

# SOUTH ISLAND REGIONAL HEALTH SERVICES PLAN

# 2010



## STEERING A COURSE FOR A SUSTAINABLE FUTURE

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South Island Regional Health Services Plan

Produced in 2010

By the South Island Shared Services Agency Limited

On behalf of the five South Island DHBs

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# Foreword

## From the South Island District Health Board Chairs

There are major risks around the future sustainability of health services in the South Island; alongside demographic and demand changes, health sector costs are rising much faster than funding growth, and we have increasing workforce shortages. It is clear that continuing to deliver and fund services as we currently do is not clinically or financially sustainable.

The recent development of the conceptual framework, under the governance of the South Island Health Services Steering Group, has created a formal process through which the five South Island DHBs can work together to resolve difficult issues and find positive ways of addressing the pressures and challenges we face.

This regional work is supported by a collective decision making framework and planning principles endorsed by all the South Island DHB Boards. The active involvement of representatives from across all five DHBs has helped to create an excellent base for the next steps in regional collaboration. The leadership and engagement of health professionals in these processes has also helped to ensure that work plans and planning principles are generated by those directly involved in the delivery of health services in the South Island.

The South Island District Health Board Chairs would like to thank all these people, and the many working group and network members, for the work and effort they have put into regional activity and into the priority work streams under the health services planning umbrella over the past eighteen months.<sup>1</sup>

Going forward, regional collaboration presents opportunities to make step changes in the way in which we deliver health services in the South Island and improve the quality and sustainability of services.

By taking action now we can take advantage of Government direction for the health sector to improve the integration and coordination of health services, and make the most effective use of our combined resources and infrastructure to improve health outcomes for our collective population.

At this stage in our health services planning, we are not making any recommendations about the future configuration of hospital and specialist services across the South Island, but acknowledge that a process to work together to create cohesive service delivery model/s and make collective facilities planning decisions needs to be established in the coming year. As part of this focus, the broader implications of change need to be tested, such as the costs of technology to support alternative service configurations and service delivery, the impact of changes on the education sector and the economic and social impacts of patient or clinician travel on the wider community.

Signed by:



SUZANNE WIN, CHAIR  
Nelson Marlborough DHB



REX WILLIAMS, CHAIR  
West Coast DHB



ALISTER JAMES, CHAIR  
Canterbury DHB



MURRAY CLEVERLEY, CHAIR  
South Canterbury DHB



ERROL MILLAR, CHAIR  
Southern DHB

<sup>1</sup> Refer to Appendix 1 for the South Island Health Services Planning Steering Group membership.



## Office of Hon Tony Ryall

Minister of Health  
Minister of State Services

23 August 2011

Chris Fleming  
Lead CEO, South Island Region  
Chief Executive Officer  
South Canterbury DHB  
Private Bag 911  
TIMARU 7940

Dear Chris

### 2011/12 South Island Regional Health Services Plan

This letter is to advise you I have approved the 2011/12 South Island Regional Health Services Plan (RSP).

This is a transition year in respect to service planning and accountability documentation and I want to thank you for your assistance as we move to a new way of thinking about how we coordinate the delivery of health services throughout the country. I look forward to your continued support as we strive for improved health services for all New Zealanders.

District Health Boards (DHBs) working collaboratively within regions are about ensuring the right services are provided in the right place. By working regionally, DHBs can ensure that services are delivered in a clinically sustainable and financially viable ways to meet the needs of the region.

RSPs need to develop quickly; with immediate action on vulnerable services and key priority areas and with DHB Annual Plans increasingly seen as part of this broader regional plan.

My expectation for RSPs is that they:

- Include agreed actions to work on in key priority areas, services needing to be strengthened and health targets that need to be achieved;
- Demonstrate clinical leadership and engagement necessary to support the development of models of care and actions to be implemented for priority areas;
- Document linkages and implications for infrastructure including IT and workforce that will resolve service vulnerability for prioritised services; and
- Establish regional governance capability with their Chairs and CEOs that enables effective regional decision-making on behalf of constituent DHBs.

It is critical these key priority areas are supported by IT and workforce development which is increasingly organised at a national and regional level as an integrated whole, rather than at a district level.

In laying the foundation for formal regional collaboration, the South Island region has worked to identify measurable actions in this first year and this has been challenging. Notwithstanding this, I expect to see good progress on your agreed RSP actions for 2011/12 and for the South Island

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region to focus on working better as a region to realise the benefits of regional and sub-regional collaboration.

All South Island DHBs have supported Canterbury DHB with earthquake recovery efforts. I see this as being an ongoing focus for the South Island.

I also look forward to seeing greater ongoing support for the work of Health Benefits Limited in developing shared back office functions where appropriate and thank you for your continued commitment to work with the Health Quality and Safety Commission.

#### *DHB Annual Plans*

DHBs are each expected to identify the specific actions they will undertake to give effect to their RSP implementation plan at a local level in their Annual Plans. I am pleased to see a range of activities identified by individual DHBs in these plans to act on their RSP commitments and expect this to be strengthened in coming years.

#### *Next steps*

The NHB will continue to work closely with the South Island region and will monitor progress against your identified actions, offer support and act as a resource to assist you to deliver on your RSP. Through important regional initiatives (IT, workforce support and development, and capital investment) I look forward to seeing real benefits resulting from the South Island region's collaborative partnership with the NHB.

The South Island Regional Health Services Plan is new and will need to be disseminated and embedded. The region needs to move quickly to establish the regional clinical networks and groups, and to enable clinical leadership and clinical integration. As part of implementing these actions I expect the South Island region to measure and communicate the benefits of regional collaboration, particularly the benefits to patients.

Finally, please ensure that a copy of this letter is attached to the copy of your signed RSP held by the Board and to all copies of the RSP made available to the public.

Yours sincerely



Hon Tony Ryall  
Minister of Health

cc South Island Region DHB Chairs  
South Island Region DHB Chief Executive Officers

# South Island Regional Health Services Plan 2010

## Table of contents

<b>Foreword</b>	<b>3</b>
<b>1 Executive Summary</b>	<b>8</b>
Steering the course for a sustainable future	8
<b>2 Introduction - the strategic context</b>	<b>9</b>
Why do we need to plan regionally?	9
2.1 South Island health services planning	10
2.2 Government expectations	11
2.3 Explaining this plan	12
<b>3 Challenging Circumstances</b>	<b>13</b>
Health system pressures – the key drivers for change	13
3.1 Demographics	13
3.2 Demand	15
3.3 Geography and transport	17
3.4 Infrastructure	18
3.5 Workforce	19
3.6 Funding and affordability - capital and future investment decisions	20
<b>4 Our Future Direction</b>	<b>22</b>
What will a sustainable future look like?	22
4.1 System integration – better, sooner, more convenient models of care	22
4.2 Implications for models of service delivery	24
4.3 Workforce models and clinical leadership	25
4.4 Alignment with future national directions	25
<b>5 Addressing Our Challenges</b>	<b>27</b>
How we operate – regional, sub-regional and cross-regional approaches	27
5.1 Our regional planning response – priority service areas	27
5.2 Enablers to support our future direction	28
<b>6 Next Steps</b>	<b>34</b>
Making progress with regional planning	34
6.1 Critical success factors – action plan 2010/11	34
6.2 Measuring our success	36
<b>7 Appendices</b>	<b>38</b>
7.1 Health services planning steering group	39
7.2 Regional health services planning principles	40
7.3 Regional collective decision making principles	41
7.4 Changes to the legislative environment	42

7.5	A snapshot of the South Island - additional demographics and demand	43
7.6	The unique characteristics of each DHB	53
7.7	Role delineation model by service 2009	55
7.8	Comparison of physical beds against projected bed requirements	56
7.9	Vulnerable services and mitigations	59
7.10	Sub-regional service provision – a snapshot	66
7.11	Clinical leadership	76
7.12	Our regional planning response – priority service areas	77
7.13	Glossary of terms	90

# 1 Executive Summary

## Steering the course for a sustainable future

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Our population is predicted to grow by another 96,205 people by 2026. In the absence of change, forecasts show we will need an additional 500 hospital beds and more than 3,000 additional aged residential care beds to meet increasing demand and the high prevalence and increasing complexity of long-term (chronic) conditions will also absorb a disproportionate share of our funding.

If we do nothing to change the way we work, future demand will outstrip our ability to provide services - even if we could afford the beds and consumables, we would not be able to find staff to deliver the care. Existing inequalities between population groups and DHBs will increase, and we will fail to meet the needs or expectations of our populations.

How do we ensure that we are being as effective as we can with our workforce, infrastructure and financial resources? With a collective population estimated at over 1,025,550, we need to ask the tough questions about what we do, how we do it and how we ensure we are making the right decisions for the right reasons. Also, while the future raises many questions, it also presents significant opportunities; we know we can do things better.

Many initiatives are underway that start to address the challenges we have identified. The South Island DHBs have embraced the Minister's priorities for 'better, sooner, more convenient healthcare'. Business cases are in development for Canterbury and West Coast health services. Initiatives are also underway in the Nelson Marlborough, South Canterbury and Southern DHBs. These focus on the role of primary care in developing comprehensive and integrated care and providing the support for our population to stay well. Sharing and learning from these will support the transformation of service models across the continuum of care and across DHB boundaries.

The South Island geography and population spread provides challenges to our standard models of care and service configurations, particularly in adverse weather, and can lead to delays in treatment and inequalities in access. These challenges support the need for regional information systems that support shared care arrangements across traditional boundaries and silos in the health system.

The geography of the South Island also leads to natural alliances of DHBs. During 2010 sub-regional relationships have become formalised with the merger of the Otago and Southland DHBs and the joint partnership arrangements between the Canterbury and West Coast DHBs. These arrangements are already starting to support the sustainability of services in these DHBs and will inform the ongoing work at a South Island-wide level.

Demand on our hospital, mental health, aged residential care and primary health care services will increase as our population ages and long-term conditions become more prevalent. We have already begun to implement the service shifts that are critical to supporting people to stay well and to access more care in community-based settings and closer to their own homes.

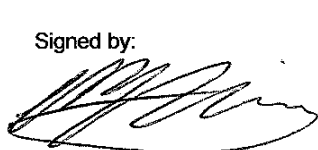
An agreed regional approach to infrastructure, regional workforce, facilities and information system strategies will support these service shifts and the delivery of new models of care. Our regional direction for these enablers is aligned with national strategies; a single patient record, telemedicine linkages, integrated workforce planning and flexible future-proofed facility developments are key components to this work.

The South Island regional activity covers a wide range of service areas, with our clinicians, managers and key stakeholders working in partnership to agree models of care that will best meet the needs of our population. Our sub-regional and regional arrangements support and inform opportunities as we seek to deliver our vision of ensuring our health system provides equitable and timely access to safe, effective and high quality services as close to people's homes as possible.

Underpinning all this work are the conceptual framework and a collective decision making process agreed to by the South Island DHBs. In progressing regional planning, the South Island understands the need to establish the role of individual DHB Boards and communities. Governance at a regional level is challenging, but our commitment to regional planning is demonstrated in this document. We accept that the challenge is not one that can be ignored.

This document provides an overview of where we are at and where we are heading through a truly integrated and collaborative South Island approach to sustainable health and disability services for our population.

Signed by:



Chris Fleming, CEO  
South Canterbury DHB



John Peters, CEO  
Nelson Marlborough DHB



Brian Rousseau, CEO  
Southern DHB



David Meates, CEO  
Canterbury and West Coast DHBs

## 2 Introduction - the strategic context

### Why do we need to plan regionally?

The five South Island DHBs face significant and immediate challenges as we refocus efforts to ensure the future sustainability of health services in the South Island and to achieve the priorities of Government. However, as we change the way we work to meet these challenges, we will create exciting opportunities to improve outcomes for our collective populations.

Health systems worldwide, including the New Zealand health system, face a number of significant challenges that will only intensify in the future. The challenges in the South Island are similar to that of the wider New Zealand health system, with the most immediate pressures being:

**CHANGING DEMOGRAPHICS AND GROWING DEMAND** - By 2026 the South Island population is predicted to grow by another 96,205 people.<sup>2</sup> It is ageing rapidly and people are more likely to have one or more long-term conditions. All of this is driving up demand for health and disability services and for hospital and aged residential care beds. This is further exacerbated by increased specialisation and advances in technologies which enable us to treat more conditions and to intervene at greater levels and later in life, both driving the increasing complexity of demand and public expectation.

**INCREASING INEQUALITIES** - There are inequalities in health status and outcomes across the South Island as a result of disparate access and intervention rates, clinical protocols, inconsistent assessment and evaluation criteria and economic and social determinants. These inequalities affect demographic and geographic groups; thus the health status of our population is influenced by where people live, their ethnicity and their level of affluence, which is not clinically or publicly acceptable.

**CLINICAL SUSTAINABILITY** - The clinical sustainability of health services is an increasing problem. Some services are at risk of failure and struggle to maintain the critical mass of patients, clinicians, equipment and funding needed to sustain effective and safe service delivery. Workforce is the primary determinant of clinical viability, and there are significant skilled workforce shortages across the whole health system which will intensify with increasing specialisation and as our population ages.

**FISCAL SUSTAINABILITY** - Health care costs are increasing faster than the growth in funding. \$350m worth of investments in services, facilities, technology and equipment have been identified across the South Island over the next three years and, if demand continues to rise and more effective models of service delivery are not implemented, significant investment will be needed. Our funding resources and current cost structures will not support this level of investment.<sup>3</sup> Ongoing deficits in some DHBs already prevent adequate investment into services and accentuating inequalities between regions.

**PATIENT EXPECTATION** - Our current health system is predominantly provider-centric and not always focused on the needs of the patient. Traditional models of service delivery continue to exist with little deliberate connection between traditional silos (primary, secondary, tertiary), which does little to reduce long waits, duplication and unnecessary waste in the system or support a patient-centric approach to the design of health services. The overload on some services and the fragmented integration between service providers reduces service quality and makes for a poor patient experience.

These pressures make it increasingly difficult to deliver high-quality, responsive health services and have been clearly articulated in recent national documents and strategies - along with the recognition that a '*whole of system*' approach is required to sustainably meet the future needs of our populations.

The South Island DHBs are already changing the way they work within their local districts and with community and primary care providers - supporting people to stay well, better manage their long-term conditions and reduce unnecessary hospital admissions by ensuring the right care is provided in the right place at the right time.

However, as individual entities we cannot make a large enough impact on the health system to ensure the future sustainability of services in the South Island. The recent Southland/Otago DHB merger and the collaborative arrangements between the West Coast and Canterbury DHBs have made it increasingly clear that a coordinated regional approach is a necessity rather than an option.

<sup>2</sup> Statistics New Zealand projections (based on 2006 Census and mid-range projection scenario).

<sup>3</sup> Data taken from South Island District Annual Plans and Capital Intensions Sheets 2010/11.

With limited health resources, we have to be more focused on how we respond to increasing pressures and challenge traditional approaches and boundaries to get the best outcomes for our health spend and investment. Larger DHBs need certainty of patient flow to plan and invest sensibly, and smaller DHBs need help to ensure their populations have timely and appropriate access to quality specialist services. Implementing diverse but similar individual responses to our collective challenges duplicates effort and investment and leads to further service access inequities and inconsistencies between DHBs.

### Advantages of a Formal Regional Approach

By agreeing a regional direction, guiding principles and a collective decision making process the South Island DHBs can manage the increasingly complex demand of their individual populations over the short term, while at the same time ensuring the decisions they make are good for the whole system in the longer term.

Formalising regional collaboration will enable us to improve workforce planning and support for clinical teams and health professionals across the South Island - with improved opportunities for peer support, shared learning and supervision, more flexible models of care and joint appointments across traditional primary/secondary and DHB boundaries.

Formally planning for a combined population of over a million people will also allow us to better establish the right balance of community and hospital services to meet our population's need with the resources we have available. Part of finding this balance will be acknowledging that it will not always be clinically safe or fiscally sustainable for all services, particularly low volume/highly specialised services, to be provided in all locations; making collective decisions about regional service provision; and establishing consistent clinical pathways for access to services is essential.

Finally, by taking a regional approach to investing in equipment, technology and infrastructure, we will be able to realise significant opportunities for efficiencies and reduce duplication, inequalities and inconsistencies between DHBs.

Regional health services planning will support the South Island DHBs to:

- Ensure equity of access to health services across the South Island;
- Enhance the quality and consistency of care provided across the South Island;
- Enhance the sustainability of health services for the South Island population; and
- Engage with key stakeholders to ensure their understanding and acceptability of the way South Island services are organised and delivered.

#### VALUES

- Equity
- Quality
- Sustainability
- Engagement

## 2.1 South Island health services planning

“Greater coordination and collaboration across DHBs should not be left to serendipity, nor should it be forced by a clinical failure or a rushed reaction to adverse publicity. There must be a more proactive, facilitated approach to ensure that services can be provided safely in a sustainable way.” Ron Paterson, Health and Disability Commissioner, February 2008.

Recognising the increasing pressures and the necessity of a regional approach, the South Island Chief Executives and Chairs have engaged in a health services planning process which will deliver a regionally coordinated system of health services planning and service delivery, and make lasting improvements in the accessibility, quality and sustainability of health services.

A South Island Health Services Planning Steering Group has been established to progress regional planning - including multidisciplinary representation from each of the five South Island DHBs as well as Union and Ministry of Health representation.<sup>4</sup>

Under the governance of this Steering Group, a conceptual framework has been developed. This framework provides direction around the type and level of health services required to best meet the future needs of the South Island population, while at the same time supporting and promoting discussion and debate about how services can be better configured and organised.

By providing a set of planning principles and establishing a collective decision making process, the conceptual framework has also enabled individual DHBs to plan and move forward while more formal regional (and national) planning is completed.<sup>5</sup>

#### VISION

- A clinically and fiscally sustainable South Island health system.
- Services provided as close to people's homes as possible.

<sup>4</sup> Refer to Appendix 1 for Steering Group membership.

<sup>5</sup> Refer to Appendix 3 and 4 for South Island Planning and Collective Decision Making Principles.

Our collective vision is a clinically and fiscally sustainable South Island health system that is focused on keeping people well and provides equitable and timely access to safe, effective and high quality health and disability services, as close to people's homes as possible.

While the conceptual framework was initially focused largely on the sustainability of vulnerable hospital and specialist services, the emerging 'whole of system' approach recognises the development of primary and community services as essential to future sustainability.

This is supported by the recent national directions of integrated care, shifting appropriate services from secondary to primary settings and the provision of more personalised primary health care closer to people's own homes - supporting people to be healthier and reducing pressure on hospital and specialist services.

Three strategic goals support this vision:

- The development of services that support people to stay well and to take increased responsibility for their health;
- The development of primary health care and community services to support people in community-based settings and provide a point of ongoing continuity of care; and
- The freeing up of secondary care services and specialist resources to ensure timely and appropriate responses to episodic events and the provision of support and specialist advice as a part of a person's wider journey through the system.

## 2.2 Government expectations

*"Greater collaboration between neighbouring and close Boards is an essential part of our future direction, to maximise clinical and financial resources."* Hon Tony Ryall, Minister of Health, Letter of Expectations to DHBs 2010/11.

Government is placing increasing emphasis on regional services planning as the key vehicle for fostering collaboration, addressing future challenges and strengthening DHB performance against national objectives. Those national objectives focus on: a system that is clinically and financially sustainable; a system that ensures equity of access to services across all population groups; and a system that makes better use of available resources.

While the national Long-term Health Sector Plan is yet to be finalised, we are confident that our collective approach is aligned to future national direction and will support us to deliver the expectations of the Minister of Health including:<sup>6</sup>

- Improving services and reducing waiting times;
- Implementing the next steps in the Primary Health Care Strategy;
- Strengthening clinical leadership;
- Improving regional cooperation; and
- Delivering a more unified health system.

Already the five South Island DHBs have increased access to elective surgery by over 10% on the previous year, delivering more than 36,300 discharges in 2009/10. Wait-times have dropped, with 90% of people now waiting less than six hours in South Island Emergency Departments and 98% of people waiting less than six weeks for cancer radiation therapy.

All five DHBs are working in partnership with primary care and general practice to implement integrated models of care and support integrated family health care centres or clusters - focused on supporting people to stay well, improving the management of long-term conditions and reducing unnecessary hospital admissions.

Clinical leadership is driving a number of 'lean thinking' quality programmes such as Nelson Marlborough and South Canterbury's *Optimising the Patient Journey* and Canterbury's *Improving the Patient Journey* Programmes – reducing waste and duplication in the patient journey and improving quality outcomes. Driven through clinical networking and supported by agreed clinical pathways, paediatric patients who require specialist surgical treatment in the South Island are now being treated in a more timely way in their local centres with transfer to the tertiary centre only when necessary, and with discharge and follow-up in their local DHB.

Primary Health Organisations (PHOs) in the South Island have amalgamated from 18 to 7, significantly reducing transaction and management costs between DHBs and PHOs and enabling a leaner infrastructure. South Canterbury DHB has gone one step further and integrated the DHB and the PHO into a single entity. There have also been two significant DHB collaborations, with the merger of Southland and Otago DHBs and the formal arrangements between the Canterbury and West Coast DHB with similar benefits.

<sup>6</sup> 2010/11 Letter of Expectations to DHBs, Hon Tony Ryall, Minister of Health, [www.nsfh.health.govt.nz](http://www.nsfh.health.govt.nz)

## Further Regional Emphasis

The New Zealand Health and Disability Act 2000 Amendment Bill (currently with Cabinet) proposes that Regional Health Services Plans replace District Strategic Plans as the medium-term accountability document for DHBs. If this Bill is passed, a more comprehensive Regional Plan will be required in future years with the expectation that these Plans will take a strategic focus on intended service configurations and provide a regional context for sub-regional and district planning.<sup>7</sup>

In alignment with this expectation, the National Health Board has signalled its intention to complete the national Long-term Health Sector Plan by the end of the year and to provide DHBs with more clarity around future service levels and specifications for national, regional and local services to better support regional planning.

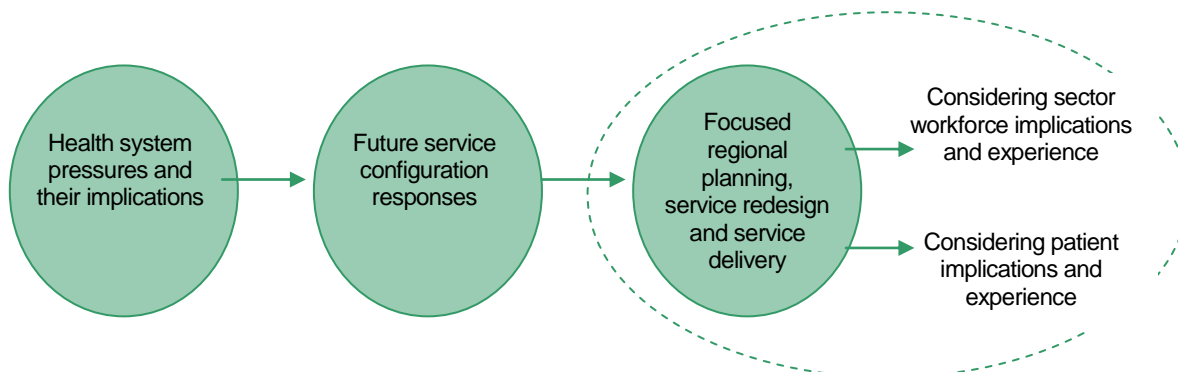
We also expect to receive more detail around the deliverables and timelines for national capacity programmes which will help focus future activity, including those led by: the National Health IT Board, Health Workforce New Zealand, the Capital Investment Committee, the Health Quality and Safety Commission and the National Shared Services Board.

## 2.3 Explaining this plan

This first South Island Regional Health Services Plan articulates our thinking and approach and provides a summary of the conceptual framework and the collaborative work we have undertaken under the South Island health services planning umbrella over the past eighteen months.

There are three major components to this Plan:

- Challenges – a high level overview of the pressures the health system faces, how the needs of the South Island population will evolve and why change is necessary;
- Future Service Direction – an outline of the change and transformation needed to meet our population's future health needs and the future service delivery models and configurations that will support this; and
- Current Work Streams – a summary of the services and enablers prioritised for regional and sub-regional focus and the planning, service redesign and activity already underway.<sup>8</sup>



These three components are fundamental in establishing the next steps in regional planning. In bringing this work together, this Plan outlines where we are focusing our collective effort, influence and resources and articulates a longer-term direction to support capacity planning within individual DHBs and across the South Island.

From an accountability perspective, this document reiterates our health services planning processes and agreed framework for regional decision making and provides an action plan for 2010/11 - based around the services we have prioritised for regional and sub-regional focus.

We have not recommended radical changes to the current configuration of hospital and specialist services or attempted to specify where services should be located or what our workforce should look like. Such outcomes will result from ongoing collective discussion and debate and more integrated planning and decision making between South Island DHBs, our partner organisations and the National Health Board, as we move towards delivering a more comprehensive regional services plan over the next three years.

