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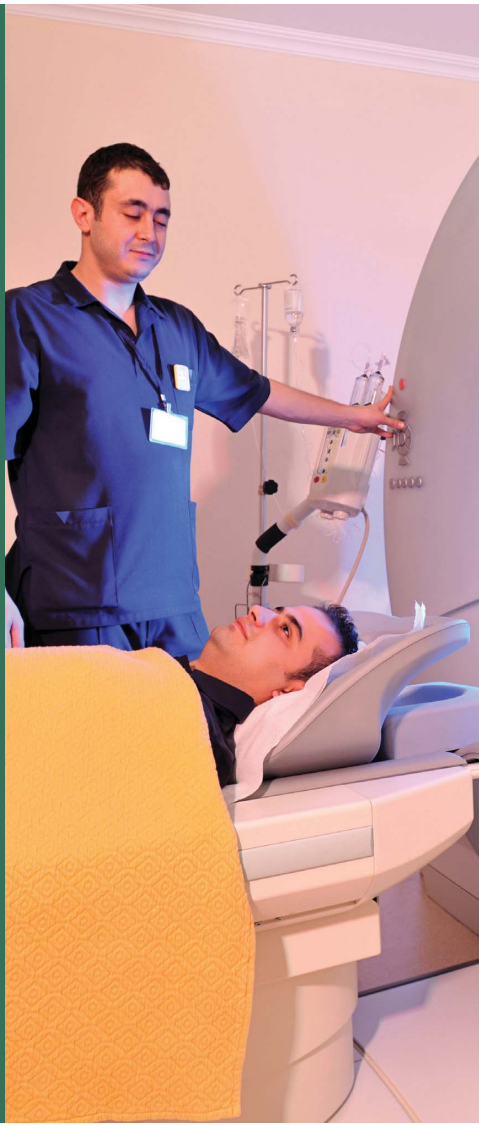
Tumuaki o te Mana Arotake

Regional services planning in the health sector



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Regional services planning in the health sector

This is an independent assurance report about a performance audit carried out under section 16 of the Public Audit Act 2001.

November 2013

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Auditor-General's overview

Health is important to New Zealanders personally and collectively. Demands on our health services are increasing, driven by causes such as an ageing society and the rising prevalence of long-lasting health conditions. The health budget was $14.655 billion in 2013, so it is important that services are designed and delivered without unnecessary waste.

To support effective and efficient design and delivery, changes to encourage regional services planning were introduced into the health sector in 2011. The expectation was that the separate district health boards would plan together to deliver services to reduce service vulnerability, reduce costs, and improve the quality of care.

In the health context, there are four regions – Northern, Midland, Central, and the South Island. Their populations range from about 850,000 to 1.7 million people.

This report describes how well regional services planning is working in practice. The work was part of my theme for 2012/13, *Our future needs – is the public sector ready?*

Some signs of success, but not as much progress as expected

The Ministry of Health and district health boards have put effort into creating the conditions for success. Collaboration within and between district health boards has increased. It has worked best where there was a combination of trust, good leadership, financial incentives, and a strong common cause.

The work of regional shared services agencies and Health Benefits Limited is producing savings, and regions are collaborating to save money through collective buying. With capital investment, the national arrangements to approve large projects are improving. The planning of information technology systems to support health care delivery is now more co-ordinated.

There is a small but growing number of regional clinical and service initiatives under way. However, regional services planning is not yet business as usual for some.

Overall, I expected to see more – more tangible examples of services that were planned regionally rather than at a district level, and more evidence that the expected benefits were emerging.

Challenges that need to be overcome

In 2009, Cabinet noted that it could take up to three years for the benefits of regional planning to be realised. In 2013, my staff found the Ministry of Health had not been systematically monitoring and quantifying the benefits achieved

by regional services planning. A lack of baseline information means that the contribution of regional services planning to reducing service vulnerability, reducing costs, and improving the quality of care is unproven.

In my view, the Ministry needed to do better in setting the direction for district health boards and in providing guidance. District health boards do not consider that enough attention has been given to defining the long-term national, regional, and local components of the health system. More work needs to be done in integrating and streamlining the different levels of planning work carried out by district health boards.

When my staff looked closely at capital planning, they learned that there is a shortage of people with the right skills to support good governance of capital projects. This was particularly acute in business case development and in supporting board members throughout the health sector.

Good planning requires good information, based on data that is complete, reliable, consistent, and comparable. My staff found a wide range of problems when they looked at how data is used in planning services. The data we looked at was not always consistent, complete, or comparable – but this is important for planning and reporting purposes. Some well-known and systemic problems need to be resolved to ensure that data can form a sound basis for planning and decision-making.

My staff expected and looked for evidence of outcomes that would not have happened without regional services planning. However, much of the evidence the health sector entities provided as signs of success was about getting ready to deliver outcomes. This report reflects those different expectations about pace.

I make seven recommendations to help the Ministry of Health and district health boards as they continue with regional services planning. I expect to follow up on their progress in early 2016.

I thank the many people in the Ministry, National Health Board, Capital Investment Committee, regional planning support groups, and district health boards for their help and co-operation.

Lyn Provost
Controller and Auditor-General

12 November 2013

Our recommendations

Recommendation 1: We recommend that the Ministry of Health and district health boards work together to achieve good governance of capital investment, by ensuring that decision-makers can:

- get strategic advice at an early stage on capital projects; and
- get support at crucial decision points.

Recommendation 2: We recommend that the Ministry of Health and district health boards work together to improve the quality of data for planning and reporting, by exploring whether our overall findings on data quality apply to other information collected to inform decision-making.

Recommendation 3: We recommend that the Ministry of Health and district health boards work together to report on how they will improve the quality of data used for planning and reporting.

Recommendation 4: We recommend that the Ministry of Health refine the guidance on Faster Cancer Treatment indicators to remove ambiguity about the definitions.

Recommendation 5: We recommend that the Ministry of Health and district health boards discuss and agree how to apply the definitions of the Faster Cancer Treatment indicators consistently, so that indicators are comparable between district health boards.

Recommendation 6: We recommend that the Ministry of Health and district health boards work together to review, amend, and improve the timing and content of the Ministry's regional services planning guidance for district health boards so that the guidance is:

- provided within a time frame that enables regional services plans to inform other plans that district health boards need to prepare; and
- more in line with the intended effects of regional services planning.

Recommendation 7: We recommend that the Ministry of Health and district health boards work together to prepare an evaluation framework and use it to work out whether regional services planning is having the intended effects.

Glossary

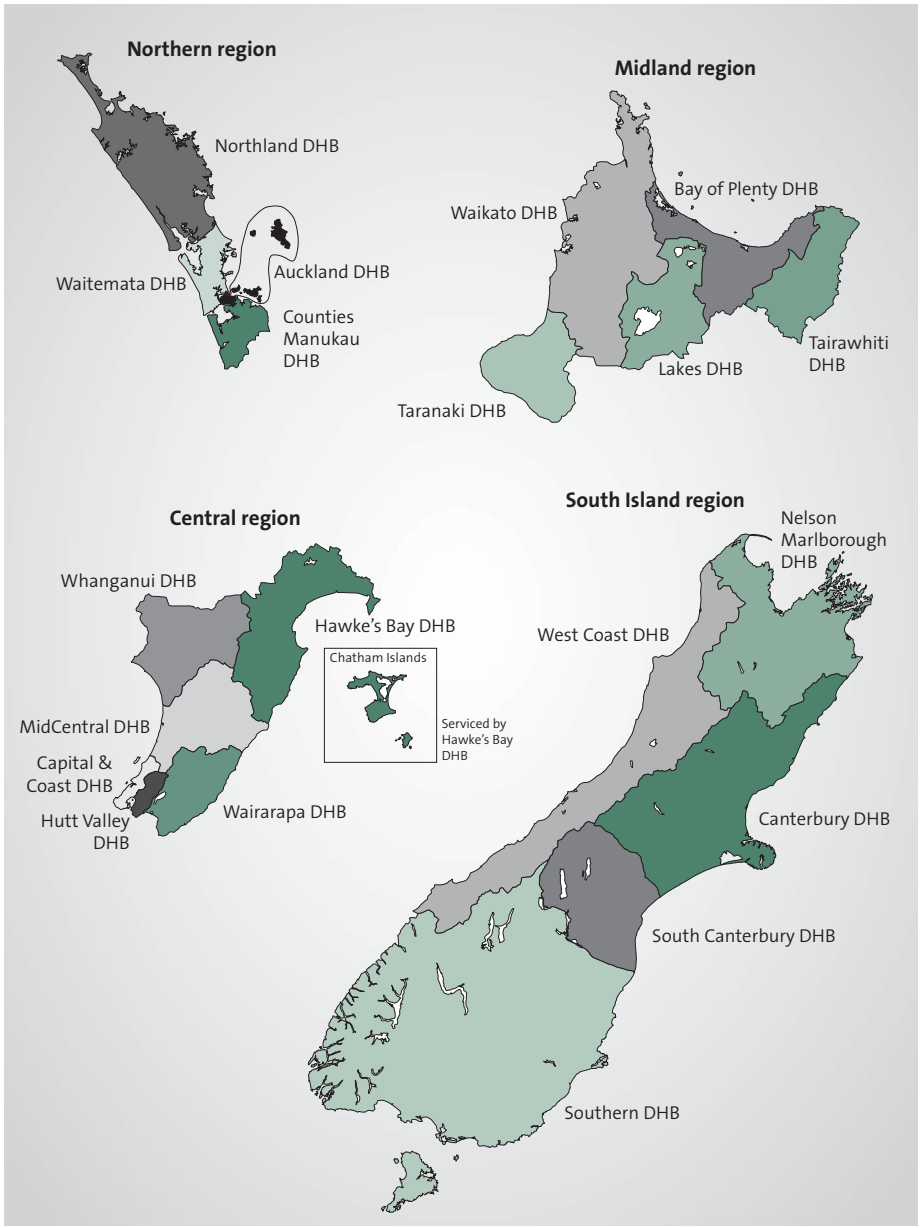
Assessment, Treatment, and Rehabilitation (AT&R)	We use this term to mean beds in a hospital setting where patients are not suffering from an acute illness or disease, but cannot return home until they have had their needs assessed (and a plan to manage those needs has been put in place). Before leaving, they may need some ongoing medical treatment after surgery, or therapy to enable them to resume some normal daily living tasks. Most AT&R beds in the health system are used for patients over 65.
Bariatric surgery	One of several types of weight loss surgery performed on people who are dangerously overweight, to restrict or reduce food intake and or absorption.
Clinical pathway	There are many definitions but, in the context of this report, we mean a "road map" for a patient through the health system, which is informed by clinical evidence about what will work best for them. Pathways are used to manage quality by standardising processes.
Clinical protocols	Guidelines based on evidence that help to inform clinical decisions on diagnosis and treatment. Protocols are another tool to help standardise medical care, improve quality, and reduce risk to patients.
Clinical threshold	A set of criteria that a patient must meet, or exceed, before they can access a service or procedure. It should mean those with the best possible clinical outcomes are selected for a given treatment. It can also be a way of rationing scarce resources. A clinical threshold can also be the amount of measurable improvement expected from a clinical procedure.
Elective surgery	Surgery that is planned well before it takes place because it does not involve a medical emergency.
E-referral	An electronic way of making referrals, usually from primary health care, such as GPs to a hospital. Has advantages over paper-based referral, such as less duplication of data input and less likely to get lost.
Imaging	The collective term used to describe images such as X-rays, computed tomography (CT scans), ultrasound scans, and magnetic resonance imaging (MRIs).
Model of care	A systematic way of thinking that brings together people, processes, and specialisations to improve the effectiveness, efficiency, quality, and safety of the patient's care. It proposes where services will be provided, who will be involved in care delivery, and how care will be delivered. The aim is to make sure high-quality services can be delivered sustainably.
Primary health care	The professional health care received in the community, usually from a general practitioner or practice nurse. Primary health care covers a broad range of health and preventative services, including health education, counselling, disease prevention, and screening.
Sub-regional working	More than one of the district health boards in a region working together.

