planning Manager and Decision Support role, and 'Restricted' for the Clinical Specialist role.

8.1.1.4   Other provider contracting.

Details on *Other Provider Contracting* were not discussed from the perspective of the other provider. Funding and Planning Managers confirmed that sub-contracting occurs and creates inter-dependencies amongst DHBs. A DHB Board member referred to the need for

researchers to understand the reliance a smaller DHB has on its tertiary DHB to deliver services on their behalf ("if they don't deliver, we don't deliver"). It is assumed therefore that the Funding and Planning Manager leads the practice and that the Maitlis' sensemaking type for both parties is 'Guided', since contracts would not be agreed unless the other service provider had capacity and was willing to contract. Decision Support, Clinical Specialist, or Primary Care Representatives did not discuss participation in this practice and no assumptions are made about their sensemaking type for this practice.

8.1.1.5 Performance evaluation.

Performance Evaluation practice is led by the Ministry of Health since the Ministry sets the targets and monitors performance achievement. Performance is evaluated from service event data which DHBs report to Ministry of Health national data collections. The DHB analyses its own performance but also receives 'standardised' performance reports from the Ministry of Health. The Hospital Advisory Committee, a Statutory DHB Committee closely tracks DHB progress on volume production.

The DHB's Funding and Planning and Hospital Service Provider use their own analysts to monitor elective service supply. Funding and Planning Manager and Decision Support Representatives expressed a high level of confidence in local data quality and DHB information management services. All Funding and Planning Managers said they were interested in the use of forecasting tools and information modelling for service planning but in reality, due to the number of variables, this is a complex exercise and success with tools had been limited. The sensegiving of service data, in particular high level regional data for benchmarking is seen as limited. There is more value in practice benchmarking in regional clinical networks than in DHB performance benchmarking.

Interviewees were asked what sense they gave to the publishing and the ranking of DHB Elective Health Target performance. All Funding and Planning Managers said they were not personally influenced by how their DHB ranked but they acknowledged that DHB ranking influences Board member perceptions of CEO performance. Several interviewees mentioned the Electives Health Targets and ranking of DHB achievement appears to reward DHBs who don't plan services well and presents over-achievement of the target as success, when in reality, over-achievement may mean that other budgeted services have not been provided.

The Ministry of Health uses standardised discharge ratios and standardised intervention rates to give a sense of equity of service access. Several Funding and Planning Managers said that the standardisation of discharge ratios in particular is problematic because these ratios are indicators of service supply not of service demand. These ratios are a reflection of how a DHB has used its clinical workforce; for example if smaller DHBs need to maintain a surgical roster they may use available theatre time to deliver procedures such as hernias and grommets. This then has an impact on what larger DHBs are expected to deliver. Funding and Planning Managers at three DHBs observed that standardisation confuses the perception of achievement and is problematic in discussions with clinicians ("our clinicians say our rates are good but the Ministry of Health says they are terrible"). One Decision Support Representative considered the focus of performance should be on DHB improvement and on understanding what equity means, rather than on reducing normal population distribution.

Referencing the Maitlis (2005) sensemaking type definitions, the Funding and Planning Manager sensemaking is 'Restricted', the Decision Support role is 'Fragmented', involvement in *Performance Evaluation* practice was not discussed by Clinical Specialists or Primary Care Representatives.

8.1.1.6   *Increasing elective supply: consolidated sensemaking type findings.*

The findings of the sensemaking type analysis for the five Increasing elective supply practices are summarised in Table 8.1 and this responsiveness is used to derive coupling strength in section 8.3.2.

What is highlighted in this analysis is the lack of any input by the Primary Care Representative. The Funding and Planning Manager appears to have overall formal responsibility in this performance domain. Sensemaking of performance is restricted, meaning that it is the Ministry of Health's perspective of what is achieved that influences the Funding and Planning Manager's understanding of performance. In service provider contracting practices there is guided and collaborative sensemaking, which is indicative of negotiation.

Table 8.1: Sensemaking type analysis: increase elective supply priorities and practices

Priorities	Practices	Funding & Planning Manager	Decision Support	Clinical Specialist	Primary Care Representative
Achieving output targets, Service equity	District annual planning	Restricted	Fragmented	-	-
Regional service planning	Regional service planning	Minimal	Minimal	Fragmented	-
Achieving output targets, Service equity, Improving DHB service capacity	Hospital provider arm contracting	Guided	Guided	Restricted	-
Achieving output targets, Service equity	Other provider contracting	Guided	-	-	-
Achieving output targets, Service equity, Improving DHB service capacity	Performance evaluation	Restricted	Fragmented	-	-

Note: A dash (-) signifies that a role did not discuss involvement in a practice.

8.1.2 Improving primary-secondary interface: sensemaking type analysis.

Chapter Six presents the narratives of the Primary Care Representative and the DHB Service Manager concerning GP liaison practices and primary-secondary interface changes since 2006. It is important to remember that a DHB does not have jurisdiction in General Practice management and GP decision-making. Primary Care Representative sensemaking analysis is more complex because the role is often a GP who works in both the hospital and primary care setting and observes both sides of the story.

The interconnections amongst government priorities, organisational practices and the resource environment are summarised in Table 6.3 on page 158. Whilst there are no direct performance measures for improved primary-secondary liaison, the narrative in Chapter Six highlights that the Service Manager is significantly guided by the Ministry of Health's referral processing standards, (which are referenced in the Electives Resource Pack (Ministry of Health, 2014e)). All interviewed Service Managers and Primary Care Representatives confirmed that GPs have limited understanding of how DHB elective service performance is monitored, although there is general awareness that 'targets' drive service decision-making.

8.1.2.1 GP Referring practice.

Unlike other practices in this study, there is not a clear leader and stakeholder role in *GP referring*. The *GP referring* practice is included in the study because, for the majority of patients, the GP referral initiates the patient's electives journey. The GP decides to refer patients to the DHB specialty for an elective service usually when resources for the patient have become exhausted in primary care. The GP makes a decision on the basis of whether a referral is likely to be accepted and, as one specialist observed, is unlikely to waste time if they consider it unlikely to be successful. Until the National Patient Flow data collection was implemented in 2014, the focus of *GP referring* was on requests for first specialist assessment and there had been little recognition of other service requests, notably GP requests for advice.

A Primary Care Representative's awareness of DHB electives policy appeared to vary across the cases. For example at two DHBs, interviewees were unaware that first specialist assessment and treatment waiting time was about to reduce to four months. The Primary Care Representative has an influential role in ensuring GPs understand the services the DHB provides, how to access them, and how patients are managed once in the public hospital system. It was unclear if the lack of awareness of waiting time reduction meant that two DHBs had not yet communicated that waiting times were about to be reduced, or whether these particular interviewees had not yet recognised the significance of the change about to occur.

All of the DHBs in the study confirmed they provide referral guidelines and have implemented, or were in the process of implementing, primary care clinical pathways. Guidelines and pathways act as a sensegiving tool to influence GP referring behaviour. Primary Care Representatives described other activities that also serve as sensegiving, including specialist telephone call and written feedback on referral appropriateness, DHB newsletters to GPs, the publishing of information on GP-specific websites, Continuing Medical Educational meetings, and GP practice visits.

The sensegiving of *GP referring* is both professional and administrative. It is professional when there are clinician-clinician conversations, and it is administrative when it is embedded in eReferral capability. Social interaction and feedback from the DHB is described in formal and controlled terms. Several Primary Care Representatives reflected that

administratively, referring has greatly improved. It is less work to generate a referral letter and the referral is delivered seamlessly to the DHB within seconds. But the technical efficiencies and administrative gains end once the referral is received by the DHB. As will be discussed in the following sections, consistency of service decision-making is the greatest issue to GPs and it influences their decision to refer patients for services.

Referencing the Maitlis (2005) sensemaking type definitions, Primary Care Representative's sensemaking type is 'Fragmented', because as GPs they create an independent account of the situation, in spite of the efforts of Service Manager and Clinical Specialists to influence decision-making. The Service Manager's sensemaking type is also 'Fragmented' because, in spite of Ministry of Health electives toolkit guidelines, each DHB service has to determine its own acceptance criteria. Clinical Specialists and Funding and Planning Managers did not discuss involvement in *GP referring* practice.

8.1.2.2   *DHB Referral processing and Clinical prioritisation.*

The aim of the DHB *Referral processing and clinical prioritisation* practice is to collect referral administration details to support national data collection reporting, and to assign the referral a clinical priority. The Service Manager is formally responsible for ensuring referrals are processed and prioritised according to expected timeframes. The decision to accept or decline a referral is determined by the clinical priority of the referral relative to a service access threshold priority. Clinical priority is defined by a Clinical Specialist who triages the referral. The DHB service makes sense of its available capacity from internal information reports and from Ministry of Health ESPI 2 monitoring of FSA delivery. Clinical prioritisation determines the outcome of the next practice (Communication of the decision) and these combined practices act as feedback to the GP referrer about referral appropriateness, what the service access threshold represents in clinical terms, and DHB capacity.

The completion of processing and prioritisation tasks relies on co-ordination amongst administrators, the Service Manager, and the Clinical Specialist. Ministry of Health electives policy, the Elective Services Resource Pack (Ministry of Health, 2014e) and national data collection reporting requirements act as strong sensegiving mechanisms that reinforce the data the DHB is expected to collect about referral acceptance decision-making.

Several Primary Care Representatives spoke positively about improvements in the exchange of health information between the DHB and primary care but three of the four DHBs described ongoing issues with efficient referral processing and in particular, were concerned about DHB responsiveness to requests for advice.

Referencing the Maitlis (2005) sensemaking type definitions, the Service Manager and Clinical Specialist sensemaking type is 'Guided', and the sensemaking of the Primary Care Representative is 'Fragmented'. Population Health Managers did not discuss having any involvement in this practice.

8.1.2.3   *Communication of DHB referral prioritisation decision.*

The Service Manager is formally responsible for ensuring the DHB's referral acceptance decision is communicated to both the patient and the referrer. The prioritisation decision is communicated by letters, and the letter templates must conform to Ministry of Health standards. The decision is communicated as the DHB decision and is not signed by the clinician. Social interaction is controlled and formal. Primary Care Representatives said that they are sometimes asked to follow up with services where GP colleagues question the DHB decision but feedback from the GP to the DHB service appears to be limited.

Primary Care Representatives said they often wish for more information about the reasons why patients have been declined. This suggests that the Primary Care Representative role does not always have an accurate sense of real-time access to DHB capacity. Several Primary Care Representatives mentioned that they believe service decision-making is strongly influenced by the DHB's need to meet Ministry of Health performance targets.

Referencing the Maitlis (2005) sensemaking type definitions, the Service Manager's sensemaking type is 'Restricted' because the acceptance decision is determined by the DHB service, not the Clinical Specialist (who is a stakeholder in the practice because the specialist will assess the patient). The Primary Care Representative's sensemaking type is fragmented because of this independent view of decision-making based on referral prioritisation consistency. Clinical Specialists and Population Health Managers did not discuss having any involvement in this practice.

8.1.2.4   Primary Care elective clinical pathways implementation.

The Primary Care Representative narrative in all case studies highlights that the development and implementation of primary care elective clinical pathways has been led by the PHO but involves the Clinical Specialist, Service Manager and Funding and Planning Manager. The Primary Care Representatives interviewed were often taking a lead role in pathway direction and development. Canterbury DHB is seen as an exemplar of clinical pathways implementation and, in particular at one of the DHB cases, is noted for its shift of funding to primary care to support the uptake of clinical pathways. There is strong sensegiving of how clinical pathways can influence the primary-secondary interface from the experiences of the Canterbury DHB. Primary Care Representatives' sensemaking of the effectiveness and the use GPs make of clinical pathways is somewhat limited, as it is taking time for pathways to be adopted and there was no formal evaluation of pathway implementation. However, the narrative of pathway development illustrates how the process involves collaboration between stakeholders, where there is good knowledge of issues by leader and stakeholders and high levels of social interaction with feedback.

Referencing the Maitlis (2005) sensemaking type definitions, this practice is 'Guided' for all four roles.

8.1.2.5   Elective service redesign.

Decision-making in relation to the Service redesign practice is described by both senior DHB managers and Primary Care Representatives. At the time of interviews, responsibility for service redesign had shifted to the Service Leadership Alliance Team (which includes representatives from the DHB and PHO).

Primary Care Representatives were critical of the DHB's commitment to *Service redesign* because there was unwillingness to follow the lead of the Canterbury DHB and shift funding. In two cases, DHBs were described as being risk averse in respect of funding deficits and specialist reluctance to allow primary care to access secondary care diagnostics was seen as an issue. Service Managers agreed that the economic implications of *Service redesign* were unknown and part of the issue is anchoring performance accountability to primary care funding. The implications for hospital service financial viability are not inconsiderable, because some services operate at a deficit and some at a surplus. The long-term viability of

some specialties would be an issue if service delivery is outsourced to primary care. Hospital core capability is diminished but not all patient demand for services is lost. Service Mangers also expressed concern about GP skills. Primary Care Representatives acknowledge that not all GPs want to upskill and diversify their clinical practice. More evaluation of benefits appears to be needed.

Referencing the Maitlis (2005) sensemaking type definitions, there is a low sense of the implications of service changes to amongst some Service Managers and Primary Care Representatives. Therefore, sensemaking type is assessed to be 'Minimal' for *Service redesign* practice.

8.1.2.6 *Improving the primary-secondary interface: consolidated sensemaking type findings.*

Table 8.2 summarises the findings of the sensemaking type analysis for the *Improving the primary-secondary interface* set of practices. These findings inform an understanding of the responsiveness of these roles to government performance expectations, and of the ability of these roles to intervene in organisational practices when feedback about performance is received. The interviewed Funding and Planning Managers did not discuss these practices, but this is not as significant as it appears because this is not their designated responsibility and the system integration manager within Funding and Planning was not interviewed. What is interesting about this analysis is where the Primary Care Representative had a range of sensemaking responses to the DHB practices. The most effective practice for improving the interface is clearly the implementation of primary care clinical pathways.

Table 8.2: Sensemaking type analysis: improving the primary-secondary interface priorities and practices

Priorities	Practices	Funding & Planning Manager	Service Manager	Clinical Specialist	Primary Care Representative
Health information integration	GP referring	-	Fragmented	-	Fragmented
Performance standards	Referral processing and clinical prioritisation	-	Guided	Guided	Restricted
Performance standards	Communication of DHB decision	-	Restricted	-	Restricted
Electives clinical pathways, DHB-PHO alliance model Service redesign Health information integration	Primary care clinical pathways implementation	-	Guided	Guided	Guided
Service redesign, DHB-PHO alliance model	Elective service redesign	-	Minimal	-	Minimal

Note: A dash (-) signifies that a role did not discuss involvement in a practice.

8.1.3 Maintaining patient flow: sensemaking type analysis.

Chapter Seven describes the Clinical Specialist and Service Manager narratives of how the DHB experiences the government's ongoing monitoring of hospital elective service patient flow. Table 7.15 on page 213 summarises the interconnections amongst Government priorities, organisational practices and resource environment variables and illustrates that the five patient flow management practices are highly interdependent.

8.1.3.1 *Nationally consistent clinical prioritisation.*

The Ministry of Health formalises the expectations that all patients who receive publicly funded elective services are clinically assessed using nationally consistent criteria and that patients are prioritised for treatment in order of need. All Clinical Specialist interviewees said they supported the need to clinically prioritise patients. For the DHB, the recognition of nationally consistent clinical prioritisation tools is an external process, led by the Ministry of Health with the support/endorsement of professional associations. For a DHB service, the clinical prioritisation of a patient for a procedure/treatment is the responsibility of the Clinical Specialist, or their delegatee. The leader of the *Nationally consistent clinical prioritisation* practice is therefore the Ministry of Health with the Service Manager

overseeing compliance with process. The stakeholder is the Clinical Specialist, since they perform the practice.

The narratives of the Clinical Specialists in this study suggest that tool reliability and implementation of CPAC remains a concern. The sensegiving of the RWT Strategy to the Clinical Specialist when CPAC tools were first introduced remains contentious, and some clinicians still feel distrust and that they were misled about the use of prioritisation to ration health care. Some Clinical Specialists sensemaking of the practice is that if patients need health care, they need it, and the issue is with sufficiency of supply of elective services. The timeframes for evaluating risks in health care supply are longer than the 3-year political cycle. Clinical Specialists appear to be uncomfortable with rationing services and also with deferring health care.

The sensegiving of scores was also questioned by Clinical Specialists and Service Managers because the ability to score several patients consistently complicates comparison between providers and districts, and decision outcome was seen to be more important. The factors that influence treatment order are also complex and one Service Manager explained that CPAC score is not always an indication of the actual priority and required waiting time for a patient. The sensegiving and sensemaking of CPAC scores are not always aligned in practice.

Referencing the Maitlis (2005) sensemaking type definitions, the sensemaking type of *Nationally consistent clinical prioritisation* for both the Clinical Specialist and Service Manager is 'Fragmented' because both roles recognise that what the government expects of clinical prioritisation and how it is used in practice are different. Primary Care Representative and Funding and Planning Manager interviewees did not discuss nationally consistent prioritisation.

8.1.3.2   *Give patients certainty.*

The *Give patients certainty* practice is the responsibility of the Service Manager role. Booking administrators are notified of a patient's CPAC score and apply the score to determine which patients are given certainty. Setting the CPAC score service access threshold is done in collaboration with Clinical Specialists in the service. The three determinants of service access are CPAC score, service financial threshold, and service

capacity. Several Service Managers said capacity planning tools provide minimal sensegiving to service capacity because there are too many variables.

Service Managers described how some clinicians want to distance themselves from decisions about service acceptance. If clinicians are not 'on-board' with CPAC tool scoring and do not rely on the tool to assign a score, then it is very difficult to set service access thresholds based on CPAC scores. When told by an orthopaedic specialist that the DHB would be financially penalised if the specialty did not deliver services on time, one Primary Care Representative described such action as 'the most bizarre management strategy in the history of the universe'. The Primary Care Representatives did not discuss any involvement in the practice, but said they make the system work and re-refer the patient at a later date if this is appropriate.

Referencing the Maitlis (2005) sensemaking type definitions, the sensemaking type of the *Give patients certainty* practice is 'Guided' for the Service Manager and Clinical Specialist role because they have to collaborate for decision-making to work. The Funding and Planning Managers did not discuss involvement in this practice.

8.1.3.3   *Manage service delivery waiting time.*

The Service Manager is formally responsible for ensuring the DHB manages service waiting times according to Ministry of Health waiting time performance standards. The Ministry of Health provides monthly reports to the DHB highlighting patients who are at risk of breaching waiting time and this information serves as sensegiving tool to the Service Manager. The Clinical Specialist role is the stakeholder in the practice and the two roles work collaboratively to ensure the DHB achieves ESPI compliance. Service Managers described the challenges of being able to sustain a four month waiting time in an acute and electives operating model and for all patients to be ESPI compliant. In the real world, patients are not always ready for surgery when offered a date. Primary Care Representatives observed that, in the case of a first specialist assessment, some services were swamped with inappropriate referrals. There are also challenges with treating patients in priority order according to score and information is not collected about the reasons for treatment order. Two Service Managers described occasions where services were ESPI non-compliant and Clinical Specialists were non-cooperative. On these occasions Service

Managers instructed booking administrators to use booking list reports to determine the priority booking order.

According to the Maitlis' sensemaking definitions, the sensemaking type of the Manage service delivery waiting time practice is 'Guided' for the Service Manager and Clinical Specialist role because they have to collaborate to manage waiting time. The Primary Care Representative and Funding and Planning Managers did not discuss involvement in this practice.

8.1.3.4   National data collecting reporting.

The practice of *National data collection reporting* is the combined responsibility of the DHB Information Manager and Service Manager. The Ministry of Health national data collection reporting specifications and data dictionaries, and the Electives Resources Pack (Ministry of Health, 2014h) serve as sensegiving tools to guide the practice. The vocabulary of practice associated with national data collection reporting is not always the same as the vocabulary used by front-line staff.

Information Managers and analysts said they had come to understand the electives performance framework as a result of sorting out data quality issues and working with Service Managers. The framework and performance indicators are complex and several interviews felt that front-line staff did not understand why they were collecting the data and how national data collections are used by government. In theory, how the patient flows through the health system is discoverable by the Ministry of Health through the National Booking Reporting System and National Patient Flow data collections. In practice, study participants said patient journeys are complex and there are disconnects between the expected sequence of data collection and the real world of data collection. DHBs have to absorb the administrative cost for services that are not provided, (such as referrals that are declined or patients who do not attend appointments), and for handling errors in national data collection reporting.

Referencing the Maitlis (2005) sensemaking type definitions, the sensemaking type of the national data collection reporting practice is 'Guided' for both the Service Manager and Information Manager/Analyst role. The Clinical Specialist, Primary Care Representative and Funding and Planning Managers did not discuss involvement in this practice.

8.1.3.5   *Performance evaluation.*

The Service Managers' narratives describes *Performance Evaluation* practice in terms of strong government sensegiving of performance by ESPIs. The overall impression provided by the Chapter Seven narrative is of the DHB being forced to be compliant with an ESPI performance framework and, unlike service supply and the Electives Health Target, the DHB has difficulties with sustaining patient flow target compliance. Service Managers describe the pressure they feel to meet ESPI targets, not least because the DHB faces financial penalties for non-compliance, but because they face lots of questions from the Board and senior leaders if services are non-compliant.

The performance management system is seen as being owned by the Ministry of Health. Several Service Managers said that ESPIs don't take account of how the DHB manages service constraints, such as patient and clinician availability. The sensegiving provided by ESPIs was seen to have improved in 2012, when ESPI definitions were changed. One Service Manager questioned whether ESPIs were still relevant in the current environment because they do not monitor the performance of the clinical workforce.

Service Managers said they had limited analytical capabilities to predict capacity and determine patient booking order. The understanding of services at risk of non-compliance is subjective. Some patients enter and exit the booking system in the same month and never show in performance measures. Where there are multiple data warehouses and analysts in a DHB there is potential for different interpretations of the data. One Service Manager admitted they do not show clinicians ESPI reports because if a service is non-compliant this can demotivate, but several Service Managers said that clinicians had minimal interest in ESPIs in any event. The overall impression provided by the Chapter Seven narrative is of the DHB being forced to be compliant with an ESPI performance framework and, unlike the Electives Health Target, it illustrates difficulties with maintaining compliance.

Referencing the Maitlis (2005) sensemaking type definitions, the sensemaking type of *Performance Evaluation* practice for the Service Manager is 'Restricted'. The Ministry of Health's perspective of performance dominates the patient flow management activity domain. The Clinical Specialist, Primary Care Representative and Funding and Planning Manager did not discuss involvement in this practice.

8.1.3.6   Maintaining patient flow: consolidated sensemaking type analysis findings.

The findings of the sensemaking type analysis for the five Maintaining patient flow practices are summarised in Table 8.3. The consolidated findings show that the Service Manager is the most responsive to performance monitoring and feedback on these practices. The Funding and Planning Manager and Primary Care Representative did not discuss involvement in these practices. The Clinical Specialist does not appear to be motivated by government perceptions of DHB performance management.

This analysis is used to understand the responsiveness of a role and its associated institutional logics to practices and will be used to develop an understanding of the coupling strength of institutional logics with practices in section 8.3.2.

Table 8.3: Sensemaking type analysis: maintaining patient flow

Priorities	Practices	Funding & Planning Portfolio Manager	Service Manager	Clinical Specialist	Primary Care Representative
Nationally consistent clinical prioritisation	Clinical prioritisation	-	Fragmented	Fragmented	-'
Standardised booking processes	Give patients certainty	-	Guided	Guided	-
Standardised booking processes Service delivery improvement	Manage service delivery waiting times	-	Guided	Guided	-
Standardised booking processes National data collection reporting	National data collection reporting	-	Guided	-	-
ESPI compliance, Standardised booking processes Service delivery improvement	Performance evaluation (ESPIs)	-	Restricted	-	-

Note: A dash (-) signifies that a role did not discuss involvement in a practice.

8.2 Managerial Behavioural Response Analysis

As outlined in Chapter Three, Pratt and Foreman (2000, pp. 25-35) identify four managerial approaches, which allow the levels of collaboration and synergy that exist amongst multiple identities in an organisation to be controlled. The purpose of controlling how multiple identities interact is to accrue benefits, such as legitimacy or strategic value, or to reduce conflict and harm. Pratt and Foreman (2000, p. 20) "posit that organisations have multiple organisational identities when different conceptualisations exist regarding what is central, distinctive, and enduring about the organisation". For example, in this study the different perspectives of the DHB as an organisation include the need to achieve the following functions (1) to fund and plan elective services to meet the needs of a target district population; (2) to manage the operational delivery of elective services in public hospitals; (3) to provide specialist elective health care services to patients; and (4) to co-ordinate and integrate primary and secondary health care services in order to make optimal use of available resources. Pratt and Foreman argue that the different viewpoints on why the organisation exists do not have to be in conflict or be consciously shared; the main assumption of the managerial behavioural response classification is that the interaction of multiple organisational identities in organisational practices are able to be managed.

The analysis in this section considers how the four principal roles described in the last section, (namely the Funding and Planning Manager, the Service Manager, Clinical Specialist and Primary Care Representative), are managed in the fifteen organisational practices in order to achieve performance outcomes. Applying the four managerial behavioural approaches identified by Pratt and Foreman (2000) to this study means the DHB can opt to aggregate, compartmentalise, integrate, or delete roles from a practice.

Table 8.4 (next page) illustrates the relationship between the sensemaking type analysis in section 8.1, managerial behavioural response and the need for a role to act independently and for role synergy in organisational practices.

Aggregation means that there is a need for individuals to collaborate and co-ordinate their efforts in an organisational practice. For example, in service provider contracting a Funding and Planning Manager and a Decision Support Representative are representing distinct functions of the DHB (funding and planning, service management, and clinical service

provision). Aggregation of roles is typically associated with 'Guided' sensemaking because social interaction is collaborative and aims to facilitate a desired outcome. As a managerial approach, aggregation decreases the potential for conflict but is expensive in terms of the resources that are required to organise practices.

Compartmentalisation means that individuals work independently, either to avoid conflict or because there is a need for autonomy. For example, a Clinical Specialist prioritises a referral and advises a service administrator of the priority which leads to the communication of the DHB's service acceptance decision to the patient and referrer. There is no requirement for synergy between the roles because each role makes an independent contribution to the completion of a practice. Compartmentalisation of roles is typically associated with 'Restricted' and 'Fragmented' sensemaking.

Integration means that individuals work together but multiple roles are fused. For example, a regional clinical network involves clinical specialists and other DHB roles meeting and focussing on sustaining vulnerable services across the region. The goals are regional and not at the district, service or patient level. Integration may be associated with 'Minimal' sensemaking.

Deletion means that individuals are excluded from practices. For example, Shared Service Agencies have been formed to assist DHBs with *Regional Service Planning*. This enables the DHB to focus on district service planning and to conserve resources. Deletion may be associated with the non-discussion of practices.

Table 8.4: Managerial Behavioural Response: role independence and synergy matrix

Sensemaking Type(s)	Managerial Behaviour Response(s)	Need for role independence	Need for synergy
Guided	Aggregation	LOW	HIGH
Restricted or Fragmented	Compartmentalisation	HIGH	LOW
Minimal	Integration	LOW	HIGH
Not discussed	Deletion	LOW	LOW

This analysis also associates institutional logics with the five roles, (namely the Funding and Planning Manager, Decision Support Representative, Service Manager, Primary Care Representative and Clinical Specialist) in order to recognise that the DHB is managing not

only the behaviour of individuals but it is positioning institutional logics to dominate or co-exist at the practice level.

8.2.1 Increasing elective supply strategies: managerial behavioural response analysis.

8.2.1.1 District annual planning.

Interviews with DHB Board members and senior leaders indicated there is a high level of support for the Funding and Planning Manager to independently represent the DHB in *District annual planning*. Legitimacy and strategic value accrues from a managerial behavioural response of 'Compartmentalisation' because district level service planning needs to consider the needs of the DHB population independently from the public hospital service provider. Compartmentalisation of this practice avoids conflict between the funding and planning and service provider function of the DHB.

The Funding and Planning Manager, and by association the *logic of population health management,* is observed to dominate annual planning. The other three roles, and by default their associated field-level institutional logics, are therefore managed using a managerial behavioural response of 'Deletion'.

8.2.1.2 Regional service planning.

Interviews with DHB Board members and executive leaders suggest there is limited support from senior managers for *Regional Service Planning* because the DHB accrues legitimacy first and foremost from its district level performance, and its focus is therefore on district level planning. Government health information strategies have required DHBs to invest in regional information systems but sometimes the benefits of investment were seen to have accrued to other DHBs.