Endorsement of this draft Plan has been sought and received from the Health Services Planning Steering Group, the South Island Chief Executives, South Island Chairs and the Boards of the five South Island DHBs.

<sup>7</sup> Appendix 4 summarises the key amendments proposed in relation to DHB planning and accountability arrangements.

<sup>8</sup> Major components diagram adapted from the Ministry of Health's Trends in Service Design and New Models of Care document 2010.

## 3 Challenging Circumstances

### Health system pressures – the key drivers for change

Before we can look to the future we need to recognise and acknowledge where we are today.

There are marked changes that South Island DHBs need to consider in future health services planning. Some of our urban populations will grow, some will remain static and while some of our rural populations will remain static others will decline. There will be more elderly and fewer young people in the South Island and these trends are expected in all South Island DHBs. The ethnic composition of the population will also become more diverse, and there will be more Maori and Pacific people in all five South Island DHBs.

Census predictions indicate that by 2026 the South Island population will have grown by another 96,205 people and 22% of our population will be 65 years of age or older (compared to 15% in 2009).<sup>9</sup>

In the absence of change:

- The South Island will need an increasing number of GPs, 537 additional hospital beds and 3,150 -5,600 additional aged residential care beds to meet increasing demand and population growth;<sup>10</sup>
- International evidence indicates that 75-80% of our health budget will be spent on managing long-term conditions; they will drive approximately 30% of acute admissions to hospitals and will be a major cause of life expectancy disparities between population groups;
- The geography and distribution of our population will further challenge standard models of care and service configurations creating additional pressures regarding access to services - particularly in rural and remote areas and when combined with the increasing cost of travel and workforce shortages;
- National and international competition for scarce workforce resources, coupled with a decreasing working age population and increased specialisation, will make it increasingly difficult to recruit and retain health professionals. Workforce shortages will put a number of services at risk of failure;
- \$350m worth of investments in facilities, technology and equipment will be required to maintain current services across the South Island over the next three years, with \$2b more identified out to 2030; and
- People will experience long waits for services, patients with non-urgent health concerns will use emergency departments, and those who could be better cared for in their own homes or communities will be in hospital beds and aged residential care facilities. Patient satisfaction will also be affected by service and access inconsistencies between DHBs.

### 3.1 Demographics

In 2009 the South Island was home to over 1,025,550 people - 24% of the total New Zealand population. By 2026 our population is projected to increase to 1,121,755 people, a lower 9.4% increase compared to a projected population increase of 15.3% for all of New Zealand.

There are five DHBs in the South Island with the population of the largest, Canterbury DHB, at just under half of the total South Island population being fifteen times that of the smallest, West Coast DHB (refer Figure 1). Over the next 20 years (2006-2026) there will be differing patterns of demographic change between the DHBs. The Canterbury and Nelson Marlborough DHB populations are growing, while Southern, South Canterbury and West Coast populations will be relatively static (refer Figure 2).

This follows a similar pattern for the whole of New Zealand, with population growth between being concentrated in larger urban centres. The 2006 Census showed the four largest cities in the South Island (Christchurch, Dunedin, Nelson and Invercargill) make up 58% of the total population, and this is predicted to remain relatively constant to 2026 – however some areas are expected to increase while others will decrease. Over a third of the South Island population lives in Christchurch City, which is projected to grow at the fastest rate (14%) with the population of Invercargill decreasing 7% between 2006 and 2026.

<sup>9</sup> Population figures in this section are based on 2006 Census figures and projections and the Statistics New Zealand mid range projection scenario.

<sup>10</sup> Hospital beds refers to physical beds and are based on the SISSAL Bed Modelling completed August 2010. The aged residential care beds estimates are derived from the Aged Residential Care Service Review, completed by Grant Thornton New Zealand Limited September 2010.

Likewise, while our rural population is predicted to be relatively stable overall, there are areas of growth and decline. Some rural areas also experience high inflows of tourist populations or seasonal workers in summer and winter seasons, increasing the population several fold for significant periods of time and putting considerable strain on existing health services.

Figure 1 - South Island Population by DHB, 2009

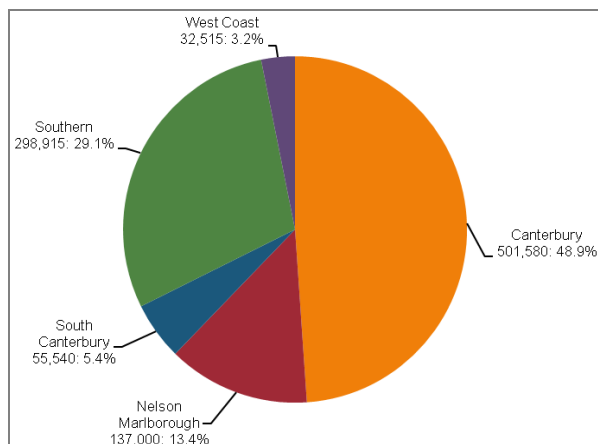
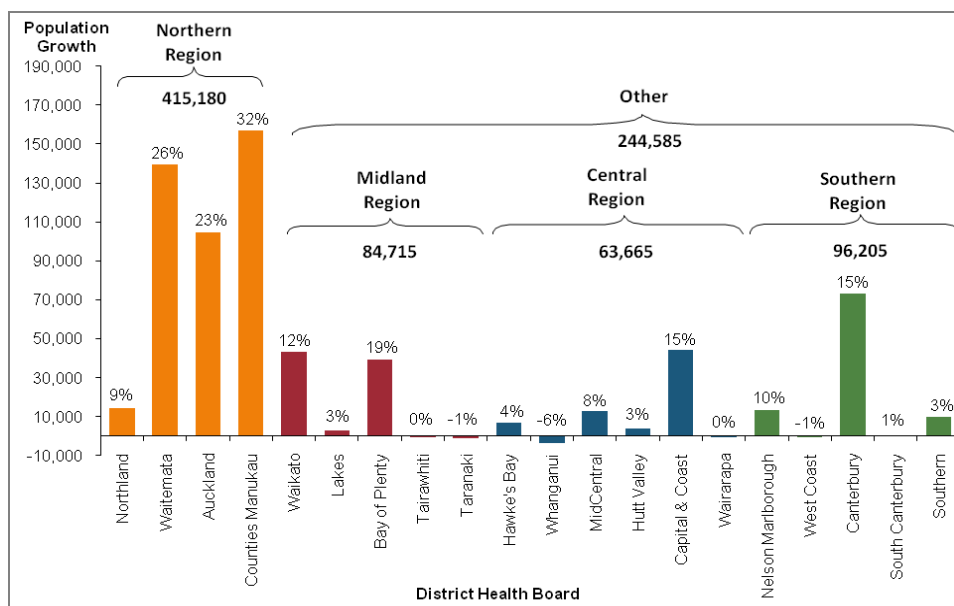


Figure 2 - Projected Changes in Population by DHB 2009-2026



## Ethnicity

In contrast to the national population, the South Island has a higher proportion of people identifying as European/Other. However, our Māori and Pacific populations are projected to increase by 34% and 46% respectively from 2009 to 2026, representing a more rapid growth in the Māori and Pacific populations in the South Island than in New Zealand as a whole, and significant proportional population growth compared to the remainder of the South Island population (at 6%).

The increase in our Māori and Pacific populations provides challenges in that Maori and Pacific people have higher rates of smoking and obesity than Asian or European/Other population groups, are more likely to have complex or multiple long-term conditions and have higher morbidity and mortality rates. Pacific people have the highest hospitalisation rate in the South Island for diabetes and its complications, followed by Māori, who have significantly higher rates than Asian and European/Others. Rates of mortality and hospitalisation for cardiovascular disease and cancer follow a similar pattern.<sup>11</sup>

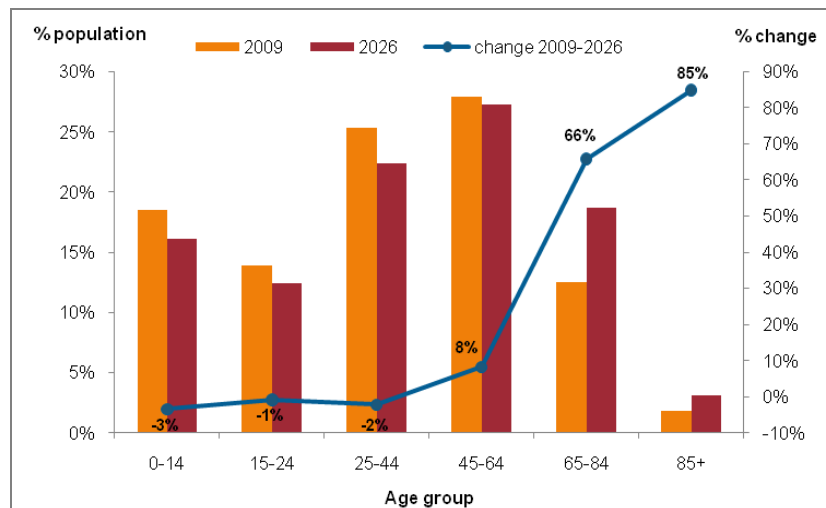
<sup>11</sup> Health and Disability Intelligence Unit (2008). *SISSAL Health Needs Assessment*. Wellington, Health & Disability Intelligence Unit, Health & Disability Systems Strategy Directorate, Ministry of Health.

## Age

Between 2009 and 2026 the projected change in the age of the South Island population shows there will be small decreases in the proportion of the population in younger age groups and increases in all age groups over 45 years, with a significant increase in the population aged over 65. By 2026 more than one in five people in the South Island will be aged 65 years or over, compared to one in eight in 2009 (refer Figure 3).

While our older population is living 'well' for longer and are fitter and more active, older people are more likely to have more complex or multiple long-term conditions and consequently are higher users of health services. Both population ageing and increases in long-term conditions across all population groups will drive increases in health expenditure.

Figure 3 - South Island Projected Population Change by Age Group



## Population Health Status and Inequalities

Inequalities can be gender-based, ethnic, socio-economic or geographic, and many are driven by social and economic determinants which are outside of the direct influence of the health system. Health must play an active role in influencing these determinants through input into policy and legislative processes. However, the effects of these determinants can be also compensated for by well targeted services, or further exacerbated by poor access to services resulting in people presenting late with more complex or multiple conditions.

Health outcomes (life expectancy and overall mortality rates) and rates of avoidable hospitalisation and avoidable mortality (that could potentially have been avoided through population-based intervention or through preventive and curative interventions at an individual level) are better in the South Island than in all of New Zealand. However, there are differences between DHBs and between population groups.

Māori and Pacific people are also more likely to live in lower socioeconomic areas (a key determinant of inequalities) and are more likely to have health comprising behaviours including smoking, lack of physical activity and a poor diet leading to obesity. These risk factors are strongly linked to the prevalence of long-term conditions including diabetes and cardiovascular disease. Long-term conditions are the major cause of life expectancy disparities between Māori, Pacific and other New Zealanders.

With the expected increase in the proportion of the population who are aged over 65 and who are Māori or Pacific the prevalence of long-term conditions is also predicted to increase across the South Island. This is significant for health service planning, as an ever increasing proportion of our health budget will be spent on managing these conditions.

## 3.2 Demand

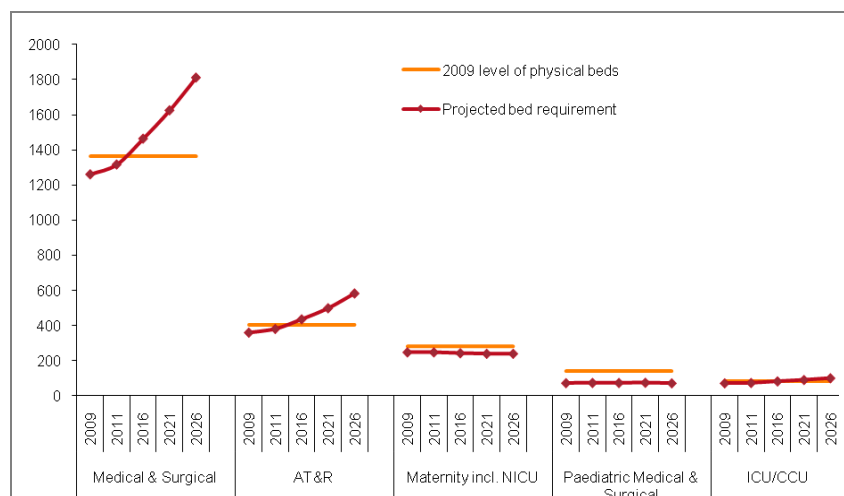
### Hospital and Specialist Services

The South Island's health facilities currently have a total of 2,273 physical beds.

Hospital and specialist services demand modelling projections indicate that if no change is made to current service delivery models, demand will exceed the supply of current beds in Medical and Surgical Services; Assessment, Treatment and Rehabilitation Services; and ICU/CCU Services; by 2016.

By 2026, projected activity will have exceeded the current number of physical beds in those same four services by more than 500 beds across the whole of the South Island (refer to Figure 4).<sup>12</sup>

Figure 4 - Comparison between Physical and Future Bed Requirement



While there are limitations to this demand modelling (it does not, for example, allow for changes in service delivery models or evaluate whether beds are located in the right place or match with geographical and population growth) it does clearly suggest that current levels of growth are not sustainable. The South Island would need another facility the size of Christchurch Hospital to provide the projected number of beds required to meet future demographic demand in these four service areas alone.

### Mental Health Services

Based on projected population increases and assumptions about the rate at which individuals in the New Zealand population experience severe mental illness, the number of people that will require access to specialist mental health services is projected to increase substantially between 2006 and 2026.<sup>13</sup> Specifically; more than 4,400 people aged 20 years and over will require access to complex mental health services - a growth of 19% across the South Island population (refer to Figure 5).

Again, while these projections do not take into consideration changes in models of care or an increase in community-based mental health service provision, they do indicate that particular attention will need to be placed on the increasing number of young Māori and Pacific people requiring access to specialist mental health services. Demand from these population groups is projected to increase at 48% and 62% respectively over the 20 year period and service models will need to be culturally appropriate.

### Aged Residential Care Services

The total population of the South Island is projected to increase by 12% between 2006 and 2026, but the population aged over 65 is projected to increase by 81%, from 139,365 to 252,115 people. Assuming no change in current models of care the increase in our older population will create significant pressure on Aged Residential Care (ARC) services in the South Island.

In 2009 the proportion of people aged over 65 years in ARC in the South Island was 7.9%. While this varied by DHB from 6.6% in South Canterbury DHB to 8.3% in Canterbury - with the exception of South Canterbury, the rates of ARC utilisation were higher than for all New Zealand, which was 6.9% (refer to Figure 6).

Based on the projected increase in the number of people aged over 65 the current rate of utilisation of ARC beds and scenarios of future demand from a recent major national review of the ARC sector, the projected change in demand for ARC beds from 2008 to 2026 is between 3,200 and 5,700 beds.<sup>14</sup>

While these projections assume no change in models of care, and make no judgements on what the 'right' rate of utilisation is for the South Island; we are able to recognise that differing rates of utilisation are currently evident and that

<sup>12</sup> Based on demand modelling undertaken by SISSAL, the South Island DHBs and the Ministry of Health using demographic growth forecasts to estimate inpatient bed requirements on the basis of demographic change over time, against current physical bed capacity - but without taking into account future changes to models of care or service configuration and unadjusted for occupancy rates.

<sup>13</sup> Mental Health Commission, 1998. *Blueprint for Mental Health Services in New Zealand: How things need to be*. Wellington: Mental Health Commission.

<sup>14</sup> Grant Thornton, 2010. *Aged Residential Care Service Review*. Grant Thornton New Zealand Ltd.

the projected demand is not sustainable and requires careful consideration in our future regional planning. Common assessment tools and thresholds are required to ensuring equitable access to services across the South Island.

Figure 5 - Demand for Specialist Mental Health Services (20+)

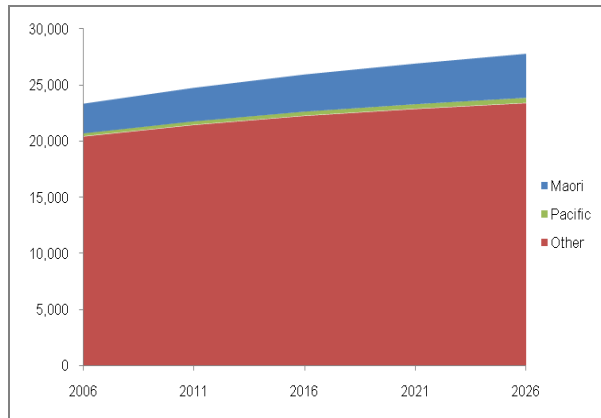
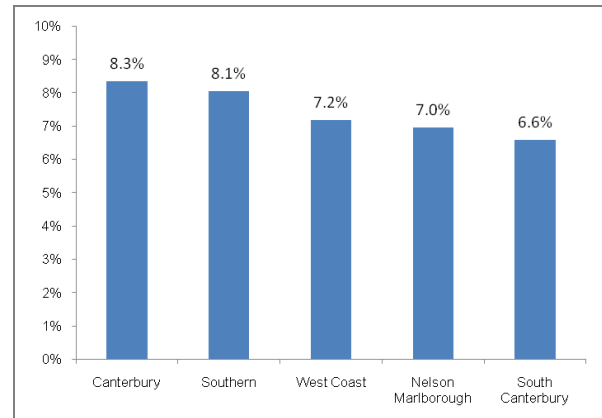


Figure 6 - Rates of ARC Bed Utilisation (65+) by South Island DHB



### 3.3 Geography and transport

There are 36 public hospital facilities in the South Island. The New Zealand role delineation model identifies current services by their level of complexity from 1-6. The model does not provide any indication of what is required for a clinically sustainable service however it demonstrates that while a comprehensive range of services is offered across the South Island, more complex and highly specialised services are concentrated in Nelson, Christchurch and Dunedin. Christchurch Hospital and Christchurch Women's Hospital provide the majority of the highest level or more complex services in the South Island (refer to Appendix 5 for a map of the South Island services by highest service role delineation level).<sup>15</sup>

The South Island has a land mass of 151,215km<sup>2</sup> with the Southern Alps dividing the length of the island and the DHB regions in the South Island are characterised by large land areas. The Southern, Canterbury and West Coast DHBs have the three largest DHB land areas in New Zealand. By contrast, the West Coast is the smallest DHB by population.

With a widely dispersed population, larger land masses than other DHB regions and highly specialised services concentrated a few sites, patient transport is a significant consideration for the South Island. While the majority of the South Island population live in urban areas (70%) the distribution of our population provides some geographical challenges for the delivery of health services, particularly in adverse weather where flights can be cancelled and roads closed - many people have to travel away from home to receive care and treatment at hospital and clinics.

In New Zealand it is common for people to travel to access health services and while this is mostly within their DHB area, people also travel beyond their local DHB to access more complex and highly specialised services – such as the speciality paediatric services delivered in Starship Hospital; the heart, lung and liver transplants delivered in Auckland Hospital; and the specialist burns services delivered in Counties Manukau. This travel is usually directly linked to DHB size, and people are more likely to have to travel if they live in smaller or more remote and rural areas.

The significant distances and travel times between South Island DHBs place considerable pressure on traditional service models and can lead to inequalities in both access and outcomes where isolation reduces access to services and opportunities for early discharge from hospital and limits alternatives to hospital follow-up or access to more restorative rehabilitation services. The fragmented care that follows, especially for patients in geographically isolated areas, may further exacerbate geographic inequalities.

As regional health services planning progresses, there will be opportunities to take advantage of changes in practice and technology to improve models of care and service delivery for the benefit of both patients and clinicians – telemedicine, video technology, shared access to 'real-time' patient information and self-management tools can help support clinicians in smaller facilities and offset the need for patient travel.

<sup>15</sup> Ministry of Health (2010). *New Zealand Role Delineation Model*. Ministry of Health: Wellington and of Health (2010). *New Zealand Role Delineation Model Update*. Ministry of Health: Wellington.

## 3.4 Infrastructure

During the last ten years there has been little major facility development or investment across the South Island (with the exception of the Southland Hospital in Invercargill and Christchurch Women's Hospital). Most facilities investment has been aimed at keeping pre-existing and often old facilities in service. Consequently, a number of major capital investments have been identified in order to bring facilities up to a reasonable condition, meet seismic requirements and ensure facilities are equipped to service the South Island population in the future and meet modern standards of care.

The 2009 South Island DHB Asset Management Plan identified that the condition of the South Island's building asset base is mostly moderate to very poor, and as measured by value, 61% of the South Island buildings are rated as in moderate condition or worse.<sup>16</sup>

As health services planning responses for demographic and demand changes are progressed, these will inform service delivery models and service configurations across the South Island and subsequently impact on clinical, technology and facilities requirements. However, the condition of South Island facilities, their inflexibility and lack of physical space, the inability to co-locate related services and the appropriateness of facilities for the delivery of modern models of care are all current and apparent issues which will need to be planned for in the immediate future.

### Condition of South Island DHB Facilities (as at 2009)

	Nelson-Marlborough	West Coast	Canterbury	South Canterbury	Southern		Total
					Dunedin	Invercargill	
Very Good	21%	4%	8%	16%	3%	61%	13%
Good	33%	0%	22%	65%	0%	5%	18%
Moderate	24%	22%	22%	7%	67%	15%	30%
Poor	13%	13%	22%	10%	19%	11%	18%
Very Poor	8%	61%	27%	1%	12%	9%	21%

### Information Systems

Currently much of the clinical and administrative information across the South Island is held in disconnected electronic and paper systems by individual service providers and DHBs. In most cases these individual organisations decide what information is relevant and what form the information should take. As a result, our health record system can be described as an assortment of non-standardised patient information stored in isolated patient records held by individual providers. Across the five South Island DHBs alone, there are seven different patient management systems.

### Core Applications Currently in Use across the South Island<sup>17</sup>

Service Application	SDHB	SCDHB	CDHB	WCDHB	NMDHB
Patient Mgt System	iPM	HPS In-house COBOL development	SAP Homer Caresys	iPM	Oracare
Clinical Workstation	Healthviews (2012)	Moving to Concerto (2010)	Concerto	Healthviews Moving to Concerto (2011)	Concerto
Clinical Repository	Healthviews (2012)	Eclair 2010	Eclair	Healthviews Moving to Éclair (2011)	Concerto & Eclair
PACS	Philips & Sectra (2012)	Intelerad (CDHB)	Intelerad	Intelerad	AGFA 2013

<sup>16</sup> The condition of the South Canterbury buildings was as at 2009. A subsequent seismic review of Timaru Hospital poses some serious questions regarding the medium term viability and safety of the buildings and questions the assumption that the main hospital buildings will be able to be refitted in 2015 to 2020. It is likely that the condition will be downgraded significantly and will have a direct impact on future planning

<sup>17</sup> Current core applications effective 1 August 2010 taken from 'draft' South Island Regional Information Systems Plan.

Service\ Application	SDHB	SCDHB	CDHB	WCDHB	NMDHB
Email	Exchange 2007/10	Exchange 2010	Exchange 2003/10	Exchange 2003	Exchange 2007
LABS	SCL	MedLab	Delphic & Medlab	ISL & DE taunt 2010	MedLab 2010
RIS	Philips (2012)	Comrad	Comrad	CRG & Comrad	Comrad
Pharmacy	ePharmacy & Medchart (2011)	WinDose	ePharmacy	WinDose 2012	WinDose Moving to ePharmacy 2012
Directory	AD 2008	AD 2003	AD 2003/8	AD 2003	AD 2003

Consolidating these systems, by improving information flow and access to patient information, will improve the quality of the services we provide. Improving the way we use emerging medical and information technologies will also support us to enhance the accessibility of health care across the South Island, particularly in more rural areas. However, a number of key decisions need to be made at a regional level to agree on the preferred systems and to align systems as they reach 'end-of-life'.

### 3.5 Workforce

We recognise workforce as one of the key challenges facing the health system now and into the future. National and international competition for scarce workforce resources in some clinical specialties and nursing areas, coupled with a decreasing working age population and an increase in the proportion of our workforce who choose to work part-time, makes it increasingly difficult to recruit and retain health professionals and to ensure the clinical sustainability of services.

Workforce pressures will have the biggest effect on clinical working models, as clinical staff make up the largest percentage of our workforce and will put pressure on low-volume, highly specialised services reliant on one or two people. Workforce pressures will also pose a relatively greater challenge for smaller DHBs and health service providers who are more dependant on individuals and more rural DHBs in the South Island with a greater proportion of the workforce choosing to live and work in larger urban areas.

The relationship between the recruitment and retention of appropriately skilled staff and our ability to ensure the delivery of high-quality, clinically sustainable services is a key issue for the South Island. A January 2009 survey of vulnerable South Island services demonstrated that the majority of services identified were those with workforce stresses – with small numbers in their teams/services vulnerable to the loss or retirement of key clinicians (refer to Appendix 9 for a summary of vulnerable services).