Tertiary hospital	A major hospital that provides consultant-led care throughout most specialist and sub-specialty services. Tertiary hospitals are unlikely to need to transfer patients elsewhere for specialist care, including major trauma and specialist surgery, like heart surgery.
Workstream	The organisation of various distinct, and often unrelated, work groups around a common purpose – for example, bringing together managers and clinical staff to plan improvements in the health of older people.

Figure 1

Map of the four health sector regions and their district health boards

District health boards are grouped into four regions – Northern, Midland, Central, and the South Island. The regions' populations range from about 850,000 to 1.7 million people.



Part 1
Introduction

1.1 In this Part, we discuss:

- the purpose of our audit;
- the context for regional services planning;
- the intended effects of regional services planning;
- how regional planning works in the health sector; and
- how we carried out our audit.

The purpose of our audit

1.2 In our annual plan for 2012/13, we proposed to audit the leadership that the Ministry of Health (the Ministry) provides to district health boards (DHBs) in co-ordinating asset management throughout the health and disability sector and integrating it with service delivery, including how this affects how DHBs manage assets.

1.3 In scoping our work, we saw that models of service delivery were being reconsidered to help ensure the future sustainability of the health and disability system. DHBs were being encouraged to collaborate regionally and sub-regionally where it made sense to do so (see Figure 1). This policy would inform DHBs' long-term investing in major assets, such as hospitals.

1.4 We learned that regional services plans would be strategic documents setting out changes in service delivery, and would increasingly influence decisions about capital investment. Therefore, we decided to look at the leadership the Ministry was giving to DHBs on regional services planning and what that planning was intended to achieve.

1.5 We maintained a focus on service delivery, capital investment, and the availability of good quality data that would support decision-making in those aspects.

The context for regional services planning

1.6 The Appendix shows the present structure of New Zealand's health and disability sector, the major public entities in the sector, and the relationship between those public entities.

1.7 In 2009, a Ministerial Review Group (the Review Group) reported to the Minister of Health (the Minister) through a report called *Meeting the Challenge: Enhancing Sustainability and the Patient and Consumer Experience within the Current Legislative Framework for Health and Disability Services in New Zealand*.[1]

1 The report is available at the Ministry of Health's website, www.moh.govt.nz.

1.8 The Minister asked the Review Group to identify what would:

- improve performance and quality in health and disability services;
- improve the health system's capacity to deliver services; and
- increase spending to support frontline care by reducing back-office costs.

1.9 The Review Group reported that:

> *Unless we change the way services are provided, it will become increasingly difficult to meet public expectations for improved service within a sustainable funding growth path.*

1.10 Simply put, as a country, we would not be able to afford New Zealanders' future health needs if nothing changed. The Treasury's 2013 report on long-term government finances showed that health care spending is projected to grow from 6.8% of Gross Domestic Product in 2010 to 10.8% in 2060.[2]

1.11 The Review Group's report highlighted many opportunities to:

- reduce costs by reducing fragmentation and duplication of services (which had arisen because of having 20 autonomous DHBs);
- reduce variations in the quality of care and access to elective (planned) surgery between DHBs and within regions;
- reduce the risk of some "vulnerable services" collapsing;[3] and
- prevent local interests of individual DHBs taking inappropriate priority over regional or national planning.

1.12 The Review Group proposed changes to:

- encourage changes in culture and ways of working in DHBs, including better integrating primary care and hospital-based care; and
- introduce national support structures to help reduce waste, improve safety and quality, and enhance clinical and financial viability.

1.13 In response, the New Zealand Public Health and Disability Act 2000 was amended, and new planning regulations came into force on 1 June 2011. Among the Review Group's recommendations that were put in place were:

- setting up the National Health Board (NHB), supported by specialist advisory committees to deal with matters such as workforce, information services, and capital investment;
- requiring DHBs to plan sub-regionally or regionally;

2 The Treasury (2013), *Affording Our Future: Statement on New Zealand's Long-term Fiscal Position*, available at the Treasury's website, www.treasury.govt.nz.

3 Usually, services are vulnerable because of not having enough specialist staff. However, services can be vulnerable because of circumstances, such as many staff retiring over a short time, being in an isolated area, and overall skill shortages.

- DHBs putting in place the governance and support arrangements to deliver those plans; and
- the Minister acquiring the power to direct DHBs on matters to do with delivering regional services.

1.14 The Review Group found a strong consensus in the health sector about making the DHB model work better. Regional services planning was introduced into a complex system as an alternative to structural change for the 20 DHBs. Funding and governance arrangements were kept much as before, which offered stability to the sector. The Review Group saw advantages, in that DHBs could get regional planning under way immediately, without losing time and effort that might otherwise have gone into restructuring.

1.15 However, the Review Group was not certain that the changes it recommended would take the sector "far and fast enough". Based on a Review Group recommendation, Cabinet agreed to a review of the DHB model within three years. This would assess:

> *... whether more fundamental reform will be needed to create strong enough incentives for efficiency and to enable the sector to lift its performance within a more sustainable growth track.*

Intended effects of regional services planning

1.16 Regional services planning requires DHBs to work together, and with other health providers, in a more integrated way. The regional services plans outline how DHBs will plan, fund, and deliver services regionally to:

- reduce service vulnerability;
- reduce cost; and
- improve quality of care.

1.17 The Ministry's guidance is that it is up to DHBs to plan services, but, in doing so, they must consider what services are appropriate and financially sustainable for the size of the region's population.

How regional planning works in the health sector

1.18 The NHB is responsible for:

- funding and monitoring DHBs and overseeing their planning (such as annual funding and planning rounds, including regional services planning);
- bringing together various aspects of the health delivery system (information technology, facilities, planning) so that they work together in a way that will meet health service needs;
- providing guidance on which services should be planned, funded, and provided nationally, regionally, and locally, and how that should change over time; and
- ensuring that regional services planning is in line with decisions about capital investment and workforce capacity.

1.19 The NHB is supported by a dedicated business unit within the Ministry. In this report, we refer to the Ministry unless we specifically mean the NHB.

1.20 Specialist committees support the NHB. In this report, we refer to:

- the Capital Investment Committee (CIC), for capital investment decision-making;
- the National Health Information Technology Board (NHITB), for information technology investment; and
- Health Workforce New Zealand (HWNZ), for health workforce planning.

1.21 We also refer to Health Benefits Limited (HBL). This is a Crown company set up to work with the health system to achieve $700 million of savings in its first five years by reducing administration and support costs.

National Health Board regional services planning guidance

1.22 The Review Group's report in 2009 was followed by the Health Sector Framework 2010.[4] This contains an outline of the intended legislative and regulatory changes following on from the Review Group's report. The framework envisages that the Ministry will prepare resources (such as planning templates and guidelines) to help DHBs reduce the costs of planning, and to better integrate health planning at different levels of the health sector.

1.23 The Ministry has taken an evolutionary approach to introducing regional services planning since the New Zealand Public Health and Disability (Planning) Regulations 2011 came into effect on 1 June 2011. The Ministry publishes an annual guidance document to guide DHBs on the minimum content of regional services plans, based on the regulations. The guidance is detailed, and regions are able to include more information if they wish.

4 The Health Sector Framework is available at www.nationalhealthboard.govt.nz.

1.24 The Ministry did not issue regional services planning guidance in 2011/12 as part of the overall planning pack for DHBs.[5] Instead, guidance was given:

- in a letter;
- by way of conversations with DHBs; and
- through aspects of the operational policy framework document (a set of business rules and policy guidelines by which all DHBs must work).

1.25 The first regional services plans were prepared in 2011/12. That year was seen as a "transitional year", given that the regulations requiring regional services plans came into effect only a few weeks before the start of 2011/12. The Review Group's report and subsequent Cabinet papers saw a focus on planning and funding vulnerable services as a priority for the content of the first-year regional services plans, and this was reflected in the Ministry's requirements.

1.26 The Ministry identified 2012/13 as a "step increase" year, and 2013/14 as a "comprehensive and detailed" year for regional services planning.

1.27 The Ministry chose to have this phased approach, because not all DHBs and regions were ready to work consistently at a regional level. Some DHBs had worked well at a regional level before the introduction of regional services plans. However, the Review Group had found that the improvements arising from the natural evolution of regional collaboration were slow and uneven, and considered that regional services plans would be the way to lock in and accelerate progress.

1.28 The Ministry monitors aspects of performance against the regional services plans four times a year. It selects topics to discuss further and gives comments in writing (a letter and a dashboard report) and has telephone discussions or face-to-face meetings with lead regional DHB chief executives. The Ministry can take a more challenging approach if it considers progress to be slow.

How we carried out our audit

1.29 We carried out our audit by looking at regional services planning in the South Island and Northern regions. We chose these two regions because:

- they have different characteristics and face different challenges, so looking at these two regions would give us a clear sense of whether the system for planning was flexible enough to encompass these differences; and
- the Ministry told us that most of the medium-term health capital investment in buildings would take place in those regions.