Changes to regional planning legislation in 2011 and the introduction of a Regional Electives Health Target are considered to be examples of the use of performance management to coerce the DHB to participate in *Regional Service Planning*. Funding and Planning Manager and Shared Service Agency Managers narrative about the resource environment confirmed that inflexible inter-district flow funding rules constrain cross-boundary service delivery arrangements between DHBs. Another constraint is the inability to integrate service and clinical information to support performance and practice benchmarking.

DHBs have devolved responsibility for *Regional Service Planning* to the Shared Service Agency. The Funding and Planning Manager, Decision Support Representative and Service Manager described limited participation and support for *Regional Service Planning*, although it was acknowledged that they agreed with the principle of regional collaboration. Therefore, the managerial behavioural response to *Regional Service Planning* has been one of 'Integration' for the *logic of population health management* and the *logic of service management*.

There is strong support for clinician involvement in regional clinical networks and these networks are an example of normative influence, whereby professionals seek to influence DHB decision-making about how resources are allocated, and synergy is achieved through regional collaboration. However, on occasions there has been a stalemate, neurosurgery and bariatric surgery in the South Island were given as examples where the government has intervened to manage inter-DHB conflicts. The *logic of medical professionalism* has been managed using 'Compartmentalisation', since regional clinical networks are coordinated by the Shared Services Agency. Primary Care Representatives did not discuss involvement in *Regional Service Planning* and it is therefore assumed that the managerial behavioural response to the *logic of integrated care* is 'Deletion'.

8.2.1.3   *DHB hospital service provider contracting.*

Interviews with the Funding and Planning Manager and Decision Support Representative confirm there is strong support for the two roles to negotiate service level contracts on behalf of the DHB hospital service provider. The sensemaking type of these roles is 'Guided' and the DHB's managerial behavioural response is therefore one of 'Aggregation'. The *logic of population health management* and the *logic of service management* co-exist in this practice.

However, the sensemaking type of the Clinical Specialist is 'Restricted' and therefore the managerial behavioural response to the *logic of medical professionalism* is 'Compartmentalisation'. The Decision Support Representative acts as a buffer between funding and planning and the clinical specialist service provider to avoid the specialist becoming burdened with unnecessary administration. One Clinical Specialist described high levels of stress associated with negotiating contracts and 'Compartmentalisation' enables

the specialist to focus on service provision. Primary Care Representatives did not discuss involvement in this practice, and therefore the managerial behavioural response to this role and the *logic of integrated care* is one of 'Deletion'.

8.2.1.4   Other provider contracting.

Interviews with Funding and Planning Managers and Service Managers confirmed that one of them will negotiate contracts with other service providers on behalf of the DHB. Although sensemaking is assumed to be 'Guided' with the other service provider, the DHB managerial behavioural response is one of 'Compartmentalisation' as the synergy with internal stakeholders is not required. The Clinical Specialist and Primary Care Representative did not discuss participation in this practice. The managerial behavior response to the *logic of medical professionalism* and the *logic of integrated care* is therefore assumed to be one of 'Deletion'.

8.2.1.5   Performance evaluation.

DHB Board members and senior leaders said they were supportive of the government's use of performance targets. The achievement of DHB service supply performance targets influences both the legitimacy of DHB leadership and is strategic because it influences future service supply. Both the Funding and Planning role and the Decision Support Representative analyse performance independently of each other. However, there is a need for the two roles to co-ordinate perspectives of performance if the DHB has to give an account to government of the reasons for variation. One Decision Support Representative confirmed they are aware of the reasons for production variance well in advance of reporting to Ministry of Health. However, there is limited sensemaking of the relationship between acute and elective service demand.

The DHB's managerial behavioural response to the Funding and Planning Manager, (*the logic of population of health management*), and Decision Support Representative, (*the logic of service management*), is 'Compartmentalisation'. The Clinical Specialist and Primary Care Representative did not discuss participation in this practice and the managerial behavior response to these roles and the *logic of medical professionalism* and the *logic of integrated care* is assumed to be one of 'Deletion'.

8.2.1.6   Increasing elective supply: consolidated managerial behavioural response analysis.

Table 8.5 summarises how the DHB manages the involvement of institutional logics in organisational practices. With the exception of *Hospital Provider Arm Contracting*, where there is the need for roles to collaborate and for synergy, the DHB manages the tension that exists between the funding and planning function and the public hospital service provider function using 'Compartmentalisation'. The use of 'Compartmentalisation' suggests that there is a reasonable level of autonomy in the decision-making associated with this practice.

Table 8.5: Managerial behavioural responses: increasing elective service supply practices

Practice	Logic of population health management	Logic of service management	Logic of medical professionalism	Logic of integrated care
District annual planning	Compartmentalisation	Deletion	Deletion	Deletion
Regional service planning	Integration	Integration	Compartmentalisation	Deletion
Hospital provider arm contracting	Aggregation	Aggregation	Compartmentalisation	Deletion
Other provider contracting	Compartmentalisation	Compartmentalisation	Deletion	Deletion
Performance evaluation	Compartmentalisation	Compartmentalisation	Deletion	Deletion

8.2.2   Improving the primary-secondary interface: managerial behavioural response.

Health system integration and the improvement of primary-secondary liaison is seen to be of strategic value. Board Member and DHB Senior Leaders said they were very supportive of practices and service improvement initiatives that enhanced the primary-secondary interface. Primary Care Representatives said there is strong support from PHOs for health system integration.

8.2.2.1   GP referring practice.

As discussed in section 8.2.1.1, *GP referring* occurs outside of the DHB's jurisdiction and it is therefore difficult to analyse the practice in terms of the DHB response. The GP's decision to refer is indirectly influenced by the DHB's provision of access to diagnostic pathways, and funding of primary care clinical pathways (see section 8.2.2.4). Chief Information Officers and Primary Care Representatives were supportive of initiatives to improve health

information sharing between primary and secondary care. The implementation of eReferral capability has improved GP understanding of DHB service access criteria and facilitates referral information processing.

The DHB's managerial behavioural response to the *logic of integrated care* in *GP referring* practice is one of 'Compartmentalisation'. Whilst the Primary Care Representative works with the Service Manager to understand and communicate service capacity, it is recognised that synergy is needed between the *logic of service management*, the *logic of integrated care* and the *logic of medical professionalism* to ensure patients are referred appropriately. However, because the DHB does not have jurisdiction in GP referring decision-making, the managerial behavioural response to these three logics in this practice is one of 'Deletion'.

8.2.2.2   *Service referral processing and clinical prioritisation.*

As discussed in the sensemaking type analysis, the DHB separates administrative and clinical prioritisation sub-tasks. Ministry of Health process standards and National Patient Flow data collection reporting requirements reinforce the separation of these two tasks. Firstly, the referral is receipted and secondly, it is sent to the service for clinical prioritisation, and priority details are then usually returned to an administrative team to record priority outcome, (which is linked to the next practice, see section 8.2.2.3). Completion of both steps is mandatory. Service administrators and the Clinical Specialist need to co-ordinate workflow to ensure that the DHB meets the required timeframes for referral acknowledgement. Therefore, the DHB's managerial behavioural response to the *logic of service management* and the *logic of medical professionalism* in this practice is 'Compartmentalisation'.

The Primary Care Representative and the Funding and Planning Manager did not describe being involved in these practices and the DHB's managerial behavioural response to the *logic of population health management* and the *logic of integrated care* in this practice is one of 'Deletion'.

8.2.2.3 Communication of DHB referral acceptance decision to GP/Referrer.

The decision to accept or decline an elective service referral is a mandatory practice and it is based on clinical priority and service capacity to provide the service within a minimum timeframe. As discussed in the sensemaking type analysis, the DHB service communicates the acceptance decision and acknowledges that the DHB decision may be because of financial constraints, rather than clinical need. Therefore the DHB's managerial behavioural response to the *logic of service management* is 'Compartmentalisation'. The response to other logics and roles is one of 'Deletion'.

8.2.2.4 Primary care clinical pathways implementation.

Primary care clinical pathways implementation is seen as highly strategic by DHB senior managers and was supported by most interviewees. Case study DHBs were at different stages of implementation and some had limited resources but all DHBs described a process for identifying if a pathway is needed and of primary and secondary care stakeholder engagement to formalise the pathway. In all cases the practice is being led by primary care and is strongly influenced by the Primary Care Representative. The managerial behavioural response for all logics in Primary care clinical pathways implementation is 'Aggregation' because all roles need to work in synergy to identify and realise the benefits of pathways implementation.

8.2.2.5 Elective service redesign.

DHB senior leader support for elective *Service redesign* is mixed but there are examples of successful shifting of services, such as skin lesion removal, to primary care. Sensemaking type analysis is minimal and much of the work in elective *Service redesign* is being discussed by a Service Leadership Alliance Team, under the DHB-PHO Alliance Leadership Model. The DHB managerial behavioural response to this practice is therefore one of 'Integration'.

8.2.2.6 Improving the primary-secondary care interface: consolidated managerial behavioural response analysis.

Table 8.6 summarises how the DHB manages logics in practices in order to improve the elective service primary-secondary care interface. There are three approaches seen in the summary. The first approach is the case where 'Compartmentalisation' of one logic is used and there is 'Deletion' of other logics. This is seen in *GP referring practice* and the *Communication of DHB decision to the patient and GP/referrer*. In this approach the DHB manages the need for role autonomy, with the result that one logic dominates, the *logic of integrated care* in the case of GP Referring and the *logic of service management* in the case of *Communication of DHB decision to the patient and GP/referrer*.

In the second approach, the *Referral processing and clinical prioritisation* practice, two logics work independently of each other, 'Compartmentalisation' facilitates autonomy, and there is no requirement for synergy between the logics.

In the third approach, the DHB wants to achieve synergy between logics but has to use different strategies in each case due to its different jurisdiction in practice. In the case of *Primary care clinical pathways implementation*, an 'Aggregation' approach is used because legitimacy and strategic benefits accrue from implementation. Legitimacy accrues because the approach is endorsed by government, and strategic benefit accrues because it is believed to optimise the use of clinical resources. In the case of Elective service redesign, there is greater uncertainty about the benefits and impact of shifting services from the public hospital to primary care. An 'Integration' approach delegates the decision-making to senior leaders of a service. As observed by Pratt and Foreman (2000; p.31), there are several models for 'Integration', and one form is a "pseudo-integration", in which the two-faces of the fused identity remain visible. In the Alliance Leadership Model, the DHB and PHO retain their independent voices, the arrangement recognises the boundaries and constraints of both primary and secondary care settings. 'Integration' is very similar to an 'Aggregation' response but change in practice has not yet occurred and it allows the DHB leadership to better understand the risks and benefits of service redesign.

Table 8.6: Managerial behavioural responses: improving primary-secondary interface practices

Practice	Logic of population health management	Logic of service management	Logic of medical professionalism	Logic of integrated care
GP Referring	Deletion	Deletion	Deletion	Compartmentalisation
Referral processing and clinical prioritisation	Deletion	Compartmentalisation	Compartmentalisation	Deletion
Communication of DHB decision to patient and GP/Referrer	Deletion	Compartmentalisation	Deletion	Deletion
Implementation of primary care clinical pathways	Aggregation	Aggregation	Aggregation	Aggregation
Elective service redesign	Integration	Integration	Integration	Integration

8.2.3 Maintaining patient flow: managerial behavioural responses.

Chapter Seven highlights that there is a high level of support for hospital patient flow management and DHB compliance with ESPIs 2 and 5.

8.2.3.1 Nationally consistent clinical prioritisation.

External and internal stakeholder support for the practice of *Nationally consistent clinical prioritisation* is strong. The endorsement of tools by professional association is critical. Ministry of Health process standards require that all patients are assessed using nationally recognised CPAC tools and, at the time of interviews, the Ministry was implementing new CPAC tools and a new National Prioritisation Platform. Three Service Managers were supportive of the Ministry's new approach, but one observed that it was time-consuming to change practice and clinicians were suspicious of the reasons for the change.

Assessment may be delegated to nurses or allied health providers but the Clinical Specialist is responsible for the practice. The DHB's managerial behavioural response to the *logic of medical professionalism* is 'Compartmentalisation'. The response to other logics is 'Deletion'.

8.2.3.2 Giving patients certainty.

Ministry of Health performance standards require that all patients are given certainty about whether or not they will receive elective surgery or treatment. If the DHB is using the active review booking status, then *Giving patients certainty* extends to the review of patients who are in active review. Internal stakeholder support for the use of active review appears to be declining. As the sensemaking type analysis shows, Service Mangers assume responsibility and manage this practice because there are tensions between management and the Clinical Specialist about funding constraints. The DHB's managerial behavioural response for the *logic of service management* is 'Compartmentalisation'. The managerial behavioural response for other logics is 'Deletion'.

8.2.3.3 Manage service delivery waiting times.

There are high levels of internal and external stakeholder support for the *Manage service delivery waiting times* practice because waiting times are closely monitored by the Ministry and the DHB faces financial penalties if it is non-compliant for extended periods. The Service Manager oversees ESPI compliance but the practice relies on collaboration between the service and Clinical Specialist. Resource constraints are high in this practice because elective waiting time is impacted by acute demand for hospital resources and patients' availability.

The DHB's managerial behavioural response to the *logic of service management* and the *logic of medical professionalism* is 'Aggregation'. At times when services are ESPI non-compliant, the Service Manager may resort to 'Compartmentalisation' and instruct administrators to 'shop off the booking list'. The managerial behavioural response for other logics is 'Deletion'.

8.2.3.4 National data collection reporting.

National data collection reporting is mandatory and internal and external stakeholders are supportive of the practice because it accrues legitimacy. The Service Manager and Information Manager are accountable for data collection and reporting and other roles did not discuss *National data collection reporting*. The DHB's managerial behavioural response to the *logic of service management* is 'Compartmentalisation' and the response to other logics is one of 'Deletion'.

8.2.3.5   Performance evaluation.

The Ministry of Health's monitoring of patient flow management is intense and non-compliance creates pressure for DHB leaders. There is strong pressure from the Board and the Ministry of Health for the DHB to sustain ESPI compliance. Maintaining ESPI compliance confers legitimacy on the DHB and, as several Board members observed, keeps the DHB out of the newspapers. The practice is resource-intensive because there are factors that influence compliance, (such as reports on patients who are at risk of breaching waiting timeframes, capacity planning tools, availability of the specialist workforce, and patient readiness for assessment or treatment). As discussed in the sensemaking analysis, clinicians have little interest in ESPI compliance. The *logic of service management* relies on DHB information management practices to maintain ESPI compliance and the managerial behaviour response in this practice is one of 'Compartmentalisation'. The managerial behavioural response for other logics is 'Deletion'.

8.2.3.6   Maintain patient flow: consolidated managerial behavioural response analysis.

Table 8.7 summarises how the DHB manages the logics in the five Maintain patient flow practices. The main approach, seen in three practices, is to compartmentalise the *logic of service management* and to delete other field-level logics. Compartmentalisation aims to reduce the levels of conflict and tension that occur as a result of performance management and allows the *logic of service management* to dominate these practices. In nationally consistent clinical practice the *logic of medical professionalism* is dominant because of the need for the Clinical Specialist to exercise autonomy in decision-making. Waiting time management practice requires the Service Manager and Clinical Specialist to co-ordinate efforts in order to achieve ESPI compliance. Overall, the *logic of service management* appears to dominate the DHB management of patient flow practices.

Table 8.7: Managerial behavioural responses: maintain patient flow practices

Practice	Logic of population health management	Logic of service management	Logic of medical Professionalism	Logic of integrated Care
Nationally consistent clinical prioritisation	Deletion	Deletion	Compartmentalisation	Deletion
Give patients certainty	Deletion	Compartmentalisation	Deletion	Deletion
Manage service delivery waiting times	Deletion	Aggregation	Aggregation	Deletion
National Data Collection Reporting	Deletion	Compartmentalisation	Deletion	Deletion
Performance Evaluation (ESPIs)	Deletion	Compartmentalisation	Deletion	Deletion

8.2.4 Managerial behavioural response analysis: Consolidated findings.

Figure 8.1 presents the findings of the managerial behavioural response analysis as a quadrant diagram. What is significant about this analysis is that it shows that the DHBs rely on 'Compartmentalisation', separating logics to complete practices. The DHBs use of 'Aggregation' and 'Integration' approaches is not the norm. These findings help to explain why performance measures are meaningful to some individuals and not to others. The findings also contribute to field-level institutional logics coupling strength analysis in section 8.3.2. The justification and outcome of managerial separation of logics is discussed further in Chapter Nine.

Note: Key to Institutional Logics:
PHMIL - Population health management, SMIL - Service management, MPIL - Medical professionalism, ICIL - Integrated care

Compartmentalisation	Aggregation
Increased Elective Supply District Annual Planning (PHMIL) Regional Service Planning (MPIL) Hospital Provider Contracting (MPIL) Other Provider Contracting (PHMIL, SMIL) Performance Evaluation (PHMIL, SMIL)	**Increased Elective Supply** Hospital Provider Contracting (PHMIL, SMIL)
Improved Primary Secondary Liaison GP Referring (ICIL) Referral Processing and Clinical Prioritisation (SMIL, MPIL) Communication of DHB decision to GP Referrer (SMIL)	**Improved Primary Secondary Liaison** Primary care clinical pathways implementation (PHMIL, SMIL, MPIL, ICIL)
Maintain Patient Flow Clinical Prioritisation (MPIL) Give Patients Certainty (SMIL) National Data Collection Reporting (SMIL) Performance Evaluation (SMIL)	**Maintain Patient Flow** Manage Waiting Time (SMIL, MPIL)
Deletion	**Integration**
Increased Elective Supply District Annual Planning (SMIL, ICIL, MPIL) Regional Service Planning (ICIL) Hospital Provider Contracting (ICIL) Other Provider Contracting (ICIL) Performance Evaluation (MPIL, ICIL)	**Increased Elective Supply** Regional Service Planning (PHMIL, SMIL)
Improved Primary Secondary Liaison GP Referring (PHMIL, SMIL, MPIL), Referral Processing and Clinical Prioritisation (PHMIL, ICIL) Communication of DHB decision to GP Referrer (PHMIL, ICIL, MPIL)	**Improved Primary Secondary Liaison** Elective Service Delivery Redesign (PHMIL, SMIL, MPIL, ICIL)
Maintain Patient Flow Clinical Prioritisation (PHMIL, SMIL, ICIL) Give Patients Certainty (ICIL, PHMIL, MPIL) Manage Waiting Time (PHMIL, ICIL) Performance Evaluation (PHMIL, MPIL, ICIL)	

Figure 8.1: Analysis of managerial behavioural response: Organisational practices and institutional logics

8.3 Coupling Strength Determination

The third and final analysis considered in this chapter examines the coupling strength of institutional logics with organisational practices in order to answer the study's research question. Coupling strength is defined in section 3.1.2 on page 58, and 'strength' is described in descriptive terms, (such as non-coupled, decoupled, loose, selective, and tight). In order to quantify and compare these strengths so that coupling strength can be visualised (see Figures 28-30), a numerical scale has been applied to coupling strength, such that non-coupling is 0, decoupled is 1, loose is 2, selective 3 and tight is 4.

8.3.1 Government institutional logics coupling strength analysis.

Coupling strength analysis of government institutional logics conveys a picture of performance management that is 'espoused' for a practice (see section 2.2.3, page 37). The analysis considers the extent to which government performance expectations and service delivery improvement directives are embedded in a formal documented performance model, encoded in information systems.

8.3.1.1 *Government institutional logics coupling analysis: Increasing elective supply.*

The Increasing elective services supply set of practices has four associated performance measures. Three of the measures, (base level volumes, an Elective Health Target (District and Regional level, and Standardised Intervention Rates), are output targets, prospective in focus, and are used for performance benchmarking. The fourth measure, (Standardised Discharge Ratios), are ratios of what has been delivered, are retrospective in focus, and are used in practice benchmarking. The Electives Health Target and Standardised Intervention Rates are non-negotiable and base level volumes are predicated by historical service delivery. Since 1 July 2011 DHBs have been required to participate in *Regional Service Planning*.

Therefore, performance measurement is embedded in all of the practices examined in the Increasing service supply activity domain. The *logic of active performance management* is found to be tightly coupled to all five practices (*District annual planning*, *Regional Service Planning*, *Hospital Provider Arm Contracting*, *Other Provider Contracting,* and *Performance evaluation*).

The *logic of service improvement* is evident in the need to increase output volumes in line with population health changes. This logic mainly targets public hospital capacity. With the exception of *Regional Service Planning*, (which is selectively coupled because the practice focuses on improving vulnerable and agreed DHB services), all practices are assessed as being tightly coupled to the *logic of service improvement*.

8.3.1.2 *Government institutional logics coupling analysis: Improving the primary-secondary interface.*

The Improving the primary-secondary interface set of practices has one associated performance measure, DHB responsiveness to GP referrals for first specialist assessment. Since July 2012 100% of all FSA referrals need to be acknowledged within ten working days. Therefore the *logic of active performance management* is tightly coupled to *Referral processing and clinical prioritisation* and to the *Communication of referral acceptance decision*. There are no performance measures embedded in *GP Referring*, *Primary care clinical pathways implementation* or *Elective service redesign*, therefore these practices are non-coupled to the *logic of active performance management*.

Government health information strategies have directed DHBs to improve *GP Referring* practices through the implementation of eReferrals and the integration of clinical pathways/guidelines with primary care information systems. However, not all elective procedures have a clinical pathway that supports direct access to treatment. The government has also directed that, where feasible, more elective services should be offered in the community setting and greater use should be made of GPs with special interests. The Leadership Alliance Model, mandatory since 1 July 2013, has required that Service Leadership Alliance Teams (SLATs) look specifically at service redesign options. The National Patient Flow data collection has aimed to collect more detailed information about reasons for referral and clinical prioritisation decision-making. Therefore the *logic of service improvement* is tightly coupled to GP Referring, and *Referral processing and clinical prioritisation* practices. It is selectively coupled to primary care clinical pathways and service redesign. The analysis finds little evidence of directives to improve the DHB's communication of referral acceptance decision, and this practice is found to be decoupled from the logic of service improvement.

8.3.1.3 Government institutional logics: Maintaining patient flow.

There are five Electives Services Patient Flow Indicators (ESPIs) associated with the Maintaining patient flow set of practices. Since 1 July 2012 DHBs have been expected to fully comply with these indicators and financial penalties have applied in circumstances of extended non-compliance. Therefore all organisational practices discussed in Chapter Seven are expected to be tightly coupled to the *logic of active performance management*.

DHBs have been required to participate in initiatives that are concerned with improving CPAC tool development and implementation. There have also been a number of Ministry of Health funded projects concerned with improving theatre utilisation, preparing patients for surgery, discharge planning, and post-surgery recovery. The implementation of the National Patient Flow national data collection has also required more detailed information to be collected about most aspects of hospital elective service delivery, including diagnostic services and follow up assessments. There has been little change in how patient flow has improved or hospital capacity has improved as a result of service improvement initiatives. For example, it is not apparent from the ESPI analysis whether service improvement interventions have reduced waiting times.

Therefore the *logic of service improvement* is assessed as being selectively coupled to *Nationally consistent clinical prioritisation*, *Manage service delivery waiting times*, and *National data collection reporting* practices. It is non-coupled to *Giving patients certainty* and *Performance evaluation* practices.

8.3.2 Field-level institutional logics.

Coupling strength analysis of the four field-level institutional logics conveys a picture of performance management as it is 'in-use' or 'enacted' for a practice (see section 2.2.3, page 37). The analysis considers the extent to which the role of an individual, and their associated field-level institutional logic, are responsive to government active performance management and to the measures and reporting requirements associated with an organisational practice. If a role is directly accountable for the DHB's performance of a practice and is responsive to the feedback about practice performance then the coupling of logic to a practice is considered to be tight. In some cases accountability for action is conditional on certain criteria being met, (for example not all elective service procedures

have a primary care clinical pathway or are the focus of *Regional Service Planning*). In which case coupling strength can be considered to be selective. If a role becomes dissociated from the performance management of the practice, this is reflected in a coupling strength of loose or decoupled. In some cases there is no real expectation of the involvement of a role with a practice, in which case the coupling strength is zero between a logic and practice.

8.3.2.1 *Field-level institutional logics: population health management.*

Table 8.8 summarises the findings of the coupling strength analysis for the *logic of population health management*. According to the ideal type definition of this logic, (see page 85), legitimacy accrues for the logic from the redistribution of resources, sensemaking is externally directed, and the basis of social norms is dispassionate and issue-focussed decision-making.

The Funding and Planning Manager role is accountable for *District annual planning*, *Hospital Provider Arm Contracting*, and *Performance Evaluation* practices. The coupling strength of the *logic of population health management* with these practices is tight. Accountability for *Other Provider Contracting* is sometimes shared with the hospital service provider and the coupling strength of the *logic of population health management* with this practice is selective. Where there is no direct accountability for practice performance measures, there is decreased involvement in practices and coupling strength is reduced. There is minimal sensemaking of *Regional Service Planning* and the *logic of population health management* is loosely coupled to the practice. Funding and Planning Managers are a stakeholder in Primary care clinical pathway implementation and Elective service redesign because of the funding implications of service delivery change. There are no performance measures associated with these practices and the relocation of services to primary care is taking some time to be delivered. As a result, the *logic of population health management* is selectively coupled to these two practices. The Funding and Planning Manager is not involved in hospital operational decision-making and therefore the *logic of population health management* is not coupled to the remaining practices.

Table 8.8: Coupling strength: DHB elective service organisational practices and *logic of population health management*

Organisational Practice	Sensemaking Type	Managerial Behavioural Response	Accountability for practice performance measures	Responsiveness to practice performance measure feedback	Coupling Strength (Scale 0-4)
District annual planning	Restricted	Compartmentalisation	High	High	Tight (4)
Regional service planning	Minimal	Integrated	Low	Low	Loose (2)
Hospital provider arm contracting	Guided	Aggregation	High	High	Tight (4)
Other provider contracting	Guided	Compartmentalisation	Low/High	High	Selective (3)
Performance evaluation (supply)	Restricted	Compartmentalisation	High	High	Tight (4)
GP referring	-	Deletion	Low	Low	Non-coupled (0)
Referral processing and clinical prioritisation	-	Deletion	Low	Low	Non-coupled (0)
Communication of decision to patient and GP	-	Deletion	Low	Low	Non-coupled (0)
Clinical pathways implementation	-	Aggregation	Low/High	High	Selective (3)
Elective service redesign	-	Integration	Low/High	High	Selective (3)
Clinical prioritisation	-	Deletion	Low	Low	Non-coupled (0)
Give Patients certainty	-	Deletion	Low	Low	Non-coupled (0)
Manage waiting times	-	Deletion	Low	Low	Non-coupled (0)
National data collection reporting	-	Deletion	Low	Low	Non-coupled (0)
Performance Evaluation (Patient Flow)	-	Deletion	Low	Low	Non-coupled (0)

8.3.2.2 *Field-level institutional logics: service management.*

Table 8.9 summarises the findings of the coupling strength analysis for the *logic of service management.* According to the ideal type definition of this logic, (see page 85), service provision direction is based on standardised routines, and the basis of social norms is the efficient and effective delivery of services. This logic is associated with the Decision Support Representative and the Service Manager role. This role is accountable for hospital based service planning and delivery and is very responsive to ESPI performance measures. There is tight coupling of the logic to organisational practices that are associated with hospital service data collection and reporting.

In the case of *GP referring*, there are no performance measures or accountability for performance, and the logic is non-coupled to practices. Responsibility for *Regional Service Planning* rests with the Shared Services Agency, and the logic is loosely coupled to *Regional Service Planning*. Accountability for contracting with non-DHB service providers is sometimes shared with the hospital provider, and as a result, the *logic of service management* is found to be selectively coupled to *Other Provider Contracting* practice.

The Service Manager is a stakeholder in *Primary care clinical pathway implementation* and *Elective service redesign* because any changes to service delivery impact how the hospital service utilises its resources and require change management. The focus of attention of service change, at the time of the study, appeared to be on chronic condition management and maternity services rather than elective services. The *logic of service management* is therefore selectively coupled to *Primary care clinical pathway implementation* and *Elective service redesign*.

The Service Manager is not responsible for the clinical prioritisation of either referrals or surgery or treatment needs. Some Service Managers said they had little influence with clinicians in *Nationally consistent clinical prioritisation* practice and are responsible only for ensuring that the service access threshold is set to match capacity. The separation of decision-making related to clinical prioritisation and *Giving patients certainty* means that the *logic of service management* is loosely coupled to *Nationally consistent clinical Prioritisation* practice.