South Island District Health Board Workforce 2008		
Total Female DHB Employee Headcount	Total Male DHB Employee Headcount	Total DHB Employee Headcount
12,436	3,045	15,481
26% of NZ total	25% of NZ total	26% of NZ total
DHB Employee Average Age	Largest Ethnic Group	Average Length of service at a DHB
44.3-49 years	NZ European 53%	7-9 years
NZ DHB Av - 44.2 years (NZ overall workforce Av – 40.7 years)	NZ - NZ European 40%	NZ DHB Av - 7 years
Largest Workforce Group	Youngest Workforce Group	Oldest Workforce Group
Nursing 3,997 FTE 32% of total South Island FTEs	Technical and Scientific DHB Av Age Range 38.8-52 years	Care and Support DHB Av Age Range 46-50.6 years

### 3.6 Funding and affordability - capital and future investment decisions

#### Financial Forecasts

On a regional basis, the South Island DHBs are forecasting continuing annual operating deficits (as per 2010/11 District Annual Plans) through to 2013, and beyond.<sup>18</sup> By 2013 all South Island DHBs are predicting break-even results, with the exception of West Coast DHB who is forecasting their expenditure will continue to exceed their revenue (Figures 7 and 8).<sup>19</sup>

Deficits are being addressed by individual DHBs through changes to models of care, reduction in duplication and waste and other efficiencies. Between 2009 and 2013, this overall deficit will reduce significantly on a regional level from \$43m to \$16.5m.

As regional planning matures, these forecasts will change as we take advantage of further efficiencies and opportunities as a result of regional approaches, but these have not been quantified and factored in. Such efficiencies and opportunities include the unification of services by the Southern DHB and the collaborative arrangements with Canterbury and the West Coast DHB.

Figure 7 - South Island Regional Revenue and Expenditure (\$ 000)

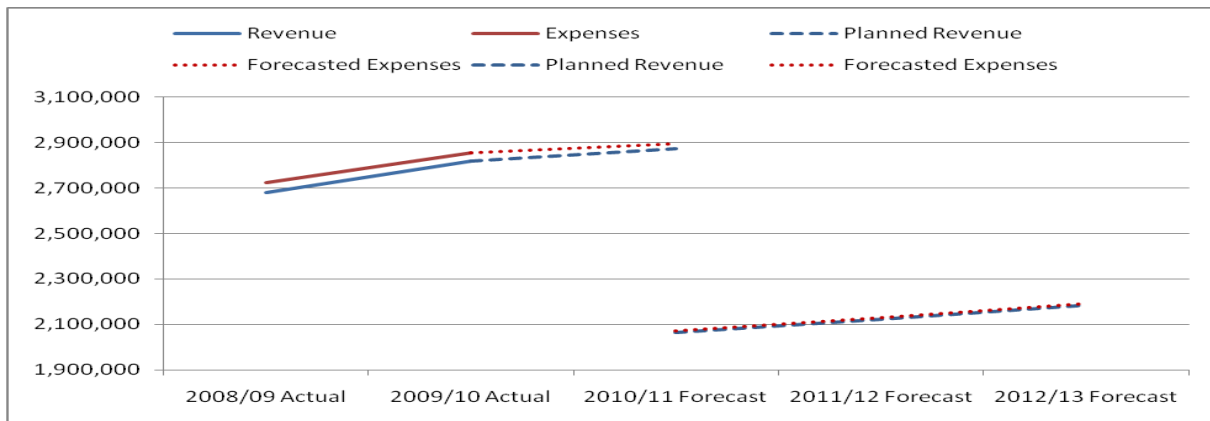
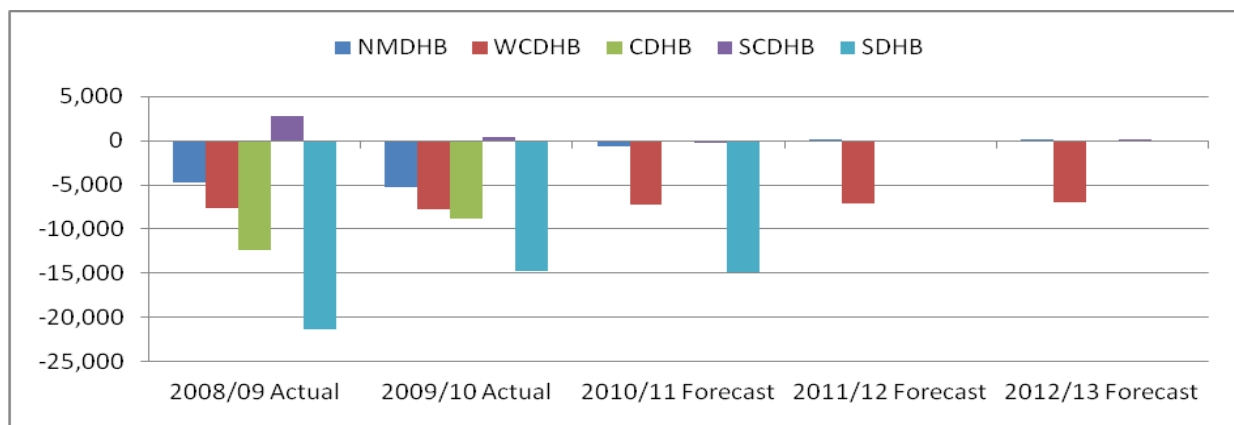


Figure 8 - Net Results (\$ 000) for each DHB from 2009 to 2013



#### Capital Investments

The five South Island DHBs have identified their capital expenditure intentions for the next twenty years. Of particular note are the hospital redevelopments being proposed for the South Island with over \$1.2b of buildings and plant intentions signalled over the next twenty years including: \$175m on buildings and plant planned between 2011 and 2013;

<sup>18</sup> It should be noted that the assumptions used by each individual DHB, especially for expenditure, may not be consistent with those used by other South Island DHBs. The results for 2008/09 are actual results, and the financial results for the next four years are forecasted/planned.

<sup>19</sup> Note: Southern DHB have no out-year financials agreed as at October 2010.

and \$1,065m for additional strategic capital expenditure on buildings and plant between 2013 and 2030 (refer to Appendix 5 for more detail).<sup>20</sup>

As Asset Management Plans have (to date) largely been prepared independently of each other, there have been no assumptions made about models of care changes and the flow-on implications that a collective approach may have on individual DHB expectations. A number of seismic issues also need to be confirmed.<sup>21</sup> However it is clear that available future funding will not meet the current cost structures of providing secondary and tertiary (hospital) services as we do now.

Capital requirements for investments in new facilities and equipment are greater than the available level of funding - the health system cannot support this level of expenditure. We need to establish collective processes to ensure that our future investment decisions are coordinated and effective and we are making the most impact on health outcomes for the health dollars we spend.

It is clear that decisions regarding all South Island hospital redevelopment business cases (and likely those in the lower North Island) will need a collective approach to align the thinking around future service delivery models. The factors that will need consideration include: our ability to align capital expenditure with future provision of regional services; and the impact of future centralisation of support services (i.e. software selection).

Capital Expenditure Building and Plant (\$000)	SDHB	SCDHB	WCDHB	NMDHB	CDHB
Planned from 2011 to 2013	33,098	4,630	2,450	12,908	120,000
Strategic Proposed from 2013 to 2030	164,000	20,000 <sup>22</sup>	88,000	50,000	740,700

<sup>20</sup> Data sourced from DHBs 2010/11 District Annual Plan and Capital Intensions Spreadsheet (projects require business cases to gain Ministry and Capital Investment Committee approval). This excludes capital expenditure for the West Coast, for which no details were available

<sup>21</sup> Building owners have 15 years to comply with seismic requirements.

<sup>22</sup> The South Canterbury projection was as at 2009. A subsequent seismic review poses serious questions regarding these assumptions.

## 4 Our Future Direction

### What will a sustainable future look like?

“The nature of health problems is changing dramatically; urbanisation, globalisation and other factors speed the worldwide spread of communicable diseases and increase the burden of chronic disorders...In the face of all this, business as usual for health systems is not a viable option.” World Health Organisation (WHO)

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If we carry on as we have in the past and continue to deliver health care in the same way, the challenges we face to providing accessible, high quality health care for our populations will increase dramatically. The status quo is not an option - our current models of care and service delivery are not sustainable.

In developing our conceptual framework and progressing South Island health services planning, it is clear that the traditional DHB boundaries and patient flows across the South Island will need to be challenged to ensure that services are supported in a sustainable manner. The conceptual framework recognises that the solution does not lie in the reconfiguration of facilities alone, but requires a step-change in the way in which we design and deliver services across the whole of the health system to meet the changing needs of our population.

The South Island Conceptual Framework highlights the following key concepts:

- More health care will be provided at home and in the community to support long term conditions and rehabilitation, and a strong and highly developed primary care infrastructure will be a required foundation for all South Island DHBs;
- Secondary and tertiary services will need to be provided not in a linear structure but across DHB boundaries, providing services to local, sub-regional and regional populations;
- Flexible models of care, clinical leadership and new technologies will be needed to support service delivery in different environments from those traditionally recognised;
- Health professionals will need to work differently, in different settings, across different sectors to coordinate patient care and ensure a smooth transition for patients to appropriate levels of care and between providers; and
- Clinical partnerships and networks will provide forums for clinical leadership, and a partnership between clinicians and management will support the delivery of quality health services across the health continuum.

These concepts, agreed by the South Island DHBs in signing off the conceptual framework in 2009, are the same as those signalled by other parts of the sector, our primary and community partners, other DHBs and the Ministry of Health. They are also concepts recognised internationally as increasing demand, ageing populations, long-term (chronic) conditions, technology advancement, workforce shortages and public and fiscal expectations place the same pressures on health systems around the world.

#### 4.1 System integration – better, sooner, more convenient models of care

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The World Health Organisation (WHO) provides an annual report on the status of health care and health care systems. In 2008 that report focused on Primary Health Care: ‘Primary Health Care – Now More than Ever’.<sup>23</sup> The underlying premise of the report is that an aligned system-wide approach is required to transform the health system and make health delivery fairer, more equitable and more inclusive.

In addition, the WHO report recognises the dangers of specialisation, hospital-centric systems and complex fragmented services driven by a disease rather than a person focus. It highlights the need to move services closer to the person and supports the development of clinical networks and multidisciplinary teams.

Hospitals provide an important back-up and a setting for highly specialised care, and the importance of timely and accessible high-quality hospital and specialist services is paramount and acknowledged. However, a preventative health system would be led by primary and community care, recognising home and community as the preferred place for the provision of health services.

Like this report, the South Island conceptual framework recognises the role of primary care in delivering comprehensive and integrated care. Primary care provided a regular point of continuity that supports people to stay well and to better manage their conditions closer to their own homes and outside of hospital and long-term care settings.

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<sup>23</sup> *The World Health Report 2008: Primary Health Care – Now More Than Ever*, Geneva, World Health Organisation, <http://www.who.int/whr/>

This approach and a re-orientation of the health system around the needs of the patient (and the population) is consistent with recent changes in direction of individual DHBs in the South Island and the expectations of our Government for 'better, sooner and more convenient health care' and a unified health system.

The aim of the Government's direction is to provide more personalised primary health care closer to home and to provide less complex services, traditionally provided in hospital settings, in primary care to keep New Zealanders healthier and reduce long waiting times and increasing pressure on hospital and specialist services.<sup>24</sup>

In achieving this aim, the focus will shift to general practice and primary care teams as the central point of continuity in the health system - managing the ongoing health of their enrolled populations and supporting people to care for themselves. With stronger community and primary based services, people's ongoing health needs will be met with less need for individuals to be referred to specialist services or residential care for episodes of treatment and/or care.

These shifts in national policy, already being reflected throughout the South Island, will enable more effective delivery of services by supporting people to get the care they need quickly and from the most appropriate provider. Moves to improve primary care access to diagnostics, sharing of patient records between health providers and making selected procedures available in general practice will support more effective delivery of services in the South Island and allow hospital and specialist services to focus on increasing demand for increasingly complex care.

The development of Integrated Family Health Systems and more collaborative support from non-physician health providers (e.g. pharmacists, registered nurses, dieticians and physiotherapists) will help general practice to function more efficiently. As more room is created in the health system, patient access to all services will improve.

### Integrated Model of Care

In looking across the whole of the health system, a generic model of care is supported which recognises the continuum of health from 'wellness' to 'end of life' and the full range of health needs over a person's lifetime. This health continuum model (illustrated below) is based on similar national and international models and takes a collaborative perspective of the continuum of care.

Figure 9 - Generic (patient centred) Model of Care



The model brings together the range of health and wellbeing interventions that make up the health system's response to improving health outcomes (i.e. health promotion, disease prevention, early intervention, conditions management, specialist and complex care and end of life services), which can be delivered by any number of providers. It focuses health planning on the patient and the provision of the 'right services, at the right time and in the right place' – irrespective of the provider - by prompting the following questions:

- What do we need to do to keep people well in the community?
- What do we need to do to ensure early detection and early intervention?
- What do we need to do to support people to better self-manage in a community setting, avoid unnecessary hospital admissions and slow the progression or deterioration of their condition?
- What do we need to do to ensure that when people require complex interventions, hospital care, specialist advice or diagnostics that they are available and provided by the right people at the right time and to a high quality standard?
- What do we need to do to provide appropriate and restorative support services so people can regain their functional independence after injury or illness and avoid further complications?
- What do we need to do to support and respect people dying with dignity and to listen to and meet their needs?

At a patient level, the model supports the development of integrated patient pathways through the system and supports service redesign and improvements to the patient journey by addressing the gaps and blockages. In this sense, the model also supports quality clinical outcomes by identifying with the needs of the patient rather than focusing on the provider, practitioner or service. The model also encompasses a Whanau Ora approach by allowing planners to take a holistic view of the person (or population) and be more aware of the determinants of health that influence their wellbeing.

<sup>24</sup> In September 2009 the Ministry of Health invited proposals from primary health care providers and/or primary health care organisations for the delivery of Better, Sooner, More Convenient Primary Health Care. The Canterbury and West Coast DHBs business cases were amongst the nine across the country that were approved for implementation.

The model can also be applied at a local, sub-regional or regional basis across DHBs. Supported by analysis of populations it can be used to facilitate and support discussion around appropriate service and facility configurations across the wider region.

The key focus is on ensuring that people receive the right treatment, at the right time, from the right provider and in the most appropriate setting. The success of the model and of integration is dependent on redrawing boundaries between providers and refocusing service delivery models away from traditional roles and definitions. It will require improvements in patient flow and the sharing of patient information, better use of available technology, support for more flexible workforce models and the connection of formally disparate services across service levels and DHB boundaries.

## 4.2 Implications for models of service delivery

Without detailed mapping or planning the patient journey for each and every service, it is impossible to accurately predict or predetermine future regional facility and service configurations. These pathways need to be defined by our clinical teams and through collective discussion and debate between DHBs and with our individual and collective communities.

However, in developing the conceptual framework the South Island DHBs have acknowledged that the future of healthcare will be very different from today. Alongside the integration and blurring of traditional primary and secondary services, the role of hospitals needs to be critically reviewed.

There is likely to be a greater distinction between existing primary and hospital facilities in terms of the services that they provide. While secondary and tertiary services are still likely to exist within DHB structures, they are also likely to be provided across a number of DHBs. The structure of facilities across the South Island is likely to be based around:

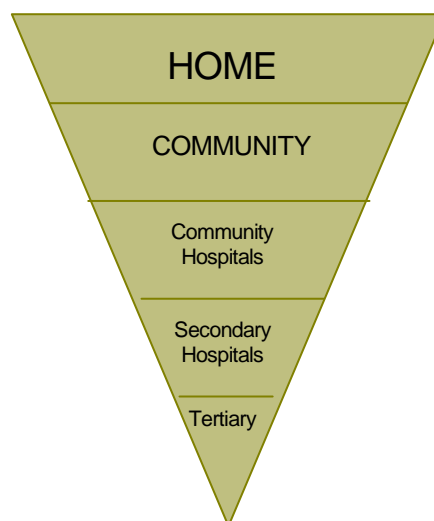
**HOME AND THE COMMUNITY** – More health care will be provided in people's homes and communities, including care for long-term conditions and rehabilitation following discharge from hospital. There will be a stronger focus on providing our population with the education and empowerment to manage on their own long-term conditions and to access health and hospital services only when necessary.

**INTEGRATED FAMILY HEALTH CENTRES (CLUSTERS OR SERVICES)** – these will be led by primary care and provide a full range of multidisciplinary primary care services, including some services that have traditionally been provided in hospital settings. These may include some traditional outpatient activity, community based and district nursing services, diagnostics and needs assessment. These are likely to be based in numerous settings, sized to take account of the population mass, and will not necessarily be aligned along existing referral lines but may be across geographic boundaries.

**COMMUNITY HOSPITALS** – these facilities will provide a range of less complex services including acute stabilisation and transfer services, visiting secondary outpatient services, primary maternity care, sub-acute care, rehabilitation for patients transferred from secondary and tertiary hospitals and appropriate day patient services including low level surgical activity.

**SPECIALIST AND SECONDARY HOSPITALS** – these facilities will provide core secondary services for sustainable catchment populations, potentially via in-reach type services from larger regionally based tertiary services. With regional direction, these facilities may develop areas of special interest and may also provide some tertiary services on behalf of the wider region.

**TERTIARY HOSPITALS** – these facilities will provide high-level specialist services on a regional basis, but also robust outreach services, from an outpatient, day patient, and where appropriate, inpatient level.



At this stage in our health services planning, we are not making any recommendations about the future configuration of hospital and specialist services across the South Island, but acknowledge that a process to work together to create cohesive service delivery model/s and make collective facilities planning decisions needs to be established in the coming year. As part of this focus, the broader implications of change need to be tested, such as the costs of technology to support alternative service configurations and service delivery, the impact of changes on the education sector and the economic and social impacts of patient or clinician travel on the wider community.

### 4.3 Workforce models and clinical leadership

Our future health system will continue to rely on dedicated health professionals, but there will be a heightened focus on multidisciplinary teams and increased flexibility - with our health workforce collaborating across sectors and outside of traditional service boundaries to improve the coordination of care and the transition between services for patients and service users.

Our traditional recruitment and retention strategies have been focused on physicians and nurses, but our future health system requires multidisciplinary teams who are supported to use the full extent of their education, skills and experience.

In this sense, while workforce is seen as a priority enabler to support our future direction, clinical leadership is a fundamental driver for improved patient care and a key contributor to increasing collaboration and teamwork locally and regionally. Active clinical leadership and engagement is critical if we are to ensure the clinical sustainability of services across the South Island.

Clinical leadership within South Island DHBs is supported through a number of mechanisms, including: Chief Medical Officers, Executive Directors of Nursing and Executive Directors of Allied Health, clinical patient safety and clinical leadership boards and clinical champions. There is also a clear focus on models of shared management/clinical leadership and multidisciplinary team and partnership approaches that actively support quality improvement strategies, the development of patient pathways and the redesign of service models.<sup>25</sup>

In terms of regional planning, one of the major strengths in the South Island is the collegial relationships that already exist between clinicians, which support the development of sub-regional and regional patient pathways and service continuums. These are not all formal relationships or networks, with many having evolved through necessity in support of colleagues or to support the care of individual patients. Some have also evolved to support vulnerable services and in areas of workforce shortages. While it is easier to 'count' or 'list' the more formal arrangements and networks, the value of these informal arrangements is also significant.

The Health Services Planning Steering Group has strong clinical representation. Each priority working group and network also has active clinical input and leadership, with multidisciplinary clinical representation and including representatives from the primary care sector as well as from hospital and specialist services (refer to Appendix 1 for a list of Steering Group members).

### 4.4 Alignment with future national directions

While not yet having finalised its Long-term Health Sector Plan, the National Health Board has recently released the document 'Trends in Service Design and New Models of Care: A Review'. This document does not represent Government policy, but identifies and summarises key trends in order to inform discussion and planning. It is seen by the National Health Board as a resource for planners of health services to identify and replicate successful models in order to meet New Zealand's health needs.

While the document does not cover detailed issues relating to particular service areas, it does provide a high-level analysis of emerging trends across health systems and health system responses to pressures and challenges. Similar to the South Island's conceptual framework, the national direction emphasises a shift in the health system as a whole rather than its constituent parts, and in this sense the focus and direction of our health services planning is aligned to the national direction.

Figure 10 is adapted from the national 'Trends in Service Design and New Models of Care' document and describes a shift in the way services are delivered, with the solid line representing current service configuration and the dotted line representing future service configuration. These follow a general theme of '*localise where possible, centralise where necessary*' and present four major service shifts:

- Prevention, self management and home-based services;
- Integrated family health centres, partnerships and teams;
- Hospital clusters and regional service provision; and
- Managed specialisation and consolidation into a smaller number of centres/hubs.

#### MAJOR TRENDS

Prevention, self management and home-based services.

Integrated family health centres, partnerships and clusters.

Hospital clusters and regional service provision.

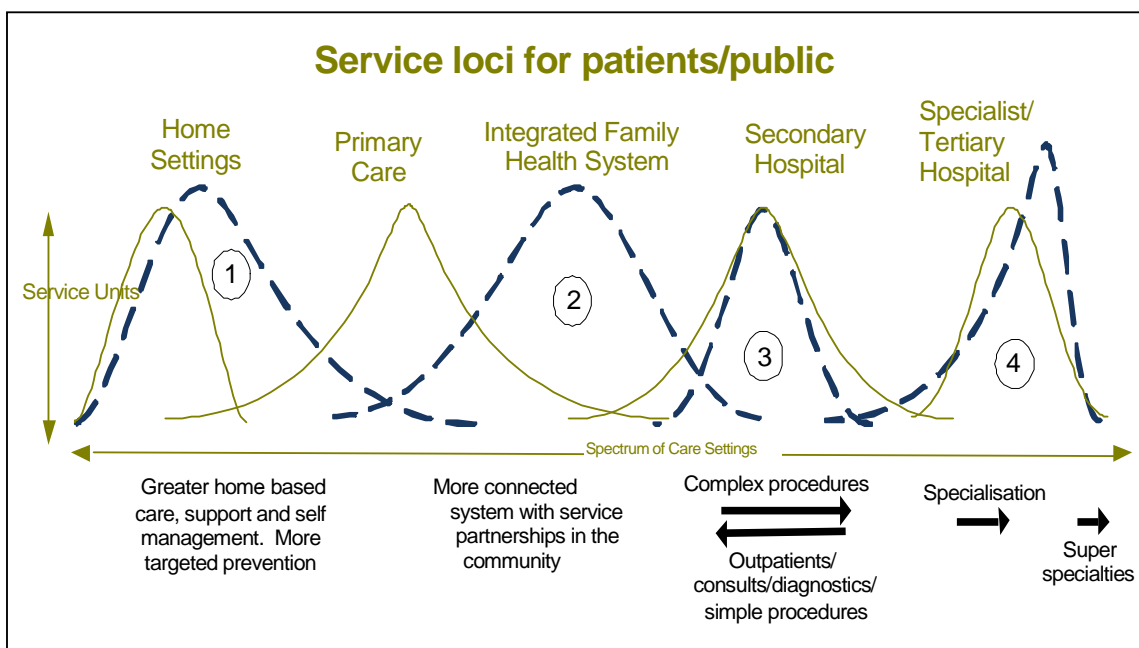
Managed specialisation and consolidation into a smaller number of centres/hub.

<sup>25</sup> Refer to Appendix 12 for snapshot of formal clinical leadership in the South Island DHBs.

The approach the South Island is committed to is aligned to this national direction. The integration of services, the focus on services close to people's homes and the transformation of primary care services is already happening across the South Island. Likewise, hospital clustering and regional service provision is also underway and is particularly evident in the evolving Southern DHB and West Coast and Canterbury collaborations.

The South Island's conceptual framework also acknowledges the drivers for consolidation of specialist services into a smaller number of centres/hubs. Over the coming year, we will be working towards delivering more clarity around service configuration and models of service delivery to support this. We also look forward to similar clarity from the Ministry around 'national/regional/local' service definitions and mechanisms for the support of vulnerable national services which could be replicated to support vulnerable regional services.

Figure 10 - Pictorial representation of shifts in service trends<sup>26</sup>



<sup>26</sup> Adapted from the Ministry of Health document, *Trends in Service Design and New Models of Care: A Review, 2010*.

## 5 Addressing Our Challenges

### How we operate – regional, sub-regional and cross-regional approaches

'The purpose of this collaborative and cooperative relationship is to provide a regional overview of health care and challenge the current service configuration to improve access, outcomes and sustainability. It allows five District Health Boards to forward plan and align their resources to meet the needs of their population and the wider combined region of the South Island.' Southern DHB District Annual Plan 20010/11

The South Island has made significant progress (under the Health Services Planning umbrella) at both a regional and sub-regional level to formally support a clinically and financially sustainable health service for the population of the South Island.