5 The DHBs' financial year runs from 1 July to 30 June.

1.30 We collected our evidence in three ways:

- We interviewed 90 people from DHBs, regional organisations, the CIC, the Ministry, and the DHB shared-services organisation.
- We reviewed more than 550 documents and analysed financial information that the Ministry provided to us.
- We audited patient records in four DHBs. We did this to test the quality of the raw data available from DHBs' information systems. Looking at the way data was recorded, collected, and collated enabled us to see how easy it was to get good quality information to inform planning. We chose a new measure (see paragraphs 5.17-5.22) because we were interested in seeing what data was like without significant, and targeted, additional investment of cost and time.

1.31 It would not have been cost-effective to audit every workstream in the regional services plans. Instead, we looked broadly at regional services planning and then at the workstreams relating to capital investment decisions for buildings and cancer treatment.

1.32 Using capital effectively and efficiently is important, especially when large amounts of money are involved. Our investigation into capital focused mainly on investment in buildings. This is because:

- investment in buildings has long-term ramifications for health services;
- capital funding is constrained because the Government aims to return to budget surplus in 2014/15 and beyond (so it is more important than ever to prioritise investment); and
- borrowing to fund capital projects already contributes to some DHBs' deficits.

1.33 We chose cancer treatment because it is a service of great importance to New Zealanders. Cancer is the leading cause of early death in New Zealand. In 2009, more than 20,800 people were diagnosed with cancer in New Zealand and 8437 people died of the disease. Shorter waits for cancer treatment has been a health target for the period that regional services planning has been in place. Regional cancer-services networks were set up in 2006 and 2007. They lead service improvement and planning, support the achievement of health targets and policy priorities, and link to national and regional governance structures. We discuss these networks more fully in Part 4.

What we expected to find

1.34 This is the third year of regional services planning, with two years of plans delivered and the third year's plans agreed. Given the Ministry's intention to ramp up efforts in years two and three (see paragraph 1.26), we expected to find:

- evidence that the plans were achieving their intended effects, as defined in the guidance supplied by the Ministry (these effects include improvements in resilience and quality of service, and reduced costs, as well as changes in behaviour in DHBs);
- that the Ministry was able to show how effective regional services plans had been in contributing to lifting performance in the health and disability sector;
- that regional services plans are used to help make capital investment decisions for buildings; and
- that relevant and good quality information is used when planning regional services.

1.35 During this audit, we looked hard to find out whether regional service planning was leading to changes, or something else. This meant that we looked for evidence, causes, and effect of change.

What we did not audit

1.36 Our audit focused on administrative planning. We did not audit clinical decision-making or clinical safety. Where we discuss improvements in quality of care, it is about improvements as described by DHBs. We did not test these with patients or service users.

Structure of this report

1.37 In Part 2, we discuss our findings on whether regional services planning is increasing collaborative working between the organisations, networks, and workstreams that make up the health delivery system.

1.38 In Part 3, we discuss our findings on whether regional services plans guide capital investment decisions in the health sector.

1.39 In Part 4, we look at what introducing regional services planning has done to regional cancer-services networks – a long-established workstream with its own funding and lines of accountability.

1.40 In Part 5, we discuss our findings about the availability and reliability of good quality data and information used in regional services planning.

1.41 In Part 6, we look at how the Ministry has led and guided the process of regional services planning.

1.42 In Part 7, we discuss our findings on whether the Ministry knows if regional services planning is delivering the intended effects successfully.

Part 2
Are district health boards planning, funding, and delivering services together?

2.1 In this Part, we discuss our findings about whether regional services planning is, as intended, increasing collaborative working between the organisations, networks, and workstreams that make up public health and disability services. We discuss:

- the extent to which organisations are planning together;
- whether resources are in place to fund those regional services plans; and
- whether changes in service delivery are happening because of regional services planning.

2.2 Although the extent of collaborative working had increased, it was not yet business as usual in some regional activities. Those we spoke to about what drives collaborative working cited factors such as the strength and duration of previous relationships, commitment and dedication, trust, financial incentives, good leadership – and sometimes crisis. Some saw regional services planning requirements as the "glue to make things stick". Others viewed it as an administrative procedure not linked to accountabilities.

Planning together

2.3 The Review Group envisaged that some long-term planning would inform whether services should be provided at local, sub-regional, or regional level. Although it is not a specific requirement of regional services plans, we expected to see evidence of those decisions having been made by year three, together with a supporting narrative of the rationale and the benefits to be gained.

2.4 We expected that reviews of models of care would be well under way as a forerunner to changes. Canterbury DHB is well advanced in this, with more than 480 care and clinical pathways set up in the Canterbury sub-region. The Midland region has a "map of medicine" project under way to prepare clinical pathways starting in primary care. All regions were taking part in this sort of activity to some extent.

2.5 We visited the Northern region and the South Island region and reviewed the regional services plans of all four regions. All four regions had changed how they made decisions to take account of regional services planning. Figure 2 describes the approach taken by the South Island region.

Figure 2
South Island Alliance model of governance

In the South Island, an alliance framework has been adopted to put regional services planning into effect. The region chose the alliance approach because it had learned that the approach could enable complex services to be put into effect quickly without having to disrupt organisational structures. The South Island DHBs felt that such a framework was needed to work out where regional priorities should be placed, because the South Island DHBs are dispersed and are at different stages of integration.

The South Island Alliance is governed by an Alliance Board and is led by a Leadership Team. A set of core principles based on "best for patients; best for system" guides the Alliance. The Alliance's Strategic Planning and Integration Team provides a strategic and integrated view to the Alliance's approach to putting regional planning into effect. Clinical leadership is represented in the Service Level Alliances, or workstreams. The Service Level Alliances support the planning and funding functions of the DHBs. The Programme Office, which is hosted by Canterbury DHB, provides support for regional activities. All DHBs contribute their skills, expertise, and resources as required. The Alliance arrangement has allowed the South Island DHBs to have collective ownership of risks and outcomes, joint decision-making, and an open approach to sharing information. The region reports that this has led to more trust among the region's DHBs.

In 2012, the Alliance evaluated how effective it was. The results show that, although most agree on the need for a common and complementary capacity for the region, roles and responsibilities could be better understood. It is important that the region prepares an overall outcomes framework to ensure that the Alliance is meeting its purpose. We understand that this work is under way.

2.6 We found the speed of change to be quicker where:

- There were already positive and trusting relationships. Sometimes, this was the result of having worked together in the past to solve a shared problem. Where this had happened, people reported that the region spoke with "one voice".
- Relationships were relaxed and more informal – for example, people picking up the phone rather than setting up a meeting, and chief executives having a pragmatic leadership style.
- The DHBs in a region are geographically close to one another – it was easier to discuss collaborating on services in a large metropolitan area than in a region with two major centres of population.
- Historical levels of capital investment in buildings had been high. In areas with buildings in poor condition, there was a tendency to be more parochial. This was because there was a greater pressure to put the local population first.
- There was a clear understanding, based on sound evidence from clinicians, of where it made sense to collaborate regionally, sub-regionally, or locally.
- There was clear ownership and leadership of the regional services plan within the region.
- There was active clinical leadership from chief medical officers and other clinicians on regional governance groups and at the head of service and clinical networks.

- Regional chairpersons, chief executives, and chief financial officers met regularly, gave time to strategic and operational thinking, and had ways to resolve disputes. Face-to-face meetings were easier in the metropolitan areas than elsewhere.

2.7 Some of the problems we found were:

- Planning took place in isolation – with people not talking to one another about connections between plans. For example, in one region, the cancer-services network was not taking part in discussions about information systems and the network's activities were poorly represented in the draft regional services plan.
- Regional services planning was not being considered as "business as usual". Evidence of this was that some elements of regional plans were little more than an aggregation of items from individual DHB plans. Regions told us that incentives to plan together were sometimes not strong enough.
- Meetings of decision-makers were rare or irregular.
- It was rare for primary health organisations to be involved in regional services planning discussions, and even more so for private sector providers. This can mean that the regional services plans are too focused on hospital activity, when new models of care need a wider variety of settings and providers.
- There was a lack of measurable targets and some long time frames for action.

Allocating resources to deliver regional services

2.8 We expected that DHBs would identify areas of joint investment in services. Good progress had been made in administrative, planning, and other back-office functions. As we noted in paragraph 1.8, the Review Group considered how to reduce back-office costs to increase spending on frontline care. We found that:

- all regions have put resources into regional support arrangements for joint planning, monitoring, and information systems;
- one DHB was sharing with other DHBs a patient administration system that it had paid for;
- one region centralised buying to replace expensive equipment throughout the region, and the region's DHBs were jointly investing in radiology services;
- three regions have each agreed to pool their information technology capacity and management arrangements;
- regional investment in information technology is happening, in line with NHITB priority programmes such as patient administration systems, imaging, and e-referrals; and
- DHBs are all required to use some national services and contracts led by HBL.

2.9 To test whether the benefits were being redirected to the front line, we asked the regional offices for details of their costs, compared to the previous arrangements, but net of any savings arising from regional services planning. We were told that this information was not available, so we were unable to assess whether the intended effects were being realised.

2.10 We saw limited evidence of DHBs and others funding services together. Some alternatives to pooling money were in place, such as sharing staff or initiating service-level agreements between DHBs or between DHBs and other agencies (where a service is provided in return for a payment).

2.11 A successful initiative was the pooling of money for bariatric (weight loss) surgery. Each region had pooled the money available, and had devised jointly agreed criteria to ensure equity of access.

2.12 The most significant barriers to funding together were expressed as:

- DHBs prioritise spending on their local population. They are not always able to meet local demand and had to balance the books – so regional funding would not be a priority, nor would paying for a regional facility from just one host DHB.
- Outside the metropolitan areas, moving people (and their caregivers) or clinical teams around is more difficult, and conflicts with initiatives for care to be more convenient.
- Inter-district flows are the default way that money follows patients around the health system, irrespective of where the patients are treated. However, inter-district flows can be a barrier in several ways. For example, a DHB in financial deficit may want to retain patients (as a way of keeping money assigned to a patient within their DHB). This can undermine regional approaches to elective surgery, which aim to ensure that hospital operating theatres throughout the region are used efficiently to treat more people sooner.