Table 8.9: Coupling strength: DHB elective service organisational practices and *logic of service management*

Organisational Practices	Sensemaking Type	Managerial Behavioural Response	Accountability for practice performance measures	Responsiveness to practice performance measure feedback	Coupling Strength (Scale 0-4)
District annual planning	-	Deletion	Low	Low	Non Coupled (0)
Regional service planning	Minimal	Integrated	Low	Low	Loose(2)
Hospital provider arm contracting	Guided	Aggregation	High	High	Tight (4)
Other provider contracting	Fragmented	Compartmentalisation	Low/High	High	Selective (3)
Performance evaluation (supply)	Fragmented	Compartmentalisation	High	High	Tight (4)
GP referring	Fragmented	Deletion	Low	-	Non-coupled (0)
Referral processing and clinical prioritisation	Guided	Compartmentalisation	High	High	Tight (4)
Communication of decision to patient and GP	Fragmented	Compartmentalisation	High	High	Tight (4)
Clinical pathways implementation	Guided	Aggregation	Low/High	High	Selective (3)
Elective service redesign	Minimal	Integration	Low/High	High	Selective (3)
Clinical prioritisation	Fragmented	Deletion	Low	High	Loose (2)
Give Patients certainty	Guided-Restricted	Compartmentalisation	High	High	Tight (4)
Manage waiting times	Guided	Aggregation	High	High	Tight (4)
National data collection reporting	Guided	Compartmentalisation	High	High	Tight (4)
Performance Evaluation (Patient Flow)	Guided	Aggregation	High	High	Tight (4)

8.3.2.3 *Field-level institutional logics: integrated care.*

Table 8.10 summarises the findings of the coupling strength analysis for the *logic of integrated care.* According to the ideal type definition of this logic, (see page 85), legitimacy is accrued from professional expertise, and the basis of norms is clinical knowledge. Attention is focussed on the doctor-patient relationship and on improving the system of health care service delivery improvement. The logic is concerned with developing a collaborative network between organisations, such as the PHO and DHB, and between individuals, those who refer for services and those who co-ordinate service delivery.

The Chapter Six narrative highlights that the Primary Care Representative has a strong interest in ensuring GP referrals are appropriate. There are no elective performance measures of appropriateness but the logic assumes accountability for quality and the decision to decline a referral because there is insufficient information or the referral is inappropriate acts as feedback. The logic is tightly coupled to referring practice.

The logic of integrated care is not coupled to service planning or hospital patient flow management practices. Primary Care Representatives observe the impact of the government's performance management of referral demand management but they are not accountable for performance and the logic is loosely coupled to Referral processing and Communication of DHB referral acceptance decision through GP liaison activity. The Primary Care Representative is able to assist the DHB service when there is a need to influence either primary or secondary care clinician understanding of how service capacity changes will impact service demand.

The Primary Care Representative is taking a leadership role in Primary care clinical pathways implementation, and is involved in Elective service redesign decision-making through the Alliance Leadership Model. As previously discussed, because it is taking time for elective service delivery models to change, the logic of integrated care is selectively coupled to these practices.

Table 8.10: Coupling strength: DHB elective service organisational practices and *logic of integrated care*

Organisational Practices	Sensemaking Type	Managerial Behavioural Response	Accountability for practice performance Measures	Responsiveness to practice performance measure feedback	Coupling Strength (Scale 0-4)
District annual planning	-	Deletion	Low	Low	Non-Coupled (0)
Regional service planning	-	Deletion	Low	Low	Non-Coupled (0)
Hospital provider arm contracting	-	Deletion	Low	Low	Non-Coupled (0)
Other provider contracting	-	Deletion	Low	Low	Non-Coupled (0)
Performance evaluation (supply)	-	Deletion	Low	Low	Non-Coupled (0)
GP referring	Fragmented	Aggregation	High	High	Tight(4)
Referral processing and clinical prioritisation	Restricted	Deletion	Low	High	Loose (2)
Communication of decision to patient and GP	Restricted	Compartmentalisation	Low	High	Loose (2)
Clinical pathways implementation	Guided	Aggregation	Low/High	High	Selective 3)
Elective service redesign	Minimal	Integration	Low/High	High	Selective (3)
Clinical prioritisation	Fragmented	Deletion	Low	Low	Non-Coupled (0)
Give Patients certainty	Minimal	Deletion	Low	Low	Non-Coupled (0)
Manage waiting times	Restricted	Deletion	Low	Low	Non-Coupled (0)
National data collection reporting	-	Deletion	Low	Low	Non-Coupled (0)
Performance Evaluation (Patient Flow)	Minimal	Deletion	Low	Low	Non-Coupled (0)

8.3.2.4 Field-level institutional logics: medical professionalism.

Table 8.11 summarises the findings of a coupling strength analysis for the *logic of medical professionalism*. According to the ideal type definition of this logic, (see page 85), legitimacy is accrued from professional expertise and the deference senior medical professionals receive from managers, patients and lower-status clinicians. The basis of social norms is clinical knowledge, attention is focussed on the doctor-patient relationship and providing all necessary care, but unlike the *logic of integrated care*, the *logic of medical professionalism* is focussed on a particular health specialty and an area of clinical practice.

The *logic of medical professionalism* is not coupled to practices that are not concerned with the provision of clinical care. Accountability for the performance monitoring of these practices is the responsibility of the Funding and Planning Manager and Service Manager.

There is tight coupling of the logic to practices that are focussed on service co-ordination and the delivery of health care services, practices such as *Nationally consistent clinical prioritisation* and *Manage service delivery waiting time*. There is selective coupling of the logic to *Regional Service Planning*, *Primary care clinical pathway implementation* and *Elective service redesign*, according to whether these practices affect the health specialty of the Clinical Specialist.

There is loose coupling of the logic to DHB *Hospital Provider Arm Contracting*, since the Clinical Specialist is not accountable for performance measures but is responsive to performance monitoring of productive volumes.

The Chapter Seven narrative highlights specialists are responsible for the clinical prioritisation of a patient's access to surgery and treatment. There are mixed reactions to the use of CPAC tools in this study and coupling strength is assessed as selective. Service Manager and Clinical Specialists described their discomfort at having to decline patients who would benefit from treatment and the DHB manages clinician tensions by the DHB service communicating the service coverage decision to the patient and GP. The *logic of medical professionalism* is decoupled from the *Giving patients certainty* practice. The logic is also decoupled from *Performance Evaluation* of patient flow, since clinicians appear to take limited interest in ESPI performance

Table 8.11: Coupling strength: DHB elective service organisational practices and *logic of medical professionalism*

Organisational Practices	Sensemaking Type	Managerial Behavioural Response	Accountability for practice performance measures	Responsiveness to practice performance measure feedback	Coupling Strength (Scale 0-4)
District annual planning	-	Deletion	Low	Low	Non-Coupled (0)
Regional service planning	Fragmented	Compartmentalisation	High (Selective)	High	Selective (3)
Hospital provider arm contracting	Restricted	Compartmentalisation	Low	High	Loose (2)
Other provider contracting	-	Deletion	Low	Low	Non-Coupled (0)
Performance evaluation (supply)	-	Deletion	Low	Low	Non-Coupled (0)
GP referring	-	Deletion	Low	Low	Non-Coupled (0)
Referral processing and clinical prioritisation	Guided	Compartmentalisation	High	High	Tight (4)
Communication of decision to patient and GP	Restricted	Deletion	Low	Low	Decoupled (1)
Clinical pathways implementation	Guided	Aggregation	Low	High	Selective (3)
Elective service redesign	-	Integration	Low	High	Selective (3)
Clinical prioritisation	Fragmented	Compartmentalisation	High	High	Selective (3)
Give Patients certainty	Guided-Restricted	Compartmentalisation	Low	High	Decoupled (1)
Manage waiting times	Guided	Aggregation	High	High	Tight (4)
National data collection reporting	-	Deletion	Low	Low	Non-Coupled (0)
Performance Evaluation (Patient Flow)	-	Deletion	Low	Low	Decoupled (1)

8.3.3 Comparison of coupling strength.

Figures 8.2, 8.3, and 8.4 show the coupling strength analyses of government and field-level institutional logics plotted as a radar chart. This visual representation of coupling supports a comparison of the six logics.

Figure 8.2 shows the coupling strength of logics with concerned with the Increasing elective service supply set of practices. The *logic of population health management* appears to be the most responsive to the *logic of active performance management* and is a dominant logic in the supply of elective services set of practices. The *logic of service management* is responsive to service contracting practices. However the *logic of active performance management* exerts minimal influence on the *logic of medical professionalism* and does not influence the *logic of integrated care*.

Figure 8.3 shows the coupling strength of logics with practices concerned with improving the primary-secondary interface. The *logic of service management* appears to be the most responsive to the *logic of active performance management*. The *logic of integrated care* collaborates with the *logic of service management* in primary care implementation and service redesign. The *logic of integrated care* appears to be very responsive to the *logic of service improvement*. The *logic of medical professionalism* is influenced by the *logic of active performance management* for referral processing and clinical prioritisation. The *logic of service improvement* is influencing the *logic of medical professionalism* and the *logic of population health management* because of funding and GP skill constraints.

Figure 8.4 shows the coupling strength of logics with practices concerned with maintaining patient hospital flow. The *logic of active performance management* exerts strong influence on these practices and influence is amplified by the *logic of service improvement*. The *logic of service management* is the most responsive logic to these practices. The *logic of medical professionalism* collaborates with the *logic of service management* in Referral processing and clinical prioritisation and waiting time management. The *logic of active performance management* does not exert influence on the *logic of population health management* and the *logic of integrated care*.

It is clear from the radar charts that the *logic of active performance management* exerts a strong influence on increasing elective service supply and hospital patient flow practices. It has less of an influence on improving the primary-secondary interface practices.

The coupling strength analysis suggests there is interesting interplay between logics. There is sometimes logic domination and sometimes co-existence. Collaborative relationships in service contracting and the implementation of primary care clinical pathways are examples of logic co-existence. The DHB appears to manage the tensions that exist in decision-making about the utilisation of public hospital service resources by involving the *logic of medical professionalism* to a lesser extent and excluding the *logic of integrated care* all together.

8.4   Chapter Eight Summary

This chapter has described three cross-case analyses of the narrative in Chapters Five to Seven. Sensemaking type analysis enables the study to understand how individual roles reconcile the sensegiving of government accountability and performance priorities with DHB actual organisational practices. Output targets are found to incentivise the delivery of elective services in a hospital admitted setting. The DHB has a relativist perspective of *Performance evaluation* practice since the Ministry of Health's accountability and performance expectations define what good performance is in service supply and patient flow management practices. GPs have limited understanding of how government monitors DHB elective service performance, although there is general awareness that 'targets' drive service decision-making.

Sensemaking differs amongst DHB roles. Active performance management appears to exert more influence when sensemaking is restricted or guided. The managerial behavioural response analysis shows that the DHBs rely on 'Compartmentalisation', separating logics to complete practices. The DHBs does not use a collaborative approach to managing multiple stakeholder involvement as the norm. This explains why performance measures are meaningful to some individuals and not to others. The use of radar charts to represent coupling strength analysis of government institutional logics conveys a picture of performance management as it is 'espoused' for government institutional logics and as it is 'enacted' for field-level institutional logics. The findings of the cross-case analyses are discussed in detail in Chapter Nine.
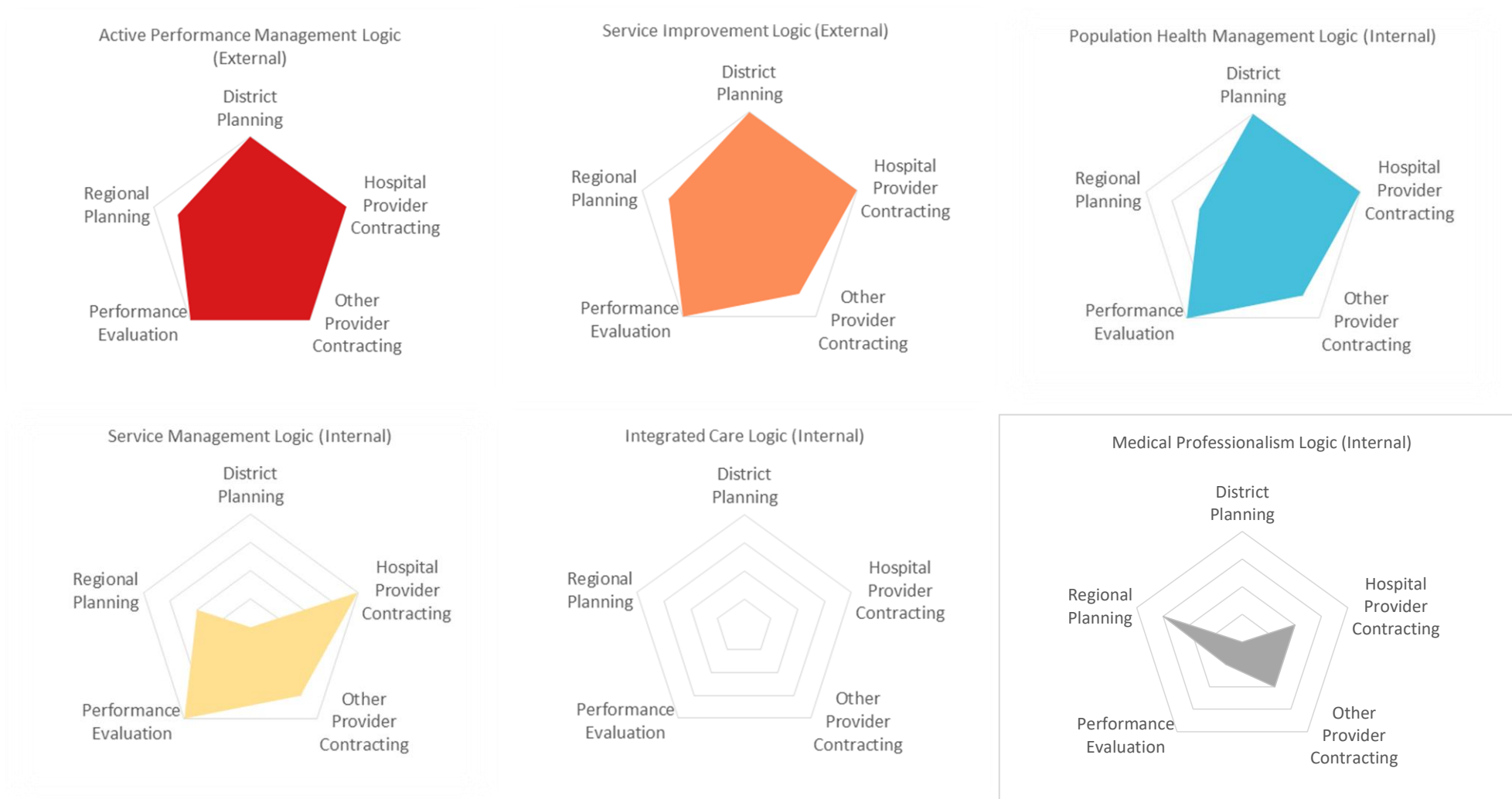
Figure 8.2: Coupling strength: Increase elective supply (institutional logics and organisational practice)

Figure 8.3: Coupling strength: Improve the primary and secondary care interface (institutional logics and organisational practice)
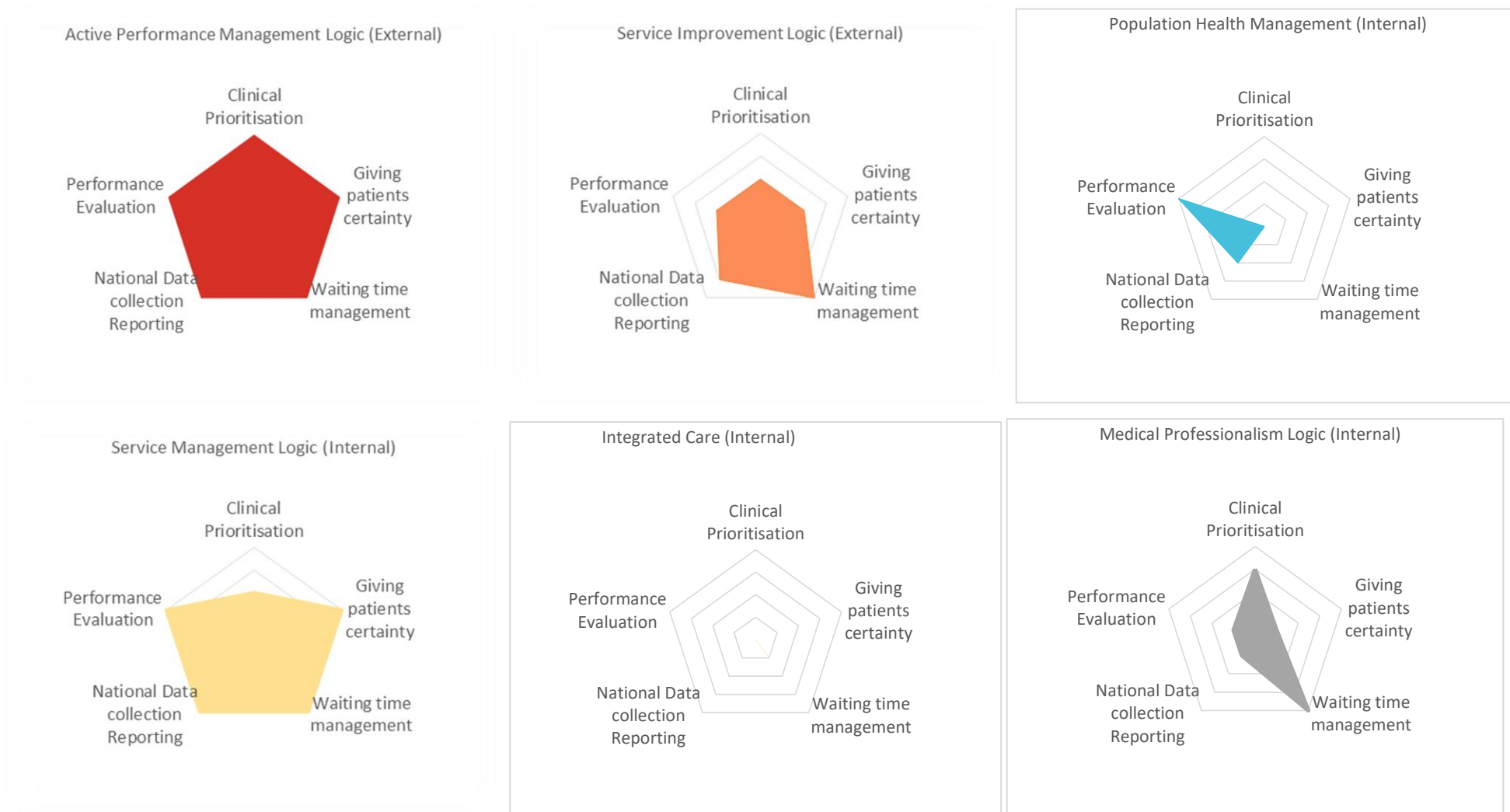
Figure 8.4: Coupling strength: Manage patient flow (institutional logics and organisational practice)

Chapter Nine: Discussion of Findings

9.1 Introduction

In their review of the evolving contributions made by organisational theory to health care system change research, Flood and Fennell (1995, p. 154) suggest designer prescription sunglasses are an "intriguing though perhaps irreverent analog". The dark lenses filter the light, counter the glare, compensate for the wearer's lack of acuity, and create a focussed picture that would otherwise not be discernible. In this study, the top-down and bottom-up lenses of the ILP Combined Model constitute a progressive prescription lens, facilitating both a distant and close-up visual examination of how a strategy of active performance management influences elective service delivery. The lenses counter the glare of the complexity of the topic.

Chapter Eight concluded with an analysis of the coupling between organisational practices and institutional logics. The study has used the notion of coupling, (refer to pp. 71-73), to recognise the affiliation of an institutional logic with an organisational practice. This chapter aims to present a focussed picture, to discuss study findings in the light of theory and relevant literature, and it will discuss the significance of institutional logic-practice coupling, as it applies to both policy-practice and means-end coupling as described by Bromley and Powell (2012).

The discussion in this chapter is organised as follows: section 9.2 presents a picture of how attention is focussed by active performance management at the organisational practice level; section 9.3 shifts the focus of attention to the district and regional organisational field level; section 9.4 discusses performance metrics and performance management system changes between 2006 and 2016; section 9.5 reviews the ideal type definitions of all institutional logics, and redefines government institutional logics as a result; and section 9.6 provides a chapter summary.

9.2 The Influence of Active Performance Management: Individual Level

This section amalgamates the summaries of the interconnections between sets of practices, performance measures and the resource environment, (presented at the end of Chapters Five, Six and Seven), with the findings of the cross-case analysis in Chapter Eight. Tables 9.1, 9.2 and 9.3, (on pages 268-270), present a focussed picture of how the three sets of organisational practices are interconnected with government priorities, performance management models, performance measures, sensemaking type, managerial behavioural response and coupling strength. The study recognises three inter-dependent performance domains, each domain has independent policy, but practices and intended outcomes are inter-dependent.

First, the study has examined the interconnections between external priorities and organisational practices, finding that government accountability setting, and performance monitoring prescribes not only what the DHB must supply, but how work is performed. The need to benchmark elective service delivery performance has resulted in a proliferation of standards, rules, and procedures associated with how publicly-funded elective services are delivered. Second, the study has examined the interconnections between the performing of technical work and RWT Strategy outcomes. This has been achieved by recognising how decision-makers at the meso- and micro- level of the health system perceive the interconnections between their work, government performance expectations, and the intended outcomes of their work.

As Bromley and Powell (2012, p. 9) observe, in theory for policy-practice coupling to be tight, there is a need for policy to apply to daily practices and extend to the intended outcomes of work. In practice, Bromley and Powell recognise that policy may be implementable in work practices but there is not always a correlation between policy and the intended outcomes of technical work.

Table 9.1 (page 268) amalgamates the analysis of the *Increasing elective supply* set of practices described in Chapter Eight with the interconnections seen through the top-down lens presented in Chapter Five (Table 5.9 on page 128). As discussed in section 8.3.2, this set of practices is dominated by the *logic of population health management*. The focus of policy is on the planning and supply of an appropriate mix of elective services that supports

population health. DHB decision-making is strongly influenced by the government's perspective of what an appropriate service mix looks like. The targets for elective service volume levels are fixed, and therefore the administrative control performance model heavily influences *District Annual Planning, Hospital Provider Arm Contracting, Other Provider Contracting, and Performance Evaluation* practices*.*

Organisational planning and contracting practices concerned with achieving district-level service volumes are seen to be tightly coupled to the *logic of population health management* in Figure 8.2 (page 278). The contour of the coupling of *logic of population health management* resembles that of the *logic of active performance management.* Therefore, there is strong policy-practice alignment for the *logic of population health management* in this performance domain.

Regional Service Planning, as the government has prescribed it, is the exception in this set of practices. It is associated with the professional services performance model because the practice relies on Shared Services Agency facilitation of change. It is not always possible to negotiate volumes inter-regionally, and coupling is selective, therefore there is sometimes decoupling of policy in daily practices.

Table 9.2 (page 269) amalgamates the analysis of the *Improving the primary-secondary interface* set of practices described in Chapter Eight with the interconnections seen through the top-down lens presented in Chapter Six, (Table 6.3 on page 158). An administrative control model is associated with *Referral Processing and Clinical Prioritisation* and the *Communication of Referral Prioritisation Decision* because these practices are associated with the ESPI 1 performance indicator. As seen in Figure 8.3, the coupling of the *logic of service management* to these two practices resembles the *logic of active performance management* and there is tight policy-practice coupling.

The other three practices, (*GP Referring*, the *Implementation of Primary Secondary Clinical Pathways*, and *Service Redesign*) are not associated with performance indicators. As discussed in section 8.3.2, the dominant logic for these three practices is the *logic of integrated care*. These practices are associated with a professional service model and are understood to have improved the primary-secondary interface but, as yet, it is unclear how these practices relate to RWT Strategy outcomes. The contours of the radar charts in Figure

8.3 for these three practices and the *logic of integrated care* and the *logic of active performance management* are not similar, suggesting the coupling relationship is of a means-ends type because there is an ambiguous relationship to an intended policy outcome.

Table 9.3 (page 270) amalgamates the analysis of the *Managing patient flow* set of practices described in Chapter Eight with the interconnections seen through the top-down lens presented in Chapter Seven, (Table 7.15 on page 213). As discussed in section 8.3.2, the dominant logic for four of the five practices in this set of practices is the *logic of service management*. With the exception of *Nationally Consistent Clinical Prioritisation,* all practices are associated with an administrative control model. The coupling of all practices with the *logic of service management* resembles the coupling of the *logic of active performance management* to these practices and is therefore an example of tight policy-practice coupling.

Although *Nationally Consistent Clinical Prioritisation* is monitored using ESPI 3 and ESPI 8, the practice is associated with a professional services performance model because tool development relies on the endorsement of professional associations. The coupling of the *logic of medical professionalism* to this practice is selective/loose and because the practice has not resulted in the government being able to ascertain national equity of service access to procedures, this is an example of means-ends decoupling*.

The coupling strength analysis in Chapter Eight highlights that, despite the health care workforce being highly autonomous, the management of elective service delivery performance is very carefully orchestrated. The institutional logics perspective recognises that an individual's understanding of a system depends on their field-level institutional logics and their ability to access and make sense of organisational practices. This finding is consistent with Martin, Currie, Weaver, Finn, and McDonald (2017, p. 124), who conclude that the autonomy an individual is able to exercise depends not on the individual's status or their creativity but on mediating factors that are managed at the funding (meso-level) of the health system. Martin et al. liken the mediation process and the role of management to that of a prism that refracts, disperses or reflects light. This concept complements the Flood and Fennell (1995) designer prescription sunglasses analogy described in this chapter's introduction.

Thus far, this discussion has been concerned with understanding what is expected of the DHB and what occurs in practice. Tables 9.1, 9.2 and 9.3 present a picture of overall compliance and achievement of performance expectations but, as the analysis in Chapter Eight highlights, there is not a collective understanding of performance. The study finds that the performance being measured and monitored is largely the administration of service delivery. A professional services performance model is in operation but much less is known about how this model operates.

The perspective of performance shown in Tables 9.1, 9.2, and 9.3 shows how the *logic of population health management* and the *logic of service management* dominate DHB decision-making. The three roles in this study which have the most detailed knowledge of how the DHB electives performance system operates are the Funding and Planning Manager, the Decision Support Representative and the Service Manager. These roles are collectively responsible for the use of DHB funds to optimise population health, negotiating service provider contracts, ensuring hospital services break-even, ensuring services are delivered effectively and efficiently, facilitating change in service delivery models and evaluating performance.