This includes:

- The establishment of a South Island Health Services Plan Conceptual Framework and an associated set of decision making principles;
- South Island DHB forums that inform and support regional planning. These include Chief Executives, GMs Planning & Funding, GMs Māori Health, Chief Operating Officers, Chief Financial Officers, Chief Information Officers, Directors of Nursing, and GMs Human Resources;
- 'Better, Sooner, More Convenient' health care initiatives in all South Island DHBs that align incentives for collaborative approaches to service delivery for the populations of the South Island;
- Mergers of PHOs in the Canterbury and Southern DHBs and the development of an integrated DHB/primary care structure in South Canterbury, which have reduced the number of PHOs in the South Island from 18 in 2008 to 7 PHOs;
- Sub-regional activity that has led to clinical and non-clinical collaboration, with at least 30 initiatives underway between the Canterbury and West Coast DHBs and the Southern DHB (previously the Otago and Southland DHBs);
- Realignment of DHB leadership teams to reflect our new direction, with increased clinical and primary representation. Joint clinical and non-clinical appointments have been made across traditional DHB and primary/secondary boundaries;
- Increased clinical leadership, which is driving regional initiatives across cancer, child health, ophthalmology, neurosurgery and mental health services, as well as all the sub-regional clinical activities; and
- A greater range of shared service activities to support a regional infrastructure in the South Island, with activities in all key areas: procurement, workforce and information systems.

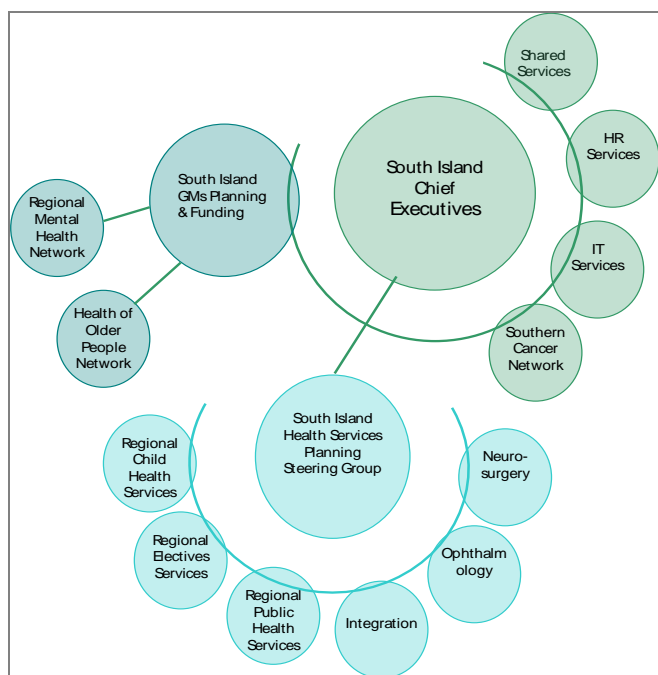
### 5.1 Our regional planning response – priority service areas

The approach to progressing South Island health services planning has been through active work streams based around the service areas prioritised for regional and sub-regional focus. These service areas have evolved through different mechanisms: some through national processes and some elevated locally as vulnerable clinical services or identified regionally as key enablers to change.

While the work streams and networks may have different reporting lines (refer to Figure 11), all operate under health services planning principles and terms of reference that focus on decision making for the good of the patient and the system. Each working group or network has multidisciplinary representation (both clinical and non-clinical), representation from each South Island DHB, and where appropriate, representation from across the wider health system including consumer representatives and representatives from the primary and community sectors.

Work plans for the various work streams and networks are signed off through their respective reporting structures and then by the combined Chief Executives Group. The agreed regional work plans have been identified by the South Island DHBs in their individual District Annual Plans 2010/11, and all action and activity is monitored by the Health Services Planning Steering Group, South Island GMs Planning and Funding, South Island Chief Executives and South Island Chairs Groups.

Figure 11 -South Island Health Services Planning Priority Service Areas and Reporting Structure



Appendix 12 provides an outline of the service areas identified for sub-regional and regional focus under the South Island's Health Services Planning umbrella and the agreed action plans for 2010/11.

## 5.2 Enablers to support our future direction

Without diminishing the role of any of these individual work streams and networks, a number of key enablers have been identified through the planning process which are central to supporting the service shifts needed to ensure the provision of safe and sustainable services in the future, and to implementing a 'whole of system' approach across the South Island.

These include consistent information systems, better use of available technology and aligned assessment and clinical protocols that will improve access to diagnostics, simplify the transfer of care between settings, improve discharge planning and support access to specialist advice without the need for a hospital appointment.

Along with a regional approach to workforce and shared business systems, these common systems will provide cost benefits and efficiencies by standardising operating environments and support the sharing of patient information between health professionals. More importantly, by supporting a more coordinated approach to the management of long-term conditions and a team-based approach to patient care, they will enable us to make the changes needed to support more community-based service delivery, better integrate service delivery, improve clinical quality and meet the increasing demand for health services.

### Information Services and Technology

The South Island's geography and population distribution present a number of challenges in terms of ensuring equitable access to health services. These challenges, alongside our focus on integrated patient pathways and the breakdown of traditional boundaries, place a clear focus on the importance of a regional approach to clinical and business information systems in our future direction.

By successfully improving the way we use the information and technologies available to us, we can make better use of our available workforce, enabling support, advice and training to be provided from a distance. There are also important benefits for patients in terms of providing them with better access to their own health information and allowing them to play a more active role in self care by improving and developing self management tools.

Currently much of the clinical and administrative information across the South Island is held in disconnected electronic and paper systems by individual service providers and DHBs. In most cases these individual organisations decide what information is relevant and what form the information should take. As a result, our health record system can be described

as an assortment of non-standardised patient information stored in isolated patient records held by individual providers. Across the five South Island DHBs alone, there are seven different patient management systems.

Consolidating systems, by improving information flow and access to patient information, will improve the quality of the services we provide and support clinical decision making. This will reduce misdiagnosis, inappropriate referrals, duplication of effort and unnecessary delays in treatment. Standardising data collection and systems for example will better support the transfer of patients between services, improve discharge planning and enable a team-based approach to patient care across traditional organisational boundaries. All of these are prerequisites for the success of our future direction.

Improving the way we use emerging medical and information technologies will also support us to enhance the accessibility of health care across the South Island, particularly in more rural areas. Telemedicine (e.g. remote monitoring, specialist consultation and remote surgery), for example, connects patients and health providers securely and confidently with pictures, voices and information. Effective health-care diagnosis and treatment can be provided no matter where people live, and access to specialist advice can be obtained without the need for travel or a hospital appointment.

A number of sub-regional collaborative initiatives are already achieving inroads in integrating information systems and improving the use of technology in the South Island, which will enable us to work as one health system in the future:

- **TELEHEALTH** - Using videoconference technology, we are supporting peer review and education forums to enable clinical support and learning between DHBs without the costs normally associated with conference attendance or the wait time previously associated with provision of specialist advice. Videoconference facilities between the West Coast and Canterbury DHBs are being upgraded, and a high definition network will be rolled out in early 2012.
- **ÉCLAIR CLINICAL REPOSITORY** - Laboratory results from the South Canterbury, Nelson Marlborough and Canterbury DHBs are all being sent to the Testsafe South Éclair Clinical Repository. This centralised repository supports electronic access to all the investigations relating to a patient at the point of care (in hospital and community settings), supporting faster diagnosis, lowering clinical risk and reducing duplication in terms of testing. Radiology reports are also already being loaded from Canterbury and will soon be coming through from South Canterbury.
- **CLINICAL WORKSTATIONS** - Concerto has been identified as the logical regional clinical workstation solution, as it is currently widely used in the Northern and Central DHB regions. The Canterbury and South Canterbury DHBs have embarked on a project to integrate their systems. The alignment of clinical workstations facilitates transfer of patients between providers, the provision of electronic discharge summaries and better supports primary-secondary integration. In conjunction with the alignment of Picture Archiving and Communication Systems (PACS) and Laboratory Systems, this suite enables the integrated and timely provision of patient information at the point of care.
- **PATIENT MANAGEMENT SYSTEMS (PMS)** - All South Canterbury GPs are moving to a single patient management systems by February 2011. The move to one PMS will bring many benefits including consistency when sharing data, collecting information, messaging and communicating between practices and will strongly support integration between primary and secondary care.

In going forward, the Government's National Health IT Plan links with national workforce and capital plans and makes a number of strategic decisions that will influence the future directions of IT services in New Zealand. In essence, it serves as a blueprint for what future information services need to look like to enable the health system to continue to provide high quality services to our ageing and growing population.

Building on the in-roads we are already making, the five DHBs have collectively assessed the current state of South Island information services and developed a Regional Information Systems Plan to achieve the significant task of aligning with the National Health IT Plan and supporting the direction of travel in the South Island.

This is the first stage of a five year implementation plan focused initially on five key areas: core applications, infrastructure, service delivery, primary care and information management. Given the range of products and systems currently in place, the approach to consolidation will be based on the lessons learnt from projects already underway –with preferred systems being identified and DHBs coming into regional alignment as their systems reach 'end-of-life' and need replacement.

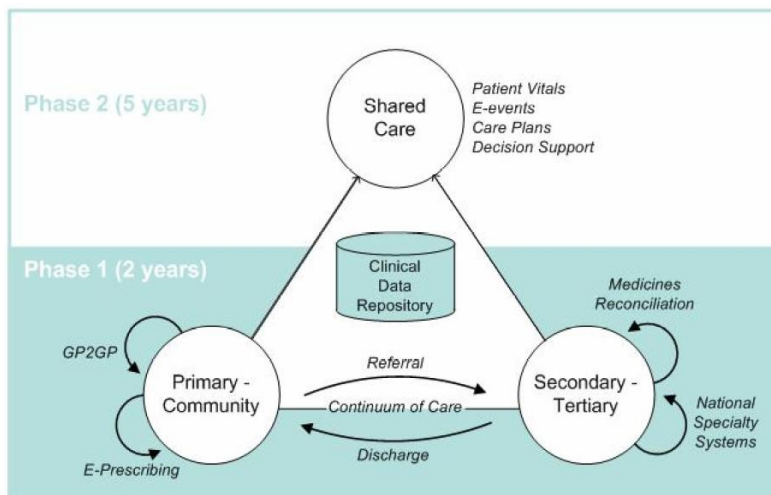
The action plan 2010-2015, includes the following deliverables, which are integral to the success of our future direction and will support our 'whole of system' approach and share care integration. Over the next five years the South Island DHBs will:

- Consolidate core applications (e.g. patient management systems, clinical workstations and repositories) to improve the accessibility and transfer of patient and clinical information, improve the quality of care and enable closer clinical collaboration;
- Agree network, technology, access and security standards for the South Island in order to deliver IT services on a common platform and enable the consolidation of office networks and internet gateways, protection and firewall services, data centres and communications infrastructure and a reduction in overall costs for the five DHBs;

- Centralise service desks to provide a single point of contact for users across the South Island and implement a regional procurement strategy, with preferred vendors and a regional licensing strategy for all IT services to leverage bulk discounted rates and reduce maintenance and licensing costs;
- Agree an IT service and system to be used across the South Island to support GP/DHB integration, clinical pathways and underlying technology standards to support projects such as e-referrals and e-discharge;
- Define data quality standards and standards on the collection, retention, storage and presentation of information to support regional collaboration portals and to improve interoperability between DHBs and other health providers; and
- Investigate and agree on regional governance for IT/IS investment and operational activity to support equity in decision making, a customer focused investment model and the 'pooling' of IT skills and specialist advice across the South Island.

Our Regional Information Services Plan is ambitious and contains a number of work streams that will need to be managed, prioritised and supported in order to be successful. Strong clinical leadership and the engagement of health professionals in changes that impact on clinical services essential; the Plan includes mechanisms for the active involvement of clinical leaders and clinical representatives.

### Shared Care Integration Model – National Health IT Plan



### Workforce and HR Processes

The changing demographics of our population are a significant issue for the whole of the health sector. National and international competition for scarce workforce resources in some clinical specialties and nursing areas, coupled with a decreasing working age population, makes it increasingly difficult to recruit and retain health professionals. Workforce pressures will have the biggest effect in terms of clinical working models, as clinical staff make up around 70% of New Zealand's health workforce.

- The total number of people employed by South Island DHBs (headcount) is 60,226;
- Canterbury DHB has the largest number of employees (7,599) and South Canterbury the lowest (758);
- The average age of the South Island DHB workforce is 45.2 years, slightly higher than the all DHB average of 44.2 years;
- 80% of our workforce is female, and females are more likely to work part-time than males, averaging 0.78 FTE while men average 0.90 FTE.

The South Island is fortunate in that our staff turnover rates are relatively low. Length of service can be considered an indicator for workforce stability within a DHB, and the average time spent in South Island DHB services is longer than the in the North Island – ranging from 7 to 9.2 years, compared to an average of 7 years nationally. However, as demand increases, workforce predictions enhance a sense of urgency to transforming the way we work and the development of alternative models of care to ensure we can continue to provide quality patient care in the future. If we don't work to

address the challenge we face with a declining workforce population, we will simply not have enough clinical staff to provide services to our population.<sup>27</sup>

Workforce pressures will pose a relatively greater challenge to smaller primary and community health service providers and smaller DHBs. This is particularly relevant in terms of the viability of specialist or 'vulnerable' services where they are dependant on a small number of people or a single specialist.

While we acknowledge workforce pressures as a key constraint in terms of future healthcare delivery, there are also many opportunities to work smarter and to make better use of our combined workforce. By supporting an active clinical leadership approach to good process design, a number of South Island DHBs are already implementing successful initiatives that are improving productivity and freeing up health professionals to provide more clinical patient care time.

To date, the majority of these workforce initiatives have been driven through the *Optimising and Improving the Patient Journey* programmes in our hospital and specialist services and through closer integration and collaboration with PHOs and general practice - where appropriate services being provided in primary care are freeing up specialists to focus on more complex cases. These efforts have allowed South Island DHBs to provide more care to our population.

Likewise, the two formal collaborations (the Southern DHB merger and the Canterbury and West Coast arrangements) have presented a number of opportunities to focus on a more regional approach to workforce. These collaborations have meant that the DHBs have been able to take a more formal approach to workforce planning, reduce the duplication of back-office functions associated with human resources (HR) services and make joint appointments between traditional DHB boundaries.

The following are key examples of our more collaborative approach, which is supporting more flexible working models across the South Island:

- **MAKING TIME FOR CARING** - These initiatives use a multidisciplinary approach focusing on team collaboration to improve ward processes and environments and deliver more direct care time to patients by minimising non-value added staff activities. Registered nurse direct patient care time has already increased (3.8% in Canterbury alone).
- **TAKING A WHOLE OF SYSTEM APPROACH TO WORKFORCE** - Anticipating future workforce flows, staff from community-based services are spending time working in hospital settings, acting as the interface to community and primary services. A number of joint senior clinical appointments have also been made across DHB boundaries, including Paediatrician/Senior Medical Officer and Executive Director of Allied Health appointments between the Canterbury and West Coast DHBs. This enables the health system to pool resources to better match workforce with demand, particularly in highly specialised but low volume service areas. The joint paediatrician, for example, spends two planned days each fortnight on the West Coast, rather than the previous arrangement where a paediatrician visited for two days every two months.
- **SHARED SERVICES APPROACH** - This approach improves consistency around functional activities and allows DHBs to 'pool' HR skills and specialist advice – without increasing headcount. It provides for a reduction in operating costs, while improving quality, efficiency and customer services. A number of shared services approaches have taken place since the merger of the Southern DHB, with a Southern Regional Executive Management Team and shared non-clinical services. The strategic benefits of clinical collaboration have also been recognised with a Southern Regional Clinical Services Strategy having been developed to better support future services design and planning. A single Human Resources (HR) Department is also now in place across Canterbury and the West Coast, which allows West Coast access to contemporary HR practice at no additional cost and Canterbury to learn from the West Coast's expertise and experience of rural health environments. Payroll and Health and Safety systems have been merged so far.

In progressing our future direction, the South Island recognises that health care can be delivered more effectively by allowing health professionals to provide services for which they are uniquely educated and skilled to deliver and that a modern system requires multidisciplinary teams and increased flexibility - with health professionals working across traditional boundaries to use the full extent of their education, skills and experience.

Over the coming year the South Island DHBs will support more than one kind of service provider performing a particular procedure or service and provide opportunities for health providers to expand their skills and training – meaning people will get the care they need quickly and conveniently from the most appropriate provider.

The combined South Island DHB HR General Managers group is working to understand the issues and opportunities we collectively face. The development of a regional workforce approach will help to navigate national, sub-regional and local issues and provide direction into a more comprehensive future regional health services planning. The GM's group links with national groups including Health Workforce New Zealand and DHBNZ. The direction adopted in the South Island will be aligned to national strategies and will build on the collaboration already underway in the South Island including:

- Completing the merger of the Canterbury and West Coast DHB HR systems, with adoption of common technologies for employee engagement, recruitment, performance management and learning and development to improve services and reduce overall operating costs;

<sup>27</sup> National figures from the DHBNZ Future Workforce Health Workforce Information Base Data Report as at September 2008.

- Integrating four South Island payroll systems into one, with the adoption of single policies, procedures and contracts to enable closer collaboration and improve long-term planning;
- Developing a single South Island HR approach and capability framework - that covers policy, strategy, shared services work, payroll, learning and development, industrial relations, health and safety, HRIT/metrics, etc. This collective approach will increase consistency of employment practice across the South Island, improve inter-operability between DHBs and increase the ability of HR Departments to assist each other with significant projects and peer review;
- Further active informal and formal sharing of clinical and non-clinical resources between DHBs and across primary and secondary services – with the aim of providing improved peer support and greater professional development opportunities to reduce the service vulnerability for small services and support new models of care and integration of service aligned to our future direction;
- Supporting the implementation of the 'Better, Sooner, More Convenient' approach and Integrated Family Health Systems which support the use of non-physician health providers (pharmacists, registered nurses, dieticians, physical therapists, etc.) to support general practice, and in turn our secondary services, to function more efficiently;
- Addressing barriers that currently limit health-care providers from working to the full extent of their education, skills and experience – such as improved access to diagnostics, shared information systems, standardised patient pathways and referral processes and specialist advice without the need for a hospital referral or appointment;
- Supporting a more seamless curriculum and learning approach across the South Island health system and consideration of a single framework for management and leadership training, in discussion with the two South Island Universities and the South Island Polytechnic Institution;
- Progressing the development of a regional clinical education and training unit (RCETU) between the Canterbury DHB and University of Otago - focussed on Resident Medical Officers including trainee interns for the Canterbury and West Coast districts. This will strengthen current clinical education and coordination with current education providers and specialist colleges, as well as providing a basis for inter-professional learning activities with other areas of postgraduate education, including nursing and allied health.

Nationally and regionally workforce programmes are also focused on recruitment and training of skilled health workforce and include initiatives and incentives to encourage health professionals to work in locations where there are more critical workforce shortages. New Zealand's health workforce supply is responsive to a range of policy levers. This means that if we can establish the level and mix of health workers that the community requires, policies can be devised to adjust supply to that level. We are committed to taking a responsive approach to planning, training, ongoing learning and resourcing that meets future needs and expectations and to improving the integration of workforce planning between the health and education sectors.

## Shared Services and Systems

In order to deliver a more clinically and fiscally sustainable health system and to meet the increasing needs of our populations, the South Island health system must make more effective use of its combined resources and infrastructure and improve the way that services are organised and delivered.

Part of this direction includes planning what is best for the patient across the region; ensuring the five DHBs have consistent approaches to service improvements and that decisions being made by one DHB are not adversely effecting services or outcomes in another. Service improvements in Older Persons' Health, Mental Health, Child Health and Cancer services are being supported by the regional health services planning work streams that help to ensure consistency and reduce inequalities across the South Island. Shared assessment tools and standardised clinical threshold and patient referral pathways will also help to reduce inequalities across the South Island and will support the integration of services in line with our future direction.

Shared tools and standardised definitions (e.g. shared forecasting and production planning tools) will improve inter-district planning and support a better understanding of gaps, barriers and regional capacity. Over the longer-term, the development of these tools will also improve facilities and asset planning and enable the South Island to take a more collaborative approach to understanding and prioritising capital requirements.

In developing a Regional Elective Services Plan, the South Island DHBs have already worked collectively to understand the wider regional picture from a geographical and population perspective (including population need) in order to understand the total elective services capacity across the South Island. This work has helped to optimise the use of public sector capacity by re-balancing individual DHB constraint and capacity. The next step is to better understand the relative unmet need across the South Island and to establish an appropriate balance at a regional and local level to meet the increasing demand of our collective population going forward.

The South Island's regional approach to shared resources and aggregated procurement (e.g. a shared payrolls system and a shared approach to software licensing) is also further supporting improved purchasing power opportunities that are

already providing significant savings. Our Strategic South Island Procurement work plan is focused on the highest value purchases and includes a process for aligning contracts whereby DHBs 'opt-on' to contracts with more favourable rates and conditions – allowing operation savings across the South Island.

Already through combined influence, planning and alignment the South Island has been able to improve the services delivered to its population:

- **REGIONAL ELECTIVE SERVICES PLAN** - The development of this Plan has allowed individual DHBs to make formal clinical arrangements around the delivery of services and better plan capacity and workforce needs - improving regional outcomes, without putting delivery of services to individual populations at risk. Collectively the South Island DHBS increased access to elective surgery by over 10% on the previous year, delivering more than 36,300 discharges in 2009/10;
- **PRODUCTION PLANNING** - Collaborative work on the development of standard production planning tools has enabled the five South Island DHBs to pull together the merits and strengths of their different approaches and to agree on core assumptions that will better identify capacity across the wider South Island; and
- **PROCUREMENT** - Comprehensive alignment of capital purchasing activity across the South Island in the past year, including items such as echo cardiology equipment and pain management pumps, has achieved over \$1.5million worth of saving over the past year.

Over the coming year, further work is planned to align assessment processes, definitions and practice to further improve service delivery and to reduce inequalities in access and outcomes across the South Island. This work will also contribute significantly in aligning services and business rules and better support the integration of services across primary and secondary boundaries as well as across DHBs. Actions and activity planned for the coming year include:

- Developing a better understanding of the current intervention rates and the levels of unmet need in the South Island to ensure and improve our evidence base to support investment in future years;
- Providing equitable access to elective surgery across the South Island through improved clinical threshold management and a structured and sustainable approach to meeting national expectations around increasing elective surgery volumes;
- Developing a dictionary of share terms and a common, standard production plan for the South Island with business rules that will enable transparency across the five DHBs;
- Delivering 35,668 elective surgical services in 2010/11 to meet national expectation (an increase of 1,553 additional volumes across the South Island);
- Introducing the InterRAI assessment tool across the South Island.<sup>28</sup> This tool will provide a standardised assessment process to guide equitable access to services (based on need) and reduce inconsistencies in assessment between DHBs. People throughout the South Island will receive a fair and consistent assessment of their needs and an equitable level of service. The tool will also provide the opportunity to remove duplication in assessment and provided an enhanced information base to support good care management and better support for older people in the community or in their own homes;
- Increasing clarity around roles and clinical support functions across the mental health sector through regional projects and strategic plans such as the South Island Forensic Plan and draft Eating Disorders Plan. This clarity will help to reduce traditional boundaries around health care and to better integrate patient pathways across the whole system, with a wider focus on sustainable regional service delivery;
- Further reviewing procurement policies, procedures and practices in order to identify areas of opportunity where improvements and operational savings can be made by standardisation;
- Focusing on opportunities around overall agreements (bulk agreements with individual suppliers rather than many smaller product-based agreements) and increasing collaboration on capex purchases; and
- Aligning with the national work plan of the Shared Services Establishment Board to take advantage of opportunities to reduce duplication and waste in the system, particularly around procurement and supply chain activity.

With the establishment of the National Health Board and an additional emphasis on regional planning and regional service delivery, we have a number of opportunities to take advantage of positive national changes to ensure that a strong and sustainable health system exists in the South Island.

<sup>28</sup> InterRAI – the International Resident Assessment Instrument is a comprehensive geriatric assessment tool.

## 6 Next Steps

### Making progress with regional planning

A sustainable future for the South Island needs to be based on a culture of trust that supports innovation, drives improvement and achieves lasting transformation through a framework that allows DHBs to support the unique needs of their individual populations while collectively improving health outcomes for everyone in the South Island.

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This Plan is just the beginning of the road towards health services planned for the whole of the South Island. There is much to be done to ensure sustained change in the way in which we design, deliver and fund health services to reduce health inequalities and improve outcomes for our collective population. In developing our conceptual framework we have agreed a set of planning and decision making principles that provide a strong platform on which to build increased regional capacity in the South Island and to respond to the challenges we will continue to face.