Changes in how services are delivered because of regional services planning

2.13 We looked at two aspects of service delivery – access and patient flows.

Access

2.14 We expected to see that work was taking place to agree regional thresholds for patients' access to services. We expected this agreement to be followed by a common set of clinical protocols. Having the agreed thresholds and protocols would make it easier for patients to travel between points in the health system, irrespective of where they live in a region. The thresholds and protocols are important for ensuring equitable access to health care.

2.15 We saw clear evidence of regional approaches to cancer services where regional planning was already routine before the introduction of regional services planning (see Part 4).

2.16 Apart from cancer services, those we spoke to provided limited evidence of using or preparing regional thresholds and protocols. Canterbury and West Coast DHBs are working closely on a model of care that increases sharing of resources. The Central region is working on a single service for orthopaedics. This could mean one sub-regional or regional waiting list, or that patients can travel to other hospitals, to get a better match between resources and demand. The South Island region is beginning to draw up service agreements through its alliance framework.

2.17 We saw a few other examples of regional access during our fieldwork and during consultation about this report. Some of the basic building blocks needed to support regional service delivery have been slow to develop.

2.18 However, some projects under way will help to support better access (see paragraph 7.30). As pathways and thresholds become more standardised throughout regions, it should be easier to build good systems to manage patient access and information.

Patient flows

2.19 We looked into the pattern of inter-district flows of patients.

2.20 Regional services planning envisages that people go to large tertiary hospitals for complex care and to smaller district hospitals for less complex needs. The aim of this approach is two-fold:

- to make district hospitals more sustainable by carrying out uncomplicated, planned surgery – such as hernia repairs – for patients who live outside the district as well as local people; and
- to help ensure that medical and surgical staff at large hospitals preserve their specialist competencies – by making sure that staff see enough patients with complex needs.

2.21 Because funding follows the patient to where they receive treatment, this should remove one of the barriers to working regionally. In our view, if nothing had changed in the inter-district flow data, it would suggest regional services planning was having little, if any, effect.

2.22 We expected that, after putting regional services plans into effect, the Ministry would track the proportion of patients accessing regional resources outside their home DHB.

2.23 We analysed some data about inter-district flows, which indicated that patient flows to tertiary hospitals were increasing, but flows away from them were not. This information was not easily accessible, so we concluded that the Ministry was not tracking regional flows.

2.24 However, we found out that the Ministry was comprehensively monitoring, and doing some good quality analysis, of patient activity to ensure that DHBs met the national target for elective surgery. This information contains details of patient flows within, and outside, each region. The Ministry uses this information to work out whether regionally agreed targets for the number of operations are being delivered. It would seem to be relatively straightforward to modify this analysis to include a section on how patient flows change over time. There is further potential to enrich this picture, by capturing information about patient flows that do not depend on the default way of moving money around – for example, by monitoring new models of care such as telehealth and community outreach clinics.

2.25 In Part 3 and Part 4, we look at the specific effects of regional services planning on two workstreams – capital investment and cancer treatment.

Part 3
Is regional services planning influencing capital investment?

3.1 In this Part, we discuss our findings about whether regional services plans guide capital investment decisions in the health sector as intended. We discuss whether:

- regions are reaching consensus on capital asset needs and prioritising resources, based on regional ways of working;
- connections between regional services planning and capital investment are clear;
- the approvals procedure is becoming more efficient; and
- enough people with the right skills are available to produce and approve high-quality business cases for capital investment that meet the needs of all decision-makers.

3.2 Capital investment in buildings based on regional services planning is at an early stage. Regional capital committees (RCCs) are being set up to guide regional capital investment. RCCs are beginning to understand the full range of assets held throughout their region, but the links to capital planning are not yet clear.

Using regional ways of working to reach consensus about capital asset needs and prioritising resources

3.3 Regions have put in place RCCs, which allow DHBs to explore opportunities and priorities for capital investment regionally. Much effort is going into creating organisational and governance approaches to support this planning.

3.4 Regions are starting to have discussions (through RCCs) about which capital projects are worthwhile. Some DHB projects have been in the pipeline for up to 10 years, long before the introduction of regional services plans. It is unsurprising that these projects appear to lack a regional perspective.

3.5 There are big demands on capital for major repairs to buildings that are beyond their economic life, to meet seismic standards, and to upgrade them to support modern standards of care. There are tensions between getting on with these repairs and waiting to decide the best use of assets arising from new ways of working (based on clinical pathways and new models of care).

3.6 There is some joint planning of projects needing capital investment. For example, West Coast and Canterbury DHBs worked together on the proposal for Grey Hospital development. However, RCCs are not yet influencing or setting priorities for major investment in buildings based on regional services planning. The Ministry and one of the regions confirmed that the first year's focus on vulnerable services in regional services plans had a limited effect on "bricks and mortar".

3.7 National capital funding that cuts across regions complicates the process of making decisions. Paediatrics, cancer, information technology – and, more recently, HBL's efficiency projects – all place demands on capital funding. The Health Sector Forum heard concerns that DHBs could not afford their share of capital needed for all these projects and initiatives. The NHITB and HBL are investigating ways to spread the upfront investment. The effects of the national initiatives are not always fully reflected in regional plans. For example, one region had only around two-thirds of the information required for NHITB capital investments in its regional plan. This meant that the national picture could not be drawn.

3.8 Cabinet sets a "capital envelope" for the health and disability sector from which the Minister and the Minister of Finance can approve funding. Further funding is possible if a case for it is made to Cabinet, as in the Canterbury hospitals rebuild. Within that framework, each DHB works to its "affordability" amount for capital projects – that is, the amount of money it has to spend or can afford to borrow.

3.9 In 2012, each region was asked to agree a list of intended capital spending for the next 10 years, based on a notional budget for each region. This was CIC's attempt to require DHBs within regions to prioritise. Each region attended a CIC meeting to discuss priorities. The way that those regional spending intentions were agreed does not clearly identify what was omitted or scaled back because of the notional budgetary constraint. Therefore, it is not clear whether regions are making difficult decisions about the future of some of their buildings or challenging traditional models of care.

3.10 Occasionally, the regions have agreed their collective priority (for example, setting up the Taharoto mental health facility in the Northern region). However, the regional lists of intended capital spending generally lack a regional prioritisation or focus. Instead, regional lists look more like a summation of the separate DHB plans.

3.11 Therefore, spending intentions do not yet reflect how regional collaboration on new ways of delivering services might affect the need for new or redeveloped buildings.

Connecting regional services planning and capital investment

3.12 Capital expenditure planning is often taking place before service planning. Some elements of capital planning are done nationally (for example, by HBL and NHITB), and others locally (through DHBs). Regional services planning sits between the two. This means capital planning is a mix of top-down, bottom-up, and somewhere in the middle – all at the same time.

3.13 It is forecast that HBL projects will eventually save money, but there are some short-term capital implications. The improvement projects led by NHITB also have significant capital requirements, and should support service improvements and new ways of working. A DHB asset plan is "bottom up" and influenced by clearly identified changes in service delivery. Regional services planning takes place in the "middle" – and it is here that investment decisions on capital should flow from wider changes in service delivery in the medium and long term. It is worth noting that the regions lack budgets of their own, but need to agree priorities within the overall limits of what DHBs can afford and the overall capital envelope.

3.14 Few projects have been approved recently, so it is difficult to see a strong connection between regional services plans and capital investment. We recognise that the Canterbury earthquakes meant that the period was not typical. The money needed for the rebuild of Canterbury hospitals meant little could be committed for anything else in the last few years.

3.15 Each region will tend to focus on its priorities, but there is also a need to agree national priorities. The CIC is the specialist committee that advises the Minister. The CIC's main role is to approve health capital funding for all projects that cost more than $10 million, irrespective of the source of funding.

3.16 The CIC placed other projects on a slower track until it became clear how much money was going to be needed for the Canterbury hospitals rebuild. Most of the other projects that have advanced have been for buildings that provide district services. These projects include new mental health facilities at Hawkes Bay and Taharoto and the Kaikōura family health centre.

3.17 The plans for Grey Hospital had a distinctly sub-regional flavour, where West Coast and Canterbury DHBs jointly worked on proposals. Exploration of new ways of delivering services, such as telemedicine and shared clinical teams, is under way. This aims to reduce West Coast DHB's risk of isolation and clinical instability, one of the intended effects of regional services planning.

Getting a more effective procedure for approvals

3.18 National decision-making on capital investment linked to regional planning is becoming more effective. However, progress on a National Asset Management Plan has been slow, making it difficult for the CIC to prioritise spending.

3.19 The CIC is helping to ensure that regional opportunities get consideration in new approvals for capital. Before it gives consent for a DHB to prepare a full business case, the CIC considers the DHB's outline proposals. If these proposals lack an expected regional perspective, or consideration of how information technology

and new ways of working could lead to changes in requirements, the CIC does not give its support. For example, the CIC asked Nelson-Marlborough DHB to include more on regional working in its recent proposal for surgical beds. Likewise, Canterbury DHB had to include more details on information technology and workforce changes. If DHBs do not co-operate when appropriate, they will not get CIC support to get the capital they want.

3.20 At the time of our audit, the CIC was trying to devise a National Asset Management Plan, but there were gaps in the base information from DHBs and private health care providers. This means that the CIC has to make some assumptions that are not based on solid data when working out future needs. The information used for budgetary purposes is an aggregated list of what capital DHBs would spend if they had the money in the next 10 years. That was not enough detail to support the CIC to set priorities.

3.21 A first attempt at a National Asset Management Plan has been in draft form since 2012, and the Ministry told us an annual update was now part of its work plan. More recently, the CIC asked for help from the Ministry in interpreting the information in the National Asset Management Plan. Work is under way on producing a dashboard report for each DHB, and for each region, to help in the discussion of DHB intentions in November 2013. The CIC has reported some difficulty with trying to agree a long-term capital plan and setting priorities for investment without a long-term service plan for health. For the 2012/13 budget, it evaluated proposals based on a set of assessment criteria to agree a prioritised list.

3.22 The Ministry has told the CIC that there is no appetite for a long-term health sector plan. Without a national level plan, at the time of our audit, the CIC was still deciding how best to help DHBs to prioritise.

Capacity and capability to produce and approve high-quality business cases to meet decision-makers' needs

3.23 In our view, internal capacity and capability within the health sector to put together high-quality business cases is not improving. The needs of decision-makers are not always well met.

3.24 Guidance on producing business cases follows industry best practice – it is by necessity complicated and rigorous. Although some DHBs reported that they found it demanding, others valued the challenge it brought to their beliefs and assumptions.