Primary Care Representatives and Clinical Specialists at the front-line of service delivery did not appear to have the same levels of access to this knowledge and their sensemaking and attention appears to be more focussed by their associated field-level institutional logics. For example the doctor-patient relationship is paramount to the *logic of medical professionalism* and the *logic of integrated care.*

Table 9.1: Summary findings of analysis of increasing elective service supply practices

Practice	District Annual Planning	Hospital Provider Arm Contracting	Performance Evaluation	Regional Service Planning	Other Provider Contracting
Organisational field	District	District	District	Regional	District and Regional
Government priorities	Delivering a minimum required volume of services Achieving service equity of access	Delivering a minimum required volume of services Achieving service equity of access Improving the capability of public hospitals	Delivering a minimum required volume of services Achieving service equity of access	Delivering a minimum required volume of services Achieving service equity of access Regional service planning and co-ordination	Delivering a minimum required volume of services Achieving service equity of access
Performance Model	Administrative Control	Administrative Control	Administrative Control	Professional Services	Administrative Control
Leader	Ministry of Health (External)	Funding and Planning Manager	Funding and Planning Manager	Shared Services Agency Manager	Funding and Planning Manager Service Manager
Stakeholder	Funding and Planning Manager	Decision Support Representative Clinical Specialist	Decision Support Representative	Clinical Specialist	External service provider
Sensemaking Type	Restricted	Guided	Restricted	Minimal	Aggregation
Managerial Behavioural Response	Compartmentalisation	Aggregation	Compartmentalisation	Integration	Compartmentalisation
Coupling strength	Tight	Tight	Tight	Selective	Tight
Coupling type	Policy-Practice	Policy-Practice	Policy-Practice	Policy-Practice	Policy-Practice
Logic interaction	Dominance	Co-existence	Co-existence	Dominance	Co-existence
Dominant/Coalition Logic	Population Health Management	Population Health Management and Service Management	Population Health Management and Service Management	Medical Professionalism	Population Health Management or Service Management
Excluded Logic	Service Management Integrated Care Medical Professionalism	Integrated Care	Integrated Care	Integrated Care	Integrated Care

Table 9.2: Summary findings of analysis of primary-secondary interface practices

Practice	Clinical Pathways Implementation	GP Referring	Referral Processing and Clinical Prioritisation	Communication of Referral Prioritisation Decision	Service Redesign
Organisational field	District/Regional	District/Regional	District/Regional	District/Regional	District/Regional
Government priorities	Implement Electives Clinical Pathways DHB-PHO Alliance Model Services Redesign	Health Information Integration	Responsiveness to Service Requests	Responsiveness to Service Requests	DHB-PHO Alliance Model Services Redesign
Performance Model	Professional Services	Professional Services	Administrative Control	Administrative Control	Professional Services
Leader	Primary Care Representative	GP	Service Manager Clinical Specialist	Service Manager	Service Leadership Alliance Team
Stakeholder	Service Manager Clinical Specialist Funding and Planning Manager	DHB Service		Referrer	Senior leadership Alliance Team
Sensemaking Type	Guided	Fragmented	Guided	Restricted	Minimal
Managerial Behavioural Response	Aggregation	Compartmentalisation	Compartmentalisation	Compartmentalisation	Integration
Coupling strength	Selective	Loose	Tight	Tight	Selective
Coupling type	Means-End	Means-End	Policy-Practice	Policy-Practice	Means-End
Logic interaction	Co-existence	Dominance	Co-existence	Dominance	Co-existence
Dominant/Coalition Logic	Integrated Care Service Management Medical Professionalism Population Health Management	Integrated Care	Service Management Medical Professionalism	Service Management	Integrated Care Service Management Medical Professionalism Population Health Management
Excluded Logic			Integrated Care Population Health Management	Medical Professionalism	

Table 9.3: Summary findings of maintaining patient flow practices

Practice	Nationally Consistent Clinical Prioritisation	Giving Patients Certainty	Managing Service Delivery Waiting Times	National Data Collection Reporting	Performance Evaluation
Organisational field	District/Regional/National	District/Regional	District/Regional	District	District
Government priorities	Equity of Service Access	Reduction of waiting times	Reduction of waiting times		Service Delivery Improvement
Performance Model	Professional Services (tool development) Administrative Control (Implementation)	Administrative Control	Administrative Control	Administrative Control	Administrative Control
Leader	Ministry of Health, Professional Associations (External)	Service Manager	Service Manager Clinical Specialist	Service Manager	Service Manager
Stakeholder	Clinical Specialist				
Sensemaking Type	Restricted	Guided/Restricted	Guided	Guided	Guided
Managerial Behavioural Response	Compartmentalisation	Compartmentalisation	Aggregation	Compartmentalisation	Aggregation
Coupling Strength	Selective/Loose	Tight	Tight	Tight	Tight
Coupling type	Means-End	Policy-Practice	Policy-Practice	Policy-Practice	Policy-Practice
Logic interaction	Dominance	Dominance	Co-existence	Dominance	Dominance
Dominant/Coalition Logic	Medical Professionalism	Integrated Care	Service Management Medical Professionalism	Service Management (Information Management)	Service Management (Information Management)
Excluded Logic	Integrated Care Service Management Population Health Management		Integrated Care Population Health Management	Medical Professionalism	

The following sections will discuss how knowledge about DHB electives performance is dispersed and how the mechanism of dispersion contributes to the overall influence of government institutional logics. Deflection is discussed in the next section, followed by refraction (section 9.2.2) and transmission (section 9.2.3).

9.2.1 Deflection of government performance requirements.

Leadership may deflect government performance expectations away from stakeholders who are resistant or defiant in order to exempt stakeholders from accountability and to ensure there is no disruption of business as usual. Martin et al. (2017) note that deflection is usually unsustainable in the long-term. Deflection is the equivalent of Meyer and Rowan's (1977) strategy of decoupling and Bromley and Powell's (2012) policy-practice decoupling. As Bromley and Powell note, it is most commonly seen in the early stages of policy implementation when practices are immature and the need for legitimacy is high.

In this study, deflection is observed in *Regional Service Planning* and *Service Redesign*. In these practices sensemaking type is minimal and a managerial behavioural response of 'Integration' is used. As yet, the *logic of active performance management* is having minimal influence in these practices but DHBs have been able to make some gains in this area with cross-boundary collaboration, the establishment of regional clinical networks, and the shifting of some services to primary care. As observed by Pache and Santos (2013b), hybrid institutions are able to capitalise on their multiple identities and are able to meet some external performance requirements through selective coupling. An example in this study is the involvement of some Clinical Specialists in regional clinical networks (in the selective coupling of the *logic of medical professionalism* to *Regional Service Planning*).

Another example of the DHB's use of a deflection strategy is seen in practices where there is a managerial behavioural response of 'Deletion' because a DHB role is unwilling to participate in a practice. There is only one example in this study, the *Communication of the DHB's Referral Acceptance Decision,* where the Clinical Specialist is unwilling to sign the letter communicating the hospital service's decision (presumably to preserve the doctor-patient relationship). This is policy-practice decoupling at an individual level but the DHB is able to mitigate the risk of this becoming an act of policy-practice defiance because service

administrators communicate the decision on behalf of the DHB, thus removing the Clinical Specialist from the picture.

9.2.2 Refraction of active performance management.

Refraction enables the DHB to alter or refocus government expectations and results in performance priorities either being directed away or towards specific roles or institutional logics. Refraction is a conscious decision to manage a practice by focussing the attention of an individual. Martin, Currie, Weaver, Finn, and McDonald (2017) acknowledge that refraction results in the decoupling of some logics from a practice but they prefer the semantics of 'conscious uncoupling'.

There are three examples of refraction seen in the Chapter Eight coupling strength analysis. There is refraction at the set of practices (functional) and individual practice level. In the first case, refraction at the functional level, an institutional logic is excluded from all practices and this results in wholesale policy-practice decoupling of the excluded logic. In this study, there are two examples of functional level refraction and these are shown in Figure 8.2, (page 260) and Figure 8.4 (page 262). The *logic of integrated care* is excluded from the *Increasing elective service supply* and the *Maintaining patient flow* sets of practices. Refraction avoids the Primary Care Representative and GPs from being distracted by DHB elective service performance measures. The downside of functional level refraction is that Primary Care Representatives and GPs have limited understanding of DHB performance accountabilities and public hospital service funding.

In the second case, refraction at the organisational practice level is used to assert the dominance of a field-level institutional logic. This type of refraction inevitably involves the partial exclusion and deflection of government institutional logics away from one or more other institutional logics that participate in a practice in order to avoid conflict between logics. Figure 8.1, (page 168), highlights six practices in the study where a specific institutional logic dominates an organisational practice. In all these practices the DHB uses the managerial behavioural response of 'Compartmentalisation' to facilitate an internal constituent championing a cause.

The domination of a logic in a practice is usually associated with the logic's tight or selective coupling to an organisational practice. The dominance of a logic was observed in the

following six practices: (1) *District Annual Planning*, in which the *logic of population health management* dominates; (2) *Regional Service Planning*, in which the *logic of medical professionalism* dominates; (3) *Other Provider Contracting*, in which either the *logic of population health management* or the *logic of service management* dominates; and in both (4) *Communication of the DHB Referral Acceptance Decision* and (5) *Give Patients Certainty*, in which the *logic of service management* dominates; and (6) *Nationally Consistent Clinical Prioritisation*, in which the *logic of medical professionalism* dominates.

In the third case, refraction at the practice level for autonomy, a logic works independently in an activity or practice and this may result in means-end decoupling for the excluded logics. A managerial behavioural response of 'Compartmentalisation' is sometimes associated with the need to buffer a role from government institutional logics. Buffering allows a role to be involved in a practice but to retain an independent perspective that may differ from others involved in the practice. Two examples of practices in this study are: *Hospital Provider Arm Contracting*, where 'Compartmentalisation' of the *logic of medical professionalism* is used to buffer the Clinical Specialist from financial aspects of the practice; and the *Performance Evaluation* of elective service supply, where 'Compartmentalisation' of the *logic of service management* and the *logic of population health management* results in a supply and demand perspective of DHB performance.

9.2.3 Transmission of government performance requirements.

The use of transmission is typical of a flexible management style, since it optimises group sensemaking and decision-making. The practices that use transmission are *DHB Referral Processing and Clinical Prioritisation*, *Implementation of Primary Care Clinical Pathways*, and *Manage Service Delivery Waiting Times*. Transmission may be an example of what Tenbensel, Chalmers, and Willing (2016) refer to as the "virtuous circle", where inter- and intra- professional and organisational collaboration occurs to deliver outcomes that are generally agreed to be desirable.

9.2.4 The filtering of government logics at the organisation practice level.

The preceding sections have highlighted how the DHB, as a hybrid institution is able to use deflection, refraction, and transmission to filter and direct government institutional logics to focus the attention of individuals. This section links the filtering of government logics to performance models.

Table 9.4 shows that organisational practices associated with an administrative control performance model are predominantly of the policy-practice coupling type. The coupling strength of the majority of practices is tight, and in 70% of practices refraction of government logics is used to focus the attention of one or more internal constituents. There is co-existence of logics amongst these practices but the *logic of active performance management* exerts a strong influence.

Table 9.4: Administrative control performance model: organisational practices and logics interactions

Organisational Practice	Logic interaction	Coupling Strength	Coupling type	Filtering type
District Annual Planning	Dominance	Tight	Policy-Practice	Refraction
Hospital Provider Arm Contracting	Co-existence	Tight	Policy-Practice	Refraction
Performance Evaluation (Supply)	Co-existence	Tight	Policy-Practice	Refraction
Other Provider Contracting	Co-existence	Selective	Policy-Practice	Refraction
Referral Processing and Clinical Prioritisation	Co-existence	Tight	Policy-Practice	Transmission
Communication of Referral Prioritisation Decision	Dominance	Tight	Policy-Practice	Deflection
Giving Patients Certainty	Dominance	Tight	Policy-Practice	Refraction
Managing Service Delivery Waiting Times	Co-existence	Tight	Policy-Practice	Transmission
National Data Collection Reporting	Dominance	Tight	Policy-Practice	Refraction
Performance Evaluation (Flow)	Dominance	Tight	Policy-Practice	Refraction

Table 9.5 shows that organisational practices associated with the professional services performance model are of the means-ends coupling type, (that is policies are implemented in practice but are loosely tied to RWT Strategy outcomes). Coupling strength in these practices is either selective or loose. There is a pattern of field-level co-existence amongst logics but the *logic of service improvement* exerts a strong influence.

Table 9.5: Professional services performance model: organisational practices and logics interactions

Organisational Practice	Logic interaction	Coupling Strength	Coupling type	Filtering type
Regional Service Planning	Dominance	Selective	Policy-Practice	Deflection
Clinical Pathways Implementation	Co-existence	Selective	Means-Ends	Transmission
GP Referring	Dominance	Loose	Means-Ends	Deflection
Service Redesign	Co-existence	Selective	Means-Ends	Deflection
Nationally Consistent Clinical Prioritisation	Dominance	Selective/Loose	Means-Ends	Refraction

The refraction of government logics appears to be the DHB's most commonly used strategy to manage external performance expectations and results in the administrative control model dominating elective service delivery. Refraction also diverts concerns about government's monitoring of performance away from Clinical Specialists and Primary Care Representatives.

In this study the cost of a refraction strategy appears to be clinician distrust of management and government. As Van Dooren (2011) observes, a performance paradox often arises where public services depend on the professions. In this study, the public health care system cannot function without the health care professionals, but the performance measurement system is designed to preserve public accountability and to counterbalance professional knowledge. A weakness of such systems is the mutual distrust that can form between management and the health care professional.

9.3 The Influence of Active Performance Management: Organisational Field Level

This section shifts the focus of attention to the district and regional organisational fields and considers how active performance management influences the distribution of resources, the formalisation of expectations, and the transfer of patients between health service providers.

As Ham and Coulter (2000) observe, there are different agendas and priorities at the macro, meso, and micro-level of the health system. The different concerns and multiple levels of jurisdiction the DHB has to manage are depicted in Figure 9.1, on page 280. This model

recognises how government priorities are exchanged across the three levels of the health system.

At the top-tier of the system, government priorities and performance expectations are formalised and embedded in government documents, (strategies, elective policies, annual planning packages, and national data collection reporting requirements). These documents serve as theory to the DHB and are translated and framed into service delivery expectations in District Annual Plans and Regional Service Plans.

There is then a process of sensegiving and sensemaking of government priorities by both DHB leaders and key stakeholders. This occurs in a series of planning and contracting practices, which are depicted in the individual level of the system but take place away from the front-line of service delivery.

As Greenwood et al. (2011) observe it is generally recognised that compliance with external rules and performance is more problematic for organisations that have to manage multiple inter-organisational relationships because, as performance expectations become more specific and standardised, there is decreasing managerial discretion to work around issues and it becomes more difficult to hide non-compliance. Examples of organisations needing to manage multiple inter-organisational relationships in this study are tertiary or regional service providers. (DHB actual compliance with performance expectations is discussed in detail in section 9.4.)

To comprehend inter-organisational relationships, DiMaggio and Powell (1983) propose the concept of an organisational field, a virtual construct that is useful where organisations provide similar services and share suppliers and resources. Reay and Hinings (2005) demonstrate the value of the concept when they consider horizontal and vertical relationships amongst organisations, recognising how a field reconstitutes itself following change. However, Scott (2014, p. 224) notes that organisations often find themselves subject to multiple institutional logics and more than one organisational field. This is the case for this study and both district and regional organisational fields are recognised in Figure 9.1.

The important role played by an organisational field is recognised by Greenwood, Raynard, Kodeih, Micelotta, and Lounsbury (2011) and shown in Figure 3.1, (page 56). Firstly, the

structure of an organisational field has a direct bearing on the level of institutional complexity as a result of the imposition of multiple external rules and secondly, attributes of the organisation (such as its funding and governance) influence how the organisation is able to respond to complexity. The background shading in the organisational field panel in Figure 9.1 denotes the filtering effect of the organisational field on government's elective performance expectations.

The focus of this study has been on organisational practices, and therefore the examination of the two organisational fields is limited. However, the existence of the district and regional organisational fields and the important inter-relationships at the regional and district level have been described by study participants, and it is very clear that DHBs are hybrid institutions. Not only are they hybrid at the health service delivery level, (where there is acute and elective service delivery and a number of inter-dependent diagnostic health specialties), but they are hybrid at the meso-level where DHBs fund regional work and advance primary-secondary health system integration.

There has also been an increase in the number of DHB sub-regional coalitions or alliances (such as the Auckland metro DHBs, the Canterbury-West Coast alliance, and the Capital and Coast, Hutt Valley and Wairarapa 3DHB alliance). These sub-regional alliances have formalised working relationships at the meso and micro-level of the health system and this may have had an effect in reducing ambiguity in the area of elective service delivery. However, there are differences of opinions about the success of sub-regional alliances. Funding and Planning, senior DHB leaders and Board members agreed that the overall aims of cross-boundary collaboration are desirable for patients but the practice itself is the cause of much angst and uncertainty for the DHB outsourcing its services. The DHB supplying the services inevitably prioritises the achievement of its own targets ahead of those of the dependent DHB. As shown in the coupling strength radar charts (Figure 8.2 on page 260) *Regional Service Planning* as a practice was still maturing at the time of the study.

Relationships at the district level are observed by interviewees to be more mature and stable than they were in the early 2000s. The DHB-PHO relationship is described in Chapter Six and since 2013 this relationship has been based on an alliance leadership model. However, whilst there was optimism that the DHB-PHO relationship had and would continue to improve as a result of the alliance model, as Table 6.3 (page 158) shows, the

nature of the primary-secondary interface and improvements are strongly influenced by whether DHBs are operating deficits, the level of clinical information sharing, and GP workforce skills.

Greenwood, Raynard, Kodeih, Micelotta, and Lounsbury (2011) observe that as the dependencies between organisations in an organisational field become more formalised and as coalitions occur, an organisational field becomes less fragmented and the level of institutional complexity should reduce. Since 2008, the Implementation of primary care clinical pathways has contributed to the formalisation of the district, and to a lesser extent the regional, organisational field because pathways clarify service access criteria to the GP and other primary care referrers. However, the use of clinical pathways in elective service delivery has not yet been comprehensively evaluated and Canterbury DHB's ESPI compliance paints a mixed picture of the influence of HealthPathways, (although the aftermath of the 2011 earthquake and Christchurch hospital rebuild would certainly explain why any effects have been masked). As will be discussed in the next section, ESPIs are measures of patient hospital flow and are measures of service access. Without evidence that clinical pathways have informed referrer decision-making and patient clinical outcomes it is difficult to conclude that clinical pathways have improved elective service delivery.

If Greenwood et al. (2011) are correct in their hypothesis that a reduction in organisational field fragmentation (resulting from fewer inter-organisational dependencies) leads to a reduction in institutional complexity, then it might be reasonable to expect to see tangible improvement in performance as the number of DHB-PHO relationships have reduced. It is interesting to note that, despite the number of PHOs reducing significantly between 2008 and 2015, no study participant said that DHB electives performance had improved because the health system was less fragmented. A number of interviewees said it was 'early days' for both regional and alliance model coalitions. A possible reason for the lack of tangible improvement is that it takes time for the complexities of elective service to be understood and for elective services to be redesigned. As Gauld (2017) observes alliance models are taking time to develop. Further research on DHB-PHO inter-organisation collaboration is needed to understand whether stakeholders consider progress has been made since 2014.

9.3.1 Questions of system ownership.

Pollitt (2018) argues that the ownership question greatly influences the attention that operational staff give to performance information. The systems approach to performance monitoring, shown in Figure 2.1 (page 21), tells us that data about activities is collected and performance information should elicit decision-maker intervention.

The question of who owns the electives performance system is very relevant to this study because the Ministry of Health's view of performance appears remote to many front-line staff. The organisational practices associated with service planning and hospital patient flow are tightly monitored and performance standards are prescribed by government. The government uses active performance management to control service administration. This means that the performance measures are not truly owned by clinicians. This is highlighted by clinicians' reluctance to sign letters and in a Service Manager's observation that when asking a clinician if they could see extra patients to help the DHB out in achieving its four-month waiting time deadline, the clinician said: "No, I won't! This is the Ministry's system, not mine!"

Professional associations are required to endorse CPAC tools. Primary Care Representatives appear to be leading the Implementation of primary care clinical pathways and there is a collaboration approach being taken to service delivery redesign. However, what is unclear is who is owning the evaluation of whether these systems are contributing to overall system improvement.

Van Dooren (2011) observes that accountability questions in hybrid institutions often result in performance paradox; if accountability lies with the institution, then who is actually accountable for performance? If it is the DHB's management of service delivery that is being monitored and not the actually service delivery itself, then this excuses clinicians from feeling part of the system. If it is the clinicians' ownership of prioritisation practices, then administrators do not feel part of the decision-making. In both cases of ownership there is an impasse.
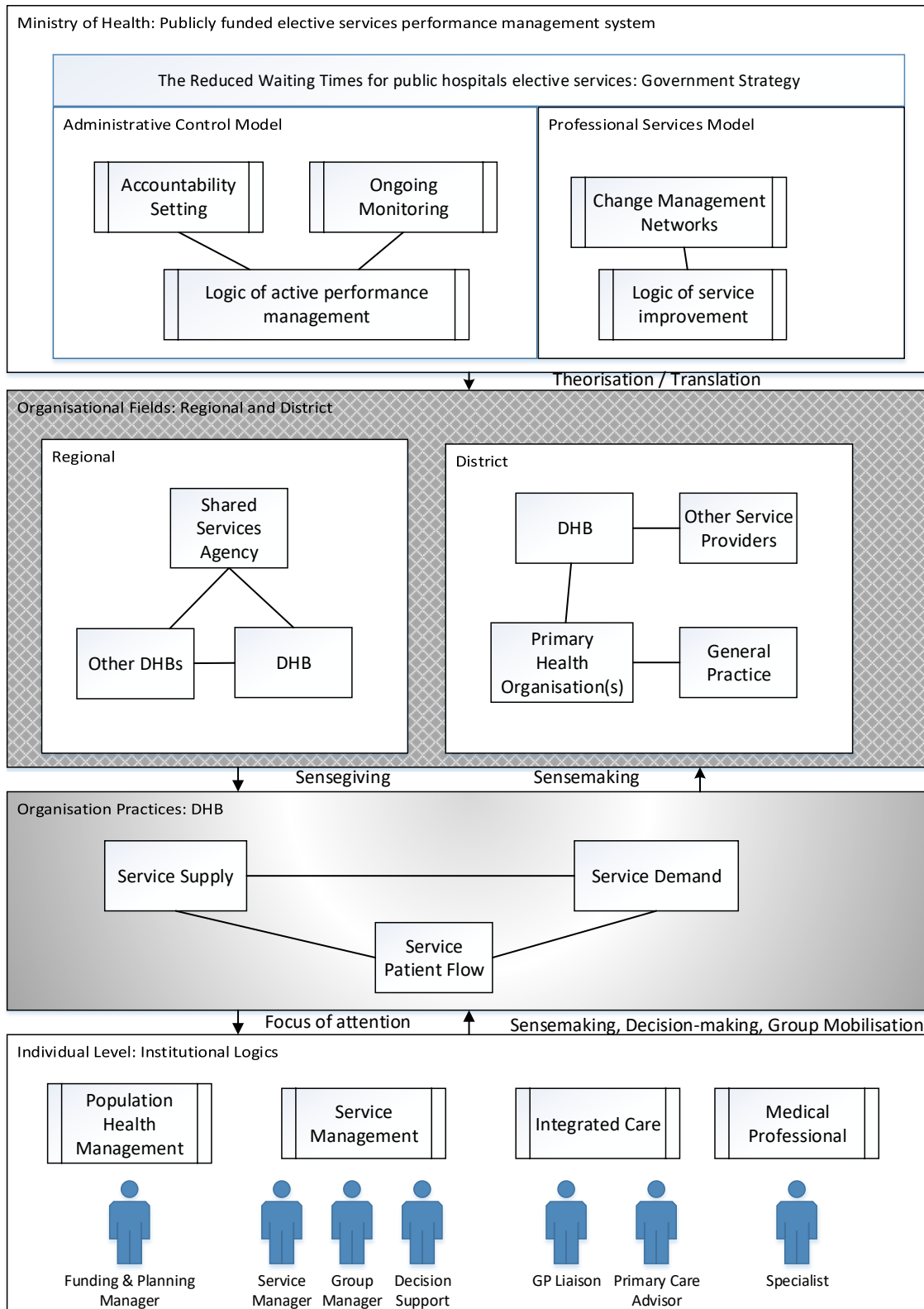
Figure 9.1: DHB Elective Services Performance: Research Context and Boundaries

9.4 Performance Measurement and System Change

Figure 9.1 depicts the electives system as a strategic performance measurement system. The administrative control model is linked to government accountability setting and ongoing performance monitoring activity, and is underpinned by the *logic of active performance management*. The professional services performance model is linked to change management networks and is underpinned by the *logic of service improvement*.

The description of change patient flow performance measures in section 7.2.2 and section 7.3 highlights there has been a need for the system to adapt, (notably in response to changes in government and the findings of the OAG (2011) performance audit). This is an example of what Henri (2006) observes to be a tension between processes which are predictable and controllable and those that are innovative and flexible. Performance management for control aims for "predictability, stability, formality, rigidity and conformity", whilst performance management for innovation aims for "spontaneity, change, openness, adaptability and responsiveness" (p.79). Henri describes four purposes of performance measurement which enable us to understand whether control or flexibility are the outcomes of active performance management. Control purposes are typically associated with monitoring and legitimising decision-making behaviour. More flexible and shared learning purposes are typically associated with the use of performance measurement for attention-focussing and strategic decision-making.

Performance measurement changes across the three sets of elective service practices are shown in Table 9.6. By 1 July 2010, service supply performance expectations were in place, primary care clinical pathways had been developed and were being piloted and all surgical specialties had implemented nationally recognised CPAC tools. The government's focus has been on activities concerned with elective service supply, (volumes have steadily increased year on year), and on hospital patient flow, (performance measures have been regularly changed since July 2010).

The Elective Health Target is reported quarterly, alongside other Health Targets. ESPIs have been reported monthly and are highlighted using traffic-light colours. Primary-secondary interface improvement is not publicly reported. Performance measurement system change is more visible in the administrative control model, where there is well-established systems

of data collection and ongoing monitoring and reporting of compliance with government expectations.

Table 9.6: Electives Performance Management System Performance Measure Changes

Timeframe	Increase elective service supply	Improve the primary-secondary interface	Maintain patient flow
2006/07 - 2009/10	Introduction of baseline volumes, SDRs, SIRs, Electives Health Target	Primary care clinical pathways developed and piloted in some DHBs	Completion of CPAC tool implementation for surgical specialties
2010/11	Continuation of volume increases		Introduction of medical specialties outpatient ESPI monitoring
2011/12	Introduction of Regional service planning requirements Continuation of volume increases	Increased adoption of primary care clinical pathways amongst DHBs	
2012/13	Continuation of volume increases		Setting of zero ESPI buffers
2013/14	Continuation of volume increases	Requirement for DHBs to implement DHB-PHO alliance leadership model	Introduction of five month waiting time guarantee
2014/15	Continuation of volume increases		Introduction of four month waiting time guarantee

9.4.1 Performance compliance analysis.

Understanding performance metrics changes help us to understand how government expectations of organisational practices have changed over time. As Reay and Hinings (2005) observe it is also important to understand how change is promulgated and how organisations in a field of service delivery adapt to change.

The study finds that DHBs achievement of base volumes, the Electives Health Target (see section 5.3.5.1) and Standardised Discharge Ratios (see section 5.2.1.2)) has been consistent. However, the analysis of ESPI compliance over the ten year timeframe presents a different story. From 1 July 2006 to 30 June 2012, most DHBs were able to achieve and maintain ESPI compliance.

The study finds that DHBs have struggled to maintain compliance since the change to ESPI definitions and the introduction of zero ESPI buffers on 1 July 2012. On 1 July 2013, the maximum required waiting time was reduced to five months. Since 1 July 2014, no DHB has

been ESPI 2 compliant for a full 12 months. DHB summary-level non-compliance is often associated with high-volume specialties, such as orthopaedics, ophthalmology, and general surgery.

As Reay and Hinings (2005) observe, an organisational field returns to some form of stability after triggering change and the recalibration of a field after change shows how resilient the organisational field is. Table 7.13 (page 191) suggests that after July 2013 the field has recalibrated and yellow ESPI compliance is the new norm.

Bird, Cox, Farewell, Goldstein, Holt, and Smith (2005) and Pollitt (2013) discuss the impact of definitional drift in target setting where ambiguity or extreme values appear in target definitions. The setting of zero buffers in ESPI targets appears to be an example of definitional drift. Service manager's focus of attention has shifted away from the achievement of full-compliance (green ESPI status), towards avoiding financial penalties resulting from being red for more than three months.

The compliance analysis also shows that some DHBs and specialties are no longer using the active review booking status which means that the position of all DHBs in respect of ESPI 3, (refer to section 7.3.2.1) is unclear. From ESPI reports it is impossible to know whether gaming or cheating is occurring because the use of Active Review is optional. This appears to be an unintended consequence of reducing waiting time since the NBRS no longer tracks the management of patients who are just below the DHB's acceptance threshold and relies on GPs to re-refer patients at a later date. It is not possible to know whether Active Review is being used consistently by DHBs.

Overall, the analysis of DHB ESPI compliance since July 2013 provides very limited insight on whether Ministry of Health ESPI performance feedback results in intervention by DHB decision-makers. Some DHBs, notably three of the tertiary service providers (Canterbury, Auckland, and Waikato DHBs) appear unable to resolve ESPI non-compliance issues. As Propper (2012) notes, when multiple changes are made to service management, in parallel with changes to a performance model, it is very difficult to evaluate cause and effect influences.

Modell (2004) cautions that a strategic, multi-dimensional approach to performance management often tries to achieve too much and it is difficult to adapt performance

measures. The process of adaption rarely occurs without a vestige of the old systems and beliefs remaining as a "ghost myth", which haunts efforts to change. In this study, efforts to re-launch less complex ESPIs in July 2012 are an example of this. Modell observes that change only occurs when individuals learn and unlearn, when there is a collective understanding about new ways of working; where there is a framing process, which narrows down possible options for change.