However, achieving our vision will require us to give effect to these principles and the commitments we have made to regional planning and collective decision making.

To be in a position to present a comprehensive Regional Health Services Plan and support the sustainable and effective arrangement of services in the South Island; individual DHB decisions and investments cannot be at odds with needs of the wider region. It is vital that our actions and investments are better coordinated and are made in the context of our agreed regional direction - by focusing our collective effort, influence and resources we can make more of an impact on the health and wellbeing of our populations.

The next steps towards a more comprehensive Plan will be informed through:

- National Health Board and individual DHB feedback on the draft South Island Regional Health Services Plan;
- The change in legislation and the position of regional planning in the accountability framework, requiring key decisions in relation to regional governance, the role of each District Health Board, and community consultation;
- The strategic review of shared services (including SISSAL) due to be completed in November 2010; and
- The completion of a number of key regional documents including the South Island Regional Information Systems Plan 2010-2050 and South Island Regional Electives Production Plan

A facilitated workshop of key stakeholders will be held late 2010. This workshop will take the information from the above areas to inform the approach and opportunities to work effectively for the good of all going forward.

The role of individual DHB Boards and of our communities in regional decision making and how the local 'voice' is heard at a regional level is an important consideration. The buy-in and support of local Boards and communities is vital in moving forward and making sustainable changes in the way in which we deliver services around the South Island. Clarifying these roles and the way in which our communities have input into regional planning is an important step in developing more comprehensive regional plans.

#### 6.1 Critical success factors – action plan 2010/11

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The following have been identified as critical success factors or key challenges associated with implementing the regional planning approach. These are focused on the key enablers which are needed to support integrated service models and service delivery, and are the outcomes the South Island DHBs will need to deliver in the coming year to improve health outcomes for our collective population and as part of the development of a more comprehensive Regional Health Services Plan.

Goals	Approach	Action	Activity 2010/20111
Focus on the needs of the patient – support people to stay well	The DHB takes the lead role in facilitating coordination of all activity that makes up the health system's response to improve health outcomes	Better sooner, more convenient initiatives Alliance contracting Population initiatives	Collaborative service delivery approaches agreed and implemented across primary & secondary services in all DHBs. Alliance contracts agreed with Primary Health Organisations in Nelson Marlborough and Canterbury DHBs to better support decision making closer to the patient. South Island public health approaches to tobacco, alcohol, & whanāu ora agreed and implemented 2011/12. Implement a common service specification and funding model for the reconfiguration of home support services on a restorative model.
Improve the co-ordination and delivery of care	Development of integrated patient pathways across the system through service redesign and addressing gaps and blockages to improve the patient journey	Integrated Family Health service developments Sub regional and regional service models developed Regional approach to elective service planning	Better, sooner, more convenient plans for pathways across the continuum of care are implemented across agreed services Integrated Family Health Care Centres/cluster planning progress in agreed locations (Golden Bay, Westport, Greymouth, Kaikoura, Amuri, Methven, Rakaia, Darfield, Temuka/Geraldine, Twizel/Kurow/Omarama, Urban Timaru, Lakes District Implement the regional dementia advisory service Develop and implement regional mental health models of care for Mothers and Babies, Eating Disorders, Medical Detoxification, Child and Family, Youth Inpatient and Child and Youth AOD residential. Develop interface guidelines between Mental Health and Disability Support Services that improve outcomes for all service users. Implement the recommendations in the SI Forensic Strategic Plan. Identify efficiency gains, improvements and recommendations from the Regional Bowel Cancer report. Establishment of a regional Cancer service for Adolescents and Young Adults.
Provide timely and appropriate access to services	Systems that support quality clinical outcomes through the focus on the needs of the patient	Sharing of resources to support service delivery Innovative practices shared and rolled out across the South Island Regional tools and protocols agreed	Implement approaches to improve quality in aged residential care, in particular, issue based audits and clinical leadership Implement standardised eligibility criteria and processes for entry to home based and residential care services Implement the agreed elective service production planning tool in time for the 2011/12 year Agree common tools and sub specialty service planning requirements for ophthalmology by Jun 2011. Implement in 2011/12 Agree common tools and best practice guidelines for paediatric services West Coast / Canterbury service frameworks and Southern DHB one service, many site approach agreed and rolled out across clinical services.

Goals	Approach	Action	Activity 2010/20111
Make effective use of resources and infrastructure		<p>South Island shared service arrangements agreed</p> <p>Clinical quality systems in place – including education, training</p>	<p>Procurement</p> <ul style="list-style-type: none"> <li>▪ Overarching agreements in place with identified key providers.</li> <li>▪ Shared contracts for identified key products and services including medical gases and medical waste completed.</li> </ul> <p>South Island Information Systems</p> <ul style="list-style-type: none"> <li>▪ Strategic Plan agreed and implementation plan agreed</li> <li>▪ Common clinical systems implemented between Southern DHB facilities and Canterbury, West Coast and South Canterbury DHBs</li> <li>▪ South Island Clinical Cancer Information System implemented</li> <li>▪ InterRai implemented across the South Island DHBs</li> <li>▪ Consolidate, integrate and standardise standards, telecommunication services, data centres and data/applications and core communications network.</li> <li>▪ Implement Information Management standards and policies, implement a standard Security Policy and associated standards across SI, to start using SI procurement and licensing approach.</li> </ul> <p>Workforce</p> <ul style="list-style-type: none"> <li>▪ Develop SI approach and capability framework to workforce development, supporting national approaches, and workforce development within current resources</li> <li>▪ Agree workforce initiatives and planning (linked with national network), for public health, ophthalmology &amp; child health services in 2011</li> <li>▪ Develop a regional approach to supporting carers</li> <li>▪ Single payroll system from four; single MECA interpretator from individual DHB decisions; single policies, procedures and contracts.</li> <li>▪ Single structure established that advises on policy, strategy, design and piloting; shared services transactional work relating to recruitment, payroll, learning and development industrial relations, health and safety, HRIT/metrics.</li> </ul>

## 6.2 Measuring our success

While achieving the critical success factors will provide the foundations for sustainable change in the South Island. The Government's health targets are a national set of performance measures specifically designed to lift improvement across the health sector by providing a focus for action. They are also seen as a means of measuring whether or not the health system is making a difference in improving the health and wellbeing of New Zealanders.

The South Island DHBs are committed to continued progress towards achieving the national health targets and supporting each other to improve our regional performance and public confidence in the health system.

Performance against a number of the health targets will be improved either directly or indirectly through the work plans of a number of services areas prioritised for regional and sub-regional focus including: shorter stays in ED and access to elective surgery through the elective services work stream and improved production planning; shorter waits for cancer treatment through the work of the South Cancer Network; improved immunisation rates and better help for smokers to

quit through the child health and public health work streams; and better cardiovascular and diabetes services through integration and the implementation of the national 'Better, Sooner, More Convenient' direction.

Health Target	Measure	2010/11 National Targets	Current Sth Island Performance Range	Current South Island Av Performance <sup>29</sup>
Shorter stays in ED	Patients admitted, discharged or transferred from ED within 6 hours.	95%	Q4: 74% - 100%	90%
Improved access to elective surgery	Volume of elective surgery discharges delivered.	4,000 discharge increase on previous year's volumes	Q4: 101% - 110% delivery against target	Combined total delivery: 36,312 26% of the total national delivery (2% higher than the South Island's share of the NZ population)
Shorter waits for cancer treatment	Patients needing radiation treatment receive it within 4 weeks.	100% by December 2010	Q4: 89% - 100% within 6 weeks	98% within six weeks
Increased immunisation rates	2 year old children fully immunised.	90% by July 2011	Q4: 85% - 95%	91%
Better help for smokers to quit	Hospitalised smokers provided with advice and help to quit.	90% by July 2011	Q4: 52% - 75%	57%
Better help for smokers to quit	Smokers identified in primary care provided with advice and help to quit.	80% by July 2011	Not yet measured	Not yet measured
Better diabetes and cardiovascular services	Increased percentage of the eligible adult population has CVD risk assessed once every 5 years.	Increase on current performance	Q4: 63% - 76%	71%
Better diabetes and cardiovascular services	Increased percentages of people with diabetes receive free annual checks.	Increase on current performance	Q4: 43%- 62%	49%
Better diabetes and cardiovascular services	Increased percentages of people with diabetes have satisfactory or better diabetes management.	Increase on current performance	Q4: 77%- 83%	79%

<sup>29</sup> Data sourced from Ministry of Health End of Year 2009/10 Health Target Results

# 7 Appendices

## SOUTH ISLAND HEALTH SERVICES PLAN



## 7.1 Health services planning steering group

### APPENDIX 1

The South Island Health Services Planning Steering Group membership is made up of a mix of representatives from each South Island DHB, their executive teams, the Combined Trade Unions and Ministry of Health.

Position	Person	Primary Linkages
Chief Executive Officer (Chair)	Chris Fleming (SCDHB)	SI CEOs, DHB of employment
Chief Operating Officer	Lexie O'Shea (SDHB)	SI COOs, DHB of employment
Chief Medical Advisor	Richard Bunton (SDHB)	SI CMOs, DHB of employment
Director of Nursing	Mary Gordon (CDHB)	SI DoNs, DHB of employment
GM Planning and Funding	Sharon Kletchko (NMDHB)	SI GMs PandF, DHB of employment
Chief Medical Officer and General Practitioner	Carol Atmore (WCDHB)	SI Primary Care, DHB of employment
GM SISSAL	Rob Weir	SI CEOs, SI Health Services Planner
GM Maori Health	Harold Wereta	Te Herenga Hauora o Te Waka o Aoraki
Combined Trade Unions	Chris Wilson	Trade Union Representative
Ministry of Health	Siobhan Brown	DHB Relationship Manager Ministry of Health

## 7.2 Regional health services planning principles

### APPENDIX 2

Equity of Access	Clinical engagement	Quality and safety	Clinical sustainability
<p>Planning will be based on the health needs of our constituent communities</p> <p>Historical demand and service provision will not determine future needs.</p> <p>Planning for health services relates to recognising and planning for changing demand and providing an equitable level of service for the population catchments with a continuing focus on reducing inequalities in health status.</p>	<p>Clinician input, through active clinical leadership, into the planning and decision making process is recognised as a critical component of the success of the SIHSP</p>	<p>The health consumer is the primary focus of any model of health care quality management</p> <p>Health treatment and care is based on the best available evidence with appropriate monitoring and evaluation.</p> <p>All health care providers have access to systems that enables outcomes of care to be assessed</p> <p>Quality of care systems that focus on: safety, access, effectiveness, efficiency, acceptability, appropriateness, and consumer participation.</p>	<p>The identification of future need and supply of clinical skills.</p> <p>Design of service delivery models that allow appropriate access, meet credentialing requirements, support evidence based practice, and are consistently delivered to a high standard of quality and safety.</p> <p>Clinical education and ongoing training for all health care providers must be considered to ensure quality service delivery</p>
	<p>Patient centred consumer involvement</p>		
	<p>Health care services will be co-designed with service users including the patient.</p> <p>This will be a collaborative process allowing a sharing of perspectives and experiences.</p>		
Māori health service needs	Community engagement	Continuum of care	Fiscal sustainability
<p>We recognise our commitment to partnership with Maori</p> <p>We recognise that Māori in our communities do not have equal access to health care or equal health outcomes.</p> <p>We aim to reduce health disparities by planning for services to address these</p>	<p>The Community will be informed and involved so that they have an awareness of the SIHSP, the drivers of sustainable health services that may result in changes to health service configuration and can accept the outcomes as being in the long term best interest of the population</p>	<p>SIHSP will consider the full continuum of care</p> <p>Continuum of care refers to services and integrating mechanisms that guide and track patients/clients over time through a comprehensive array of services spanning public health through to tertiary and including supports required to enable service delivery</p>	<p>Acknowledgement that efficient and effective use of resources will be required across the SI.</p> <p>Resources include workforce, facilities and infrastructure (including: information systems, clinical equipment, and transport) to deliver the models of care within the allocated funding system.</p>

## 7.3 Regional collective decision making principles

### APPENDIX 3

#### Decision Making Principles

- The parties will be proactive to ensure that decisions required are made in a timely manner. Where delays in decision making are unacceptable to any of the DHBs, they can trigger escalation.
- Decisions will be taken at the lowest level that meets individual DHBs delegated authority policy requirements, and escalation will only be used if agreement cannot be reached after reasonable attempts to resolve disagreement.
- Where decisions are required of the Chief Executive Group and beyond, documentation will include detailed cost benefit analysis and an impact analysis which demonstrates both the collective and individual DHB impacts. Evidence that the South Island CFO's have supported the cost benefit analysis, and that the relevant Senior Leadership (such as GM's Planning and Funding, COO's, HR, CMO's, DON's etc) have supported the robustness of the impact analysis and recommendations will be included in the papers.
- As much advance notice of decision making requirements will be given as possible. This is particularly pertinent where the decisions are significant or it is reasonably foreseeable that there will be either divergent views or significant stakeholder interest. Advance notice will be considered as a part of the relevant groups planning processes.
- Where a decision is required to be made, this will be noted through the appropriate agenda, together with supporting papers, distributed with no less than 5 working days notice, unless shorter notice is supported unanimously by the parties making the decision.
- Decisions will be by consensus.
- In the event that a DHB is unable to attend the meeting, either through the substantive member or an alternate, the relevant DHB will either appoint a proxy or they will subsequently confer with the Chair of the meeting to determine whether they can support the consensus reached by the attending parties
- It is noted that each DHB has slightly different delegations policies, and because of this time needs to be provided in any planning process to allow significant decisions to be taken back through individual DHB internal processes. This will be accommodated in planning processes.
- Where consensus agreement cannot be reached the relevant group will agree to either:
  - Seek independent input or mediation to attempt to resolve any disagreement, or
  - Escalate the matter through the escalation pathway noted below.

Key determinants behind whether independent input/mediation/escalation will be used are the relevant group views as to:

- likelihood of successful resolution of the disagreement in a timely manner; and/or
- whether time constraints permit delay.

Where agreement cannot be reached, the parties will document their perspective of the matter to ensure the party or parties to whom the matter has been escalated are fully informed of the difference of views.

- Where independent input or mediation is chosen, the District Health Boards will appoint the independent adviser / mediator by consensus decision. In the event that consensus is not reached the Director General or nominee will be the default mediator.

#### Escalation Pathway

The following is the escalation pathway:

- Operational groups to Chief Executive group;
- Chief Executive Group to Chair Group; and
- Chair Group to Shareholding Ministers.

## 7.4 Changes to the legislative environment

### APPENDIX 4

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The New Zealand Public Health and Disability Amendment Bill 2010 (134-1) proposes amendments to the New Zealand Public Health and Disability Act 2000 to support reforms that enable provision of high-quality health care and disability services within projected affordability, taking into account increasing demand for services.

Included are amendments to:

1. Amend planning requirements for DHBs in order to provide a planning and accountability framework that takes account of national, regional, and local requirements;
2. Amend the objectives and functions of DHBs specifically to ensure that DHBs work together for the most efficient and effective delivery of services to meet national, regional and local needs;
3. Support the provision of shared administrative, support and procurement services across the whole of the public health system, including additional powers to require greater system collaboration and use of shared services;
4. Extend regulation-making powers in the current Act relating to arbitration and mediation, particularly where there are disputes between DHBs about how national, regional and local requirements are best provided for;
5. Make structural changes to enhance quality improvement activity, including the establishment of a new Crown agent, the Health Quality and Safety Commission; and
6. Enable the appointment of elected DHB members to the boards of other DHBs and require DHBs to obtain Ministerial approval before establishing any committee of the board for a particular purpose.

With regard to Planning, the Bill:

1. Adds a new objective that requires DHBs to seek the optimum arrangement for the most effective and efficient delivery of health services, needs-based and across national, regional and local boundaries;
2. Adds a new function that requires DHBs to collaborate with other relevant organisations to plan, co-ordinate at local, regional and national levels for the most effective and efficient delivery of health services;
3. Replaces the requirements for DAPs and DSPs with a planning framework that requires DHBs to prepare a 'Plan' for each financial year beginning on or after 1 July 2010, enables the Minister to direct a DHB to prepare or contribute to one or more Plans and requires that any DHB that is a party to a Plan must give effect to it;
4. Provides a process the Minister of Health may use to resolve disputes over the contents of a Plan and requires that a DHB that is part to the dispute must give effect to the decision of the Minister; and
5. Provides criteria and requirements for the Plans including addressing:
  - a. Local, regional and national needs for health services;
  - b. How health services can be properly co-ordinated to meet those needs; and
  - c. The optimum arrangement for the most effective and efficient delivery of health services.

## 7.5 A snapshot of the South Island - additional demographics and demand

### APPENDIX 5

This section supports Section 3 of this document '*Identifying the Challenges*' and is based primarily on information from the following sources: Statistics New Zealand 2006 Census data; survey of services with a potential service risk failure undertaken by the South Island Shared Services Agency Limited (SISSAL) in January 2009; South Island Health Needs Assessment undertaken in 2008 by the Public Health Intelligence Division of the Ministry; demand modelling undertaken by SISSAL in August 2010; the draft District Annual Plans and Statements of Intent of the five South Island DHBs written in 2010 and the West Coast and Canterbury Better, Sooner, More Convenient Business Cases.

## Demographics

### Population Ethnicity

In contrast to the national population, the South Island has a higher proportion of people identifying as European/Other and a lower proportion of people identifying as Māori or Pacific. However, our Māori and Pacific populations are projected to increase by 34% and 46% respectively from 2009 to 2026, compared with 6% for the remainder of the population, as presented in Table 1.

This increase represents a more rapid growth in the Māori and Pacific populations in the South Island than in New Zealand as a whole, where the Maori and Pacific populations are expected to increase 25% and 37% respectively from 2009 to 2026.

In terms of the individual DHBs, West Coast has the highest proportion of Maori (10% of the West Coast population), Canterbury the highest proportion of Pacific people (2.2%) and South Canterbury the highest proportion of European/Other (92.6%).

Table 1 - Projected Population by Ethnic Group, South Island and New Zealand, 2009-2026

Ethnicity	South Island				New Zealand			
	Māori	Pacific	Other	Total	Māori	Pacific	Other	Total
2009	85,450	17,700	922,400	1,025,550	658,250	275,855	3,381,250	4,315,355
2011	89,130	18,640	936,280	1,044,050	680,080	288,205	3,450,100	4,418,385
2016	97,960	21,090	955,290	1,074,340	731,340	318,260	3,567,210	4,616,810
2021	106,150	23,400	970,360	1,099,910	777,380	347,230	3,677,690	4,802,300
2026	114,100	25,855	981,800	1,121,755	821,460	376,140	3,777,520	4,975,120
Change 2009–26	33.5%	46.1%	6.4%	9.4%	24.8%	36.4%	11.7%	15.3%

### Population Health Status and Inequalities

Inequalities can be gender-based, ethnic, socio-economic or geographic, and many are driven by social and economic determinants which are outside of the direct influence of the health system. However, the effects of these determinants can be compensated for by well targeted services, or further increased by poor access to services resulting in people presenting late with more complex or multiple conditions.

The outcomes (life expectancy and overall mortality rates) and rates of avoidable hospitalisation and avoidable mortality (that could potentially have been avoided through population-based intervention or through preventative and curative interventions at an individual level) are lower in the South Island than in all of New Zealand. However, there are differences between DHBs.

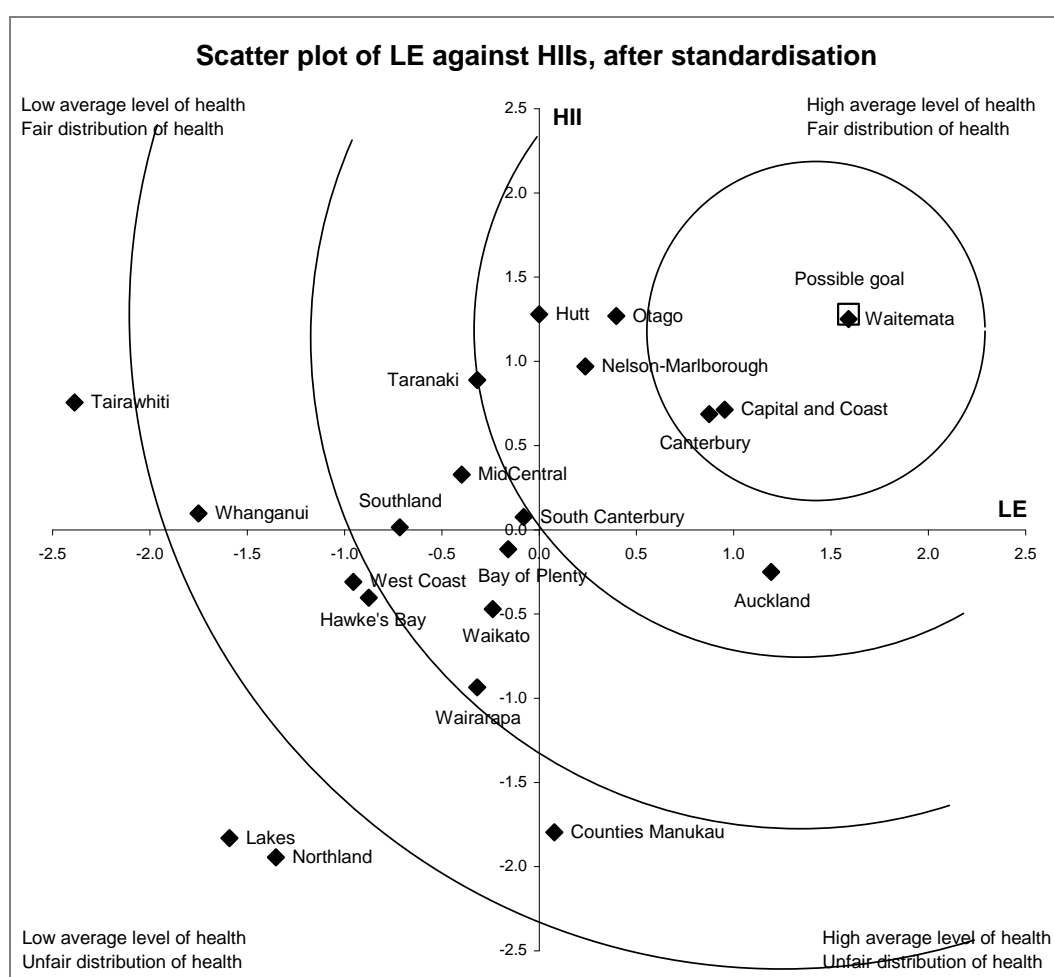
For example rates of amenable mortality (a subset of avoidable mortality but restricted to deaths of conditions that are amendable to healthcare) between 2001 and 2004 (adjusted for age, sex, ethnicity and deprivation) range from 156.5 per

100,000 in Nelson Marlborough, 160.9 in Canterbury, 169.2 in Otago, 182.0 in West Coast, 182.4 in South Canterbury, to 183.9 in Southland. This compares to the lowest rate of amenable mortality in Waitemata, at 134.6, to the highest rate in Whanganui, at 188.6 and suggests that there are some changes that could be made to reduce inequalities between South Island DHBs.<sup>30</sup>

Males had significantly higher rates of avoidable hospitalisation and mortality than females in the South Island. The four leading causes of avoidable mortality in the South Island are the same as those for the whole of New Zealand: ischaemic heart disease; lung cancer; colorectal cancer; and suicide and self inflicted injuries. Chronic obstructive pulmonary disease was also a leading cause for the South Island. Diabetes, as an underlying causative factor in a significant proportion of circulatory disease, also contributes significantly.

Figure 12 shows the population life expectancies and health inequality indexes of the South Island DHBs compared to other NZ DHB populations, weighting the district average life expectancy at birth with the distribution of inequality of health (HII). The range of life expectancy is five years between DHBs, and two years between the Canterbury (at the higher end) and West Coast (at the lower end).<sup>31</sup>

Figure 12 - DHB Life Expectancy Plotted Against Health Inequality Indexes by DHB, 1999–2003



A key determinant of inequality is the level of socio-economic deprivation. Socio-economic deprivation can be measured via the NZDEP index (derived from variables contained in the Statistics NZ Census about factors such as income and employment). Living in areas with a lower deprivation score is associated with better health status than higher scores.<sup>32</sup>

30 Ministry of Health 2010. *Saving Lives: Amenable Mortality in New Zealand, 1996–2006*. Wellington: Ministry of Health.

31 Ministry of Health. 2005. *Monitoring Health Inequality through Neighbourhood Life Expectancy: Public Health Intelligence occasional bulletin no. 28*. Wellington: Ministry of Health. Available on: <http://www.moh.govt.nz/moh.nsf/pages/mh/4142>

32 White P, Gunston J, Salmund C, Atkinson J, Crampton P. 2008. *Atlas of Socioeconomic Deprivation in New Zealand NZDep2006*. Wellington: Ministry of Health.