3.25 Meeting the needs of all agencies involved in preparing and approving business cases is difficult. This is because, within the health sector, there are too few people who have the necessary skills for writing business cases. Neither DHBs nor the Ministry have in-depth expertise to project manage large-scale business cases for building projects. This means that they rely heavily on consultants, advisors, and experts.

3.26 On one large project, a lot of duplicated effort could have been avoided if all those with national governance oversight, and the DHB in question, had negotiated an agreed set of requirements for the project. The Ministry learned from this, and tried out a partnership group aimed at improving transparency, providing earlier advice, support, and more rigour in analysing alternatives. West Coast DHB proposals for improvements to Grey and Buller hospitals involved staff from the Treasury, the DHBs, and the Ministry. This approach has the potential to reduce spending on advisors.

3.27 The quality of business cases that the CIC receives is variable, which suggests that consultant involvement does not guarantee a robust analysis of all the options. Consultants can act only on the brief they are given, and may not be up to date with expectations about changing models of care. However, peer review by clinicians from another region has sometimes been used to good effect.

3.28 RCC chairpersons, DHB chairpersons, and other board members might not be able to analyse critically the business cases that they see. They all need to be "smart buyers", supported by appropriate expertise. A lack of suitable analytical skills could result in poor decisions about capital investment and waste and poor use of funding and resources.

3.29 Almost everyone we spoke to mentioned a nationwide lack of people with skills in preparing core business cases and managing and governing projects. This contributed to the delays in preparing good business cases. However, there are varying views about what core capacity is necessary, and where that should be located. Additionally, the unpredictable availability of capital funding makes it difficult to set up core capacity.

3.30 Project management has been a problem. The Ministry made some changes to guidance by learning from other projects. It is tightening up on "scope creep" – projects slipping by small amounts but eventually including far more than originally agreed. It has targeted long project time frames and budgetary inflation.

3.31 In December 2012, the Minister and the Minister of Finance commissioned a working group to look at all aspects of capital planning in health. The scope of the group's work includes financing, decision-making, project management expertise, and asset management skills. This should go some way to addressing the matters raised in this report. However, the review could take some time to finish, and it could take even longer for its recommendations to be acted on.

Recommendation 1

We recommend that the Ministry of Health and district health boards work together to achieve good governance of capital investment, by ensuring that decision-makers can:

- get strategic advice at an early stage on capital projects; and
- get support at crucial decision points.

Part 4
Is regional services planning integrated with regional cancer-services planning?

4.1 In this Part, we look at what the introduction of regional services planning has meant to regional cancer-services networks – a long-established workstream, with its own regional funding and lines of accountability.

4.2 The planning for cancer services is contributing to achieving the intended effects of regional services planning. This is partly because regional planning for cancer treatment has been working successfully since well before regional services planning was set up.

Regional networks to treat cancer

4.3 Regional networks to treat cancer were set up in 2006 and 2007. The networks have separate funding dedicated to achieving their co-ordination and improvement functions throughout the health sector as a whole, not just with DHBs. They also get dedicated funding to carry out projects that are in line with the national cancer work plan. The strong relationship between the networks and the Ministry is characterised by regular communication, clear lines of responsibility, and a co-operative working relationship. This is an important contributor to having effective cancer-services networks.

4.4 The regional cancer-services networks lead service improvement and planning, support the achievement of health targets and policy priorities, and link to national and regional governance structures. The networks' governance arrangements were expected to be in line with regional services planning before July 2012. At the time of our fieldwork (early 2013), this had been done in the Northern region, but not in the South Island.

4.5 In the South Island, we saw the potential for inconsistency between regional services planning and how regional cancer-service planning works. For example, separate accountability and governance for cancer-services planning was apparent. By contrast, integrating the Northern regional cancer-services network into regional services planning avoided these problems.

4.6 The problems in the South Island reinforced a message repeated to us – that setting up successful relationships is an important part of improving regional service delivery, whether through regional services planning or some other mechanism.

4.7 In our view, the regional cancer-services networks and DHBs are planning for cancer services in a way that is in line with the intended effects of regional services planning. Examples include devising consistent clinical protocols for access to services and increasing use of multidisciplinary meetings to decide on

treatment for patients suspected of having cancer.[6] Multidisciplinary meetings are known to improve the survival rates of patients, and using these meetings more is part of the national cancer work plan.

4.8 Although these efforts contribute to achieving the intended effects of regional services planning, in our view, they did not happen because of regional services planning. Instead, these efforts are part of a workstream that was set up and put in place well before the introduction of regional services planning.

Integrating regional information services and information technology

4.9 Information technology is crucial for the regional delivery of services and improving the quality of care. It enables changes in working practices and the use of buildings. We expected that the information technology workstream would use regional clinical priorities as the basis of work priorities. We found that, although information technology initiatives are under way to improve regional delivery of cancer services, there are difficulties. In the South Island and Northern regions, these difficulties are mostly to do with integrating cancer-services network information technology requirements with regional information technology work.

4.10 The cancer-services network staff and regional information technology staff spoke of problems with setting priorities and a lack of communication. Cancer-services networks had information technology projects outside the regional information technology workstream. Cancer-services network staff and regional information staff told us that the problems would be addressed by having one system. The Ministry later told us that it expected there would be a national contract by 2014, although consultation had not started. This highlights the potential for discord when accountability is divided and communication is lacking.

Data for planning

4.11 To help prepare good-quality plans for cancer services, the cancer-services networks have put a lot of effort into collecting and analysing data and carrying out research to set up a good information base. Our audit confirmed problems with data completeness in some DHBs. In Part 5, we discuss those problems.

Progress

4.12 Regional services planning and cancer-services planning are becoming more in line. Getting them in line is relatively straightforward because these two types of planning have similar intentions.

6 A multidisciplinary team meeting is a deliberate, regular, face-to-face (or videoconference) meeting involving a range of health professionals with expertise in a range of different specialties to discuss the options for patients' treatment in real time.

4.13 Within regional services plans generally, the cancer workstream is more in line with the intended effects of regional services planning than other clinical workstreams. Many measures focus on quality of care. However, the cancer-services sections of the regional services plans say nothing about the effect on costs. This means that we could not see evidence of any plans for reducing costs or getting greater efficiency for the same money.

Part 5
Is good quality data and information enabling regional services planning?

5.1 In this Part, we look at whether regional services plans are based on good quality data and analysis. A lack of robust data leads to imprecision and inaccuracy. This, in turn, can lead to false assumptions, followed by poor decision-making.

5.2 Our research revealed that there are concerns about health data throughout the health system. Although we did not carry out a system-wide review of data, we found problems where we did look. Based on our limited testing, we share the concerns raised with us by people in the health and disability sector. These concerns were mostly about completeness of data, information technology systems, coding errors, and timeliness.

Why good quality data and information is important

5.3 Good quality data benefits patients, for example, in diagnosis, treatment, and learning from what works and what does not. The aggregation of patient and service data supports improvement in performance, service delivery, and planning. As funding and accountability systems become more complicated, the demand for good quality information – based on valid and reliable data – increases. Good quality data and information provides users and decision-makers with assurances about effectiveness, efficiency, and economy.

What we knew and what we did

5.4 The Review Group's report noted that the health sector has a history of poor execution of information technology projects. Because of this, many information systems are incomplete and inconsistent. This limits their usefulness to support clinical workstreams. Some DHBs are using old and outdated patient management systems. Some DHBs have been unable to access information systems in their regions. The uneven progress has resulted in disjointed systems that contribute to poor-quality data and information. There is a lack of information connectedness between DHBs and the primary and private health sectors.

5.5 In our early fieldwork, people from the Ministry, regional agencies, and DHBs told us that it was challenging to get good quality data to support planning. Except for some national data, there is little confidence, generally, in the quality of data. In some instances, this meant staff had to rely more on their experience than the available data.

5.6 We tested the quality of data by:

- auditing patient records in four DHBs.
- looking at two samples of data and information used to support capital planning; and
- reviewing one region's information strategies.

5.7 We audited patient records in four DHBs to test the quality of the raw data available from DHB information systems. Looking at the way source data was recorded, collected, and collated allowed us to see how easy it was to get good quality information to inform planning. We chose a new measure because we were interested in seeing what data was like without significant, and targeted, further investment of cost and time.

What our work revealed about data quality

5.8 There are recognised flaws in the quality of health-related data when it comes to measuring the quality of the nation's health services. The New Zealand Health Quality and Safety Commission states that:

> *The availability of data is our biggest challenge, in particular the balance between imperfect but readily available data and high-quality, very specific data which is difficult to collect*.

5.9 People in DHBs and regional networks who work with the data available to support regional services planning do not trust its quality. This is because there are significant gaps and limitations in the data. This could limit how effectively regional services are planned.

Our concerns about the quality of data and information

5.10 We found a variety of problems in the samples of data we tested. These problems included:

- discrepancies between source data and reported data;
- a lack of understanding, leading to different interpretations of what should reasonably be recorded;[7]
- not enough training or support for those responsible for collecting the data and reporting on the indicators;
- underestimating the time required to get data definitions right, even if the clinical events seemed relatively straightforward; and
- people having to collect data manually because it was too difficult to get data from the official computer systems.

7 The lack of understanding covered many aspects, such as what the data was supposed to show, exactly what data needed to be collected and recorded, and for what reasons.

5.11 During our fieldwork, we found a widespread awareness of data quality problems and many reasons contributing to those problems, including:

- completeness of data – for example, in one instance, up to 20% of records could have incomplete data, with one or two incomplete fields in about 15% of cases and wrong data in about 5% (this was attributed to busy staff being under pressure);
- information technology systems – including old and unreliable systems that did not talk to each other;
- coding errors – mistakes in coding data or poor record-keeping making the coding task more difficult;
- inpatient referrals, where it was more difficult to find out the date of the first specialist appointment or assessment;
- some referrals that came in from the private sector were missing information or difficult to find; and
- timeliness – in many instances, there was a direct trade-off between the speed of data being available and its quality.

5.12 We observed the effects of system limitations faced by some of the DHBs. For instance, in one DHB, the system could only show information about individual appointments for a patient rather than their whole period of care. Staff had to access many systems to pull the appropriate data together. In another DHB, some staff could not get information because it was held offline.

5.13 We identified problems other than clinical data. For example, we reviewed an early CIC attempt to pull together information for a national asset management plan. We found problems with common definitions and gaps in data. That early CIC attempt was based on assumptions of no changes in where services were located or the way they were delivered, because of a lack of information. The private sector's capacity for delivery had to be estimated, because private sector providers do not always give data to the Ministry.