The paradox of a strategic performance measurement system is that it aims to support change. To a certain extent, the RWT Strategy is a statement of what was already in place, (in terms of explicit clinical prioritisation and the use of a booking system), but increases in elective supply and waiting time reduction had not yet been achieved. Therefore, there was an inherent need for flexibility in the performance measurement system required to support the RWT Strategy. As van Dooren (2011) argues, performance measurement systems need to be agile, performance indicators should be adjusted in response to context and insight, and managers should be responsible for the way they facilitate learning from performance indicators.

9.5 Evaluation of institutional logics ideal types.

This study has aimed to understand active performance management; what it means and how government uses it strategically. In the light of this study the original definitions of the government institutional logics need re-defining. The study has found that the ideal type definitions of field-level institutional logics in Chapter Four (section 4.5.2) have been useful and are validated by the cross-case analysis. Defining active performance management as an institutional logic ideal type has been important, not only to support research reproducibility, and ensure construct validity, but because it is hoped that this study can contribute to the literature about New Zealand state sector performance models, such as those described by Gill (2011) and Dormer (2010).

At the outset it was recognised that the use of ESPIs and the Electives Health Target were suggestive of a rules and fixed targets type of regulative control, typically associated with an administrative control performance model and not the professional services performance model described by Dormer (2011, p. 183). Given that the focus of this study is health care service delivery, the *logic of active performance management* in chapter four was posited to

be a blend of the professional services and administrative control models. This blend of logics recognised that there are some ESPIs that monitor clinical prioritisation and some that monitor waiting time management. The existence of the *logic of service improvement* was recognised as a potential professional services performance model but the significance and impact of this logic was not appreciated until the analysis phase of the study.

The *logic of active performance management* is, in fact, not a blend of an administrative control and professional services performance model, as originally thought. It includes very little, if any, of the professional services performance model and can be thought of as predominantly an administrative control model. This finding is consistent with other literature, where characteristics of a controlled management style include reliance on performance monitoring and legitimacy promotion (Henri, 2006), accountability setting (Lemieux-Charles, McGuire, Champagne, Barnsley, Cole, and Sicotte, 2008, p. 764), intensive information collection (Feldman and March, 1981), and control logic and feedback (Gill and Schmidt, 2011, p. 15).

However, as Wilson (1989) and Gregory (1995) observe, there are challenges with the use of production process models and the evaluation of public service performance. According to Dormer (2011, p. 182), the administrative control model is concerned with inputs and processes and the rational goal model is concerned with outputs. Both of these models tend towards a regulative control locus of rationality. If demand for services is regarded as an input and delivery of services is an output then the *logic of active performance management* might extend into the boundary of the rational goal performance model (Dormer, 2011, p. 182). Elective service delivery is highly political and there is a high level of externally directed sense-making. The active performance management of DHB elective service delivery cannot be regarded as a pure administrative control performance model.

In contrast, the case for classifying the *logic of service improvement* as an example of a professional services performance model is stronger. This is evidenced in the coupling strength radar charts for *Improving the primary-secondary interface* in Figure 8.3 on page 261. The *logic of service improvement* radar chart resembles that of the *logic of integrated care*. Scott (2008) claims that the professions serve as the ultimate institutional agents because the professions contribute ideas and define cultural-cognitive reality. Scott observes professionals' orders are followed by clients to the extent that authority and

knowledge claims are accepted. But in the context of this study, who is the client for the healthcare profession? Is it the patient, the government, or the DHB? If it is the patient, and institutional logics suggests that the doctor-patient relationship is paramount, then an unresolvable tension exists between acting in the interests of the patient and prioritisation of scarce government resources. This tension will be discussed further later in this chapter. However, the significance of tension needs to be accounted for in the definition of the professional services performance model.

There may also be differences between the professional services performance model as it is applied in some public sectors, such as education, compared with the health sector. In education, there is not an underlying need to prioritise scarce education resources to target those who would most need and benefit from education. The entire school-age population of New Zealand receives education as of right. Whereas the entire population of New Zealand does not receive publicly funded elective services as of right.

Revised definitions for government institutional logics are presented in Table 9.7. As a result of the data analysis in Chapter Eight, three changes have been made to definitions of the *logic of active performance management*: (i) The origins of legitimacy have been changed from 'democratic process' to 'government accountability setting'; (ii) The basis of strategy is expanded to include 'information collection, control logic and feedback', and (iii) The criteria of performance management is changed from 'government-defined standardised processes' to 'objectivity and facts'.

Modifications to the definitions of the *logic of service improvement* ideal type that was originally proposed in Chapter Four (page 84) are shown in Table 9.7. Four changes have been made to the definition to better reflect the professional inter-relationships observed in the study: (i) The root metaphor has been changed from a 'redistribution mechanism' to a 'relational network'; (ii) The sources of legitimacy have been changed from a 'professional expertise/market position' to 'professional expertise'; (iii) The basis of strategy has been expanded to include the 'management of change through facilitated networking'; and (iv) The criteria of performance management has been expanded to include 'evidence-based facts'.

A new attribute, the *basis of cultural frames*, has been added to the definition of which takes into account the role of standards in health service performance management. Meekings, Briault and Neely (2010, p. 49) argue that 'standards' and 'targets' need to be differentiated. Standards should not be treated as yes/no targets. A standard should be a level of service which everyone aspires to and in health service delivery this is important because the ability to achieve a performance standard is a composite of several factors (including but not limited to staffing, professional competence and delegated decision rights). Timmermans and Epstein (2010; cited in Mannion and Exworth, 2017), discuss the role and different purposes of four types of standards (terminological, performance, procedural and design) in health service delivery. In this study, the basis of cultural frames for the *logic of active performance management* is terminological, performance and procedural standards; whilst design standards (standardised clinical practice guidelines) and procedural standards are the basis of cultural frames for the *logic of service improvement*.

Table 9.7: Definition of Government Institutional Logics: Post Data Analysis

Attribute	Active Performance Management Institutional Logic	Service improvement Institutional Logic
Root metaphor	Redistribution mechanism	**Relational network**
Sources of legitimacy	**Government accountability setting**	**Professional expertise**
Sources of authority	Bureaucratic domination	Professional association
Basis of management style	Controlled	Flexible
Basis of attention	DHB elective service prioritisation, fairness, clarity, timeliness and equitable access to services	Optimisation of specialist resource utilisation, maximization of utilisation of primary care workforce, development of clinical workforce
Basis of strategy	Reduce waiting time **Information collection, control logic and feedback**	Optimise resource utilisation **Manage change through facilitated networking**
Basis of cultural frames	Terminological standards Performance standards Procedural standards	Design standards (standardised clinical practice guidelines) Procedural Standards
Performance measurement and management	Administrative Control	Professional Services
What is measured?	Processes and outputs	Change and service improvement
Criteria of performance management	**Objectivity and facts**	**Evidence-based facts** Subjectivity, interpretation and judgement; cultural and cognitive based controls
Type of regulative control	Rules and fixed targets	Flexible targets and learning
Political Saliency	High	High
Type of sense-making	Externally directed	Internally directed
Autonomy level	Moderate	High

9.6 Chapter Nine Summary

This chapter presents an institutional logics perspective of how active performance management as a government strategy has influenced DHBs in their delivery of elective services. An administrative control and professional services performance model are observed to co-exist in the health system. Less is understood about the role and effectiveness of the professional services performance model. The reasons for lack of understanding are two-fold, firstly there are no quantitative performance measures linked to elective service delivery improvement and more qualitative research on the effectiveness of service innovation needs to be done.

DHB planning and hospital patient flow practices are found to embody and enact government policy and the DHB's performance of these practices is tightly controlled. In contrast, practices associated with improving the primary-secondary interface are managed more flexibly. The DHB implements formal policies but, as yet, the relationship between a practice and its intended outcomes is not evaluated.

A major point of discussion in this chapter is the careful orchestration of elective service delivery. Government performance expectations and institutional logics are filtered by management. There is a careful focussing and positioning of logics to ensure requirements are met. Front-line service delivery roles do not have the same levels of knowledge about how the system is intended to work as managers. As a result, front-line staff tend to be more influenced by field-level institutional logics than by the salience of performance measures themselves.

Section 9.3 reveals the influence of active performance management at the organisational field level. The exchange of government priorities between the macro, meso, and micro-levels of the health system is shown in Figure 9.1 (page 280). A district and a regional organisational field are recognised. In both fields there is a coalition between organisations: in the district field a DHB-PHO alliance leadership model operates; and in the regional field a Shared Services Agency assists with *Regional Service Planning*. At the time of the study relationships at the district level are observed to be more mature and stable than relationships at the regional level.

Section 9.4 appraises the findings of DHB performance information analysis and how DHBs have coped with change. DHBs have largely met target volumes but have been unable to sustain patient flow full-compliance following the introduction of zero buffers on 1 July 2012. The current performance model is not agile and constrains change and learning.

Section 9.5 re-evaluates the Chapter Four definitions of government and field-level institutional logics, finding the definitions of field-level institutional logics accurately represent what has been studied but adjusting the definition of the *logic of active performance management* and the *logic of service improvement* to better reflect what is understood from the cross-case analyses in Chapter Eight.

Chapter Ten: Conclusions

10.1 Introduction

The strategic use of active performance management to augment the objective and sub-strategies outlined in the RWT Strategy in 2000 offered great promise. This research on how the use of active performance management has influenced DHB publicly funded elective service delivery has been conducted against a backdrop of government perception that greater management control is the solution to reducing elective service delivery waiting time and achieving geographical equity of service access. As Henri (2006) observes, there is a perennial tensions between management's need for control and predictability (for service delivery efficiency) and the need for flexibility and innovation (for optimisation and responsiveness).

The purpose of this chapter is to summarise and conclude the thesis. Concluding comments about the study, the contributions it makes and its recommendations are presented in section 10.2. The limitations of the study and the impact of limitations on the interpretation of findings are discussed in section 10.3. Suggestions for future research are discussed in section 10.4.

10.2 Thesis Overview

This thesis presents an institutional logics perspective of how a government strategy of active performance management has influenced District Health Boards (DHBs) delivery of publicly funded elective services. By 2006, New Zealand had a well-established performance management system to monitor DHB supply and delivery of publicly funded initial elective specialist assessment, surgery and treatments in public hospitals. A relationship can be seen between the government's 2000 RWT Strategy and the performance standards and metrics that applied to DHB elective service delivery. Whilst the linkage of RWT Strategy objectives and sub-strategies to outputs and outcomes is clear, it is unclear how the performance metrics themselves came to be formulated. In the absence of literature about the design of the performance management system, this thesis has developed an analytical framework that is based on performance models used in other State sector organisation performance research (Dormer, 2010; Gill, 2011) and an institutional logics perspective framework

posited by Thornton, Lounsbury and Ocasio (2012). The research has explored the tensions that exist between the need to control; to provide consistent, sustainable, predictable health service delivery within a health system; the need to be innovative; and to provide responsive, flexible, adaptive health service delivery that is patient-centred.

As noted in Chapter One, New Zealand's strategic approach to elective service performance management arose from issues identified in the mid-1990s, where poor hospital management and poor co-ordination of service delivery were the main problems. The public health system was unable to manage its waiting lists because there was inaccurate and irrelevant information. Radical change was called for and New Public Management was perceived to be the tool to deliver it. Nowadays public hospital waiting time is managed to the point where patients are not accepted for elective services unless they can be exited within four months and failure to adhere to the strict timetable is considered poor performance. Today, we have different problems, we don't know about unmet need, we don't know how patients fare who do not receive services and whether the system is fair. As the Auditor-General concluded in the 2011 performance audit, progress has been made, the topic is complex and worthy of consideration, but New Zealand does not yet have the system it wishes for (OAG, 2011, p. 7), one that can demonstrate national consistency and equitable treatment for all.

The decision to undertake this research was motivated by a gap in the empirical studies about the government's decision to 'actively manage sector performance' as part of the government's waiting time reduction strategy (Ministry of Health, 2000). There is also a gap in the empirical studies on how managers use performance information in the New Zealand State sector where a professional services performance model has been adopted (Dormer, 2011).

The literature review in Chapter Two demonstrates that much of the research and evaluation of elective service delivery in New Zealand occurred in the early 2000s and research attention has focussed on the implementation of nationally consistent clinical prioritisation and hospital booking systems. Therefore, little is known about how the ongoing monitoring of public hospital elective service delivery has influenced DHB organisational practices and decision-making. Section 2.1.2 describes a systems approach to

performance management, based on the identification of areas and activities, where performance control is needed. The systems approach relies on the collection of data, application of performance criteria, the provision of performance feedback, and is premised on the expectation that decision-makers will intervene and adjust outputs accordingly. A premise of a systems approach to performance measurement is that performance priorities and expectations will cascade downwards through the meso and micro levels of a system. However, the concept of performance as a 'golden thread' that is simply transmitted to individuals has been disproven by a number of performance management studies (Micheli and Neely, 2010).

Three research questions were carefully formulated to enable the research to recognise the DHB as a hybrid government agency, and to recognise the professional and organisational complexity that characterises elective service planning, service demand management and primary-secondary interface liaison, and public hospital service delivery. The research questions ask:

(1) How has the government applied active performance management to accountability setting, performance monitoring, and its use of networks to facilitate change?
(2) How do decision-makers at different levels of the health system perceive elective priority setting and how do these differences focus attention?
(3) How have DHBs singly and collectively managed the expectations of multiple stakeholders and managed social interaction?

The research design is based on the philosophical stance of pragmatism. In social sciences research the validity and credibility of research is increased through triangulation, the use of multiple methods and theories. Chapter Four describes the mixed methods used to gather and analyse research data. Semi-structured interviews with health system leaders and stakeholders were used to gather data about how government elective service priority setting is managed and experienced. A range of documents, (government policy and operational guidelines, DHB annual plans and reports, and Board Meeting minutes) were used to explore how accountability is set and how DHBs translate accountability and performance priorities into plans and how they evaluate their performance. Ministry of Health published DHB elective service delivery performance reports from a ten-year period

(2006-2016) were used to understand DHB's compliance with government performance expectations. Fifteen organisational practices were examined from the perspective of government priorities, resource variables, and DHB roles associated with each practice. The study's use of mixed methods has enabled this thesis to describe how system components interact as a whole to achieve performance results.

Research data has been analysed using a theoretical framework described in Chapter Three. The framework is a blend of neo-institutional theories and an analytical approach known as the Institutional Logics Perspective (Thornton, Ocasio, and Lounsbury, 2012). The framework has aimed to understand influence by considering leader and stakeholder sensegiving and sensemaking, managerial behavioural responses, and the coupling of institutional logics and organisational practices. The theoretical framework used in the study has enabled this thesis to analyse the interplay of government, administrative and clinical institutional logics and to explain how the DHB is influenced by active performance management.

Chapter Eight takes an institutional logics perspective and analyses the narrative of Chapters Five, Six and Seven. This thesis presents the meaning five DHB roles have attributed to elective activities and associated events. The five DHB roles are the Funding and Planning Portfolio Manager, Decision Support Representative, Service Manager, Clinical Specialist and Primary Care Representative. Each chapter has narrated a specific performance domain, detailing the performance metrics associated with each priority and how performance feedback focuses the attention of a DHB role. Chapter Five describes government's increasing elective service supply priority, Chapter Six describes improving the primary-secondary interface priority, and Chapter Seven describes maintaining hospital patient flow priority.

Understanding how sensemaking and performance management system components interact and influence in a hybrid, dynamic environment such as a DHB can be problematic. Hybrid institutions are notoriously difficult to research as there are multiple jurisdictions and multiple definitions of what constitutes success and failure. Chapter Nine discusses how a hybrid electives performance measurement system, (an administrative control and a

professional services model), embeds government strategy into its metrics and explains how government and field-level institutional logics interplay.

10.3 Thesis Findings and Contributions

The findings of this research make both an empirical and methodological contribution to the literature. The empirical findings extend current understanding of what the government's strategic use of active performance management represents, and how the strategy has influenced behaviour. The research contributes a robust conceptual framework by which the active performance management of DHB delivery of publicly funded elective services in a public hospital setting can be understood and used for future health system performance evaluation exercises. Theorists and practitioners in health public service performance management, are an important audience for this contribution.

The methodological findings of the research are in the area of the use of an institutional logics perspective to understand active performance management. A systems perspective of logics is achieved by examining how government institutional logics interact with field-level institutional logics. The four field-level institutional logics, (*Population Health Management*, *Service Management*, *Medical Professionalism*, and *Integrated Care*), are pre-defined by a pattern matching method from existing literature, as suggested by Reay and Jones (2016). Government institutional logics are also initially defined from existing literature, (the performance models described by Dormer (2011)), but the logics are redefined in Chapter Nine and are ultimately induced by following an interpretivist approach, (also suggested by Reay and Jones (2016, p. 449)). The research makes a methodological contribution in its development and use of the combined ILP model (Figure 3.5, page 66) as both a classification scheme and coding instrument. This model could be used more broadly by researchers who are concerned with understanding service implementation, and performance management. The combined ILP model could be used in settings beyond the health sector, in the public sector generally.

10.3.1 Empirical findings.

A rational objective view of performance assumes decision makers are using performance information to make decisions and that performance can be benchmarked. This study finds that the monitoring and feedback of service delivery and patient flow management does have an effect on decision-makers. Performance feedback focuses their attention and diverts resources in order that financial penalties and the risk of leadership loss of legitimacy are mitigated.

The study finds that an administrative control and a professional services performance model co-exist in the electives performance world. The administrative control model dominates eleven DHB planning and hospital patient flow practices. These practices enact government policy; they standardise process and are the complete embodiment of the rules and fixed targets approach that is required to measures process and output performance. The alignment of the *logic of population health management* and the *logic of service management* with organisational practices is policy-practice type coupling. Much less is understood about the professional services performance model because the effectiveness of its use with four organisational practices is not evaluated. The professional services performance model aims to be flexible in its approach to the management of clinician behaviour; and the coupling relationship of the *logic of medical professionalism* and the *logic of integrated care* to these practices is of a means-ends type, where practices may be loosely tied to outcomes.

A major finding is that the DHB's response to government performance expectations is carefully orchestrated. There is filtering of performance expectations by management and a careful focusing and delegation of responsibility so that the government's performance agenda is achieved. Front-line service delivery roles do not have the same levels of knowledge about how the system is intended to work as system administrators, resulting in front-line staff tending to be more influenced by field-level institutional logics than by the salience of performance measures themselves. DHB managerial roles tend to be strongly influenced by the government's use of targets and indicators whilst clinical roles are ambivalent about performance targets and are more influenced by service improvement initiatives and patient outcomes. If patient-centred elective service performance metrics were co-designed by government, DHB population health and hospital provider arm service

managers, clinicians (specialists and GPs), and health informaticians then RWT Strategy objectives might have further reach. The goals of the RWT Strategy remain as relevant today as they were in 2000. However, the need to innovate and consider alternative service models is more pressing. This study reaches the same conclusions as Meekings, Briault and Neely (2010), to set performance targets effectively there needs to be knowledge of both current and future process capability. To achieve a genuinely systemic perspective of performance, performance indicators need to be both necessary and sufficient (p. 50).

Overall, the research concludes that 'Active Performance Management' has made a significant contribution to the reduction of public hospital waiting times but there are three paradoxes that arise from the government's strategic use of active performance management to influence DHB elective service delivery.

The first 'Active Performance Management' paradox arises from the DHB being accountable for the supply of a minimum level of elective services. Accountability assumes that there is an obligation or willingness to accept responsibility or account for actions. Supply performance metrics tends to focus on service purchases for a DHB population, rather than services delivered by a DHB. There are also tensions between the performance metrics themselves and the definition of 'minimum level'. Is a target the least a DHB can supply or the expected level? The Ministry of Health sets target levels, (the base level is derived from the DHB's previous years' delivery, the Electives Health Target is derived from the Ministry's perception of what the DHB can purchase and its population needs), and there is a requirement to give account for variance from standardised supply averages. Notwithstanding the challenges of accountability for service planners and funders, hospital provider clinicians are required to determine who receives services based on an individuals' need and ability to benefit from services. Therefore, there are different 'supply' decision-making agendas and criteria operating at different levels of the health system.

The performance metrics around monitoring of elective service production leads to friction at the micro-level (a DHB has purchased a level of X procedures but a patient needs Y procedure, or more patients need X than the DHB has purchased). As claimed by Kapiriri, Norheim, and Martin (2007, p. 82), clinicians are often not involved in service priority setting at the health system meso level which means they have limited understanding of

prioritisation at this level. Chapter Five highlights that the assumption that government strategy and policy will cascade down from the macro-level to the micro-level is not met and New Zealand's approach to priority setting of elective service supply is not transparent at all levels of the health system. As Van Dooren (2011) observes, in a multi-stakeholder environment in which there is collective, rather than individual accountability, questions are often asked about who owns a performance measurement system and whose performance is being monitored. Chapter Seven highlights that a number of interviewees recognise there are differences between the Ministry of Health's perceptions of good performance and the DHB's view. Clinicians in particular regard the performance monitoring system as being externally imposed (owned by the Ministry of Health not the DHB). The result is clinician decoupling from performance evaluation practices. Paradoxically, setting accountability and actively monitoring performance at an organisational level results in a lack of clinician willingness to account for actions at an individual level.

The second 'Active Performance Management' paradox arises from the tensions that arise between accountability setting, continuous performance monitoring and the use of networks to facilitate change (to innovate and improve service delivery). The practices where there is minimal alignment between leader and stakeholder sensegiving and sensemaking are also practices where minimal progress has been made. In the case of *Regional Service Planning,* responsibility for the practice has been shifted to the Shared Services Agency. In the case of *Service Redesign,* there is pressure for greater use to be made of service delivery in the primary care setting, but DHB senior leaders agree that it is difficult to lock in appropriate accountability arrangements with primary care.

In an environment where there are financial penalties for performance standard non-compliance, and the impact of change on hospital delivered services is unknown, leader and stakeholder interviewees commented they feel averse to take risks in service redesign. Setting priorities in areas, such as *Regional Service Planning* and *Service Redesign,* where there is minimal sensemaking by both leader and stakeholder is a risky strategy because DHBs struggle with ambiguity about what should be delivered, who is accountable and performance monitoring of service delivery in these practices.

The study finds that attempts by DHB management to micro-manage clinician practices has led to a deterioration in relationships. This is a challenge of the co-existence of the administrative control performance model (which relies on rational control) and the professional services performance model (which relies on shared understandings). van Dooren (2011) argues that, while the government relies on professionals to improve public sector performance, its distrust of them leads to the development of performance measures intended to counterbalance professional knowledge. This study finds that a dominant administrative control performance model exacerbates the mistrust between management and clinicians.

The third paradox arises from the definition of performance measures and the monitoring of performance itself. Performance measurement tends to focus on what can be easily achieved, is readily measured and predicted (Norman, 2003). Attempts to count the uncountable are seen to occur because policy goals are often unquantifiable (Smith, 1995). van Dooren (2011) observes that attempts to improve the quality of performance information leads to reporting becoming an end in itself, with the result that decision-makers become over-whelmed (paralysis by analysis) and increasingly reliant on informal knowledge.

Pollitt (2013) notes that the "alternative logics" of performance management, in particular 'Synecdoche' (part of an activity being taken to represent a whole) contribute to the creating of performance paradox (see Figure 2.2, p. 21). The study highlights there is limited understanding of primary and secondary care system inter-dependence. New Zealand does not capture patient reported outcomes, so the impact of the use of primary care clinical pathways, changes in service delivery models (such as nurse-led outpatient clinics), or the shifting of service provision to primary care is largely unevaluated. The study finds that, whilst many DHBs have implemented alternative service delivery models and strengthened inter-organisational alliances, the impact of these changes in elective service publicly reported performance results is not readily discernible. The counting of elective service production volumes does not recognise services delivered under alternative models.

Neither the Electives Health Target nor ESPIs indicate how service delivery has improved over time. The focus of both performance measures is on the attainment of government

performance targets. The more complex, multi-faceted aspects of elective service delivery are not monitored or reflected in performance reporting. For example, in the case of the monitoring of service volumes, the base level volumes and Electives Health Target are concerned with monitoring the level of services a DHB has purchased for its target population. Chapter Five observes that the DHBs that deliver the most elective services often do not appear to be the best performers when data is standardised or services purchased for the DHB population are considered. On the other hand patient flow performance measures (ESPIs) are concerned with waiting time management and efficient service delivery. DHBs, such as Waikato DHB may perform very well under the measure of service supply but perform less well when measuring patient flow.

A key message of the research is that if New Zealand wishes to expand its evaluation of health service delivery to take into account outcomes measures, there needs to be a better understanding of the aggregated impact of performance management practices on the health system. The findings of this study concur with the claims of Klein and Maybin (2012), the most friction occurs at the micro level, the point where decisions are applied to individuals. More attention and focus needs to be given to health service delivery performance, what good performance is for a hybrid organisation, and in particular on what is working in coalition arrangements with other similar organisations.

10.4 Limitations of the Research

The findings of this thesis need to be interpreted subject to several limitations. Some of the limitations are specific to this study, others are common to any study that relies on thematic analysis.

The first limitation is that the research describes a point in time, in late 2014 and early 2015, when the required maximum waiting times for elective services were transitioning to four months. It therefore represents a snapshot in terms of the impact targets were having on the DHB at this time.

A second limitation of the study is its limited sample size, in particular the number of hospital specialists who participated in interviews, and in most cases the limitation of one interview with each study participant. Hospital specialists view the electives system in

clinical terms and, as a non-clinical researcher, it was challenging to obtain interviews with specialists and to establish credibility in interviews. There is always a sense that the administrative and clinician view of the system are incompatible.

A third limitation of the study is that it attempts to make a retrospective analysis of performance. March & Sutton (1997) claim over reliance on cross-sectional data and retrospective studies is a research design weakness. They argue performance information colours subjective memories, perceptions and weightings of possible causes of performance. The study did not rely on accounts of performance reconciling with published ESPI results but the opportunity to ask study participants what performance compliance told them about their DHB's performance was over-looked.

The fourth limitation is that the DHB has to confront the institutional complexity that arises from government performance but it is not in the scope of this study to analyse the Ministry of Health and DHB relationship in detail or to speculate on how accountability setting practices could be better aligned with DHB capabilities and intended outcomes.

The fifth limitation of the study is the generalisations that are made about the impact of institutional logics at the individual and organisational levels. Pache and Santos (2013a) report that existing studies assume individuals adhere to one institutional logic whereas, in reality, it is likely that individuals may adhere to multiple logics. This is one strength of the institutional logics perspective analytical framework, it recognises that individuals and organisations can have affinities to multiple institutional logics. This is especially important for studies of hybrid institutions where selective coupling of practices to logics is a strategy to avoid non-compliance.

Finally a weakness of any study where the researcher has a broad practitioner experience of the area being studied, is the potential for researcher bias. In order to reduce the likelihood of bias, the methods adopted have facilitated cross-referencing of data from a range of sources (semi-structured interviews, documentary evidence, and the performance data itself).

10.5 Future Research

This analysis of elective service performance offers several suggestions for future research. The use of institutional logics in understanding how the DHB, as a hybrid institution, is influenced by priority setting has worked well but in order to test whether institutional logics has wider use, further work is needed to explore its application with programme, strategy or policy effectiveness in another area.

The study has also identified that it would be really helpful if there was a New Zealand framework of performance measures that indicated measurement maturity, for example how the measure had evolved and the known reliability of measures (consistency and variation).

New Zealand has no national standard for the minimum clinical content required in eReferrals, which may account for variation in implementation approaches. As yet, there are no studies examining whether DHBs are using eReferral clinical information to reliably predict the likelihood of treatment or a procedure. There is also no national reporting of whether a patient has followed a clinical pathway prior to referral. Gaps in the literature include eReferral cost-benefit realisation and the contribution of eReferrals to regional co-ordination of elective services.

It would be interesting to repeat the media analysis by Derrett et al. post 2006 to compare whether the media coverage of elective services has markedly changed since 2000-2006.

It is also recognised that the Ministry of Health has expanded its data collection with the implementation of National Patient Flow. As a result, further research could encompass the implementation of this data collection and new insights gained about patient journeys, the primary-secondary interface and the GP workforce capability.

The human capital costs of the elective service delivery performance model remain unknown. This research contributes to an understanding of what might be done to improve the evaluation of the performance of elective health service delivery in New Zealand. Decision-makers at different levels of the health system have different concerns and it is essential that a systematic approach is agile, responsive to change, and is able to be 'owned' by the health system.

References

Ardagh, M. (2010). How to achieve New Zealand's shorter stays in emergency departments health target. *New Zealand Medical Journal*, *123*(1316), 95-103.