For New Zealand as a whole, the distribution across measures of deprivation is fairly even. In the South Island, there are more people living in areas with a low socioeconomic deprivation score associated with a more affluent population and a better health status. In 2006, 12% of the total population of the South Island population lived in areas with the lowest NZDep score, whereas 4% live in areas with the highest NZDep score.<sup>33</sup>

## Demand

### Hospital and Specialist Services

The demand modelling project (undertaken by SISSAL, the South Island DHBs and the Ministry of Health) uses demographic growth forecasts to estimate inpatient bed requirements on the basis of demographic change over time, against current physical bed capacity - but without taking into account future changes to models of care or service configuration.

The bed demand modelling (adjusted for occupancy rates) predicts that bed requirements in the South Island will have increased by 80 beds between 2009 and 2011. Beyond 2011 they are projected to increase by between 200 and 275 beds. This modelling suggests that by 2026 projected activity will require a total of 2,810 beds in the South Island, compared to the current 1,967.

Appendix 8 presents a more detailed comparison of physical beds against projected bed requirements for the South Island by service category and facility and details some of the assumptions and limitations of the demand modelling project. The bed modelling, for example, does not allow for changes in service delivery models and it does not evaluate whether beds are located in the right place – just the projected number required against the total population.

Table 2 DHB comparison of physical beds against projected bed requirements

DHB	Physical Beds (May 2009)	2007/08 adjusted for occupancy rates	Projected Bed Requirements				
			2009	2011	2016	2021	2026
Nelson Marlborough	239	204	211	221	247	277	313
West Coast	106	54	56	58	65	72	83
Canterbury	1080	985	1010	1053	1163	1288	1436
South Canterbury	119	112	116	121	133	146	159
Southern	729	583	597	616	667	722	788
Private/NGO	0	29	29	30	30	30	31
Total	2273	1967	2018	2098	2304	2535	2810

## Geography and transport

The South Island has a land mass of 151,215km, with the Southern Alps dividing the length of the island. The DHBs in the South Island are characterised by large land areas. The Southern, Canterbury and West Coast DHBs have the three largest DHB land areas in New Zealand. By contrast, the West Coast is the smallest DHB by population.

Despite the large land area, the South Island DHB populations are over 70.0% urban, with the exception of the West Coast, where approximately 42% of the population resides in rural areas. At the time of the 2006 census, 19.1% of the total South Island population lived in rural areas (including towns with populations of less than 1,000).

<sup>33</sup> Health and Disability Intelligence Unit (2008). SISSAL Health Needs Assessment. Wellington, Health & Disability Intelligence Unit, Health & Disability Systems Strategy Directorate, Ministry of Health.

The spread of our population does however provide some geographical challenges for the delivery of health services, particularly in adverse weather where flights can be cancelled and roads closed.

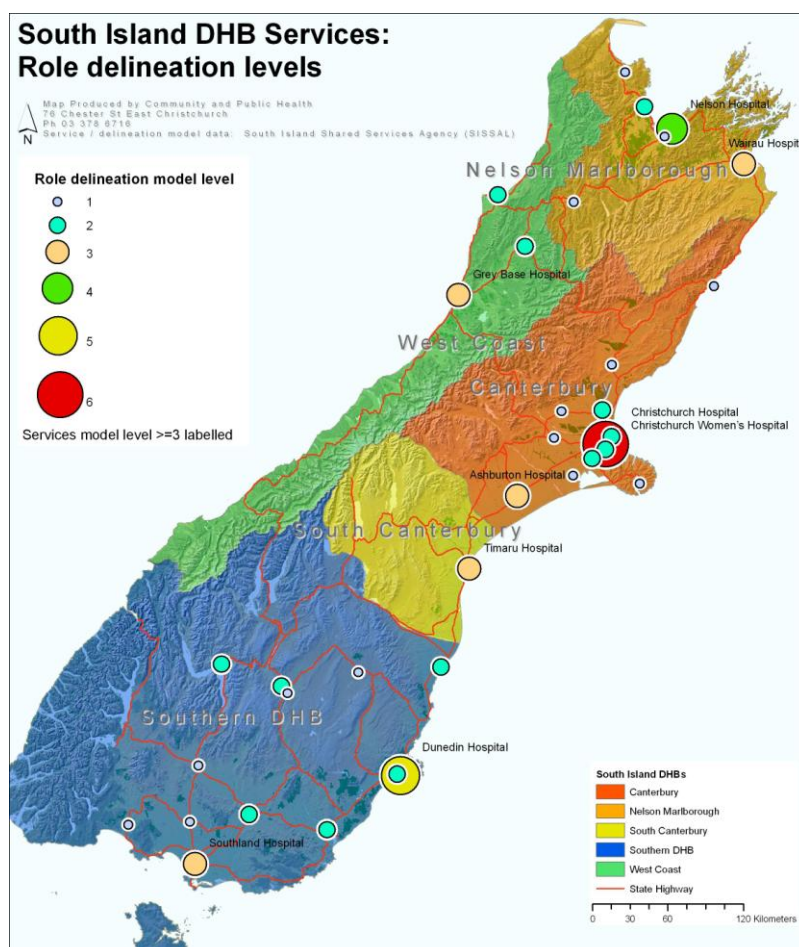
In the South Island there are 36 public hospital facilities managed by the South Island DHBs. Using the New Zealand role delineation model, which identifies current services by their level of complexity from 1-6, there are four hospital facilities at which services higher than level four are provided, two of which providing level six services.

The role delineation model does not provide any indication of what is required for a clinically sustainable service, but provides a means of identifying the level of complexity of services based on activity and the level of support services required.<sup>34</sup>

- Level One: Primary/community services.
- Level Two: Community hospitals/services: sub-acute care.
- Level Three: Acute and Elective Specialist Services: provincial base with core acute capacity.
- Level Four: More specialised services: large metropolitan/provincial with major services and some subspecialties.
- Level Five: Major specialist services: major hospital with multiple subspecialties and support.
- Level Six: Supra-specialist and definitive care services: most complex services providing definitive care.

Figure 13 shows the highest service level identified in each DHB area and demonstrates that while a comprehensive range of services is offered across the South Island, more specialised and highly specialised services are concentrated in Nelson, Christchurch and Dunedin. Christchurch Hospital and Christchurch Women's Hospital provide the majority of the highest level or more complex services in the South Island. Appendix 7 provides a more detailed role delineation for each service within each DHB (as assessed by the Ministry of Health in 2009).

Figure 13 – Highest South Island DHB Services Role Delineation Levels



<sup>34</sup> Ministry of Health (2010). *New Zealand Role Delineation Model*. Ministry of Health: Wellington and of Health (2010). *New Zealand Role Delineation Model Update*. Ministry of Health: Wellington.



South Island District Health Board Proposed Facility Developments		
DHB	Facility	Description
West Coast	Grey Base Hospital	Development to meet new models of care and seismic concerns.
	Buller Hospital	Integrated Family Health Care Centre development to meet new models of care.
Canterbury	Christchurch Hospital	Business Case for Christchurch Hospital and service facilities submitted 2010 to meet new models of care and address future demand and seismic concerns. Includes co-location of acute care facilities, short term acute assessment and Emergency Department, children's mental health services with other children's services. Ambulatory care centre development.
	Burwood Hospital	Older Persons' Health hospital and service facility development underway to meet new models of care and address future demand.
South Canterbury	Timaru Hospital	Clinical Services Block refurbishment due 2015. Infrastructure review has identified seismic issues which will impact decisions on additional facilities
Southern	Dunedin Hospital	Waikari/Dunedin upgrades to mental health, paediatrics and neonatal unit and critical care units to meet new models of care and future demand.
	Lakes District Hospital	Proposed development to meet new models of care and an Integrated Family Health Care Centre development.

## Capital and future investment decisions

### Financial Forecasts

Table 4, Figure 15 and Figure 16 show the actual/expected financial performance for all five South Island DHBs as submitted in their final 2010/11 District Annual Plans.<sup>35</sup> The results for 2008/09 and 2009/10 are actual results, and the financial results for the next three years are forecasted/planned.<sup>36</sup>

Table 4 - South Island DHBs Regional Financial Performance 2009 – 2013

	2008 / 09 Actual	2009 / 10 Actual	2010 / 11 Forecast	2011 / 2012 Forecast	2012 / 13 Forecast
Revenue	2,681,690	2,815,206	2,872,883	2,122,090	2,185,873
Expenses	2,725,017	2,854,397	2,895,155	2,129,155	2,192,762
Net result	(43,327)	(36,191)	(23,002)	(7,065)	(6,889)

<sup>35</sup> It should be noted that the assumptions used by each individual DHB, especially for expenditure, may not be consistent with those used by other South Island DHBs.

<sup>36</sup> Note: Southern DHB have no out year agreed forecast expenses as at October 2010

Figure 15 - South Island DHBs Regional Revenue and Expenditure (\$ 000)

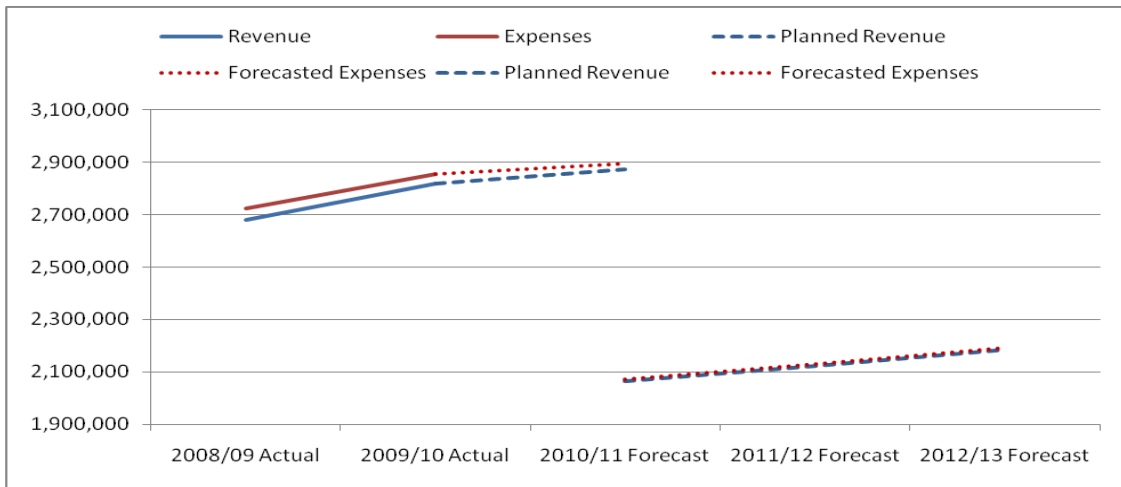
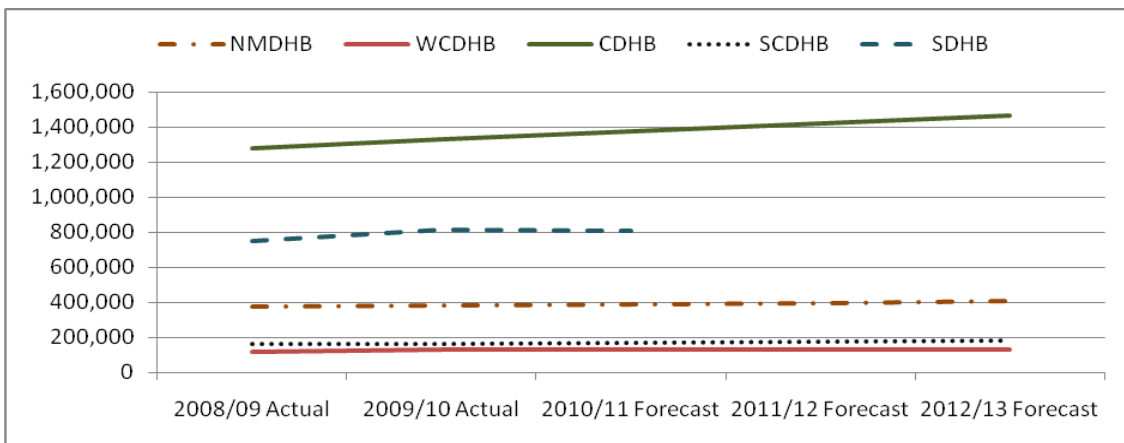
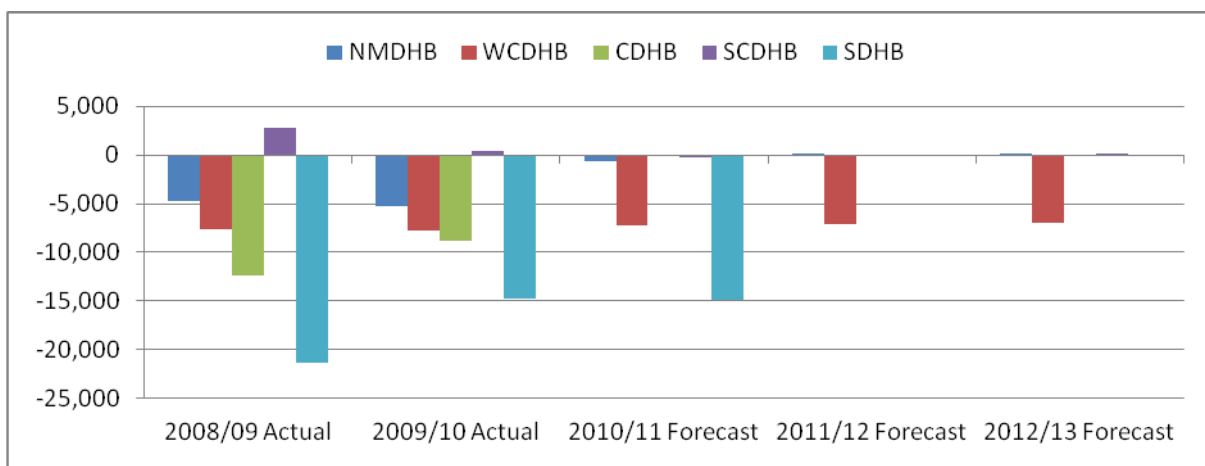


Figure 16 - Revenue for each DHB (\$ 000)



On a regional basis, the South Island DHBs are forecasting continuing annual operating deficits through to 2013, and probably beyond. As outlined in Figure 17 - by 2013 only Nelson-Marlborough, Canterbury and South Canterbury DHBs are predicting break-even results. West Coast DHBs is forecasting that their expenditure will continue to exceed their revenue, while Southern DHB has yet to agree out year expenditure.

Figure 17 - Net Results (\$ 000) for each DHB from 2009 to 2013



Deficits are being addressed by individual DHBs through changes to models of care, reduction in duplication and waste and other efficiencies. Between 2009 and 2013, this overall deficit will reduce significantly on a regional level.

As regional planning matures, these forecasts may change as we take advantage of further efficiencies and opportunities as a result of regional approaches, but these have not been quantified and factored in. Such efficiencies and opportunities include the use of joint facilities by the Southern DHB and the collaborative arrangements with Canterbury and the West Coast DHB.

The factors that will need consideration include:

- The impact deficits may have on approval for large capital investment projects;
- Whether the Government will actively seek improvements in financial performance through economies of scale (such as DHB mergers) and what impact potential mergers could have on future capital investment decisions; and
- The impact local politics (lobbying and public opinion) may have on Government decisions.

## Capital Investments

The five South Island DHBs have identified their capital expenditure intentions for the next twenty years.

This information has been communicated to the Ministry of Health in two documents, namely DHB District Annual Plans (which show the approved capital intentions for each DHB for the next three years) and the Capital Intentions Spreadsheets (which show non-approved capital intentions, where business cases have not been submitted and/or signed off nationally). Consequently, apart from some future facility developments, the detailed information on capital expenditure is only available to 2013.

Table 5 - South Island DHBs Regional Capital Expenditure (\$ 000)

Baseline Capital Expenditure	2008/09	2009/10	2010/11	2011/12	2012/13
Land	0	22	0	0	0
Buildings and Plant	13,552	25,238	40,718	17,727	6,364
Clinical Equipment	27,177	51,320	33,131	32,641	31,259
Other Equipment	2,881	1,379	6,139	2,119	2,377
Information Technology	8,498	6,365	4,238	4,350	4,885
Intangible Assets (Software)	5,128	688	708	905	1,900
Motor Vehicles	817	230	4,504	6,110	4,320
Total Baseline Capex	58,052	85,242	89,438	63,852	51,104
<b>Strategic Capital Expenditure</b>					
Land	0	0	0	0	0
Buildings and Plant	15,750	0	16,163	43,625	80,200
Clinical Equipment	0	0	0	2,000	0
Other Equipment	0	0	0	0	0
Information Technology	0	0	800	300	300
Intangible Assets (Software)	0	0	950	850	700
Motor Vehicles	0	0	500	0	0
Total Strategic Capex	15,750	0	18,413	46,775	81,200
<b>Total Capital Expenditure</b>	<b>73,802</b>	<b>85,242</b>	<b>107,851</b>	<b>110,627</b>	<b>132,304</b>

As Asset Management Plans have (to date) largely been prepared independently of each other, there have been no assumptions made about models of care changes and the flow-on implications that a collective approach may have on individual DHB expectations. Again, as regional planning matures, these forecasts may change.

The factors that will need consideration include:

- Our ability to align capital expenditure with future provision of regional services; and
- The impact of future centralisation of support services (i.e. software selection).

## Facility Developments

Over \$1,2b of hospital redevelopments are proposed for the South Island over the next twenty years.<sup>37</sup>

These capital expenditure intentions are based on the current services being delivered and current service delivery models, so the intentions could change based on future regional services plans. There are other factors that may also impact on facility developments, such as seismic issues, which will be firmed up in the next few months and will inform this plan going forward - many older South Island hospital buildings, for example, are no longer compliant with current building standards.<sup>38</sup>

While the West Coast DHB hospital redevelopment is arguably the most difficult capital decision to be made, it is clear that decisions regarding all South Island hospital redevelopment business cases (and likely those in the lower North Island) will need a collective approach to align the thinking around future service delivery models.

The South Island DHBs currently plan to spend over \$175m on buildings and plant between 2011 and 2013. This expenditure includes the Southern DHB Queenstown redevelopment (part), South Canterbury DHB Timaru reconfiguration (Clinical Services Block), Nelson DHB redevelopment (stage 3) and Blenheim (Wairau) redevelopment (phases 3 and 4), and the Canterbury DHB redevelopments at Christchurch Hospital and on the Burwood campus.<sup>39</sup>

Table 6 - Strategic Capital Expenditure on Buildings and Plant (\$000) from 2011 to 2013

	SDHB	SCDHB	WCDHB	NMDHB	CDHB
Buildings and Plant	33,098	4,630	2,450	12,908	120,000

In addition, there are proposals for additional strategic capital expenditure of \$1,065m on buildings and plant between 2013 and 2030. This proposed expenditure includes the Southern DHB Dunedin campus redevelopment and part of the Queenstown redevelopment, Nelson DHB redevelopment (stage 4), Canterbury DHB Christchurch Hospital (Riverside replacement) and rural hospital redevelopments, including Ashburton Hospital, and the West Coast DHB Greymouth and Buller Hospitals and rural clinics redevelopment.<sup>40</sup>

Table 7 - Proposed Capital Expenditure on Buildings and Plant (\$000) from 2013 to 2030

	SDHB	SCDHB	WCDHB	NMDHB	CDHB
Buildings and Plant	164,000	20,000 <sup>41</sup>	88,000	50,000	740,700

The factors that will need consideration include:

- Our ability to align facilities decisions with the future provision of regional services; and
- The additional impact of compliance with seismic requirements on proposed capital expenditure.

It is clear from this summary that available future funding will not meet the current cost structures of providing secondary and tertiary (hospital) services in the current way. Capital requirements for investments in new facilities and equipment

<sup>37</sup> This excludes capital expenditure for the West Coast, for which no details were available.

<sup>38</sup> Building owners have 15 years to comply with seismic requirements.

<sup>39</sup> Data is sourced from DHBs 2010/11 District Annual Plan.

<sup>40</sup> Data sourced from DHB's Capital Intentions Spreadsheet (projects require business cases to gain Ministry and Capital Investment Committee approval).

<sup>41</sup> The South Canterbury projection was as at 2009. A subsequent seismic review of Timaru Hospital poses some serious questions regarding the assumption that the main hospital buildings will be able to be refitted in 2015 to 2020. It is likely that the condition will be downgraded significantly and will have a direct impact on future planning

are greater than the available level of funding. More than \$2b worth of future investment has been identified across the South Island between 2013 and 2030 and the health system cannot support this level of expenditure. We need to establish processes to ensure that our collective future investment decisions are coordinated and effective and that we are making the most impact on health outcomes for the health dollars we spend.

## 7.6 The unique characteristics of each DHB

### APPENDIX 7

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#### Nelson Marlborough DHB

Nelson Marlborough has an older age structure than the New Zealand average, with 16% of the 137,000 (2009) population aged over 65 years and a 80% projected increase in this proportion to 26% by 2026. The population overall is expected to increase by 10% between 2009 and 2026, with all of the increase in those over 50 years and a decline in those under 50 years. Māori comprise 9% of the population and Pacific people about 1%. The Pacific population in Nelson Marlborough is projected to have the fastest growth in the South Island with a 42% expected increase between 2009 and 2026 and high annual variation due to seasonal work in local fruit growing industries during the late summer/early autumn.

The two Nelson Marlborough PHOs are working with the DHB in the Nelson Marlborough Health Alliance. The DHB operates secondary care hospitals in Nelson and Marlborough, as well as community hospitals in Murchison and Takaka, and Alexandra Hospital for provision of psychogeriatric services and long-term residential care for psychogeriatric patients. With the higher proportion of older residents the DHB provides a range of specialist health services for older people based on a restorative model of care with good access to home-based support services and Assessment, Treatment and Rehabilitation Services.

The DHB works with the Central Region for a number of secondary and tertiary services, but its principal regional relationship is with the other South Island DHBs.

#### West Coast DHB

The West Coast has a small population of 32,515 (2009), widely dispersed over a large geographic area in the form of a long, narrow 24,000 km<sup>2</sup> strip between the Tasman Sea to the west and the mountainous Southern Alps to the east. There is projected to be a decline in the population to 32,115 by 2026. The small, highly spread population has resulted in significant problems in providing clinical and financially sustainable services. Collaboration is underway with Canterbury DHB to provide more fully integrated hospital services within a clinical partnership, and to investigate workforce strategies, such as joint appointments to improve recruitment and retention of human resources. Planning is also intended to explore models that balance the impacts on patients who have to travel for secondary services and clinicians travelling on a regional basis.

Access to primary care providers is a significant issue for the West Coast population. The DHB is working in partnership with the PHO and other stakeholders to improve access to services by integrating non-hospital services with the other services provided on the West Coast, through an Integrated Family Health Centre framework. The West Coast population has higher morbidity and mortality rates and lower life expectancy than the New Zealand average. Māori, children and youth have poorer health outcomes than other parts of the country. Of the South Island DHBs, the West Coast has the highest proportion of Māori in the population at 10% in 2009, although growth in the Māori population is predicted to be slower than other DHBs between 2009 and 2026, at 15%.

#### Canterbury DHB

Canterbury has a large population of 501,580 (2009) making it the second most populous DHB in the country. This population is expected to grow by 15% between 2009 and 2026. The Canterbury population aged over 65 is projected to increase by 72% (50,080 people), with the proportion in that age group growing from 14% in 2009 to 21% in 2026. The Māori population in Canterbury is projected to have the fastest growth of DHBs in the South Island with a 28% increase from 2009 to 2026, from 8% to 10% of the population. The Asian population was the fastest growing ethnic group in Canterbury from 2001 to 2006 with a 53% increase during that period, from 4% to 6% of the population. In addition, Pacific people are a larger group in Canterbury than the other South Island DHBs, at 2% in 2009 and projected to rise to 3% in 2026.

In Canterbury socio-economically deprived people are hospitalised with potentially preventable conditions at almost twice the rate of those less deprived. A significantly higher proportion of Māori and Pacific people live in our more deprived areas. This is particularly relevant in that the larger proportions of our Māori and Pacific populations are under 25; therefore, more of our younger populations are living in areas of higher deprivation.

The DHB has done significant work to respond to demographic projections. This includes working with stakeholders to reduce preventable and unnecessary admissions, better ambulatory care, and developing facilities that are better oriented toward being Christchurch Hospital/Christchurch Women's Hospital being the main tertiary referral service in the South Island. The DHB is planning the establishment of a child and youth facility, enhancement of ICU/HDU services, expansion of cancer services, and fostering the teaching and research role that is seen as fundamental to the recruitment and retention of high level clinical staff.