5.14 Based on that finding, we looked into one region's early planning for Assessment, Treatment, and Rehabilitation (AT&R). We chose this because the capital requirements already feature in outline plans for spending. In the region, four DHBs had begun looking at what inpatient beds they needed for AT&R. An ageing population is the main reason given to justify more beds, but working out exactly how many more beds causes some difficulties.

5.15 The difficulties arise because each DHB uses different definitions of AT&R. Each DHB uses the beds differently. Different DHBs use different methods to predict how many beds are needed. As a result, there are differing assumptions about how patients move across DHB boundaries for care. This could lead to double

counting. All of this has a major effect on capital planning, because DHBs could be understating or overstating their requirements.

5.16 One of the regional information strategies notes concerns that population health data available to the health sector is poor quality, fragmented, and difficult to get. The strategy says:

> *Individual practitioners can, after major effort, collect and report on some of the population health information some of the time, but none can take a district wide or regional comprehensive and aggregated view of population health status, trends and determinants of ill health and wellness.*

Faster Cancer Treatment indicators

5.17 The Ministry is preparing Faster Cancer Treatment (FCT) indicators, which are important new measures for tracking how quickly cancer patients get treatment. Until now, it has been difficult to measure how long it takes for patients to see a specialist from the time their doctor suspects they have cancer and refers them to a specialist, to the start of their first cancer treatment. There has been no national approach to collecting this information, and DHBs have been collecting and reporting data in different ways. The lack of consistent information has made it difficult to identify where improvements can be made. Decision-makers do not yet rely on the indicators.

5.18 We chose to examine these new measures because we wanted to test the quality of "readily available" data in DHBs' systems. To help to inform the development of the FCT indicators, we looked at whether the information was relevant, understandable, comparable, and reliable.

5.19 The reason for the FCT indicators is highly relevant. The Ministry's website (www.health.govt.nz) states:

> *Cancer is a major health issue for New Zealanders. One in three New Zealanders will have some experience of cancer, either personally or through a relative or friend. Cancer is the country's leading cause of death (28.9 per cent) and a major cause of hospitalisation. Improving the timeliness of access to services for cancer patients is important. If it takes too long for a patient with suspected cancer to receive treatment this may affect their outcome and cause unnecessary stress for them and their families and whānau.*

5.20 The guidance on FCT indicators was difficult to understand, with complicated and ambiguous definitions. Each of the four DHBs whose patient records we audited had interpreted the definitions differently.

5.21 We found various "teething issues" with reliability. Information about cancer treatment timeliness was not comparable, because individual DHBs "started and stopped the clock" at different points. There were many copies of guidance in circulation, between and within DHBs. We found discrepancies in, and missing, data. Some DHBs had to access many separate in-house information systems to extract data, but did not always have access to the electronic and paper information systems that they needed to verify dates.

5.22 Making the measures more reliable before they could be used as indicators has taken time. A description of the FCT indicators was released in December 2011. More guidance followed in March and October 2012. The Ministry told us that its analysis of the first collection of FCT data from DHBs in mid-2013 showed problems with data quality. This means that the Ministry will need to increase support to those putting the indicators into effect.

Improving data quality

5.23 For information technology to improve service delivery, agreed approaches to clinical and administrative procedures must be in place first. Progress putting information technology projects into effect is mixed but improving.

5.24 Before regional services planning was introduced, each DHB invested in its own information technology systems. This unco-ordinated investment was sometimes not enough. Now, investing in regional information technology systems means that the quality of data available is improving. However, good information technology systems are only part of the solution. Human action – or inaction – caused many of the factors affecting data quality that we identified. However, a good information technology system can ensure that some of these errors are prevented, by ensuring that expected entries are well defined and that reporting happens quickly on what appear to be outliers.

5.25 Information needs to be sought after, valued, and in regular use if accuracy is to improve. In our view, when practitioners stop using data, there is no urgency to get it right – and the people producing it might not know it is wrong. We heard about other efforts to improve the accuracy of data, but most of these were time-consuming attempts to "clean up" poor data for use.

5.26 Regional collaboration on information technology projects is improving under regional services planning. The NHITB is showing clear leadership about the direction for information technology investment in the health sector. It has a national plan and a clear set of priorities that have remained stable. This gives more certainty to the sector. The NHITB is aware that it makes demands on a limited pool of money, and that it needs to be clear about how it decides to do

things. It is working with DHBs to help with prioritising and to build capability to carry out information technology projects. At the same time, the NHITB shows a determination to keep people focused on what is important.

Recommendation 2

We recommend that the Ministry of Health and district health boards work together to improve the quality of data for planning and reporting, by exploring whether our overall findings on data quality apply to other information collected to inform decision-making.

Recommendation 3

We recommend that the Ministry of Health and district health boards work together to report on how they will improve the quality of data used for planning and reporting.

Recommendation 4

We recommend that the Ministry of Health refine the guidance on Faster Cancer Treatment indicators to remove ambiguity about the definitions.

Recommendation 5

We recommend that the Ministry of Health and district health boards discuss and agree how to apply the definitions of the Faster Cancer Treatment indicators consistently, so that indicators are comparable between district health boards.

Part 6
Is the Ministry of Health's leadership and guidance enabling regional services planning?

6.1 Good leadership and guidance are important if regional services planning is to be effective and efficient. In this Part, we look at the Ministry's leadership and guidance of the regional services planning process.

6.2 Regions expressed dissatisfaction with aspects of the NHB's leadership, most specifically about it not setting a longer-term, strategic view. In our view, the Ministry's regional services planning guidance has not yet significantly increased the integration of health service planning at different levels of the health sector, although relationships have improved. The guidance is not in line enough with other DHB and regional planning activities, and is too detailed and prescriptive.

Ministry guidance and the intended effects of regional services planning

6.3 The Ministry is the main authority providing guidance and leadership when it comes to regional services planning.

6.4 The senior people we spoke to in the health system identified several problems with how the Ministry leads regional services planning through the guidance provided, including:

- not enough attention being given to defining the national, regional, and local components of the health system; and
- a lack of a strong strategic focus on the whole health system.

6.5 These wider problems were identified in the Performance Improvement Framework review of the Ministry of Health in 2012.[8] The Ministry has worked to address these concerns, in terms of its organisational development and the way in which it engages with the health sector more widely. There have been improvements in setting up opportunities for better engagement, such as the Health Sector Forum of senior leaders and face-to-face meetings about strategic priorities with DHB chief executives and chairpersons. However, senior managers still voicing concerns in early 2013 would suggest that there remains some way to go.

6.6 The problem we heard most about was that the Ministry was over-prescriptive when it was unnecessary, and did not give enough detail when detail was needed. This is a difficult balance for the Ministry to get right, but it is an important aspect to address because the Ministry is the health sector leader. The Ministry told us that the level of prescription was needed to improve consistency where regional collaboration had been less advanced in the past. Our evaluation of the plans and our fieldwork indicate that the approach has ensured compliance with a standard.

8 State Services Commission, the Treasury, and the Department of the Prime Minister and Cabinet (2012), *Formal Review of Manatū Hauroa the Ministry of Health (the Ministry)*, available at www.ssc.govt.nz.

However, the regions that had advanced beyond that standard were probably the most frustrated by the level of prescription.

6.7 Our evidence shows that many people think that the Ministry's regional services planning guidance is not forward-focused, strategic, or clear enough about future national health services and needs. Some of the people we spoke to expected a long-term health sector plan from the Ministry. Such a plan was referred to in the Health Sector Framework 2010 document, and the Ministry had said it was working on preparing such a plan until June 2011. About then, it seems a decision was made that the plan was no longer useful, but we could not find evidence of where that decision was taken or who was consulted. This lack of clarity could have contributed to the comments we received about how effective the NHB's leadership has been.

6.8 The Ministry's regional services planning guidance requires regional services plans to address the need for:

- local, regional, and national services;
- co-ordinating those services effectively and efficiently; and
- the best possible arrangement of health services for delivering services effectively and efficiently.

6.9 The Ministry has stated that the intended outcomes of regional services planning are improved quality of care, reduced service vulnerability, and lower costs.

6.10 The Ministry's regional services planning guidance is not in keeping with these intended outcomes of regional services planning. We do understand that the guidance is driven by the planning regulations. However, we also understand that a regulatory approach was taken to enable changes to be made, if necessary, without having to change primary legislation.

6.11 The Ministry publishes a DHB planning pack every year. The pack contains guidance for regional services plans and district annual plans. The guidance is followed soon after by a letter from the Minister setting out his expectations for the next 12 months. Regional services plans and district annual plans are submitted within a few weeks of each other. In practice, DHBs have a short time to prepare and complete their regional services plan and their annual plan, including getting the contributions of the regional networks. The Minister approves the plans at the same time, as long as they are satisfactory.

6.12 We understand that the regional services plan should be significantly more strategic and long term, whereas DHB plans reflect the operational requirements falling within that year. However, the regional services plans are also required to

have an implementation plan, mostly to hold regions accountable for progress. The regional services plans only reflect part of the DHBs' regional activities. Despite this, many of the regional services plans exceed 150 pages when all the prescribed content and discretionary content is included.

6.13 Other problems with the guidance are that it:

- says little about the intended effects of regional services planning other than cost effects; and
- does not pay enough heed to the scale and speed of change needed to move to regional services that are clinically and financially sustainable.

6.14 In our view, the Ministry cannot show that regional services planning guidance has reduced the administrative costs of planning, although we acknowledge that DHBs no longer need to submit district strategic plans. We cannot see that the Ministry has significantly increased the integration of health service planning at different levels of the health sector. However, we acknowledge that the requirement to carry out regional services planning has increased communication within and between DHBs, with some improvement in relationships reported.

6.15 The detail that the Ministry's regional services planning guidance and time frames require means that DHBs might focus on complying with each of the extensive requirements rather than working with other DHBs to plan how a region will deliver services. The Ministry recognises this risk, and has increased the amount, and nature, of engagement it has with regions during the planning cycle.

Recommendation 6

We recommend that the Ministry of Health and district health boards work together to review, amend, and improve the timing and content of the Ministry's regional services planning guidance for district health boards so that the guidance is:

- provided within a time frame that enables regional services plans to inform other plans that district health boards need to prepare; and
- more in line with the intended effects of regional services planning.

Part 7
Is regional services planning delivering the intended effects?