Ashton, T. (2010). The benefits and risks of DHBs contracting out elective procedures to private providers. *The New Zealand Medical Journal (Online), 123*(1314).

Ashton, T., Bramley, D., and Armstrong, D. (2012). Improving the productivity of elective surgery through a new 'package of care'. *Health Policy, 108*(1), 45-48. doi:http://dx.doi.org/10.1016/j.healthpol.2012.08.007

Ashton, T., Mays, N., and Devlin, N. (2005). Continuity through change: The rhetoric and reality of health reform in New Zealand. *Social Science & Medicine, 61*(2), 253-262. doi:http://dx.doi.org/10.1016/j.socscimed.2004.07.004

Audit Commission, and Improvement and Development Agency. (2002). *Acting on facts: using performance measurement to improve local authority services*. Retrieved from http://www.audit-commission.gov.uk/nationalstudies/localgov/pages/actingonfacts.aspx.

Ball, S. L., Greenhalgh, J., and Roland, M. (2016). Referral management centres as a means of reducing outpatients attendances: how do they work and what influences successful implementation and perceived effectiveness? *BMC Family Practice, 17*(1), 37. doi:10.1186/s12875-016-0434-y

Barber, A., Hansen, P., Naden, R., Ombler, F., and Stewart, R. (2012). Who's next? A new process for creating points systems for prioritising patients for elective health services. *Clinical Governance: An International Journal, 17*(3). doi:10.1108/14777271211251318

Barnett, P., Smith, J., and Cumming, J. (2009). *The role and functions of primary health organisations*. Retrieved from https://www.victoria.ac.nz/health/centres/health-services-research-centre/docs/reports/Roles-and-Functions-of-PHOs.pdf

Behn, R. D. (2003). Why measure performance? Different purposes require different measures. *Public Administration Review, 63*(5), 586-606. doi:10.1111/1540-6210.00322

Bevan, G. (2006). Setting Targets for Health Care Performance: Lessons from a Case Study of the English NHS. *National Institute Economic Review, 197*(1), 67-79. doi:10.1177/0027950106197000102

Bevan, G. (2010). Performance Measurement of "Knights" and "Knaves": Differences in Approaches and Impacts in British Countries after Devolution. *Journal of Comparative Policy Analysis: Research and Practice, 12*(1-2), 33-56. doi:10.1080/13876980903076187

Bevan, G., and Hood, C. (2006a). Have targets improved performance in the English NHS? *British Medical Journal, 332*(7538), 419-422.

Bevan, G., and Hood, C. (2006b). What's measured is what matters: Targets and gaming in the English public health care system. *Public Administration, 84*(3), 517-538. doi:10.1111/j.1467-9299.2006.00600.x

Biddle, C., and Schafft, K. A. (2015). Axiology and anomaly in the practice of mixed methods work: pragmatism, valuation, and the transformative paradigm. *Journal of Mixed Methods Research, 9*(4), 320-334.

Biesta, G. (2010). Pragmatism and the philosophical foundations of mixed methods research. In A. Tashakkori & C. T. Teddlie (Eds.), Handbook of mixed methods in

social & behavioral research. Thousand Oaks: Sage Publications. doi:http://dx.doi.org/10.4135/9781506335193

Bird, S. M., Cox, D., Farewell, V. T., Goldstein, H., Holt, T., and Smith, P. C. (2005). Performance Indicators: Good, Bad, and Ugly. *Journal of the Royal Statistical Society. Series A (Statistics in Society), 168*(1), 1-27.

Blank, L., Baxter, S., Woods, H. B., Goyder, E., Lee, A., Payne, N., and Rimmer, M. (2015). What is the evidence on interventions to manage referral from primary to specialist non-emergency care? A systematic review and logic model synthesis. *Health Service Delivery Research, 3*(24).

Bowen, S., and Kreindler, S. A. (2008). Indicator madness: A cautionary reflection on the use of indicators in healthcare. *Healthcare Policy, 3*(4), 41-48.

Boyne, G. A. (2003). Sources of public service improvement: a critical review and research agenda. *Journal of Public Administration Research and Theory, 13*(3), 367-394. doi:10.1093/jpart/mug027

Bromley, P., and Powell, W. W. (2012). From smoke and mirrors to walking the talk: decoupling in the contemporary world. *The Academy of Management Annals*. doi:http://dx.doi.org/10.1080/19416520.2012.684462

Carter, N., Klein, R., and Day, P. (1992). *How organisations measure success: the use of performance indicators in government*. New York, London: Routledge.

Chalmers, L. (2014). *Inside the Black Box of emergency department time target implementation in New Zealand (Doctoral dissertaton).* University of Auckland, Available from http://researchspace.auckland.ac.nz http://hdl.handle.net/2292/23541 database.

Chan, G., Bezuidenhout, L., Walker, L., and Rowan, R. (2016). The impact on life questionnaire: validation for elective surgery prioritisation in New Zealand prioritisation criteria in orthopaedic surgery. *NZMJ, 129*(1432), 26-32.

Chang, L.-c. (2006). Managerial Responses to Externally Imposed Performance Measurement in the NHS: An Institutional Theory Perspective. *Financial Accountability & Management, 22*(1), 63-85. doi:10.1111/j.0267-4424.2006.00393.x

Connolly, A., Nacey, J., Dunham, R., and Adamson, T. (2013). *Quality dimensions of the elective waiting time goals: high level review*. Wellington: Ministry of Health.

Connolly, S., Bevan, G., and Mays, N. (2011). *Funding and performance of healthcare systems in the four countries of the UK before and after devolution. Research Report. The Nuffield Trust*. Retrieved from https://www.nuffieldtrust.org.uk/research/funding-and-performance-of-healthcare-systems-in-the-four-countries-of-the-uk-before-and-after-devolution

Cohen, L., and Manion, L. (2000). *Research methods in education* (5th ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Corwin, P., and Bolter, T. (2014). The effects of audit and feedback and electronic referrals on the quality of primary care referral letters. *Journal of Primary Health Care, 6*(4), 324-327.

Cresswell, J. W. (2009). *Research design: qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks: Sage.

Cullen, J., Bramley, D., Armstrong, D., Butler, L., Rouse, P., and Ashton, T. (2012). Increasing productivity, reducing cost and improving quality in elective surgery in New Zealand: the Waitemata District Health Board joint arthroplasty pilot. *Internal Medicine Journal, 42*(6), 620-626. doi:10.1111/j.1445-5994.2012.02815.x

Culyer, A. J. (2006). The bogus conflict between efficiency and vertical equity. *Health Economics, 15*, 1155-1158. doi:10.1002/hec.1158

Culyer, A. J., and Wagstaff, A. (1993). Equity and equality in health and health care. *Journal of Health Economics, 12*(4), 431-457. doi:http://dx.doi.org/10.1016/0167-6296(93)90004-X

Cumming, J. (2011). Integrated care in New Zealand. *International Journal of Integrated Care, 11*(18 November 2011), 1-13.

Cumming, J. (2013). New Zealand. In L. Siciliani, M. Borowitz, & V. Moran (Eds.), Waiting times policies in the health sector: what works? OECD Health Policy Studies: OECD Publishing.

Cumming, J., McDonald, J., Barr, C., Martin, G., Gerring, Z., and Daube, J. (2014) New Zealand health system review. In*: Vol. 4. Health systems in transition*. Geneva: World Health Organisation.

Cumming, J., and Scott, C., D.,. (1998). The role of outputs and outcomes in purchaser accountability: reflecting on New Zealand experiences. *Health Policy, 46*, 53-68.

Currie, W. L., and Guah, M. W. (2007). Conflicting institutional logics: a national programme for IT in the organisational field of healthcare. *Journal of Information Technology, 2007*(22), 235-247. doi:10.1057/palgrave.jit.2000102

de Lancer Julnes, P. (2008). Can performance measurement support program performance improvement and accountability? In P. De Lancer Julnes, F. S. Berry, M. P. Aristigueta, & K. Yang (Eds.), International handbook of practice-based performance management. Thousand Oaks, California: SAGE Publications, Inc. Retrieved from http://methods.sagepub.com/book/intl-handbook-of-practice-based-performance-management. doi:10.4135/9781412982719

de Lancer Julnes, P., and Holzer, M. (2001). Promoting the Utilization of Performance Measures in Public Organizations: An Empirical Study of Factors Affecting Adoption and Implementation. *Public Administration Review, 61*(6), 693-708. doi:10.2307/3110004

Denhardt, K. G., and Aristigueta, M. P. (2008). Performance management systems: providing accountability and challenging collaboration. In W. Van Dooren & S. Van de Walle (Eds.), *Performance information in the public sector: how it is used*. Basingstoke: Palgrave.

Denis, J.-L., Ferlie, E., and Van Gestel, N. (2015). Understanding hybridity in public organizations. *Public Administration, 93*(2), 273-289. doi:10.1111/padm.12175

Dent, M., and Tutt, D. (2014). Electronic patient information systems and care pathways: The organisational challenges of implementation and integration. *Health Informatics Journal, 20*(3), 176-188.

Derrett, S. (2005). *Booking systems for elective services in New Zealand: Literature scan to identify any ethical issues of national significance: A report to the National Ethics Advisory Committee*. Retrieved from https://neac.health.govt.nz/system/files/documents/publications/bookingsystemselectiveservices.pdf

Derrett, S., Cousins, K., and Gauld, R. (2013). A messy reality: an analysis of New Zealand's elective surgery scoring system via media sources, 2000–2006. *Int J Health Plann Manage, 28*(1), 48-62. doi:10.1002/hpm.2127

Deverson, T., Kennedy, G., and New Zealand Dictionary Centre. (Eds.). (2005). Auckland: Oxford University Press.

Dew, K., Cumming, J., McLeod, D., Morgan, S., McKinlay, E., Dowell, A., and Love, T. (2005). Explicit rationing of elective services: implementing the New Zealand reforms. *Health Policy, 74*(1), 1-12. doi:http://dx.doi.org/10.1016/j.healthpol.2004.12.011

Dew, K., Stubbe, M., Macdonald, L., Dowell, A., and Plumridge, E. (2010). The (non) use of prioritisation protocols by surgeons. *Sociology of Health & Illness, 32*(4), 545-562. doi:10.1111/j.1467-9566.2009.01229.x

DiMaggio, P., and Powell, W. (1983). The iron cage revisited: insitutional isomorphism and collective rationality in organisational fields. *American Sociological Review, 48*(2), 147-160.

Docherty, P. (2008). *Benefits and lessons learned: an eReferrals pilot in the Waikato*. Paper presented at the HINZ.
http://www.hinz.org.nz/uploads/file/2008conference/P32.pdf

Dormer, R. (2010). *Missing Links: A thesis submitted to the Victoria University of Wellington in fulfilment of the requirements for the degree of Doctor of Philosophy in Accounting.* (Doctor of Philosophy in Accounting), Victoria University of Wellington,

Dormer, R. (2011). Findings and cross-cutting themes from the case study research. In D. Gill (Ed.), *The iron cage recreated: the performance management of state organisations in New Zealand*: Institute of Policy Studies.

Epton, M. J., Kelly, P. T., Shand, B. I., Powell, S. V., Jones, J. N., McGeoch, G. R. B., and Hlavac, M. C. (2017). Development and outcomes of a primary care-based sleep assessment service in Canterbury, New Zealand. *NPJ Primary Care Respiratory Medicine, 26*. doi:doi: 10.1038/s41533-017-0030-1.

Feilzer, M. Y. (2010). Doing mixed methods research pragmatically: implications for the rediscovery of pragmatism as a research paradigm. *Journal of Mixed Methods Research, 4*(1), 6-16. doi:10.1177/1558689809349691

Feldman, M. S., and March, J. G. (1981). Information in Organizations as Signal and Symbol. *Administrative Science Quarterly, 26*(2), 171-186. doi:10.2307/2392467

Flood, A. B., and Fennell, M. L. (1995). Through the lenses of organizational sociology: The role of organizational theory and research in conceptualizing and examining our health care system. *Journal of Health and Social Behavior*, 154-169.

Francis, R. (2013). *Report of the mid Staffordshire NHS foundation trust public enquiry: Executive Summary*. London: The Stationery Office.

Fraser, G., Alley, P., and Morris, R. (1993). *Waiting lists and waiting times : their nature and management : a report to the National Advisory Committee on Core Health and Disability Support Services* (ISBN 0-477-01664-2). Retrieved from Wellington: http://www.moh.govt.nz/notebook/nbbooks.nsf/0/2D56A299CAFD9D624C2565D70018EB98?opendocument

Friedland, R., and Alford, R. R. (1991). Bringing society back in symbols, practices and institutional contradictions. In W. Powell & P. DiMaggio (Eds.), *The new institutionalism in organisational analysis*: University of Chicago Press.

Gandar, P. (2008). *A review of the elective services orthopaedic major joint and ophthalmology cataract initiatives: report prepared for the Ministry of Health*. Retrieved from https://www.health.govt.nz/publication/review-elective-services-orthopaedic-major-joint-and-ophthalmology-cataract-initiatives

Gauld, R. (2012). New Zealand's post-2008 health system reforms: Toward re-centralization of organizational arrangements. *Health Policy, 106*(2), 110-113. doi:http://dx.doi.org/10.1016/j.healthpol.2012.03.018

Gauld, R. (2017). The theory and practice of integrative health care governance: Managing community care. *Journal of Integrated Care, 25*(1), 61-72. doi:http://dx.doi.org.helicon.vuw.ac.nz/10.1108/JICA-10-2016-0035

Gauld, R., and Derrett, S. (2000). Solving the surgical waiting list problem? New Zealand's 'booking system'. *Int J Health Plann Manage, 15*(4), 259-272. doi:10.1002/hpm.596

Gill, D., and Schmidt, T. (2011). Organisational performance management: concepts and themes. In D. Gill (Ed.), *The Iron Cage recreated: the performance management of state organisations in New Zealand*. Wellington: Institute of Policy Studies.

Gill, D. (2011). *The iron cage recreated: The performance management of state organisations in New Zealand* (D. Gill Ed.). Wellington: Institute of Policy Studies.

Gimbert, X., Bisbe, J., and Mendoza, X. (2010). The role of performance measurement systems in strategy formulation processes. *Long Range Planning, 43*(4), 477-497. doi:https://doi.org/10.1016/j.lrp.2010.01.001

Gioia, D. A., and Chittipeddi, K. (1991). Sensemaking and sensegiving in strategic change initiation. *Strategic Management Journal, 12*(6), 433-448.

Goddard, M., Davies, T. O., Dawson, D., Mannion, R., and McInnes, F. (2002a). Clinical performance measurement: part 1 - getting the best out of it. *Journal of the royal Society of Medicine, 95*(10), 508-510. doi:10.1177/014107680209501012

Goddard, M., Davies, T. O., Dawson, D., Mannion, R., and McInnes, F. (2002b). Clinical performance measurement: part 2 - avoiding the pitfalls. *Journal of the royal Society of Medicine, 95*(11), 549-551. doi:10.1177/014107680209501107

Goodrick, E., and Reay, T. (2011). Constellations of institutional logics: Changes in the professional work of pharmacists. *Work and Occupations, 38*(3), 372-416. doi:10.1177/0730888411406824

Gorman, D., and Horn, M. (2012). Productivity gain a triumph for clinician leadership. *Internal Medicine Journal, 42*(6), 605-606. doi:10.1111/j.1445-5994.2012.02806.x

Gravelle, H., and Siciliani, L. (2008). Is waiting-time prioritisation welfare improving? *Health Economics, 17*(2), 167-184. doi:10.1002/hec.1262

Gray, D. E. (2009). *Doing research in the real world* (Second ed.). London: Sage Publications.

Greene, J. C., Caracelli, V. J., and Graham, W. F. (1989). Towards a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy Analysis, 11*(3), 255-274. doi:10.3102/01623737011003255

Gregory, R. (1995). The peculiar task of public management: toward conceptual discrimination. Australian Journal of Public Administration, 54(2), 171-183.

Greenwood, R., Raynard, M., Kodeih, F., Micelotta, E., R.,, and Lounsbury, M. (2011). Institutional complexity and organizational responses. *Academy of Management Annals, 5*(1), 317-371. doi:http://dx.doi.org/10.1080/19416520.2011.590299

Hadorn, D., and Holmes, A. (1996). Criteria pilot tests. *British Medical Journal*. Retrieved from http://www.bmj.com/content/suppl/1999/02/04/314.7074.131.DC1

Hadorn, D., and Holmes, A. (1997a). The New Zealand priority criteria project. Part 1: Overview. *BMJ, 314*(7074), 131-134.

Hadorn, D., and Holmes, A. (1997b). The New Zealand Priority Criteria Project. Part 2: Coronary Artery Bypass Graft Surgery. *BMJ: British Medical Journal, 314*(7074), 135-138. doi:10.2307/25173407

Ham, C. (1997). Priority setting in health care: learning from international experience. *Health Policy, 42*(1), 49-66. doi:http://dx.doi.org/10.1016/S0168-8510(97)00054-7

Ham, C., and Coulter, A. (2000). Conclusion: where are we now. In C. Ham & A. Coulter (Eds.), *The global challenge of health care rationing* (pp. 233-250). Philadelphia: Open University Press.

Harris, R., and Holt, R. (2013). Interacting institutional logics in general dental practice. *Social Science & Medicine, 94*, 63-70. doi:10.1016/j.socscimed.2013.05.038

Health Information Strategy Steering Committee. (2005). *Health Information Strategy for New Zealand.* Retrieved from https://www.health.govt.nz/publication/health-information-strategy-new-zealand-2005

Health Workforce New Zealand. (2011a). *Anaesthesia 2020: report on how to provide sufficient anaesthesia resources in New Zealand for the next decade and beyond*. Retrieved from https://www.health.govt.nz/our-work/health-workforce/workforce-service-forecasts

Health Workforce New Zealand. (2011b). *Diabetes workforce service review: report of the diabetes care workforce service review team to Health Workforce New Zealand*. Retrieved from https://www.health.govt.nz/our-work/health-workforce/workforce-service-forecasts

Health Workforce New Zealand. (2011c). *Eye health workforce service review* Retrieved from https://www.health.govt.nz/our-work/health-workforce/workforce-service-forecasts

Health Workforce New Zealand. (2011d). *Gastroenterology workforce service review*. Retrieved from https://www.health.govt.nz/our-work/health-workforce/workforce-service-forecasts

Health Workforce New Zealand. (2011e). *Report on the musculoskeletal workforce service review*. Retrieved from https://www.health.govt.nz/our-work/health-workforce/workforce-service-forecasts

Health Workforce New Zealand. (2013). *Health Workforce New Zealand plastic surgery workforce service forecast report*. Retrieved from https://www.health.govt.nz/our-work/health-workforce/workforce-service-forecasts

Health Workforce New Zealand. (2014). *Dermatology workforce service forecast*. Retrieved from https://www.health.govt.nz/our-work/health-workforce/workforce-service-forecasts

Hefford, B., and Holmes, A. (1999). Booking systems for elective services: the New Zealand experience. *Aust Health Rev, 22*(4), 61-73; discussion 74-67.

Henri, J.-F. (2006). Organizational culture and performance measurement systems. *Accounting, Organizations and Society, 31*(1), 77-103. doi:10.1016/j.aos.2004.10.003

Hirsch, P. M., and Bermiss, Y. S. (2009). Institutional "dirty" work: preserving institutions through decoupling In T. D. Lawrence, R. Suddaby, & B. Leca (Eds.), *Institutional Work* (pp. 262-284): Cambridge University Press.

Hood, C. (2007). Public Service Management by Numbers: Why Does it Vary? Where Has it Come From? What Are the Gaps and the Puzzles? *Public Money & Management, 27*(2), 95-102. doi:10.1111/j.1467-9302.2007.00564.x

Hood, C. (2012). Public Management by Numbers as a Performance-Enhancing Drug: Two Hypotheses. *Public Administration Review, 72*, S85-92. doi:http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291540-6210/issues

Hospital and Related Services Taskforce (NZ). (1988). *Unshackling the hospitals: Report of the Hospital and Related Services Taskforce*. Retrieved from http://www.moh.govt.nz/notebook/nbbooks.nsf/0/7E6E94CB929FD56A4C2565D70 00DD6A7?OpenDocument

Hughes, E. C. (1939) Institutions. In R. Park (ed), *An outline of the principles of sociology* (pp. 218-330). New York: Barnes and Noble.

Hultin, L., and Mahring, M. (2014). Visualising institutional logics in sociomaterial practices. *Information and Organisation, 24*, 129-155. doi:10.1016/j.infoandorg.2014.05.002

Imison, C., and Naylor, C. (2010). *Referral management: lessons for success*. Retrieved from https://www.kingsfund.org.uk/publications/referral-management

IT Health Board. (2010). *National Health IT Plan: Enabling an integrated healthcare model* Retrieved from https://www.health.govt.nz/publication/national-health-it-plan

Jensen, T. B., Kjærgaard, A., and Svejvig, P. (2009). Using institutional theory with sensemaking theory: a case study of information system implementation in healthcare. *Journal of Information Technology, 24*(4), 343-353. doi:http://dx.doi.org/10.1057/jit.2009.11

Johansen, S., T.,, Olsen, T., H.,, Solstad, E., and Torsteinsen, H. (2015). An insider view of the hybrid organisation: How managers respond to challenges of efficiency, legitimacy and meaning. *Journal of Management and Organization, 21*(6), 725-740. doi:doi:http://dx.doi.org.helicon.vuw.ac.nz/10.1017/jmo.2015.1

Johansson, K. A., Nygaard, E., Herlofsen, B., and Lindemark, F. (2017). Implementation of the 2013 amended Patients' Rights Act in Norway: Clinical priority guidelines and access to specialised health care. *Health Policy, 121*(4), 346-353. doi:https://doi.org/10.1016/j.healthpol.2017.02.007

Kaarboe, O., and Carlsen, F. (2014). Waiting times and socioeconomic status. Evidence from Norway. *Health Economics, 23*(1), 93-107. doi:10.1002/hec.2904

Kapiriri, L., Norheim, O., Frithjof,., and Martin, D. K. (2007). Priority setting at the micro-, meso- and macro-levels in Canada, Norway and Uganda. *Health Policy, 82*, 78-94. doi:10.1016/j.healthpol.2006.09.001

Kim, Y., Chen, A. H., Keith, E., Yee Jr, H. F., and Kushel, M. B. (2009). Not perfect, but better: primary care providers' experiences with electronic referrals in a safety net health system. *Journal of General Internal Medicine, 24*(5), 614-619.

Klein, R., and Maybin, J. (2012). *Thinking about rationing*. Retrieved from http://www.kingsfund.org.uk/publications/thinking-about-rationing

Kraatz, M.S., & Block, E. (2008). Organizational implications of institutiomal pluralism. In R. Greenwood, C. Oliver, R. Suddaby, & K. Sahlin-Andersson (Eds.), The SAGE Handbook of Organizational Institutionalism (pp. 243–275). London: Sage.

Kraatz, M. S., and Block, E. S. (2017). Institutional pluralism revisited. In R. Greenwood, C. Oliver, & T. B. Lawrence (Eds.), *The Sage handbook of organisational institutionalism* (pp. 532-557): Sage Publications Ltd.

Kreindler, S. A. (2010). Policy strategies to reduce waits for elective care: a synthesis of international evidence. *British Medical Bulletin, 95*(1), 7-32. doi:10.1093/bmb/ldq014

Laking, R. (2011). Case study – Child, Youth and Family: Drivers of the need for information. In D. Gill (Ed.), *The iron cage recreated: the performance management of state organisations in New Zealand*: Institute of Policy Studies.

Laudicella, M., Siciliani, L., and Cookson, R. (2012). Waiting times and socioeconomic status: Evidence from England. *Social Science & Medicine, 74*(9), 1331-1341. doi:http://dx.doi.org/10.1016/j.socscimed.2011.12.049

Lebas, M., and Euske, K. (2002). A conceptual and operational delineation of performance. In A. Neely (Ed.), *Business performance measurement: theory and practice*: Cambridge University Press.

Leech, N. L., and Onwuegbuzzie, A. J. (2009). A typology of mixed methods research designs. *Qual Quant, 43*, 265-275. doi:10.1007/s11135-007-9105-3

Lemieux-Charles, L., McGuire, W., Champagne, F., Barnsley, J., Cole, D., and Sicotte, C. (2008). The use of multilevel performance indicators in managing performance in helath care organisations. *Management Decision, 41*(8), 760-770. doi:10.1108/00251740310496279

Levesque, J.-F., Harris, M. F., and Russell, G. (2013). Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *International Journal for Equity in Health, 12*(18). doi:10.1186/1475-9276-12-18

Lu, Y. (2008). Managing the design of performance measures: The Role of Agencies. *Public Performance & Management Review, 32*(1), 7-24. doi:10.2753/pmr1530-9576320101

Maitlis, S. (2005). The social processes of organizational sensemaking. *The Academy of Management Journal, 48*(1), 21-49. doi:10.2307/20159639

Malik, S. (2006). GPs with special interests. *Career Focus:*. Retrieved from doi:https://doi.org/10.1136/bmj.332.7545.sgp133-a

Mannion, R., and Braithwaite, J. (2012). Unintended consequences of performance measurement in healthcare: 20 salutary lessons from the English National Health Service. *Internal Medicine Journal, 42*(5), 569-574. doi:10.1111/j.1445-5994.2012.02766.x

Martin, G., Currie, G., Weaver, S., Finn, R., and McDonald, R. (2017). Institutional complexity and individual responses: Delineating the boundaries of partial autonomy. *Organization Studies, 38*(1), 103-127. doi:10.1177/0170840616663241

Mathison, S. (2005). Cross-Case Analysis. In S. Mathison (Ed.), *Encyclopaedia of Evaluation* (pp. 96). Thousand Oaks: Sage Publications Inc.

McDonald, R., Cheraghi-Sohi, S., Bayes, S., Morriss, R., and Kai, J. (2013). Competing and coexisting logics in the changing field of English general medical practice. *Social Science & Medicine, 93*, 47-54. doi:10.1016/j.socscimed.2013.06.010

McGeoch, G., Anderson, I., Gibson, J., Gullery, C., Kerr, D., and Shand, B. (2015). Consensus pathways: evidence into practice. *NZ Medicine Journal, 128*(1408), 86-96. doi:10.1016/j.socscimed.2013.06.010

McGeoch, G., Sycamore, M. J., Shand, B. I., and Simcock, J. W. (2015). A regional programme to improve skin cancer management. *Journal of Primary Health Care, 7*(4), 339-344.

McLeod, D., Dew, K., Morgan, S., Dowell, A., Cumming, J., Cormack, D., . . . Love, T. (2004). Equity of access to elective surgery: reflections from NZ clinicians. *J Health Serv Res Policy, 9*, S41-S47.

McLeod, D., Morgan, S., McKinlay, E., and Dew, K. (2004). Use of, and attitudes to, clinical priority assessment criteria in elective surgery in New Zealand. *J Health Serv Res Policy, 9*(2), 91-99.

McLeod, D., Morgan, S., McKinlay, E., Dew, K., Cumming, J., Dowell, A., and Love, T. (2004). Clinicians' reported use of clinical priority assessment criteria and their attitudes to prioritization for elective surgery: a cross-sectional survey. *ANZ J Surg, 74*(11), 1003-1009. doi:10.1111/j.1445-1433.2004.03151.x

McLeod, D., White, S., McKinlay, E., Dew, K., Cumming, J., Dowell, T., Raymont, A. (2002). *CPAC Evaluation Study: Descriptive Study. Report to the Ministry of Health.*

Mechanic, D. (1997). Muddling through elegantly: Finding the proper balance in rationing. *Health Affairs, 16*(5), 83-92.

Meekings, A., Briault, S., and Neely, A. (2010). Are your goals hitting the right target? Business Strategy Review, 21(3), 46-51. doi:10.1111/j.1467-8616.2010.00684.x

Meyer, J. W., and Rowan, B. (1977). Institutionalized Organizations: Formal Structure as Myth and Ceremony. *American Journal of Sociology, 83*(2), 340-363. doi:10.2307/2778293

Micheli, P., and Manzoni, J.-F. (2010). Strategic peformance measurement: Benefits, limitations and paradoxes. *Long Range Planning, 43*, 465-476. doi:10.1016/j.lrp.2009.12.004

Micheli, P., and Mari, L. (2014). The theory and practice of performance measurement. *Management Accounting Research, 25*(2), 147-156. doi:https://doi.org/10.1016/j.mar.2013.07.005

Micheli, P., and Neely, A. (2010). Performance Measurement in the Public Sector in England: Searching for the Golden Thread. *Public Administration Review, 70*(4), 591-600. doi:10.1111/j.1540-6210.2010.02180.x

Ministerial Review Group. (2009). *Meeting the challenge: enhancing sustainability and the patient and consumer experience within the current legislative framework for health and disability services in New Zealand*. Retrieved from http://www.moh.govt.nz/notebook/nbbooks.nsf/0/A1CE38F0314DFC63CC25762D000DC6B1

Ministry of Health. (2000). *Reduced waiting times for public hospitals elective services : government strategy - March 2000*. Wellington Retrieved from http://www.moh.govt.nz/NoteBook/nbbooks.nsf/0/5D5019FAF9B49C6FCC256AF6006F592C?opendocument.