## South Canterbury DHB

South Canterbury has a relatively small population at 55,540 people (2009). It has the highest proportion of people aged over 65 years of DHBs in the South Island, with 19% in 2009, with an expected increase to 29% in 2026. Fifty percent of the population live rurally in South Canterbury (in centres of less than 10,000 people). The overall growth of the population is static, with a projected population of 55,830 people in 2026. Primary and community health services in South Canterbury are integrated within the district health board, and there is no PHO.

Tertiary services are largely provided at present in collaboration with Canterbury DHB. Work with neighbouring South Island DHBs will be required to maintain essential secondary services. This will be the case both for: those services that need continuous staffing, where it might be possible to incorporate services for referrals from Oamaru in the south and Ashburton in the north; and for services that need more intermittent staffing, where locally based clinicians could be an integral part of the regional service, and clinicians not resident in South Canterbury could provide services in Timaru as a part of the regional service.

## Southern DHB

The Southern DHB has a population of 298,915 people (2009). And this is projected to increase by 3% by 2026 to 308,830 people. However, the Central Otago and Queenstown Lakes Districts are projected to have faster population growth and have high numbers of tourists and visitors.

The Southern DHB has recently formed from the merger of Otago and Southland DHBs in May 2010. It is the largest DHB by geographical area. The single provider arm of the DHB has a provider-arm executive that has the responsibility for the development of regional clinical services for the Southern DHB region. Nine PHOs have been consolidated into a single PHO for the DHB area. A model of care has been consulted on for Lakes District Hospital and is currently being reviewed following feedback. Oamaru, Balclutha, Gore, Dunstan and Maniototo Hospitals are moving towards more sustainable models of care.

## 7.7 Role delineation model by service 2009

### APPENDIX 7

The New Zealand role delineation model provides the current status of each level of service. The Role Delineation Model (RDM) identifies the level of service from 1-6, based on activity and the level of the support services required.

The table shows the level of service provided in each South Island facilities as assessed by the Ministry of Health in 2009.

	Facility	Nelson	Wairau	Braemar	Motueka	Golden Bay	Arthur/McCaa Health Centre	Grey	Reefton	Buller	Christchurch	Princess Margaret	Burwood	Oxford	Kaikoura	Waikeari	Darfield	Lincoln	Pangiora	Elesmere	Akaroa	Chatham	Ashburton	Timaru	Oamaru	Dunedin	Dunstan	Curtham	Southland	Lakes	Gore	
Pathology	A1	4	4	1	1	1	1	4	1	2	6	3	3	1	1	1	1	1	1	1	1	1	1	3	4	3	6	2	4	3	2	
Pharmacy	A2	4	3	1	1	1	1	4	1	2	6	2	2	1	1	1	1	1	1	1	1	1	3	3	2	5	2	2	4	2	2	
Diag/Imag	A3	4	4	0	0	0	0	4	0	2	6	3	2	0	1	0	0	0	0	0	0	0	4	4	3	6	3	2	4	2	2	
Anaesthetics	B1	4	3	1	1	1	1	3	1	1	6	1	2	1	1	1	1	1	1	1	1	1	3	3	2	6	1	1	3	1	1	
Operating Theatre	B2	4	3	1	1	1	1	3	1	1	6	1	3	1	1	1	1	1	1	1	1	1	3	3	2	6	1	1	3	1	1	
Interventional Radiology	B3	1	1	1	1	1	1	1	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	4	1	6	1	1	4	1	1	
ICU/HDU	B4	4	3	1	1	1	1	3	1	1	6	1	2	1	1	1	1	1	1	1	1	1	3	3	2	6	1	1	3	1	1	
CCU	B5	3	3	1	1	1	1	3	1	1	6	2	2	1	1	1	1	1	1	1	1	1	3	3	2	5	2	1	3	1	2	
Emergency Medicine	C1	4	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	2	3	2	5	1	1	3	1	1	
General Medicine	D1	4	3	1	1	1	1	3	1	2	6	1	1	1	1	1	1	1	1	1	1	1	3	3	2	6	2	2	3	2	2	
Cardiology	D2	4	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	3	3	2	5	2	1	3	1	1	
Dermatology	D3	3	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	1	1	3	1	1	
Diabetes and Endocrinology	D4	4	3	1	1	1	1	3	1	2	6	1	1	1	1	1	1	1	1	1	1	1	3	3	2	5	2	2	3	1	2	
Gastroenterology	D5	4	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	3	3	2	5	2	1	3	1	1	
Genetics and Metabolic Medicine	D6	3	3	1	1	1	1	3	1	1	5	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	3	1	1	1	
Infectious Diseases	D7	4	2	1	1	1	1	3	1	1	5	1	1	1	1	1	1	1	1	1	1	1	3	3	1	3	1	2	3	1	1	
Immunology	D8	1	1	1	1	1	1	1	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Neurology	D9	4	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	3	1	5	1	1	2	1	2	2	
Palliative Care Medicine	D10	4	3	1	1	1	1	3	1	1	6	1	1	1	2	1	1	1	1	1	1	1	3	3	2	5	2	2	3	2	2	
Renal Medicine	D11	4	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	2	3	1	5	1	1	3	1	1	
Respiratory Medicine	D12	3	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	2	3	2	5	2	2	3	1	2	
Rheumatology	D13	4	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	3	2	4	1	1	2	1	1	1	
Medical Oncology	E1	4	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	3	3	2	5	2	2	3	1	2	
Radiation Oncology	E2	1	1	1	1	1	1	1	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6	3	1	3	1	1	
Clinical Haematology	E3	4	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	3	1	5	2	2	3	1	2	2	
General Surgery	F1	3	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	3	3	2	6	1	1	3	1	1	
Cardiothoracic Surgery	F2	1	1	1	1	1	1	1	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	1	1	3	1	1	
Otorhinolaryngology (ENT/ORL)	F3	3	2	1	1	1	1	2	1	1	6	1	1	1	1	1	1	1	1	1	1	1	3	2	5	1	1	3	1	1	1	
Gynaecology	F4	3	2	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	2	3	2	5	1	1	3	1	1	
Neurosurgery	F5	1	1	1	1	1	1	1	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	3	1	5	1	1	1	1	1	
Ophthalmology	F6	3	3	1	1	1	1	2	1	1	6	1	1	1	1	1	1	1	1	1	1	1	2	3	2	5	1	1	3	1	1	
Oral Health/Maxillofacial	F7	1	1	1	1	1	1	1	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	3	1	5	1	1	3	1	1	
Orthopaedics	F8	3	3	1	1	1	1	3	1	1	6	1	2	1	1	1	1	1	1	1	1	1	1	3	2	5	1	1	3	1	1	
Plastic Surgery	F9	3	3	1	1	1	1	3	1	1	6	1	2	1	1	1	1	1	1	1	1	1	3	1	4	1	1	3	1	1	1	
Urology	F10	3	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	3	3	1	5	1	1	3	1	1	
Vascular Surgery	F11	3	3	1	1	1	1	3	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	2	1	3	1	1	
Maternity/Obstetric Care	G1	4	3	1	1	1	1	3	1	2	5	1	2	1	1	1	1	1	1	1	1	1	2	3	2	5	1	2	3	2	2	
Neonatal Services	G2	4	3	1	1	1	1	2	1	1	5	1	2	1	1	1	1	1	1	1	1	1	2	3	2	5	1	2	3	2	2	
Paediatric Medicine & Medical Subspecialties	H1	4	3	1	1	1	1	3	1	2	5	1	1	1	1	1	1	1	1	1	1	1	2	3	2	4	2	2	4	2	2	
Paediatric General Surgery	H2	4	1	1	1	1	1	3	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1	3	1	4	1	1	3	1	1	
Paediatric Cardiology & Cardiac Surgery	H3	3	1	1	1	1	1	3	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	4	1	1	
Paediatric Oncology & Haematology	H4	3	1	1	1	1	1	3	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	
Paediatric Neurology & Neurosurgery	H5	3	1	1	1	1	1	3	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	3	1	1
Paediatric ENT/ORL (Otorhinolaryngology)	H6	4	1	1	1	1	1	3	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1	3	1	4	1	1	3	1	1	
Paediatric Orthopaedics	H7	4	1	1	1	1	1	3	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1	3	1	4	1	1	3	1	1	
Health of Older Adults	I1	4	1	1	1	1	1	3	2	2	1	2	2	2	2	2	1	1	2	2	2	1	3	3	2	6	2	2	3	2	2	
Specialist Rehabilitation	I2	3	1	1	1	1	1	3	2	2	1	2	2	1	1	1	1	1	1	1	1	1	3	3	2	6	2	2	3	1	2	
Mental Health Services for Older Adults	I3	1	1	2	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	3	3	2	6	1	1	3	1	1	
MEDICINE	D	4	3	2	2	2	2	3	2	2	6	2	2	2	2	2	2	2	2	2	2	2	3	3	2	5	2	2	3	2	2	
SURGERY	F	3	2	2	2	2	2	3	2	2	6	2	2	2	2	2	2	2	2	2	2	2	3	2	5	2	2	3	2	2	2	
PAEDIATRICS	H	4	3	2	2	2	2	3	2	2	5	2	2	2	2	2	2	2	2	2	2	2	3	2	4	2	2	4	2	2		

## 7.8 Comparison of physical beds against projected bed requirements

### APPENDIX 8

The table shows the comparison of physical beds against projected bed requirements for the South Island. The darker shaded grey cells indicate where the 2007/08 activity exceeds the number of physical beds, while the lighter shaded grey cells identify where projected activity exceeds physical capacity.

Factors that are not explicitly included in the final bed models include:

- Benchmarking against any international length of stay or day case rates – using international data for comparisons is problematic for several reasons, including: coding differences, different admission/discharge practises, different funding pressures, different public/private mix;
- Any alteration in utilization of the private sector;
- Any changes in admission practices, such as integrated care and possible moves towards more treatment being provided in a primary care setting; and
- Any changes in the current patterns of service provision for Medical, Paediatric, Surgical, Pregnancy/Birth, Neonatal ICU and Critical Care services, within or between the DHBs.

A regional planning matures there are likely to be reductions in hospital activity due to factors, such as integrated care and a focus on keeping people well. An example of such activity is ambulatory sensitive hospitalisations, which result from diseases and conditions sensitive to prophylactic or therapeutic interventions delivered through primary care and are therefore avoidable.

The demand model assumes a benchmark-based standard occupancy rate of 85% for all beds except Paediatric, Neonatal ICU, Critical Care, and delivery beds. Mean bed occupancy of 85% is regarded as clinically acceptable and financially viable while avoiding bed shortages for emergency admissions, the risk of which rises with mean bed occupancy levels greater than 85%. DHBs have indicated that the actual occupancy rate for the main facilities across the South Island is currently higher than the 85% used in this modelling.<sup>42</sup>

Due to the complexity of Neonatal ICU and Critical Care cases, the potentially high fluctuations in demand throughout a year, and the uniqueness of these services, a 65% mean bed occupancy level is used in the modelling for Critical Care, and 75% for Paediatric, Neonatal ICU and delivery beds.

For the purpose of this work, a “major” hospital is defined as a facility with more than 50 beds. Facilities with less than 50 beds have been aggregated to a “satellite” category. DHB funded casemix activity completed by Private Providers has been included in the modelling. The physical beds recorded against Private Providers have been set at the 2007/08 activity levels. Any changes in contracting with Private Providers will impact the demand placed on public facilities. The majority of activity performed by private hospitals is purchased by Canterbury DHB.

Service and Facility	Physical Beds (May 2009)	2007/08 adjusted for occupancy rates	Projected Bed Requirements					Change 2007/08 to 2026
			2009	2011	2016	2021	2026	
<b>Adult Medical &amp; Surgical</b>								
Nelson Hospital	85	79	81	85	96	108	121	53.2%
Wairau Hospital	32	35	36	38	43	48	55	57.1%
Nelson Marlborough Satellites	8	9	10	11	13	16	18	100.0%
Grey Base Hospital	45	27	28	29	32	36	42	55.6%
West Coast Satellites	13	7	8	8	9	10	13	85.7%
Christchurch Hospital	532	523	538	564	632	705	792	51.4%
Christchurch Women's Hospital	27	18	18	19	19	20	21	16.7%
Burwood Hospital	56	46	47	49	53	57	62	34.8%
Ashburton Hospital	21	17	18	19	21	24	28	64.7%
Canterbury Satellites	46	28	29	30	35	41	48	71.4%
Timaru Hospital	64	70	72	76	84	92	99	41.4%

<sup>42</sup> Bagust, A., Place, M., and Posnen, J.W. (1999) *Dynamics of bed use in accommodating emergency admissions: stochastic simulation model*, *BMJ*: 319, pp 155-158.

Service and Facility	Physical Beds (May 2009)	2007/08 adjusted for occupancy rates	Projected Bed Requirements					Change 2007/08 to 2026
			2009	2011	2016	2021	2026	
Dunedin Hospital	270	218	224	232	253	275	301	38.1%
Dunstan Hospital	30	16	16	17	19	21	23	43.8%
Otago Satellites	45	23	24	25	28	31	35	52.2%
Southland Hospital	82	93	95	99	109	119	132	41.9%
Lakes Hospital	10	6	7	7	7	8	9	50.0%
Private Hospitals	0	11	11	12	13	13	14	27.3%
<b>Total Adult Medical &amp; Surgical</b>	<b>1366</b>	<b>1225</b>	<b>1261</b>	<b>1317</b>	<b>1464</b>	<b>1625</b>	<b>1811</b>	<b>47.8%</b>
<b>ICU and CCU</b>								
Nelson Hospital	7	7	7	8	9	10	11	57.1%
Wairau Hospital	7	6	6	7	8	8	9	50.0%
Grey Base Hospital	5	3	3	3	4	4	4	33.3%
Christchurch Hospital	27	20	20	20	22	26	28	40.0%
Timaru Hospital	8	9	9	9	10	11	14	55.6%
Dunedin Hospital	22	21	21	21	23	24	26	23.8%
Southland Hospital	6	7	7	7	8	9	10	42.9%
<b>Total ICU &amp; CCU</b>	<b>82</b>	<b>73</b>	<b>73</b>	<b>75</b>	<b>84</b>	<b>92</b>	<b>102</b>	<b>39.7%</b>
<b>Paediatric Medical &amp; Surgical</b>								
Nelson Hospital	12	7	7	7	7	7	7	0.0%
Wairau Hospital	5	2	2	2	2	2	2	0.0%
Grey Base Hospital	14	1	1	1	1	1	1	0.0%
Christchurch Hospital	62	41	42	43	43	45	42	2.4%
Timaru Hospital	11	4	4	4	4	4	4	0.0%
Dunedin Hospital	19	9	9	9	9	9	9	0.0%
Southland Hospital	17	8	8	8	8	8	8	0.0%
<b>Total Paediatric Medical &amp; Surgical</b>	<b>140</b>	<b>72</b>	<b>74</b>	<b>75</b>	<b>75</b>	<b>76</b>	<b>73</b>	<b>1.4%</b>
<b>Maternity including Neonatal ICUs</b>								
Nelson Hospital	28	16	16	16	15	15	15	-6.3%
Wairau Hospital	13	9	9	9	9	8	8	-11.1%
Grey Base Hospital	10	5	6	5	5	5	5	0.0%
Christchurch Women's Hospital	105	101	101	101	98	98	99	-2.0%
Burwood Hospital	7	6	6	6	6	6	6	0.0%
Ashburton Hospital	4		4	4	4	4	4	0.0%
Canterbury Satellites	14	8	8	8	8	8	8	0.0%
Timaru Hospital	12	11	11	11	11	11	11	0.0%
Dunedin Hospital	55	45	45	45	45	45	44	-2.2%
Otago Satellites	9	3	3	3	3	3	3	0.0%
Southland Hospital	21		23	23	22	21	21	-8.7%
Lakes Hospital	3	1	1	1	1	1	1	0.0%
Private Hospitals	0	18	18	18	17	17	18	0.0%
<b>Total Maternity + Neonatal ICUs</b>	<b>281</b>	<b>248</b>	<b>249</b>	<b>249</b>	<b>244</b>	<b>241</b>	<b>241</b>	<b>-2.8%</b>
<b>Assessment Treatment &amp; Rehabilitation (AT&amp;R)</b>								
Nelson Hospital	27	24	25	27	31	37	45	87.5%
Wairau Hospital	15	12	13	13	16	18	22	83.3%
Grey Base Hospital	16	8	8	9	10	12	14	75.0%
West Coast Satellites	3	2	3	3	3	4	5	150.0%
Burwood Hospital	41	34	35	37	42	47	53	55.9%
Princess Margaret Hospital	113	125	129	138	160	187	221	76.8%
Ashburton Hospital	15	10	11	11	13	15	18	80.0%

Service and Facility	Physical Beds (May 2009)	2007/08 adjusted for occupancy rates	Projected Bed Requirements					Change 2007/08 to 2026
			2009	2011	2016	2021	2026	
Canterbury Satellites	10	4	4	5	5	6	7	75.0%
Timaru Hospital	24	19	20	21	24	27	31	63.2%
Dunedin Hospital	66	52	53	56	64	73	86	65.4%
Dunstan Hospital	4	4	4	4	5	6	6	50.0%
Otago Satellites	40	33	34	35	37	39	40	21.2%
Southland Hospital	30	22	22	23	26	30	34	54.5%
Total AT&R	404	350	361	382	437	500	584	66.9%
Total South Island	2273	1967	2018	2099	2305	2535	2810	42.9%

## 7.9 Vulnerable services and mitigations

### APPENDIX 9

On developing the model for the South Island Health Services Plan in 2008, it was recognised that there was a need to have the Planning process identify the breakdown of services and the priorities. The Steering Group identified that to assist in determining the approach it would be useful to have a stocktake of Vulnerable Services. At the same time the Ministry of Health planned to ask DHBs to self assess services that are “unsustainable or at high risk of failure in the short term (up to two years).” The following process was followed at each DHB in January 2009.

A workshop was held with key DHB personnel including, key clinicians, COOs or their equivalent, GMs P&F and any other appropriate people to discuss:

- Which services that you would consider as vulnerable (on the basis that they are unsustainable or at high risk of failure by 30 June 2010);
- State the basis on which those services listed in 1 are potentially vulnerable:

Workforce (24/7 cover, roster issues, ageing workforce, international market pressure, small professional numbers etc)

High cost and/or low volume

Quality – critical incidents, near misses

Critical mass of services.

- For vulnerable services, given limited planning capacity, how would you prioritise the planning work program?
- Are there any services delivered for your population by another DHB that you consider is a vulnerable service?

While outside of the vulnerable services project, an issue arose with neurosurgical services in Otago DHB in December 2008. This was brought to the attention of the MoH and the SI HSP Steering Group. An agreement was reached by the SI DHB CE's that neurosurgery should become the first vulnerable service to be addressed within the SI HSP framework.

Prioritisation of services was undertaken using

- Health Equity Assessment Tool
- Decision Matrix that considers the impact of solving the problem, on the service and those it serves, and the feasibility of implementing a solution that will be effective, efficient, acceptable and sustainable
- Whānau Ora Health Impact Assessment

The following information is taken from the Vulnerable Services Stocktake report completed by SISSAL on behalf of the South Island DHBs in January 2009 – references refer to Southland and Otago DHBs pre-merger. The Action Plan have been updated to reflect the current status, however, it should be noted that service vulnerability varies over time and this may no longer reflect the current state across the South Island.

Service	Risk	DHB	Short Term Action Plan	Long Term Action Plan
<b>Paediatrics</b>				
Paediatrics - Inpatient and outpatient medical service		WCDHB	Expression of Interest issued Locum coverage obtained through adult Physicians and local GP	South Island Child Health Service Plan <ul style="list-style-type: none"> <li>▪ Working party established August 2009</li> <li>▪ Stage one focus on hospital services</li> <li>▪ Report due August 2010</li> </ul>
		SCDHB	Recruitment of paediatricians x 3 person = 2.5 FTE	
		SDHB	Advanced trainee appointed fixed term position to support existing staff Southland	
Paediatric Community Medical service	Workforce issues Shortage of Consultant Paediatrician	SDHB	Current staff covering work load as able and by prioritising key Community Paediatrician functions	The appointment of a joint Paediatrician Senior Medical Officer between West Coast and Canterbury DHBs. Leading to programme of work including: <ul style="list-style-type: none"> <li>▪ Education and liaison with</li> </ul>

Service	Risk	DHB	Short Term Action Plan	Long Term Action Plan
			Southland	GPs
Paediatric oncology	1.5FTE SMO	CDHB	Existing staff doing additional duties	<ul style="list-style-type: none"> <li>Strengthening of linkages between WC nursing and midwifery and neonatal and paediatric services at CHB for clinical support and training and development</li> </ul> <p>SDHB master site plan – redevelopment of inpatient NICU and children's services due for completion 2013.</p>
Paediatric diabetes	0.5FTE SMO Ministry of Health initiative	CDHB	Working with PandF to identify the DHB strategy to manage the increasing demand	
Children's Ward inclusive of Paediatric assessment unit	Facility SMO workload Specialist medical care for children requiring neurosurgery and general surgery. Related to scope of practice for onsite non-paediatric specialist Anaesthesia: shortage of staff and limited numbers with scope of practice for children Inpatient mental health paediatrics Requirement for Capital expenditure >budget	SDHB	Otago Apply LEAN thinking principles to the work environment. Children cared for in adult services e.g. isolation Patients cared for under shared care arrangement with Paediatric consultants and Mental Health SMO Local and national initiatives for fund raising	
Fetal Medicine	Workforce	CDHB	Recruit 0.5 FTE joint appt with University of Otago	
<b>Women's Health</b>				
Inpatient and Outpatient Medical services Obstetrics and Gynaecology	Workforce issues Shortage of specialist medical staff Shortage of Junior Medical staff	WCDHB	Expression of Interest issued Locum coverage obtained	<p>National approach – South Island DHBs working with the Ministry of Health and DHBNZ Service Improvement Group to agree the Quality and Safety Programme for maternity services.</p> <p>Review of outcomes from Southland DHB Maternity Strategic Plan 2005-2010 The aim of the strategy was to ensure the provision of a sustainable and clinically appropriate model of maternity services in Southland that meets community needs.</p> <p>NMDHB review</p> <p>CDHB and WCDHB obstetric and gynaecology senior clinical staff working to ensure appropriate 24/7 secondary care level of service for WC women.</p> <p>CDHB and WCDHB joint paediatrician appointment supporting neonatal and paediatric services.</p> <p>Canterbury Initiative Development group has modified existing paediatric and gynaecology pathways to optimise referrals from general practice to Grey Hospital and guide referrals to CDHB services</p>
		SCDHB	Not required at present	
		SDHB	Reliance on locum staff for both Senior and Junior staff to maintain safe staffing levels Southland	
Nursing and Midwifery	Workforce issues Midwifery shortage	WCDHB	DHB provision of service Locums recruited Regional Collaboration Barriers to Implementation Cost Ability to recruit Poor facility configuration	
		SCDHB	Not required	
		CDHB	Look at incentives for LMC midwives to set up practice at particular location and the formal arrangements required to attract midwives to a specific locality	
		SDHB	National initiatives Continued recruitment Education programmes based in Invercargill and throughout region to be initiated in 2009 CTA support for Post Grad education of midwives in secondary and tertiary care.	