7.1 In this Part, we discuss our findings about how well the Ministry knows whether regional services planning has been successful in delivering the intended effects.

7.2 The descriptions of the intended effects have moved somewhat over time. However, to recap, they are to secure future improvements in clinical and financial sustainability by focusing on:

- making vulnerable services more resilient;
- reductions in cost by service, compared with previous trends; and
- improving quality of patient care.

7.3 Three years on, the Ministry does not know whether regional service planning is working as intended. This is because:

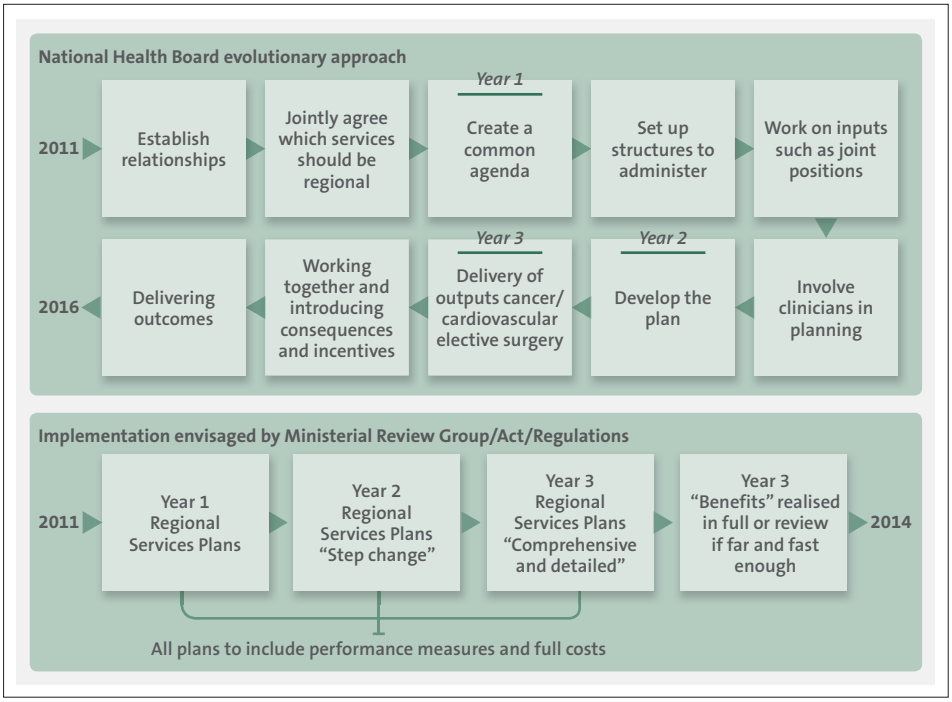
- the Ministry's evolutionary approach to regional services planning will take longer to show results;
- the Ministry did not define the desired benefits expected from regional services planning in a measurable way (either quantitatively or qualitatively), outside the back-office work;
- the Ministry does not monitor clinical and financial sustainability through regional services plans (instead, the Ministry monitors sustainability through other operational plans, activities to achieve the aims of those plans, and performance towards some national targets); and
- there is little evidence of measurable change in clinical and financial sustainability – this is partly because the first regional services plans had no baselines to compare with.

The evolutionary and regulatory approaches

7.4 The Ministry's monitoring of regional services plans has changed since 2011. However, the Ministry's monitoring remains focused on activities, rather than the intended effects or outcomes of regional services planning. This means that it is difficult to find evidence of the extent to which regional services planning is helping to improve performance in the health and disability sector.

7.5 Figure 3 shows the main steps in the evolutionary approach the Ministry has taken to putting regional services planning into effect, and compares it to the approach implied by the Review Group's report, amendments to the Act, the regulations, and the Ministry's written guidance.

Figure 3
Putting regional services planning into effect



7.6 The main difference between the approaches is the stage at which it will be possible to see measurable changes resulting from regional services planning. The evolutionary approach will see full measurement of outcomes by June 2016 in three services, whereas the regulatory approach anticipated full benefits by June 2014.

7.7 The Ministry considers that progress on regional collaboration within the first few years was in line with expectations. It considers that the Review Group's expectation of full benefits emerging in about three years was too optimistic. The NHB saw the building of relationships created during planning as being more important than the specific content of the plans. The Ministry points to creating the right foundations to support links between regions, including building capacity and capability. It took a deliberately slower path to putting regional services plans into effect in full, to ensure consistency of approach, and to secure the involvement of clinicians.

7.8 Although we do not disagree with the importance of these elements, we were looking for more objective evidence, even if that was qualitative rather than quantitative. In 2013, the Prime Minister's Chief Science Advisor stated that

"without objective evidence, the options and the implications of various policy initiatives cannot be measured".[9] He went on to say that, without objective evidence, judgement is often based on opinion or belief. He recommended planned evaluation to ensure that the desired effects of the policy are being realised, especially where complexity makes forming policy particularly challenging.

7.9 Without evaluation, we cannot say whether the Ministry's leadership is taking the health sector far or fast enough. In the remainder of this Part, we discuss the problems we had in trying to locate measurable results for the intended effects.

Vulnerable services and clinical sustainability

7.10 We expected to see evidence in regional services plans that regions were setting up sustainable solutions to strengthen vulnerable services. We expected to see that vulnerable services had been defined and identified. We then expected to see plans addressing those services. One expected outcome was that services that needed to be planned and funded nationally or regionally were identified.

7.11 DHBs are not required to use the Ministry's definition of vulnerable services. The four 2013/14 regional services plans address vulnerable services differently and have done so in each of the three rounds of regional services planning. The regional services plans for 2013/14 show some evidence that the Northern, Midland, and Central regions remain focused on clinical services that they consider vulnerable. The Midland region has a focus on information technology as a vulnerable service. The South Island region identifies the workforce in general as being vulnerable.

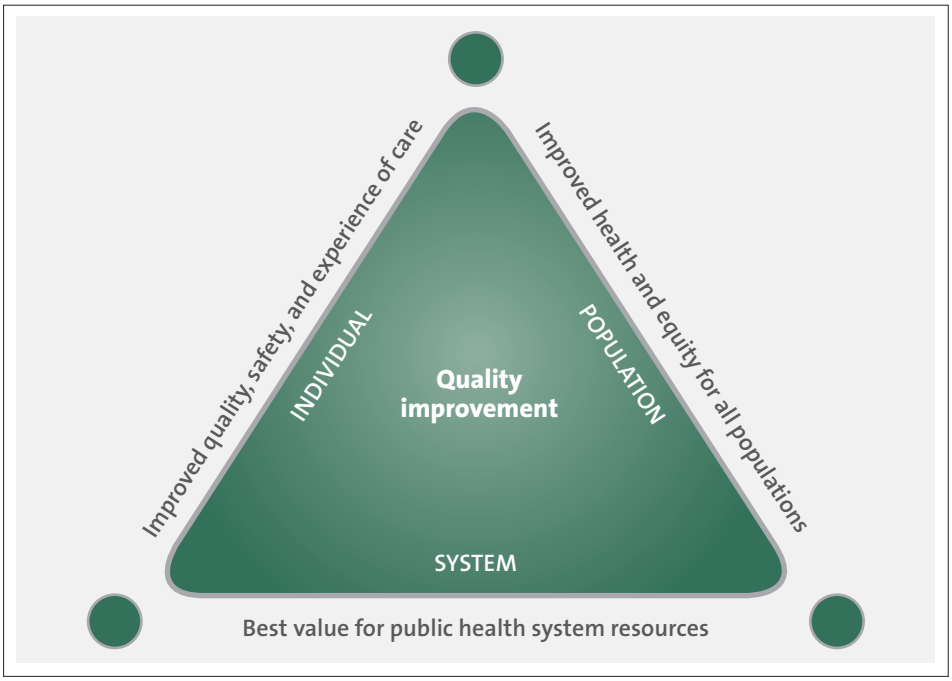
7.12 The Ministry's guidance for 2013/14 focuses on future financial and clinical viability of a safe, quality public health and disability service, rather than vulnerable services specifically. Noting that DHBs "have responded quickly to identify service vulnerabilities", the guidance mentions vulnerable services only as a subset of mental health services.

7.13 This mirrors what we found in our fieldwork and analysis of documents. The Ministry and the regions had moved on to thinking about vulnerable services as part of their "whole of system" approach to improve quality. This follows the New Zealand "Triple Aim" objectives (see Figure 4).[10]

9 Gluckman, P. (2013), *The Role of Evidence in Policy Formation and Implementation*, Office of the Prime Minister's Science Advisory Committee, available at www.pmcsa.org.nz.

10 The United States Institute for Healthcare Improvement prepared the Triple Aim Initiative framework. The Ministry of Health is a partner in the Initiative.

Figure 4
New Zealand Triple Aim Initiative objectives



Sources: United States Institute for Healthcare Improvement Triple Aim Initiative, Ministry of Health

7.14 We found some good examples of a sustained focus on a vulnerable service, such as the Central region's continued work to strengthen its Women's Health Service. However, the approach to identifying and monitoring vulnerable services was so variable that we could not verify whether the Minister's intention of strengthening vulnerable services had been met.

7.15 Where regions include a reference to vulnerable services, the Ministry will provide feedback through monitoring. However, if a regional services plan is silent on vulnerable services, the Ministry does not challenge this. We could not consistently track reduction in the vulnerability of services in the 2012/13 plans or the 2013/14 plans.

7.16 Regions told us that services become vulnerable or are no longer vulnerable for many reasons. Although we understand this comment, we would expect to see a narrative on services that have moved in or out of vulnerability. This could be in the regional services plans or a regional risk register, if more appropriate. Although we make no specific recommendation, we encourage the Ministry to consider whether it has made enough progress in identifying those services that need to be planned nationally and regionally.

The changing rate of increase in health spending

7.17 We expected to find that regions were reducing the rate of increase in costs of health and disability services, compared with previous trends. We also expected that chief financial officers would be:

- aware and have evidence of this intended effect; and
- able to identify cost-benefits from delivering services regionally.

7.18 We were not looking exclusively for absolute cost reductions, although we thought we might have seen some of this – for example, as procurement savings filtered down into service delivery.

7.19 During our fieldwork, we asked for examples of this intended effect. We were given just one example arising from a regional services planning initiative (see Figure 5). The Ministry, regional offices, and DHBs were unable to provide other examples.