Ministry of Health. (2001). *The Primary Care Health Strategy*. Ministry of Health.

Ministry of Health. (2002). *Indicators for DHB Performance - 2002/03*. Ministry of Health.

Ministry of Health. (2006a). *Guide to managing elective services*. Wellington: Ministry of Health.

Ministry of Health. (2006b). *Protecting elective volumes working group report* Retrieved from https://www.beehive.govt.nz/sites/all/files/PEV%20report.pdf.

Ministry of Health. (2007). *Statement of intent: 2007-2010*. Wellington: Ministry of Health.

Ministry of Health. (2009a). *DHB non-financial monitoring framework 2010/11: Detailed indicator dictionary for the measures included in the systems integration dimension*. Wellington: Ministry of Health.

Ministry of Health. (2009b). *Statement of intent: 2009-2012*. Wellington: Ministry of Health.

Ministry of Health. (2011a). *National Booking Reporting System (NBRS): Data dictionary*. Wellington: Ministry of Health.

Ministry of Health. (2011b). *National Booking Reporting System (NBRS): File specification for file version V04.0*. Wellington.

Ministry of Health. (2011c). *Targeting more elective operations: Improved access to elective surgery*. Wellington: Ministry of Health Retrieved from http://www.moh.govt.nz/notebook/nbbooks.nsf/0/D4D15CB373747ECCCC25786F0079D9AE/$file/targeting-electives-health-target.pdf.

Ministry of Health. (2011-2016). *Q4 Health Targets*. Retrieved from https://www.health.govt.nz/new-zealand-health-system/health-targets/about-health-targets/health-targets-improved-access-elective-surgery.

Ministry of Health. (2012a). *Improving the System: Meeting the challenge – improving patient flow for electives*. Wellington: Ministry of Health.

Ministry of Health. (2012b). *National Booking Reporting System: data dictionary*. Wellington: Ministry of Health.

Ministry of Health. (2013a). *2012/13 DHB Hospital Caseload Monitoring Report* [Excel Spreadsheet]. Retrieved from: http://www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/district-health-board-data-and-stats/caseload-monitoring-reports

Ministry of Health. (2013b). *2013/14 DHB non-financial monitoring framework and performance measures* Wellington: Ministry of Health.

Ministry of Health. (2013c). *National Health IT Plan Update 2013/14*. Retrieved from https://www.health.govt.nz/publication/national-health-it-plan-update-2013-14

Ministry of Health. (2013d). *Service Coverage Schedule: 2014/15*. Ministry of Health.

Ministry of Health. (2014a). *2013/14 DHB Hospital Caseload Monitoring Report* [Excel Spreadsheet]. Retrieved from: http://www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/district-health-board-data-and-stats/caseload-monitoring-reports

Ministry of Health. (2014b). *2014/15 Annual Plan Guidelines (including planning priorities): with statement of intent and statement of performance expectations*.

Ministry of Health. (2014c). *2014/15 DHB non-financial monitoring framework and performance measures* Wellington: Ministry of Health.

Ministry of Health. (2014d). *2014/15 Regional Services Plan Guidelines*. Wellington

Ministry of Health. (2014e). *Elective services resource pack module two: referral management.* Wellington: Ministry of Health.

Ministry of Health. (2014f). *Electives resource pack module five: clinical prioritisation*. Wellington: Ministry of Health.

Ministry of Health. (2014g). *Electives resource pack module nine: elective reporting*. Wellington: Ministry of Health.

Ministry of Health. (2014h). *Electives resources pack module eleven: national collections*. Wellington: Ministry of Health.

Ministry of Health. (2014i). *Electives resources pack module one :the interface between primary and secondary care.* Wellington: Ministry of Health.

Ministry of Health. (2014j). *Electives resources pack module ten: targeted guidance, support information and accountability documents*. Wellington: Ministry of Health.

Ministry of Health. (2014k). *Operational Policy Framework*. Wellington: Ministry of Health.

Ministry of Health (2014l). Cardiothoracic Anonymised NBRS Dataset [Data file]. Wellington. Ministry of Health.

Ministry of Health. (2015a). *2014/15 DHB Hospital Caseload Monitoring Report* [Excel]. Retrieved from: http://www.health.govt.nz/nz-health-statistics/health-statistics-and-data-sets/district-health-board-data-and-stats/caseload-monitoring-reports

Ministry of Health. (2015b). *DHB non-financial monitoring framework and performance measures*. Retrieved from https://nsfl.health.govt.nz/accountability/performance-and-monitoring/performance-measures/performance-measures-201415.

Ministry of Health. (2015c). *Planning priorities for Annual Plans and Regional Service Plans* Wellington.

Ministry of Health. (2016a). *Electives Funding Policy*. Wellington Retrieved from https://nsfl.health.govt.nz/system/files/documents/publications/electivesfundingpolicy2015-16_0.pdf.

Ministry of Health. (2016b). *Guide to managing Elective Services Patient Flow Indicators (ESPIs)*. Wellington.

Ministry of Health. (2016c). *Table 3 – standardised discharge ratios June 2016*. Retrieved from https://www.health.govt.nz/publication/services-received-standardised-discharge-ratios.

Ministry of Health (2016d). Number and percentage of referrals receivd between July and September 2015 for publicly funded First Specialist Assessments by Prioritisation Outcome (development) dataset. Retrieved from https://www.health.govt.nz/publication/national-patient-flow-prioritisation-outcome-referrals-first-specialist-assessment-tables

Ministry of Health. (2018). Statutory framework. Retrieved from https://www.health.govt.nz/new-zealand-health-system/overview-health-system/statutory-framework

Modell, S. (2001). Performance measurement and institutional processes: a study of managerial responses to public sector reform. *Management Accounting Research, 12*(4), 437-464. doi:http://dx.doi.org/10.1006/mare.2001.0164

Modell, S. (2004). Performance measurement myths in the public sector: a research note. *Financial Accountability & Management, 20*(1), 39-55. doi:10.1111/j.1468-0408.2004.00185.x

Moore, D., Black, M., and van Essen, E. (2009). *Evaluation of 13 diagnostic pilots*. Wellington: LECG

Mortimore, A., and Whitham, D. (2012). *Elective services productivity and workforce projects: final report June 2012*. Retrieved from Waikato District Health Board, Hamilton: http://www.waikatodhb.govt.nz/file/fileid/44210

Moynihan, D. P., and Pandey, S. I. C. (2010). The big question for performance management: why do managers use performance information? *Journal of Public Administration Research and Theory, 20*(4), 849+.

National Advisory Committee on Core Health and Disability Support Services. (1992). *Core health & disability support services for 1993/94 : first report of the National Advisory Committee on Core Health and Disability Support Services to the Minister of Health the Honourable Simon Upton*

National Advisory Committee on Core Health and Disability Support Services. (1994). *Core services for 1995/96 : third report of the National Advisory Committee on Core Health and Disability Support Services to the Minister of Health Hon. Jenny Shipley*.

NHS Executive. (1999). *The NHS Performance Assessment Framework*. London: The Stationery Office.

Nikolova, S., Sinko, A., and Sutton, M. (2012). Do maximum waiting time guarantees change clinical priorities? A conditional density estimation approach. Retrieved from york.ac.uk/res/herc/hedgwp

Norman, R. (2003). *Obedient servants? Management freedoms & accountabilities in the New Zealand Public Sector*. Wellington: Victoria University Press.

OAG. (1989). *Report of the Audit Office: Management of public hospital surgical workloads*. Wellington: The Audit Office.

OAG. (2002). *Reporting public sector performance*. Retrieved from https://www.oag.govt.nz/2002/reporting

OAG. (2008). *The Auditor-General's observations on the quality of performance reporting: a discussion paper*. Retrieved from https://www.oag.govt.nz/2008/performance-reporting

OAG. (2011). *Progress in delivering publicly funded scheduled services to patients.* Retrieved from https://www.oag.govt.nz/2011/scheduled-services

OAG. (2013a). *Delivering scheduled services to patients: progress in responding to the Auditor-General's recommendations*. Retrieved from https://www.oag.govt.nz/2013/scheduled-services

OAG. (2013b). *Regional services planning in the health sector*. Retrieved from https://www.oag.govt.nz/2013/regional-services-planning

OAG. (2015). *Delivering scheduled services to patients: progress in responding to the Auditor-General's recommendation*. Retrieved from https://www.oag.govt.nz/2015/scheduled-services

OECD. (2005). *Modernising Government: The way forward*: OECD Publishing.

Orton, J. D., and Weick, K. E. (1990). Loosely coupled systems: a reconceptualisation. *The Academy of Management Review, 15*(2), 203-223.

Pache, A.-C., and Santos, F. (2013a). Embedded in hybrid contexts: How individuals in organisations respond to competing institutional logics. In M. Lounsbury & E. Boxenbaum (Eds.), *Institutional logics in action* (Vol. 39, Part B): Emerald Publishing

Pache, A.-C., and Santos, F. (2013b). Inside the hybrid organisations: selective coupling as a response to competing institutional logics. *Academy of Management Journal, 56*(4), 872-1001. doi:http://dx.doi.org/10.5465/amj.2011.0405

Patton, M. Q. (2015). *Qualitative research & evaluation methods: integrating theory and practice* (Fourth ed.). Sage.

Pollitt, C. (2013). The logics of performance management. *Evaluation, 19*(4), 346-363.

Pollitt, C. (2018). Performance management over 40 years on: a review. Some key decisions and consequences. *Public Money & Management, 38*(3), 167-174. doi:10.1080/09540962.2017.1407129

Pratt, M. G., and Foreman, P. O. (2000). Classifying managerial responses to multiple organisational identities. *Academy of Management Review, 25*(1), 18-42.

Propper, C. (2012). Competition, incentives and the English NHS. *Health Economics, 21*(1), 33-40. doi:10.1002/hec.1804

Propper, C., Sutton, M., Whitnall, C., and Windmeijer, F. (2009). Did 'Targets and Terror' Reduce Waiting Times in England for Hospital Care? , Issue , -. , from doi:10.2202/1935-1682.1863. *The B.E. Journal of Economic Analysis & Policy, 8*(2), 1935-1682. doi:10.2202/1935-1682.1863

Radnor, Z. (2008). Hitting the Target and Missing the Point? Developing an Understanding of Organizational Gaming. In W. Van Dooren & S. Van de Walle (Eds.), *Performance Information in the Public Sector: How it is Used* (pp. 94-105). London: Palgrave Macmillan UK.

Radnor, Z., and Barnes, D. (2007). Historical analysis of performance measurement and management in operations management. *International Journal of Productivity and Performance Management, 56*(5/6), 384-396. doi:doi:10.1108/17410400710757105

Ratcliffe, L. (2007, 26 September 2007). Mastering the dance - GP liaisons. *New Zealand Doctor,* 6.

Raymont, A., Morgan, S., McLeod, D., Dowell, A., van Rij, A., Cumming, J., . . . Cormack, D. (2008). New Zealand general practitioners' non-urgent referrals to surgeons: who and why? *The New Zealand Medical Journal (Online), 121*(1275), 57-64.

Reay, T., and Hinings, C. R. (2005). The recomposition of an organizational field: health care in Alberta. *Organization Studies, 26*(3), 351-384. doi:10.1177/0170840605050872

Reay, T., and Hinings, C. R. (2009). Managing the Rivalry of Competing Institutional Logics. *Organization Studies, 30*(6), 629-652. doi:10.1177/0170840609104803

Reay, T., and Jones, C. (2016). Qualitatively capturing institutional logics. *Strategic Organisation, 14*(4), 441-454. doi:10.1177/1476127015589981

Ritzer, G. (2005). Institutional theory. In *Encylopaedia of social theory* (pp. 409-415). Thousand Oaks: Sage Publications Inc.

Roake, J. (2003). Managing waiting lists. In R. Gauld (Ed.), *Continuity amidst chaos*: Otago University Press.

Roake, P. J. (2001). The booking system for surgery: evaluate or abandon. *N Z Med J, 114*(1143), 503.

Robinson, S., Varhol, R., Bell, C., Quirk, F., and Durrington, L. (2015). HealthPathways: creating a pathway for health systems reform. *Australian Health Review,, 39*(9-11). doi:http://dx.doi.org/10.1071/AH14155

Roland, S., McDonald, R, Sibbald., B. (2006) Outpatient services and primary care: A scoping review of research into strategies for improving outpatient effectiveness and efficiency. Southamption: National Institute for Health Research Trials and Studies Coordinating Centre.

Rosen, R., Jones, R., Tomlin, Z., and Cavanagh, M.-R. (2005). *Evaluation of General Practitioners with Special Interests: Access, Cost Evaluation and Satisfaction with Services*. London: National Coordinating Centre for the Service Delivery and Organisation research programme managed by London School of Tropical Medicine and Hygiene

Ryall, T. (2007). *Better sooner more convenient: health discussion paper by Hon. Tony Ryall, National Party health spokesman*. Office of the Leader of the Opposition.

Salmon, P., Mortimer, M., Rademaker, M., Adams, L., Stanway, A., and Hill, S. (2010). Surgical excision of skin cancer: the importance of training. *British Journal of Dermatology, 162*(1), 117-122. doi:10.1111/j.1365-2133.2009.09548.x

Schick, A. (1996). *The spirit of reform: managing the New Zealand state sector in a time of change*. Retrieved from Wellington:

Schick, A. (2003). The Performing State: Reflection on an idea whose time has come but whose implementation has not. *OECD Journal on Budgeting, 3/2*. doi:doi: 10.1787/budget-v3-art10-en

Scott, W. R. (2008). Lords of the Dance: Professionals as Institutional Agents. *Organization Studies, 29*(2), 219-238. doi:10.1177/0170840607088151

Scott, W. R. (2014). *Institutions and organizations: ideas, interests and identities* (4th ed.). Los Angeles: Sage.

Shaw, J. A., Kontos, P., Martin, W., and Victor, C. (2017). The institutional logic of integrated care: an ethnography of patient transitions. *Journal of Health Organization and Management, 31*(1), 82-95. doi:doi:10.1108/JHOM-06-2016-0123

Siciliani, L., Borowitz, M., and Moran, V. (2013). *Waiting times in the health sector: what works? OECD Health Policy Studies*. In. doi:http://dx.doi.org/10.1787/9789264179080-en

Siciliani, L., and Hurst, J. (2003). *Tackling excessive waiting times for elective surgery: a comparison of policies in twelve OECD countries*. Retrieved from OECD, Paris:

Singh, U. (2014). *Studying the issues around the reporting of complete and quality data by private hospitals across New Zealand*: Victoria University of Wellington.

Smith, P. (1995). On the unintended consequences of publishing performance data in the public sector. *International Journal of Public Administration, 18*(2-3), 277-310. doi:10.1080/01900699508525011

Smith, P. C., Mossialos, E., Papancolas, I., and Leatherman, S. (2009). Performance measurement for health system improvement: Experiences, challenges and prospects. In E. Mossialos (Ed.), The Cambridge Health Economics, Policy and Management series. Cambridge: Cambridge University Press. (Reprinted from: 2010). Retrieved from http://www.euro.who.int/en/who-we-are/partners/observatory/studies/performance-measurement-for-health-system-improvement-experiences,-challenges-and-prospects (2009).

Smith, P. C., and Papanicolas, I. (Eds.). (2012). *Health system performance comparison: an agenda for policy information and research*. Copenhagen, Denmark: World Health Organization.

Statistics New Zealand. (2010). *Measuring government sector productivity in New Zealand: a feasibility study*. Wellington, New Zealand: Statistics New Zealand Retrieved from http://archive.stats.govt.nz/browse_for_stats/economic_indicators/productivity/measuring-govt-productivity/8-data-availability-health-care.aspx.

Taneja, A., Singh, P. P., Tan, J. P. L., Hill, D. G., Connolly, A. B., and Hill, A. G. (2014). Efficacy of general practitioners with specialty interests for surgical procedures. *ANZ J Surg, 85*(2015), 344-348. doi:10.1111/ans.12721

Taylor, F.W. (1911) *The Principles of Scientific Management.* New York: Harper and Brothers.

Tenbensel, T., Chalmers, L., and Willing, E. (2016). Comparing the implementation consequences of the immunisation and emergency department health targets in New Zealand: A tale of two targets. *Journal of Health Organization and Management, 30*(6), 1009-1024. doi:doi:10.1108/JHOM-08-2015-0126

The Wave Advisory Board. (2001). *From strategy to reality: The WAVE Project. Health Information Management and Technology Plan: Working to Add Value through E-information*. Retrieved from http://www.moh.govt.nz/NoteBook/nbbooks.nsf/0/854A4886C085DD5ECC256B0A00061F93?opendocument on 22 February 2015

Thornton, P., and Ocasio, W. (2008). Institutional logics. In R. Greenwood, C. Oliver, R. Suddaby, & K. Sahlin (Eds.), *The Sage handbook of organizational institutionalism* (pp. 99-129). London: Sage Publications.

Thornton, P., Lounsbury, M., and Ocasio, W. (2012). *The institutional logics perspective : a new approach to culture, structure, and process*. Retrieved from https://ebookcentral.proquest.com

Timmermans, S., and Epstein, S. (2010). A World of Standards but not a Standard World: Toward a Sociology of Standards and Standardization. Annual Review of Sociology, 36(1), 69-89. doi:10.1146/annurev.soc.012809.102629

Timmins, N., and Ham, C. (2013). *The quest for integrated health and social care: A case study in Canterbury, New Zealand*. Retrieved from http://www.kingsfund.org.uk/publications/quest-integrated-health-and-social-care

Upton, S. (1991). *Your health & the public health : a statement of government health policy*. Wellington: Department of Health.

van den Broek, J., Boselie, P., and Paauwe, J. (2014). Multiple institutional logics in health care: Productive ward: releasing time to care. *Public Management Review, 16*(1), 1-20. doi:10.1080/14719037.2013.770059

van Dijk, C. E., Korevaar, J. C., Koopmans, B., de Jong, J. D., and de Bakker, D. H. (2014). The primary-secondary care interface: does provision of more services in primary care reduce referrals to medical specialists? *Health Policy, 118*, 48-55. doi:http://dx.doi.org/10.1016/j.healthpol.2014.04.001

van Dooren, W. (2011). Better Performance Management. *Public Performance & Management Review, 34*(3), 420-433. doi:10.2753/pmr1530-9576340305

van Dooren, W., Bouckaert, G., and Halligan, J. (2015). *Performance management in the public sector*. In. doi: 10.4324/9781315817590

van Thiel, S., and Leeuw, F., L.,. (2002). The performance paradox in the public sector. *Public Performance & Management Review, 25*(3), 267-281. doi:10.1080/15309576.2002.11643661

Veblen, T. B. (1919). *The place of science in modern civilization and other essays. New York: B. W. Huebsch*

Waikato District Health Board. (2015). *Annual Report for the year ended 30 June 2015*. Retrieved from Hamilton: www.waikatodhb.health.nz/strategy

Warren, J., Yulong, G., Day, K., Pollock, M., and White, S. (2012). Approach to health innovation projects: Learnings from eReferrals. *Health Care and Informatics Review Online, 16*(2), 17-23.

Warren, J., Yulong, G., White, S., Day, K., and Pollock, M. (2011). *Evaluating NZ Health Innovation Projects: eReferrals Evaluation.* . Retrieved from Wellington: :

Weick, K. E., Sutcliffe, K. M., and Obstfeld, D. (2005). Organizing and the Process of Sensemaking. *Organization Science, 16*(4), 409-421. doi:10.2307/25145979

Wilson, J. Q. (1989). Bureacracy: what government agencies do and why they do it. New York: Basic Books.

Winpenny, E., Miani, C., Pitchforth, E., Ball, S., Nolte, E., King, S., . . . Roland, M. (2016). Outpatient services and primary care: scoping review, substudies and international comparisons. *Health Service Delivery Research, 4*(15). doi:10.3310/hsdr04150

World Health Organisation. (2000). *The World Health Report 2000: Health Systems: Improving Performance*: World Health Organisation.

Yang, C.-W., Fang, S.-C., and Huang, W.-M. (2007). Isomorphic pressures, institutional strategies, and knowledge creation in the health care sector. *Health Care Management Review, 32*(3), 263-270. doi:10.1097/01.HMR.0000281627.22526.ee

Yin, R. K. (2014). *Case study research: design and methods* (5th Edition ed.): Sage Publications.

Yulong, G., Warren, J., and Orr, M. (2014). The potentials and challenges of electronic referrals in transforming healthcare. *The New Zealand Medical Journal (Online), 127*(1398), 111-118.

Appendices

Appendix A: Information Sheet

A study of 'active performance management' and DHB delivery of elective health services

INFORMATION SHEET (DHB)

You or willing members of staff from your DHB are being invited to be involved in this research study. I am a doctoral candidate at the Health Service Research Centre, School of Government at Victoria University and my research is about how DHBs have been influenced by the government's elective service strategy since 2006.

Before you decide whether you want to participate, it is important for you to understand the reasons for the research and what your participation will involve. This information sheet is provided to explain this. Please take time to decide whether or not you wish to take part and contact Corinne Gower if anything is unclear or if you would like more information.

What is the purpose of the study?

Since the introduction of the Government Elective Strategy in 2000, New Zealand has used a strategy of active performance management, where a combination of waiting time guarantees, service volume targets, clinical prioritisation tools and patient flow indicators are used to monitor and evaluate the performance of DHB elective processes.

The purpose of the study is to understand the sense DHBs make of the electives performance framework and how external and internal electives performance information is used by the DHB to evaluate service delivery. The study will include examining DHB elective services reporting and performance feedback to the National Booking Reporting system since July 2006 and to the new National Patient Flow data collection from July 2014.

What are the benefits of the research?

The benefits of the research are its contribution to health services research and policy analysis. The research will evaluate the effectiveness of active performance management as a strategy to improve health service delivery and the practical use DHBs make of elective service performance information. It will also consider DHBs' capacity to expand the level of patient journey detail currently collected and reported. The research will contribute to political debate and public understanding of the accountability measures DHBs are required to meet. It will also add to the academic body of knowledge on how New Zealand state organisations that follow a professional services model perceive performance and the sense and use they make of performance information feedback.

Why have I been chosen?

You have been identified as a possible study participant because of your role in elective services in New Zealand.

DHBs are organisations and it is expected experiences of performance management will differ depending on workplace role. The study therefore aims to understand and describe impact from a range of perspectives. The opinions of the following roles at your DHB are being sought:

- Board member
- Funding and Planning
- Operational management
- Clinicians
- Information management

What is the relationship with this study and the Ministry of Health?

There is no direct relationship. The Ministry of Health is aware of my study, but has not directly commissioned this work.

What will it involve?

Participation in the study involves an interview. The interview can be carried out in a workplace meeting room or off site; whichever would be more convenient for you. The interview will be semi-structured and will take approximately 30-60 minutes. It is intended as an opportunity for you to express your views on the elective services data collection and performance reporting framework as you experience it in your role. The interview will be tape recorded, and later transcribed into text form. You would be very welcome to a summary of your interview and the findings of the final report.

As part of the presentation of results, your own words may be used in text form. This will be anonymised, so that you cannot be identified from what you said. All of the research data will be kept in a locked physical file or password-protected electronic file until the conclusion of the doctoral project. The information will then be securely stored for another five years, in accordance with standard academic research practices to ensure the integrity of published research results.

Please note that:
- You can decide to stop the interview at any point
- You need not answer questions that you do not wish to
- The interview will be recorded
- The interview may be transcribed by a professional transcribing service, who will sign a confidentiality agreement. You may request that the interview is transcribed by the PhD student.
- Access to the interview data is restricted to people formally engaged in the research project (PhD student and PhD supervisors).
- Your name and associated DHB will be removed from the information and anonymised. It should not be possible to identify individuals or organisations from my reports on this study.
- Information in this interview will be used for the PhD thesis and the findings may be referred to in subsequent publications and presentations related to this work.
- Five years after completion of this doctoral project, all data obtained through interviews will be destroyed.

Appendix B: Interview Schedule

Interview Schedule for the District Health Board (DHB) Elective Services Manager (ESM)

Introduction

Thank you for agreeing to be interviewed for this research.

1. What is your role?
2. How long have you been in this role?
3. Have you worked at other DHBs in the same or similar role?
4. Had you worked in other roles in the DHB prior to this role?

The first part of the interview is to understand how the provider arm operates, and how you as a manager are involved in service delivery planning and evaluation.

Management of Elective Services

1. Can you tell me how elective services are managed?

2. Who is involved?

3. Does the provider arm have distinct referral and inpatient teams that process the different elective journey stages?

4. Does your DHB outsource its entire specialty to a private provider?

5. Does your DHB outsource any of its electives FSAs or procedures on an as required basis?

6. Have you personally been under a lot of pressure externally from politicians or patients to make improvements or changes to how you deliver services?

7. How do you find the pressures of managing elective services?

Planning - Negotiation of service delivery through the provider arm

1. How does the provider arm engage with funding and planning around delivery of elective services to the district? What is the cycle for planning, what consultation is undertaken/feedback etc? How long does the planning process take?

2. Are clinicians directly involved in the planning process?

Regional Planning

1. What role is the DHB's Provider arm playing in regional planning of services?
2. Have you been directly involved in any regional planning?
3. How would you say regionalisation of service delivery progressing?
4. What are the challenges of regionalisation to the provider arm (if any)?

Provider Capability and Capacity

1. How do you monitor electives capability and capacity?

2. Has the DHB developed specific management decision support tools (such as information dashboards) or information reports to support real-time decision making and day-to-day performance analysis?

3. Has the DHB used any forecasting software to assist with ESPI compliance or predict and plan for service capacity? If so, how effective have these software tools been?

4. How is the order of patient treatment determined? Do you monitor specialties to ensure patients are treated according to prioritised score?

5. How often are scores changed to manage capacity commitments?

6. Do you advise primary care clinicians or the public what your FST scores or capacity is?

7. Do you make any comparisons of your FST comparisons within other DHBs within the region or nationally?

8. How has the reduction of the waiting time guarantee from six months to five months impacted on the provider arm and on your role? What has the impact been on (a) patients and (b) hospital staff?

9. How will the provider arm cope with the waiting time guarantee of four months from December 2014? Is it sustainable?

10. Are you under external (such as political or patient pressure) to make improvements/changes to elective service delivery? If so, how do you respond to this pressure in your role? What about internal (from specialists or other services)?

11. How does the DHB set the financial sustainable threshold score (First Specialist Assessment acceptance criteria) and actual treatment threshold (Procedure offer) scores?

Evaluation of service delivery

1. Since 2006, how has the DHB evaluated whether its methods of delivery electives are effective?

2. What have the main challenges been in delivering services?

3. What have the successes been?

What are the pros and cons of work being done in the primary space?
What are the pros and cons of outsourcing?

The Government Elective Strategy

1. What is your perception of the government elective strategy?

Relationship with the Ministry of Health Electives Team

1. How well do you think the MOH Electives Team understands the electives capability of your DHB?

2. What is your experience of the performance monitoring and feedback processes used by the MOH electives team? How well are issues/concerns communicated and understood?

3. How do you think the performance achievements of other DHBs are used to make comparisons, set benchmarks or public expectations of your DHB's performance?

4. Do you think there are any useful performance measures/indicators missing from the current performance framework? If so, what are they?

Primary/Secondary Interface Liaison

1. How well do external organisations, such as Primary Health Organisations and General Practitioners understand the DHBs elective services capacity and constraints?

2. Has the implementation of eReferrals impacted the demand for services (in terms of reducing unnecessary referrals)?

3. What has been the impact of BSMC and PHO involvement in minor surgical procedures? What are the pros and cons? Do you use eReferrals and clinical pathways to predict/forecast likely requirement for procedures?

Innovation Strategies

1. What electives improvement strategies has the DHB implemented? Were these home-grown ideas or adopted from other DHBs? What has been the experience of implementing other DHB strategies? Has it been successful?

2. What direct effect have DHB innovation strategies you have implemented had on ESPIs?

3. What impact has MOH initiatives, such as Cataract and Orthopaedic had on service delivery?

4. How does the DHB share knowledge and improvement strategies (internally and externally)?

General

1. What do you think researchers need to understand about DHB hospital operation planning and service co-ordination in order to understand how a DHB can manage elective service delivery and be accountable for performance?

It is up to you to decide whether to take part or not. If you decide to take part you are still free to withdraw at any time up to six months after the interview, after which the data will be analysed. You do not have to give a reason for withdrawing. If you withdraw from the study all data related to your interview will be withdrawn and destroyed.

If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form.

You can contact Victoria University using the details below for further advice and information:

Contacts

PhD student:	Corinne Gower: corinne.gower@vuw.ac.nz or 021 715 474.
PhD supervisors:	Professor Jackie Cumming, Health Services Research Centre: jackie.cumming@vuw.ac.nz or 04 463 6567
	Professor Rowena Cullen, School of Government rowena.cullen@vuw.ac.nz

Committee Approval Statement This evaluation has been reviewed and approved by the Victoria University of Wellington Human Ethics Committee.

Appendix C: Consent Form

A study of 'active performance management' and DHB delivery of elective health services

INTERVIEWEE CONSENT FORM

I have read the information sheet and agree to participate in this interview.

My questions have been answered to my satisfaction and I understand that I may ask further questions at any time.

I understand that:

- I can decide to stop the interview at any point.
- I can decline to answer questions I do not wish to.
- The interview will be recorded.
- I may request that my data be removed from the study up to 6 months after my interview.
- Access to the interview data is restricted to people formally engaged in the research project (the researcher and supervisors).
- The interview may be transcribed by a professional transcribing service, who will sign a confidentiality agreement. I can request that the interview is transcribed by the PhD student.
- My name and associated organisation will be removed from the information and anonymised. It should not be possible to identify individuals or organisations from my reports on this study.
- Five years after completion of this doctoral project, all data obtained through interviews will be destroyed.
- Information in this interview will be used for the PhD thesis and the findings may be referred to in subsequent publications and presentations related to this work.

I would like a copy of the transcript of this interview to review.	☐ Yes	☐No
I would like a summary of the final results emailed to me.	☐ Yes	☐No

Participant's Name and Institution

(Printed) _____

Signature _____ Date _____

Appendix D: Elective Service Caseload Monitoring Data

Proportion of DHB patients treated by a DHB's own public hospital service provider (1 July 2005 – 30 June 2010)

	2005/06	2006/07	2007/08	2008/09	2009/10
Waitemata	57.63%	57.41%	58.90%	61.91%	62.39%
Hutt Valley	68.07%	65.60%	68.50%	69.11%	70.76%
Wairarapa	71.3%	76.4%	78.1%	78.6%	71.2%
West Coast	71.18%	69.70%	71.47%	70.56%	71.58%
Lakes	85.28%	83.53%	80.78%	80.80%	80.83%
Whanganui	83.81%	81.21%	79.73%	79.43%	84.53%
Counties Manukau	80.90%	82.30%	84.21%	85.11%	85.11%
Mid Central	86.09%	85.96%	85.39%	86.17%	85.82%
Capital and Coast	82.58%	85.67%	82.39%	84.22%	86.57%
Tairawhiti	90.27%	89.02%	87.21%	86.74%	86.73%
South Canterbury	89.61%	87.45%	87.05%	87.24%	87.86%
Bay of Plenty	89.57%	89.71%	87.43%	89.41%	88.08%
Southland	84.50%	86.11%	89.14%	88.64%	88.18%
Taranaki	90.60%	90.40%	90.70%	91.01%	88.95%
Hawkes Bay	89.64%	88.55%	88.59%	88.05%	89.12%
Auckland	89.04%	92.41%	92.19%	91.99%	91.01%
Northland	90.12%	91.25%	91.48%	90.23%	91.30%
Nelson Marlborough	92.34%	93.09%	92.13%	91.76%	91.83%
Otago	95.55%	95.54%	96.15%	95.86%	96.40%
Waikato	96.27%	96.63%	97.19%	97.46%	97.88%
Canterbury	98.01%	98.58%	98.48%	98.77%	98.69%

Note: Table sorted in descending order by discharges in 2009/10 financial year.
Data for elective discharges from OAG (2011, pp. 92-112).

Proportion of DHB's total elective discharges supplied to non-DHB residents (1 July 2005 – 30 June 2010)

	2005/06	2006/07	2007/08	2008/09	2009/10
Auckland	50.84%	48.43%	46.66%	45.87%	46.38%
Hutt Valley	35.65%	36.14%	34.95%	34.18%	33.09%
Capital and Coast	32.67%	32.73%	36.32%	33.74%	31.19%
Waikato	10.25%	10.77%	11.36%	10.05%	11.25%
Counties Manukau	14.53%	10.73%	9.11%	8.95%	9.49%
Lakes	7.55%	6.49%	8.51%	7.49%	8.33%
Canterbury	8.67%	9.33%	9.69%	9.24%	7.61%
Mid Central	4.60%	9.17%	9.08%	8.55%	6.94%
Otago	6.90%	5.74%	5.34%	5.86%	5.92%
Whanganui	4.33%	3.75%	4.78%	4.18%	4.46%
South Canterbury	8.79%	5.13%	4.16%	2.99%	3.49%
Wairarapa	2.7%	3.0%	3.0%	2.5%	3.5%
Waitemata	1.85%	2.08%	1.85%	1.31%	1.67%
Nelson Marlborough	1.62%	1.17%	1.07%	1.20%	1.24%
Bay of Plenty	1.71%	1.81%	1.71%	1.28%	1.11%
Southland	1.43%	1.33%	0.95%	1.48%	0.88%
Hawkes Bay	0.36%	0.28%	0.56%	0.53%	0.70%
Tairawhiti	0.64%	0.07%	0.54%	0.44%	0.57%
Taranaki	0.62%	0.64%	0.50%	0.74%	0.56%
West Coast	1.34%	0.79%	0.20%	0.29%	0.54%
Northland	0.54%	0.21%	0.25%	0.28%	0.26%

Note: Table sorted in descending order by discharges in 2009/10 financial year.
Data for elective discharges from OAG (2011, pp. 92-112).

Elective case-weighted discharges: Central region DHBs (2012/13 to 2014/15)

	2012-13		2013-14		2014-15	
District Health Board	Actual CWD	% CWD	Actual CWD	% CWD	Actual CWD	% CWD
Capital and Coast	**11704.0644**		**11418.9661**		**12276.3237**	
Capital and Coast	10731.0327	91.69%	10519.4637	92.12%	11356.1972	92.50%
Hutt Valley	942.4882	8.05%	881.0592	7.72%	892.7702	7.27%
MidCentral	24.8366	0.21%	13.4147	0.12%	20.9499	0.17%
Wairarapa	5.0575	0.04%	2.6992	0.02%	5.189	0.04%
Whanganui	0.6494	0.01%	0.6584	0.01%	1.2174	0.01%
Hawkes Bay		0.00%	1.6709	0.01%		0.00%
Hawkes Bay	**7787.3163**		**8066.3487**		**8340.8945**	
Hawkes Bay	6153.2131	79.02%	6391.7717	79.24%	6759.8774	81.04%
Capital and Coast	1230.809	15.81%	1316.481	16.32%	1165.9261	13.98%
Hutt Valley	242.9206	3.12%	220.8052	2.74%	225.5187	2.70%
MidCentral	156.7351	2.01%	137.2908	1.70%	187.7258	2.25%
Wairarapa	3.6385	0.05%		0.00%	0.6809	0.01%
Whanganui		0.00%		0.00%	1.1656	0.01%
Hutt Valley	**7526.548**		**7359.2151**		**7603.7972**	
Hutt Valley	4648.9752	61.77%	4616.735	62.73%	4704.4966	61.87%
Capital and Coast	2861.3345	38.02%	2739.5608	37.23%	2896.1002	38.09%
Wairarapa	7.0756	0.09%	1.4588	0.02%	2.392	0.03%
MidCentral	4.0896	0.05%	1.4605	0.02%	0.8084	0.01%
Whanganui	2.6676	0.04%		0.00%		0.00%
Hawkes Bay	2.4055	0.03%		0.00%		0.00%
MidCentral	**9109.1385**		**9422.9106**		**9486.0265**	
MidCentral	7075.1809	77.67%	7392.1455	78.45%	7425.2832	78.28%
Capital and Coast	1594.0228	17.50%	1647.1053	17.48%	1606.5759	16.94%
Hutt Valley	377.6658	4.15%	325.3638	3.45%	363.2806	3.83%
Whanganui	34.9537	0.38%	22.8455	0.24%	39.5243	0.42%
Wairarapa	25.824	0.28%	30.1074	0.32%	37.608	0.40%
Hawkes Bay	1.4913	0.02%	5.3431	0.06%	13.7545	0.14%
Wairarapa	**2628.8103**		**2818.1902**		**2758.1153**	
Wairarapa	1498.4296	57.00%	1494.3019	53.02%	1396.4395	50.63%
Capital and Coast	681.7382	25.93%	848.3452	30.10%	943.5174	34.21%
Hutt Valley	343.0615	13.05%	388.0978	13.77%	366.7541	13.30%
MidCentral	105.581	4.02%	86.1723	3.06%	51.4043	1.86%
Hawkes Bay		0.00%	1.273	0.05%		0.00%
Whanganui	**4563.2767**		**4578.285**		**4454.0286**	
Whanganui	3287.0826	72.03%	3205.2213	70.01%	3220.7455	72.31%
Capital and Coast	768.5674	16.84%	812.0839	17.74%	736.4051	16.53%
MidCentral	420.0101	9.20%	439.7984	9.61%	384.1917	8.63%
Hutt Valley	87.6166	1.92%	118.3348	2.58%	106.9476	2.40%
Hawkes Bay		0.00%	2.1225	0.05%	5.7387	0.13%
Wairarapa		0.00%	0.7241	0.02%		0.00%

Note: Table sorted in descending order by % CWD in 2014/15 financial year.
Data for elective Case-Weight Discharges from Ministry of Health (2013a; 2014a, 2015a)

Elective case-weighted discharges: Midland region DHBs (2012/13 to 2014/15)

District Health Board	2012-13		2013-14		2014-15	
	Actual CWD	% CWD	Actual CWD	% CWD	Actual CWD	% CWD
Bay of Plenty	**12113.814**		**11731.2666**		**12278.1266**	
Bay of Plenty	10310.5725	85.11%	9749.7337	83.11%	10066.4775	81.99%
Waikato	1656.755	13.68%	1917.5563	16.35%	2111.4587	17.20%
Lakes	146.4865	1.21%	63.1631	0.54%	98.7548	0.80%
Taranaki		0.00%		0.00%		0.00%
Tairawhiti		0.00%	0.8135	0.01%	1.4356	0.01%
Lakes	**5384.3222**		**5144.7522**		**5525.5422**	
Lakes	3694.8106	68.62%	3578.5387	69.56%	3950.3762	71.49%
Waikato	1645.4924	30.56%	1543.6694	30.00%	1551.1194	28.07%
Bay of Plenty	44.0192	0.82%	21.6063	0.42%	21.3618	0.39%
Taranaki		0.00%	0.9378	0.02%	2.6848	0.05%
Tairawhiti	**2458.7625**		**2516.9049**		**2802.5904**	
Tairawhiti	1847.7546	75.15%	1776.2772	70.57%	2029.3527	72.41%
Waikato	606.1804	24.65%	728.556	28.95%	767.0981	27.37%
Bay of Plenty	3.3128	0.13%	8.0242	0.32%	3.144	0.11%
Lakes	1.5147	0.06%	4.0475	0.16%	1.7747	0.06%
Taranaki		0.00%		0.00%	1.2209	0.04%
Taranaki	**5584.2503**		**5431.6818**		**5638.1636**	
Taranaki	4576.7744	81.96%	4620.3282	85.06%	4656.7241	82.59%
Waikato	1006.629	18.03%	811.3536	14.94%	980.7079	17.39%
Bay of Plenty	0.8469	0.02%		0.00%		0.00%
Lakes		0.00%		0.00%	0.7316	0.01%
Waikato	**17600.1866**		**18784.0186**		**19119.0759**	
Waikato	17309.716	98.35%	18541.0604	98.71%	18772.1096	98.19%
Lakes	228.6178	1.30%	179.6597	0.96%	229.2929	1.20%
Bay of Plenty	53.6077	0.30%	53.0799	0.28%	103.8778	0.54%
Taranaki	8.2451	0.05%	10.2186	0.05%	12.8752	0.07%
Tairawhiti		0.00%		0.00%	0.9204	0.00%

Note: Table sorted in descending order by % CWD in 2014/15 financial year.
Data for elective Case-Weight Discharges from Ministry of Health (2013a; 2014a, 2015a)

Elective case-weighted discharges: Northern region DHBs (2012/13 to 2014/15)

District Health Board	2012-13		2013-14		2015-16	
	Actual CWD	% CWD	Actual CWD	% CWD	Actual CWD	% CWD
Auckland	17392.6093		17609.1342		17770.5509	
Auckland	16428.4979	94.46%	16686.6083	94.76%	16883.4095	95.01%
Counties Manukau	812.5557	4.67%	799.6704	4.54%	742.8656	4.18%
Waitemata	143.4134	0.82%	120.1052	0.68%	140.0227	0.79%
Northland	8.1423	0.05%	2.7503	0.02%	4.2531	0.02%
Counties Manukau	22653.3272		22489.9202		23228.454	
Counties Manukau	16764.5424	74.00%	17058.8021	75.85%	16835.8702	72.48%
Auckland	5850.1693	25.82%	5395.18	23.99%	6359.7821	27.38%
Waitemata	37.9837	0.17%	35.2797	0.16%	30.2803	0.13%
Northland	0.6318	0.00%	0.6584	0.00%	2.5214	0.01%
Northland	9949.8292		9647.7685		10475.3259	
Northland	7174.4284	72.11%	6768.1694	70.15%	7344.0571	70.11%
Auckland	2595.2528	26.08%	2697.7803	27.96%	2852.7231	27.23%
Waitemata	117.7245	1.18%	121.7187	1.26%	164.6538	1.57%
Counties Manukau	62.4235	0.63%	60.1001	0.62%	113.8919	1.09%
Waitemata	23410.0194		25408.7264		25908.8248	
Waitemata	15031.0373	64.21%	17024.0477	67.00%	16955.9746	65.44%
Auckland	7727.2936	33.01%	7851.8919	30.90%	8419.1723	32.50%
Counties Manukau	641.215	2.74%	531.583	2.09%	525.8111	2.03%
Northland	10.4735	0.04%	1.2038	0.00%	7.8668	0.03%

Note: Table sorted in descending order by % CWD in 2014/15 financial year.
Data for elective Case-Weight Discharges from Ministry of Health (2013a; 2014a, 2015a)

Elective case-weighted discharges: South Island DHBs (2012/13 to 2014/15)

District Health Board	2012-13		2013-14		2014-15	
	Actual CWD	% CWD	Actual CWD	% CWD	Actual CWD	% CWD
Canterbury	22681.9118		23431.7942		23065.8152	
Canterbury	22435.8851	98.92%	23107.8305	98.62%	22689.2578	98.37%
Southern	176.8857	0.78%	258.6642	1.10%	296.9516	1.29%
South Canterbury	51.0496	0.23%	44.5545	0.19%	51.2301	0.22%
Nelson Marlborough	18.0914	0.08%	15.6446	0.07%	28.3757	0.12%
West Coast		0.00%	5.1004	0.02%		0.00%
Nelson Marlborough	8131.9545		7601.8308		8161.0064	
Nelson Marlborough	7181.6028	88.31%	6961.0835	91.57%	7284.4039	89.26%
Canterbury	936.9795	11.52%	627.8171	8.26%	860.8289	10.55%
Southern	11.3122	0.14%	12.9302	0.17%	15.7736	0.19%
West Coast	2.06	0.03%		0.00%		0.00%
South Canterbury	3693.9188		3722.3718		3720.8781	
South Canterbury	2640.1149	71.47%	2743.9168	73.71%	2601.4105	69.91%
Canterbury	957.5485	25.92%	877.634	23.58%	987.5609	26.54%
Southern	94.7236	2.56%	97.2334	2.61%	131.9067	3.55%
Nelson Marlborough	1.5318	0.04%	3.5876	0.10%		0.00%
Southern	15497.6375		16434.4287		16151.3467	
Southern	14687.9457	94.78%	15641.7867	95.18%	15337.6461	94.96%
Canterbury	795.0367	5.13%	776.9731	4.73%	771.6944	4.78%
South Canterbury	14.0057	0.09%	15.221	0.09%	42.0062	0.26%
Nelson Marlborough	0.6494	0.00%	0.4479	0.00%		0.00%
West Coast	2334.3281		2337.0827		2317.0374	
West Coast	1269.0257	54.36%	1256.986	53.78%	1263.831	54.55%
Canterbury	1012.9726	43.39%	1036.3716	44.34%	999.9165	43.15%
Nelson Marlborough	32.5583	1.39%	27.2917	1.17%	43.2613	1.87%
Southern	19.7715	0.85%	16.4334	0.70%	10.0286	0.43%

Note: Table sorted in descending order by % CWD in 2014/15 financial year.
Data for elective Case-Weight Discharges from Ministry of Health (2013a; 2014a, 2015a)

Appendix E: NVivo Coding (Weighting)

Coding Node	Files Coded	Coding References
2 Improve Volumes		
Cross level analysis		
Bounded Intentionality	21	69
Decision Support	7	14
Goals	1	1
Identity	3	4
Schema	3	9
Funding and Planning	14	55
Goals	4	12
Identity	4	4
Schema	6	39
Cultural Emergence Analysis		
Practices	106	171
Contracting Process	7	8
Clinician negotiation (Provider Arm)	1	1
Cost Analysis (Provider Arm)	1	1
Outsourcing	2	3
Private Outsourcing	2	2
Service Integration	1	1
Performance Evaluation	42	67
Contradictory measurements	4	7
Information use	14	24
Analytic Tools	1	2
Data flow	1	1
Data quality	6	14
Equity of Access	1	1
Evaluation Framework	1	1
Forecasting	1	1
Learning	1	1
Quality measures	1	2
Performance benchmarking	23	35
Baseline Data	1	1
Consistency in counting	1	1
Health Target	4	4
Ministry of Health Performance Monitoring	1	1
Performance self-assessment	2	3
Standardisation	11	22
DHB own measures standards	1	3
Intervention Rates	6	15
Specialty shifts	2	2
Performance Measures	1	1

Coding Node	Files Coded	Coding References
Regional Service Planning		
Regionalisation	38	57
Regional Resource Environment	9	11
Availability of costing information	1	1
Change Management	3	4
Emerging Trends	1	1
Financial Incentives	1	1
Funding barriers	1	1
MRG Review	2	3
Regional Service Plans	24	35
Audit Office Misc Findings	4	4
IDFs	1	1
Long term planning	1	1
Regional thresholds	1	1
RSP as Strategic documents	1	1
Emergent approach	1	2
Ministry approach to RSP Guidance	6	12
Planning process	1	1
Regional Service Planning	4	7
RSP Constraints	1	1
RSP Progress	1	1
Standardised Intervention Rates	1	1
Sustainability	1	1
Vulnerable Services	2	2
Service Planning	15	35
Intervention Rates	5	13
Planning	8	20
Planning timeframes	2	2
Process Description	1	2
Service Integration	2	2
Vocabulary of Practice	4	4
Reification	4	4
Objectives	4	4
Equity of Access	2	2
System Integration	2	2
Resource Environment	11	19
Constraints	3	4
Tertiary provider	3	4
Opportunities	8	15
Alternative care delivery	2	3
Out of region	1	1
Outsourcing	4	9
Private providers	1	2

Coding Node	Files Coded	Coding References
5 Improve Primary and Secondary Liaison		
<u>Cross-level Analysis</u>		
<u>Bounded Intentionality</u>	39	171
GP	15	81
Goals	3	8
Schema	6	48
Social Identity	6	25
GP Liaison	11	40
GP Liaison Goals	4	11
GP Liaison Schema	2	17
GP Liaison Social Identity	5	12
PHO Clinical Medical Advisor	11	48
Primary Advisor Goals	3	14
Primary Advisor Schema	4	18
Primary Clinical Advisor Social Identity	4	16
Surgeons	2	2
Goals	2	2
<u>Focus of attention</u>	26	37
Accessibility	12	17
Ease of pathway use	3	5
Equity of access	1	1
Funding	2	3
Integration with PMS and CWS	2	3
Local relevence	3	4
Resistance	1	1
Availability	6	7
Access threshold	1	1
Advice Communication Channel	2	2
Consistency	3	4
Salience	8	13
Access threshold	2	4
Critical Event	1	2
GP Confidence	3	3
GP system manipulation	1	2
System Limitations	1	2
<u>Social interaction</u>	8	15
Relationships	8	15
DHB Funding and Planning Relationships	2	3
DHB Primary Care relationships Positive	2	2
DHB Regional	1	3
GP Specialist relationships	2	6
Primary Care DHB relationships negative	1	1

Coding Node	Files Coded	Coding References
Cultural Emergence Analysis		
GP Liaison Top-Down Lens Analysis	152	272
Linkages	90	171
Clinical Pathways, Funding. GP Skills, DHB-PHO Coalitions	30	55
DHB-PHO Alliance Leadership Model	11	13
Canterbury model	3	5
GP Skills	1	1
Primary Care Funding	4	6
DHB Communication	28	41
Feedback on referral quality	5	5
Management of access to hospital services	20	33
Advice	6	9
Communication Access criteria	3	4
Timeliness of access	2	2
Unmet need	9	18
Community unmet need	4	9
Timely access to service (Negative)	4	7
Timely access to service (Positive)	1	2
GP Referral Practice/Electives Clinical Pathways/Information	26	66
Elective Clinical Pathways	5	8
Health Information Integration	7	14
Service Redesign	6	9
Primary care electives delivery	5	8
Sense making	39	65
Change Management	3	4
Health System structure	6	10
Placement of PCR Role	2	2
Politics	1	1
Primary care leadership	1	1
Primary Secondary system separation	2	6
Referral Management	23	35
Prioritisation Outcomes	2	7
Elective Service Prioritisation	1	1
Responsiveness and unmet need	1	6
Variation in referrer practice	8	8
Clinical expertise	2	2
eReferrals (Enabler)	2	2
Patient management	3	3
Unknown clinical criteria	1	1
Variation in specialist practice	13	20
Advice	1	1
Capacity	2	3

Coding Node	Files Coded	Coding References
Consistent decision making	2	4
DHB focus on process	1	1
Inconsistent decision making	2	3
Long Waits	2	3
System process issues	3	5
Service Improvement	7	16
Clinical consensus	2	3
DHB Analysis	1	7
Evidence based	3	5
Service sustainability	1	1
Sensegiving	23	36
Constraints	16	25
Change resistance	1	1
Financial Penalties	1	1
GP understand of strategy	6	9
IT	1	1
Lack leader competence	2	5
Leader uncertainty/environment complexity	4	7
Regionalisation	1	1
Enablers	7	11
Consistent pathways	2	4
DHB Strategy	1	1
Faciltated network approach	1	2
Information Technology	2	3
Willingness to take risks	1	1
Practices		
Clinical Pathways	27	56
Canterbury model	1	3
Pathways	21	45
Pathway Development	10	27
Pathway Evaluation	8	11
Pathway implementation issues	3	7
Primary care electives delivery	5	8
DHB Communication	12	21
Feedback on referral quality	2	2
Management of access to hospital services	10	19
Advice	1	1
Unmet need	9	18
Community unmet need	4	9
Timely access to service (Negative)	4	7
Timely access to service (Positive)	1	2
GP Referral Practice	18	24
Advice Referrals	7	9
Diagnostics Referrals	3	3

Coding Node	Files Coded	Coding References
Direct Access to Surgery Referrals	2	3
eReferrals	5	8
Private Referrals	1	1
Referral processing	22	37
Prioritisation	5	9
Referral inappropriateness	6	7
Referral Management	2	2
Referral Processing General	8	18
Suspicion of Cancer	1	1
Service Redesign	19	21
Hospital Services	8	9
Primary care direct access to diagnostics	3	4
Virtual FSAs	5	5
Predicting Service Demand	1	1
Service Improvement	3	4
Service Redesign	7	7
Primary Care Electives	3	3
Primary Care Integration	4	4
Vocabularies of Practice	16	21
Need	3	3
Pathway	3	3
Primary Care Integration	2	2
Unmet Need	8	13
Resource Environment	42	70
Clinical Pathways	5	6
Health Pathways	5	6
Constraints and Opportunities	37	64
Constraints	17	23
ACC Work	1	1
FSA Delivery	1	1
GP Time	2	3
Information Technology	5	7
Pathway Co-Ordinator	1	1
Pathway Maintenance	2	3
Primary Care Funding	4	6
Regionalisation	1	1
Opportunities	20	41
Alternative Models of Care - Primary Care	7	16
Forecasting	1	2
GP Liaison Role	5	13
Map of Medicine	1	1
Primary care liaison (ESM Perspective)	2	2
Regionalisation	4	7

Coding Node	Files Coded	Coding References
6 Maintain Patient Flow		
<u>**Cross-level Analysis**</u>	54	76
<u>Bounded Intentionality</u>	17	23
Goal	7	10
Acknowledge referral decision within 10 days	2	2
Give Certainty (Strategy 3)	4	7
Manage capacity to demand (max wait times)	1	1
Schema	10	13
Electives Service management structure	4	5
Service Management	1	1
Timeliness (Waiting Time)	5	7
Social interaction	37	53
DHB Relationship Management	37	53
Clinician - Hospital Management Relationships	7	10
Clinician Board	1	1
Clinician MOH	1	1
Clinician MOH Relationships	3	3
Clinician to Clinician	1	1
IT engagement	2	2
Other DHBs	4	5
Patient Communication	3	3
Service Manager - Clinician Relationship	8	15
Service Manager MOH Relationships	7	12
<u>**Cultural Emergence Analysis**</u>		
<u>**Practices**</u>	144	217
<u>Clinical Prioritisation and assessment</u>	26	32
Follow up	3	3
Pooled Lists	1	2
Prioritisation Definition	2	2
Prioritisation Process	17	22
Assessment Process	2	2
Clinical Override	1	1
Confidence in tools	2	2
Gaming	2	2
Points (Value)	2	2
Prioritisation Consistency	8	13
Service Improvement	2	2
Sub-specialisation	1	1
<u>Give patients certainty</u>	18	22
Prioritisation Decision making	18	22
Access thresholds	9	11
Active Review	6	8
Give Patients Certainty	2	2
Number of patients on list	1	1

Coding Node	Files Coded	Coding References
<u>Meeting service delivery waiting times</u>	41	71
Booking patients	2	2
Compliance Management	12	18
ESPI 2 FSA	1	1
ESPI 5 management	2	2
Negotiation	2	4
Priority of treatment	5	5
Service Innovation	6	10
Day Surgery	1	1
Patient focussed booking	2	3
Pre-Admission Clinics	2	5
Waiting Lists	3	17
Waiting Time Guarantee	8	12
<u>National Data Collection Reporting</u>	6	6
National Patient Flow	6	6
<u>Performance Evaluation</u>	35	60
ESPIs	6	9
Forecasting	1	1
Improvement of services	4	8
Information Analysis	9	15
Performance Evaluation	3	4
Performance Monitoring, Compliance Reporting	7	18
Targets	5	5
<u>Vocabularies of Practice</u>	18	26
Active Review	1	1
Actual treatment thresholds	4	7
Buffers	5	5
ESPIs	1	1
Gaming	5	9
Rationing	2	3
<u>Resource Environment</u>	56	85
<u>Capacity Planning</u>	7	10
Acute Electives Mixed model	3	6
Case Complexity	2	2
Diagnostics	2	2
<u>CPAC Tools</u>	13	17
CPAC tool development	13	17
Acuity Index	1	1
CPAC Tools - Audit Office	1	1
Impact on life questionnaire	5	6
Need and capacity to benefit	1	1
<u>External Capacity</u>	21	37
Outsourcing	8	14
Private Access	3	5

Coding Node	Files Coded	Coding References
Regionalisation	7	11
Workforce	3	7
Information	5	5
Data quality	3	3
Forecasting accuracy	2	2
Innovation Projects	10	16
Alternative Service Delivery Models	4	7
Perverse incentives	2	2
Supporting infrastructure	4	7
Sensemaking	9	9
DHB Relationship Management	9	9
Clinical Leadership	3	3
IT engagement	1	1
Pressure	2	2
Primary Care Management	1	1
Regional Service Provision	1	1
Regionalisation	1	1
Theories and Frames	4	4
Equity of Access	1	1
Unmet Need	1	1
ESPI Compliance	3	3
Non-compliance penalties	3	3
Grand Total	786	1395