Figure 5
The Northern region's First Do No Harm programme

The Northern region launched the First Do No Harm programme in December 2011. Putting this programme into effect successfully is one of the main goals of the Northern Regional Health plan. The First Do No Harm website states that there is clear evidence that certain interventions, if systematically applied, will improve patient safety, reduce costs, and save patient lives. A study carried out in 2009 of hospital discharges in Otago in 1998 found that 12.9% had adverse events. Of those, 15% were permanent or fatal and 33% were significantly avoidable. At an average cost of $13,000 for each adverse event, the cost of preventable events is estimated to be $573 million a year.

First Do No Harm focuses on reducing harm from falls and pressure injuries in hospitals and residential aged care, reducing health-care-associated infections in acute care, improving medication safety, and improving safety during case transitions. The programme is planned, funded, and delivered through the Northern DHB support agency, working with primary health care as well as DHBs and aged residential care. The agency is in turn funded by contributions from the four DHBs.

The Northern region has clear targets related to improving quality of care and "return on investment". The region has calculated that, if it met the targets for the project (reducing harm and, therefore, improving quality of care), it would see a 1% reduction in expenditure in the four Northern region DHBs, "which would result in a payback of around 250% on the $0.9 million budget in 2012/13".

Did First Do No Harm contribute to the intended effects of regional services planning?	
Plan, fund, deliver	☑
Quality of care	☑
Reduce costs	☑
Measure outcomes	☑

7.20 We saw no Ministry monitoring of changes in cost by service arising from regional services plans. DHB financial break-even is an objective (and measure) in the regional services planning guidance and is monitored through DHB annual plans. The Ministry told us that, because the starting point of DHBs for regional collaboration was so uneven, it was unrealistic to expect the first regional services plans to include a full range of quantitative measures, such as costs. However, the planning regulations required the plans to be fully costed from the start. This "implementation lag" is why we have had difficulty finding evidence that the intended effects had happened.

7.21 Some quantified savings are forecast in back-office support services, such as banking services, insurance, and information systems.[11] These flow from the work of HBL. HBL reaches agreement with each DHB on the costs and benefits expected from HBL initiatives. By July 2013, HBL was reporting achievement of $213.4 million of savings in the first three years. The reporting of savings is based on (unaudited) returns that DHBs submit to HBL. We say more on this in *Health sector: Results of the 2011/12 audits*.[12]

7.22 In addition to the HBL savings, regional shared services agencies also use joint procurement and supply to drive down costs. Examples include joint purchasing of expensive radiology and information technology systems and equipment.

7.23 The Ministry and DHBs gave us the following main reasons for the lack of information on costs in health and disability services in regional services plans:

- It is difficult to attribute changes in costs to any one thing, including regional services planning.
- It is too early to see cost savings from regional services plans.
- It is too difficult to get the data from information systems.
- Costs are increasing as more interventions take place.
- Although costs are actually increasing, productivity or throughput is increasing for the same resources (the Ministry and the DHBs did not provide any evidence of increasing productivity).

Improving patient care

7.24 We expected to see evidence of improvements in the quality of care that could be attributed to regional services planning. As quality can be interpreted differently, we looked specifically at improvements in timeliness and equity of access. We use equity of access to describe how people are able to access services, irrespective of where they live in the region. We did not audit clinical safety because the

11 We say more about how HBL has set up collective insurance arrangements in our June 2013 report, *Insuring public assets,* available at www.oag.govt.nz.

12 Controller and Auditor-General (2013), *Health sector: Results of the 2011/12 audits*, available at www.oag.govt.nz.

work of the Health Quality and Safety Commission was outside the scope of our performance audit. The Health Quality and Safety Commission works with the health sector, with the overriding aim of reducing preventable harm to patients and service users.

7.25 On timeliness, we looked for quantitative evidence of performance improvement from one year to the next. For example, we looked for increases in numbers or percentages of patients receiving timely, high-quality treatment. We did find some examples of changed targets in initiatives that had been running for some years (in workstreams such as cancer services, cardiac services, and stroke services). For example, the Northern region action plan for cardiovascular disease set a target of 90% of outpatient coronary angiograms to be seen within three months in 2013/14. This was up 5% on the previous year's achievement. However, we saw few measures outside well-established workstreams.

7.26 On equity of access, we found few examples of initiatives outside the cancer services workstream. For instance, we saw little evidence of new regional clinical protocols that would increase equity of access to care.

7.27 Where improvements were being achieved, they were often the result of other nationally led initiatives, many of which had further funding attached, such as:

- the Better, Sooner, More Convenient policy aimed at treating people more quickly and closer to home – this includes integrated health centres, intended to provide a full range of services, including specialist assessments by general practitioners, minor surgery, walk-in access, chronic care, increased nursing, and selected social services;
- targets to increase the number of elective operations, with financial incentives for those DHBs that meet them;
- further resources for older people, specifically for dementia;
- Better Public Services initiatives, particularly for vulnerable children; and
- the Maternity Quality Initiative.

7.28 This is not an exhaustive list, but gives a flavour of the complicated policy landscape within health and disability services. This reflects the Review Group's observation that "funding for new national initiatives also tends to be 'layered' on top of existing DHB activity". It also shows that there are few, direct incentives linked to regional services planning.

7.29 We tested our findings about equity of access with staff from regional offices, the Ministry, and DHB senior managers. Almost all said that it was too early to see evidence of regional services planning having a positive effect on quality of care.

7.30 We heard a lot about work in progress, particularly on information technology systems, that would help to speed up access to services, and between points in the health and disability system. These included:

- GP2GP file transfer – so that medical records move swiftly between general practices if a patient changes their general practitioner (about 820 general practices are using this technology);
- maternity clinical information system – due to be phased in towards the end of 2013;
- patient portals, due by 2014, which enable patients, as well as those involved in their care, to see their medical records; and
- the national shared-care planning programme.

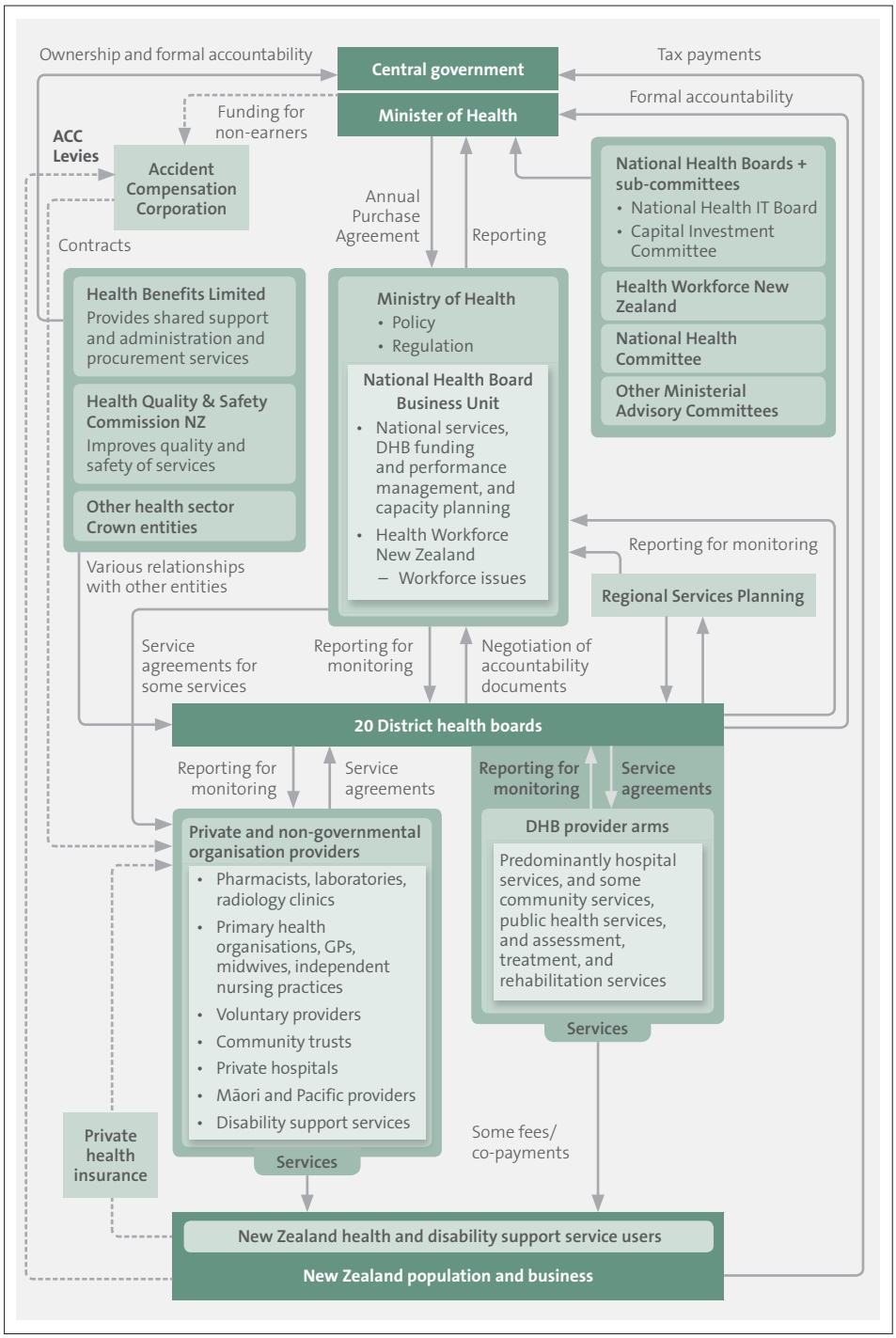
7.31 Many of these initiatives are relatively new or not put into effect fully. A recent evaluation found that the national shared-care planning programme had been slow to take off. The evaluation highlighted factors beyond the information technology systems, such as workforce development, getting appropriate funding, and understanding the patient's point of view. However, some clear benefits are possible, and some earlier changes, such as making referrals electronically, are becoming well established.

7.32 Regions had some good ideas about how improvements in performance could be recorded more systematically for a range of initiatives and plans. Clinical leadership of networks is starting to lead to a more evidenced-based approach to auditing for improved outcomes. A common comment from many senior staff was that they would like the plans to evolve to have a longer-term view with fewer mandatory priorities. We consider that this is a good time for the Ministry and the regions to consider how they can show progress. In 2016, we will return to the topic of regional services planning.

Recommendation 7

We recommend that the Ministry of Health and district health boards work together to prepare an evaluation framework and use it to work out whether regional services planning is having the intended effects.

Appendix
Structure of the health sector



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