Service	Risk	DHB	Short Term Action Plan	Long Term Action Plan
NICU	Facility 2 Neonatologist trained to provide tertiary level care and treatment Work load for SMOs Difficulty retaining locally trained registrars Ophthalmology screening for neonates Financial – requirement for capital expenditure greater than budget	SDHB	Otago Apply LEAN thinking principles to the work environment Support current Neonatologists Job sizing Reviewed out of hours roster to reflect an improved work /lifestyle balance Retinal camera/remote imaging review Local and national initiatives for fund raising	SDHB funding approved for new neonatal intensive care facility
<b>Medical Services</b>				
Respiratory	Inability to meet minimum standard Staff shortage, Consultant house surgeons in inpatient	SDHB	Current staff covering and outsource services	CDHB provides a number of outreach clinics to the WCDHB. Clinical partnerships have been encouraged across emergency and acute services (within and outside Grey Hospital) Supportive themes include: <ul style="list-style-type: none"> <li>▪ Staff exchange</li> <li>▪ Face to face education</li> <li>▪ Knowledge sharing</li> <li>▪ Streamlining patient transfer</li> </ul> SDHB is implementing a “single service, many sites” approach to support cost effective care as close to where people live as possible. Where lack of critical service volume is identified consideration will be given to creating a wider clinical network or purchasing services from outside SDHB
Cardiology	Shortage of cardiology staff in outpatients	SDHB	Current staff covering double work loads	
Dermatology	Workforce	WCDHB	Service contracted out	
		CDHB	Close monitoring of outpatient referrals and throughput	
Neurology	Workforce Physician retirement	SDHB	Contract for service with previous incumbent for short period	
Gastroenterology	Workforce Physician retirement	NMDHB	Clinical management plans, plus district wide model to manage acute/complex patients Urgent gastro patients diverted to surgical team if required.	
		SDHB	Recruitment Registrar succession where any interest is shown Southland: contract for service No shortage as yet	
Diabetes / Endocrinology	Inability to meet minimum standard Staff shortage, Consultant house surgeons in inpatient	SDHB	Current staff covering across Southern DHB	
Rheumatology	Inability to meet minimum standard Staff shortage <ul style="list-style-type: none"> <li>▪ Workforce 0.6FTE SMO down recruitment has been very difficult with no success over the past 18 months</li> <li>▪ Cannot continue to provide support to SDHB at a level</li> </ul>	NMDHB	Clinical management plans, plus district wide model to manage acute/complex patients Short term regular locums established. GP management of selected rheumatology patients continues	
		WCDHB	Service contracted out	

Service	Risk	DHB	Short Term Action Plan	Long Term Action Plan
	<p>required</p> <ul style="list-style-type: none"> <li>▪ Drugs – high cost</li> <li>▪ Continued access to hospital funded medications</li> <li>▪ No Pharmac access to most medication available in comparable counties</li> <li>▪ Future demand increase due to growth in Central Otago</li> <li>▪ Facility space available for nurse, research and teaching clinics limited</li> </ul>	SDHB	ODHB: Continue to recruit	
		SDHB	Southern regional service under development	
Hospital Services Medical	<p>Small number of clinicians Clinical Leadership Volumes exceeding contracted arrangements; YTD DHB expenditure in excess of agreed contract. Insufficient funding, infrastructure and workforce to meet demand</p>	NMDHB	Clinical management plans, plus district wide model to manage acute/complex patients	
		WCDHB	<p>DHB provision of service Regional provision of service Rural Hospital Doctor/Specialist Physician workforce mix Locums recruited Barriers to Implementation</p> <ul style="list-style-type: none"> <li>▪ Cost</li> <li>▪ Ability to recruit</li> </ul>	
		SCDHB	<p>Strengthen Clinical Leadership Regional /Sub-regional planning around specialties to support local delivery and to provide CME, clinical audit peer review etc</p>	
		SDHB	Lakes Hospital – a new model of care is under development.	
<b>Health of Older People</b>				
Geriatrician, psychogeriatrician	<p>Workforce Facility</p>	NMDHB	<p>Successful recruitment of psycho-geriatrician. Aligned with CDHB psychogeriatric service to mitigate sole practitioner risks Experienced MOSS in place. Active involvement with Alzheimer's and other care agencies</p>	<p>South Island Health of Older People work stream The work plan will achieve the following:</p> <ul style="list-style-type: none"> <li>▪ Same level, suite and quality of services across South Island DHBs, for a given level of assessed need;</li> <li>▪ Agreed regional service model(s);</li> <li>▪ Standardised assessment tools and access thresholds (equal access).</li> </ul>
		WCDHB	Maintain provision of service while contracting and facility development proceeds	
		CDHB	Business case for .5FTE SMO	
		SCDHB	Permanent recruitment supported by services purchased from CDHB	

Service	Risk	DHB	Short Term Action Plan	Long Term Action Plan
		SDHB	Recruitment of geriatricians and psycho geriatricians is ongoing Increasing use of other advanced roles for support Combined SDHB approach to be developed	
Nursing	Workforce	NMDHB	Funding limits option of staff being mapped to MECCA Consider appropriate staffing levels to cover annual leave etc., if casual and part timers not viable Review and redesign of SHOP services to facilitate recruitment of specialist staff	
		WCDHB	<ul style="list-style-type: none"> <li>▪ DHB provision of service</li> <li>▪ Locums recruited</li> <li>▪ Regional Collaboration</li> </ul> Barriers to Implementation <ul style="list-style-type: none"> <li>▪ Cost</li> <li>▪ Ability to recruit</li> <li>▪ Poor facility configuration</li> </ul>	
		SDHB	Development of advanced nursing roles, based in the community such as Nurse Practitioners, Clinical Nursing Specialists to assist with increasing workload in community setting – particularly dementia related	
Allied Health	Workforce	NMDHB	Actively recruiting staff Review and redesign of SHOP services to facilitate recruitment of specialist staff	Joint appointment of Director of Allied Health to provide professional input, leadership and direction for CDHB and WCDHB
		WCDHB	DHB provision of service <ul style="list-style-type: none"> <li>▪ Locums recruited</li> </ul> Regional Collaboration Barriers to Implementation <ul style="list-style-type: none"> <li>▪ Cost</li> <li>▪ Ability to recruit</li> </ul>	
		SDHB	Collaboration with community based allied health service to meet increased rehabilitation need in community settings	
Care givers – home based support	Workforce	SCDHB	Implementing restorative model of care Increasing price Considering appropriate	

Service	Risk	DHB	Short Term Action Plan	Long Term Action Plan
			number of providers Exploring ways of maintaining coverage in rural areas	
		WCDHB	Recruitment	
		CDHB	Recruitment to meet demand	
Aged residential case	Financial Bed numbers	WCDHB	Ability to recruit	
		SCDHB	Complex packages of care to support clients and carers in community Respite care provided through other arrangements in community – in some cases provided out of Timaru for clinical reasons i.e. where Timaru not appropriate	
AT & R	House officers Nursing	SDHB	Increasing use of other roles for support	Nurse practitioner option to be considered
Community Outreach	Workforce – medical, nursing, allied health	SDHB	Increasing use of other roles for support and focus on increasing community based services	
<b>Diagnostic Services</b>				
Radiology	Workforce: Radiologists MRT's Nuclear Techs Sonographers Equipment replacement/maintenance	NMDHB	Radiologist– outsource to private provider MRT – locum Service issues being considered as part of Models of Care development.	
		WCDHB	DHB provision of service Locums recruited for MRTs Parts of service contracted out Barriers to Implementation <ul style="list-style-type: none"> <li>▪ Cost</li> <li>▪ Ability to recruit</li> </ul>	
		SDHB	ODHB Modality reviews progressing to ensure effective utilisation of capacity Monitor utilisation and waiting times Breast screening – focus on access for priority patients (recall and high risk). Active recruitment  Southland Training / upskilling existing staff Radiologists - continued locum relationships with ODHB Nuclear Med MRT -	SDHB approach

Service	Risk	DHB	Short Term Action Plan	Long Term Action Plan
			Continue locum pool Radiographers, breast screening - Continue training existing staff. Reduce volume of bookings X-Ray MRT - Strategic management of workload/waitlists within limited resources	
<b>Neurosurgery</b>				
Neurosurgery	Sustainability of ODHB service Impact on service level required to meet patient needs of the South Island	CDHB	Discussions with ODHB	South Island Neurosurgical Services Plan <ul style="list-style-type: none"> <li>▪ Single service for the South Island</li> <li>▪ 4th neurosurgeon appointed at CDHB</li> <li>▪ Configuration of service not yet agreed</li> <li>▪ Expert panel convened to determine configuration and governance model</li> </ul>
	These key drivers are not mutually exclusive and overlap significantly: Key driver/root cause is population <ul style="list-style-type: none"> <li>▪ low volumes and high cost (diseconomies of scale)</li> <li>▪ problems with critical mass</li> <li>▪ difficulties with workforce and safety and quality issues</li> </ul> Present key driver is the resignation of neurosurgeon and workforce Issues: <ul style="list-style-type: none"> <li>▪ Loss of one or two key persons with recruitment difficulties</li> <li>▪ Increased service demand with recruitment difficulties</li> <li>▪ Achieving 24/7 cover</li> <li>▪ Roster issues</li> <li>▪ Ageing workforce</li> <li>▪ International market pressures</li> <li>▪ Small professional numbers</li> </ul>	SDHB	Repeated, sustained searching for permanent or locum SMOs willing to come to Dunedin Have a plan which relies on registration issues (acceptability of candidates to Medical Council and supervision impositions) Longer term plan - regionalisation with CDHB	

## 7.10 Sub-regional service provision – a snapshot

### APPENDIX 10

The information provided below gives an indication of the level and types of services provided at a sub-regional level from Canterbury DHB to West Coast DHB as at 2009.

CANTERBURY DHB SERVICES TO WEST COAST DHB	
<b>MEDICAL – SURGICAL SERVICES</b>	
<b>Tertiary provider under IDF Agreement</b>	
<b>Services</b>	<b>Comments</b>
General Surgery	Considerable discussion with West Coast DHB in 2004/5 regarding weekend support for acute cover over there – a proposal formulated - but not confirmed. WCDHB SMOs have been invited to join CME / audit activities.
Orthopaedics	CDHB is the tertiary provider of orthopaedics for West Coast. Do not formally provide any services but provide acute cover for the WCDHB when they are not able to do this locally or through NMDHB. Have been involved and will continue so into the future with providing back up to their Surgeons in terms of advice, expertise and supervision within reason (and when practicable). This could mean surgeons visiting CDHB for supervised work etc. CDHB is prepared to look at any arrangement that provides the West Coast community with Orthopaedic services. Privately, Canterbury surgeons manage some of the more complex ACC cases (other ACC cases go to Nelson).
Anaesthesia	Provision of Paediatric anaesthetics for operating lists at Greymouth Hospital – approximately 3.5 days pa. Support for WCDHB anaesthetists and Medical Council Registration requirements. Involves anaesthetists working at CDHB for one week supervision and report provided by Clinical Director.
Secondary/Tertiary Services Care	Inpatient and outpatients services including attending to GPs' queries across all specialities. Attending to calls and queries from WC GPs. Telephone assistance, support and advice, clinical management advice to WCDHB clinical staff and arranging for potential transfer of patient requiring tertiary care.
Air ambulance/retrieval	Air ambulance/retrieval (Inter-Hospital Transfers)
<b>Outreach Clinics/Services</b>	
<b>Services</b>	<b>Comments</b>
Respiratory	4-5 Clinics per annum (as required)
Neurology	3 clinics per annum
Cardiology	6 Clinics per annum Visits have increased up to 12 pa. Patients also comes to Christchurch Hospital for Cardiology and Endoscopy therapeutic and diagnostic procedures
Cardiology Technician	Visit up to 6 times per annum
Haematology	5-6 Clinics per annum (including Haemostasis patients)
Nephrology	4 General Clinics per annum 3 Transplant Clinics per annum
Oncology	24 clinics per annum (2 per month)
Urology	31 days of clinics or operating sessions pa on a monthly basis. Some patients from WC come to Christchurch Hospital for surgery
Vascular	There has been discussion about setting up an outreach clinic (6 weekly) but constrained by current resources. Vascular nurses link with community nurses.
<b>WOMEN'S and CHILDREN'S HEALTH</b>	
<b>Tertiary provider under IDF Agreement</b>	
<b>Services</b>	<b>Comments</b>
Secondary Care Services	<ul style="list-style-type: none"> <li>▪ Includes amniocentesis and chorionic villus sampling, via our Fetal Medicine Unit, we have been providing complete cover since 2006.</li> <li>▪ Obstetric SMO cover and off site supervision/advice occurring for substantial periods of time in the 07/08, 08/09 years. In 08/09 over 45 women transferred to Christchurch for obs and gynae care. The obstetric women received midwifery care via our clinics. Labour and birth support is provided via our core midwives this involves substantial amounts of midwifery resource. St Georges assisted with some planned caesarean sections as CWH was working to capacity.</li> <li>▪ Our Midwifery Clinical Coordinators in Birthing Suite regularly give clinical midwifery advice, particularly after hours.</li> <li>▪ Supervision of incoming overseas SMO's with provision for them to work at CWH for two – three</li> </ul>

	<p>weeks to enable credentialing to occur prior to them commencing on the West Coast, off site supervision thereafter with collegial support via the Clinical Director.</p> <ul style="list-style-type: none"> <li>▪ Midwifery advice via the Director of Midwifery as required in particular support with the QLP/PDRP coordination and assessment; this also involves our Midwifery Educators.</li> <li>▪ Support to West Coast midwifery staff to complete NZ Midwifery Council education requirements, staff attend some of our educational compulsory days.</li> <li>▪ Gynaecology clinics in Christchurch, all as extras to 2007/08 and will continue possibly until 2010. This includes AGA visits for early pregnancy issues. The CDHB are the sole provider of first and second trimester terminations of pregnancy for WCDHB women.</li> <li>▪ In essence most of the current secondary care as outlined in the MOH service specifications are being provided by the CDHB, with no recognition of this occurring.</li> <li>▪ Engagement and discussions are occurring around future service provision of SMO's as a rotational position. This will include gynaecology clinics on the West Coast and gynaecology surgery.</li> </ul>
<b>Outreach Clinics</b>	
<b>Services</b>	<b>Comments</b>
Child Health	<ul style="list-style-type: none"> <li>▪ Paediatric On call advice- 24/7. Calls from both WCDHB Nursing staff and SMO's to relevant CDHB clinical staff for advice as well as potential transfer of patient should the condition deemed to be critical and requiring tertiary care. Outreach Nurse support for children with chronic conditions via phone</li> <li>▪ Paediatric Outpatient Clinics- Joint appointment with Paediatric SMO who provides 2x outpatient clinics monthly and advice via phone- This position is currently filled but not active due to the successful applicant completing his training. Starting date Jan 2010</li> <li>▪ In addition, 1 SMO undertakes a general clinic every 6 weeks</li> <li>▪ Paediatric Oncology Services- 24/7 advice and transfer to CCDHB for treatment and outpatient care.</li> <li>▪ Paediatric Surgery on call advice 24/7. Paediatric surgeon work in a private capacity undertakes a list and outpatient clinic every 6 weeks.</li> <li>▪ Paediatric Neurology on call advice 24/7 and transfer to CCDHB for treatment and outpatient care, as well as outreach nurse support for children on the coast.</li> <li>▪ Neonatal- Provides tertiary and level 2 services for WCDHB. This includes a retrieval service, training of staff to assist with stabilisation of infants pre transfer and outreach nurse support via phone for infants transferred/ discharged home.</li> <li>▪ B4 School Check – telemedicine service</li> </ul>
<b>OLDER PERSONS HEALTH</b>	
<b>Tertiary provider under IDF Agreement</b>	
<b>Services</b>	<b>Comments</b>
Bone Clinic	Average of seven clients a month for assessment / treatment
<b>Outreach Clinics</b>	
<b>Services</b>	<b>Comments</b>
Electro Convulsive Therapy	Average one client per year for treatment which includes inpatient stay of about four weeks
Psycho-geriatrician Input	One day per month for consultations
Community Dental Service (CDS)	Visits West Coast 3-4 times a year for meetings with dental therapists but not for patient consults. Telephone support re patients as required. Clinical oversight and management support to the service and staff come to CDS for training sessions
<b>REHABILITATION SERVICES</b>	
<b>Tertiary provider under IDF Agreement</b>	
<b>Services</b>	<b>Comments</b>
Pain Management Clinic	Provides regional Clinical services under the IDF on and as requested basis. Most are ACC and come referred by case managers.
Rehabilitation (BIRS)	BIRS take brain injured patients as required- IDF and ACC funding
Spinal Services	Services provided in Christchurch – on IDF and ACC basis at Burwood Hospital
<b>Outreach Clinics</b>	
<b>Services</b>	<b>Comments</b>
Spinal Services	No clinics provided at present. Patients come to Christchurch
<b>MENTAL HEALTH SERVICES</b>	
<b>Tertiary provider under IDF Agreement</b>	
<b>Services</b>	<b>Comments</b>
ECT Therapy	Hillmorton (AIS) by referral from the West Coast
CAF Regional Service contract	<p>Inpatient regional beds for Child and Youth.</p> <p>Consultation/training to the CAMHS team if requested.</p> <p>SMO is contracted to them directly part time. There has been a long standing arrangement for our service to provide training and supervision also, however this has not been utilised by the Coast team for some time. As one of the Christchurch CAF Consultants has been directly contracted by the Coast team for some time, this support has not been requested as much as it used to occur in the past.</p>

Forensic Regional Service contract	Team members also used to come over to Christchurch to orient to our services. Forensic visits on 3 monthly basis , more if required , monthly in-service video conf, court liaison training on WCHB delivered recently. Telephone calls We generally visit regions on a 3 monthly basis and have phone/email contact in between times. In regards to recent contact Dr and a nurse have visited in September 2008, December 2008, February 2009 and May 2009. These contacts are over a two day period and can include Westport, every second visit, and Greymouth every visit. Dr has had regular contact via phone approximately monthly. This can be around patients visiting Canterbury from the coast or risk management issues.
Intellectual Disability Liaison team's contract	Covers WCHB but have not had any referrals under IDCCandR act since the new law came in. 1. AOD supported landlord services – He Waka Tapu 2. AOD residential services adult and youth – Odyssey House 3. AOD residential services women – Odyssey AKL 4. AOD residential services – Nova Trust 5. AOD residential services – Salvation Army
NGO Regional Services to WCDHB	In Primary care the Doctor for sexual abuse has WCDHB cover.
<b>Outreach Clinics</b>	
<b>Services</b>	<b>Comments</b>
Psychiatrist Visits	SMHS only bills the West Coast for Dr and CD services for AandOD. Monthly and link in weekly via Telemed as their Clinical Director of AandOD as well as being available for any concerns they may have in AandOD. Also works there once a month as their weekend locum SMO's attending WCHB are (CD,WC,2/10)- CDHB arrangement The following are private arrangement: Forensics, regional visits, AOD 3/10, AOD,CD 1 W/E 2/52, shared Locum, 2/10
Director of Area Mental Health Services (DAMHS)	DAMHS office provides all DAMHS administration for West Coast. We also provide DAO training for the West coast to seen DAO's to 3 times per year
<b>HOSPITAL SUPPORT AND LABORATORIES</b>	
<b>Services</b>	<b>Comments</b>
Pathologist	2/10 <sup>th</sup> pathologist time ie access to a pathologist 24/7 for: - enquiries and consultation as well as support - provide the for laboratory pathologist support required to meet IANZ accreditation - Haematologist visits for patient clinics and clinical education - Attendance by a microbiologist for infection control support to lab and hospital infection control nurses regularly.
Laboratory Testing Support	Referred testing service for all tests not performed on site at the WCDHB Lab. - Canterbury Health Lab (CHL) provides the logistics (pick up and transport for this service - Scientific, technical and clinical supports are provided for all referred testing as required. - Also supported by the 0800 lab information service operating 24/7. - Access to web-based test database for all test information. - Difficult diagnosis on routine tests performed by WCDHB are referred to CHL for interpretation and reporting.
Anatomical Pathology service	As part of the referred testing service CHL provides all the WCDHB anatomical pathology and cytology services and diagnosis. This includes access to pathologists for consultation, education and case review sessions as required.
Cytology Service	Full cytology service including both gynae and non-gynae cytology. - Gynae Cytology screening service is provide by a liquid based cytology (LBC) service - LBC is at no charge to patients. - The intention is to supplement this with the benefits of automated screening, which will increase cancer pick up rates, in mid 2009.
Laboratory education	To support the laboratory IANZ accreditation CHL provides as part of continuing education to meet MoH requirements for professional development under the Health Practitioner Competency and Assurance (HPCA) Act - access to specialist areas education seminars via teleconference facilities - Also access to laboratory lecture series including overseas speakers lectures (either attendance or videoconference if requested)
Laboratory IANZ Accreditation support	Full scientific, technical and clinical support to support the laboratory accreditation including: - Annual place for CHL user group. - Audit and advice from senior scientific staff as required and at a level to support accreditation. - Regular visits to WCDHB by clinical and scientific staff - Inclusion in peer review meetings - Information documentation and support for accreditation needs.
Population based disease monitoring (Developing service)	Includes: - provision of data relating to antibiotic susceptibilities resistance and trends. - Access to data warehouse for population data analysis and chronic disease information.

	<ul style="list-style-type: none"> <li>- MRSA risk prevalence, monitoring and control strategy.</li> <li>- Test demand trends and management information to promote appropriate utilization and control costs.</li> </ul>
Lab Information System (Propose, quoted and project scoped)	Ongoing discussions on utilising the CDHB laboratory information system (Delphic) to replace the aging system in place. This would be via Multilab which is also provide to HBDHB, NMDHB and TDHB.
<b>COMMUNITY and PUBLIC HEALTH</b>	
<b>Services</b>	<b>Comments</b>
	Public health services for WCDHB funded by Ministry of Health are delivered by CPH.
<b>Nursing Support</b>	
<b>Services</b>	<b>Comments</b>
Oncology	WC Nurses visit once a year for education/chemo support day. On average, we provide telephone advice/support twice a month.
NETP	<ul style="list-style-type: none"> <li>▪ 4 WCDHB new grads attended study days 18 months to 2 years ago (12 study days/year).</li> <li>▪ Training, support and shared resources in the development implementation of NETP 18 months ago.</li> <li>▪ Regular meetings and teleconferences 18 months ago.</li> </ul>
PDRP	<ul style="list-style-type: none"> <li>▪ Assessment of 6 PDRP portfolios to date including teleconference support for interviews</li> <li>▪ 4 days training on site at WCDHB by NC-PDRP over the past 2 years for assessors, resource people and senior nurse managers (mileage/flights and accommodation paid for by WCDHB)</li> <li>▪ Support and training re development, implementation and ongoing maintenance of PDRP by NC and PDRP Admin staff</li> <li>▪ MOU set up and responsibilities for monitoring of adherence to NCNZ standards as CDHB partner programme for PDRP</li> <li>▪ WCDHB members of PDRP committee, teleconferencing and guidance provided.</li> <li>▪ Resource sharing, support and training</li> </ul>
Midwifery Quality/Leadership Program	<ul style="list-style-type: none"> <li>▪ QLP 6 portfolios assessed including teleconference for interviews</li> <li>▪ Support and training to Midwifery Manager on assisting her staffs involvement in QLP</li> <li>▪ Support and training re development, implementation and ongoing maintenance of QLP</li> <li>▪ CDHB Midwifery educator support to x 2 WCDHB staff in portfolio preparation</li> <li>▪ WCDHB members of QLP committee, teleconferencing and guidance provided.</li> <li>▪ Appeals process management re: QLP portfolio which involved x3 assessors within the CDHB along with the coordination of a Nelson Marlborough QLP moderator/assessor.</li> </ul>
PDU	NE also went to the WCDHB for 2 days of training re: Nurse Initiated Discharge project (mileage, etc as above paid for by WCDHB)
<b>HEALTHY EATING – HEALTHY ACTION (HEHA)</b>	
<b>Services</b>	<b>Comments</b>
CDHB and WCDHB have a collaborative secondment arrangement for the HEHA Manager position. This 1.0 FTE position is shared equally between the DHBs.	This secondment arrangement has been in place since February 2009 and various opportunities for joint planning and programme implementation exists (e.g. Breastfeeding framework, workplace wellness programmes, Cooking Skills to Life Skills Programme implementation, joint training for Community Action Projects).
<b>CLINICAL ENGINEERING SERVICE</b>	
<b>Services</b>	<b>Comments</b>
Servicing Oxygen Concentrator	Approx 12 Oxygen concentrator repairs per annum
Sterile Service Support	Advice on Sterile service delivery, as required
<b>OTHER SERVICES</b>	
<b>Services</b>	<b>Comments</b>
PAYROLL	Host system and private applications support. Running Stargarden payroll system. Transition to PsE payroll and HR system planned for later in 2009; Service Level Agreement (SLA) pending. Provide advice re contract configuration and some reporting requirements. All system failures are initially reported to the CDHB payroll team for rectification. Historically the CDHB would manage contract maintenance on the system but WCDHB now manages this eg Updates mainly: PSA Union increases, NZNO Union and bargaining fees increases, etc.
Health and Safety (HandS)	A two day review of the WCDHB HandS system was conducted by the CDHB HandS team and as a result of this an SLA has been prepared and is awaiting signature from WCDHB for 12 hours per month HandS support and coaching by CDHB Health and Safety Advisors. A request for assistance with the Occupational Health (OH) function has been made. A plan is underway to scope these requirements for work to commence in June. Possibly, WCDHB would need a 0.5 FTE and some of these tasks would be performed at CDHB as part of our Workforce Shared Service function; with some visits needed to WCDHB in future.
Industrial Relations Support	No formal arrangement in place however we do give support to WCDHB on interpretation and

and Advice	application of collective agreements on an as required basis.
Site Redevelopment - Project Management Service	Site Redevelopment Unit in CDHB have acted as the Project Manager on WCDHB's behalf, controlling the design development and supervision of construction of the facility. Eg Dementia Unit project. And will continue to be available to do that.
Site redevelopment – lease management service	Site Redevelopment Unit in CDHB manages the lease arrangements for Community Public Health's building at Greymouth.
Information System Admin Support	CDHB Information Service Staff on site at West Coast as required.
Telecommunication Contracts	CDHB prices implemented for all South Island DHBs.
Emergency Care Coordination Team (Air Retrieval, Emergency Services)	Ongoing. Coordination by CDHB
InterRai for South Island DHBs	Ongoing Information Service project – potentially providing the service to all SI DHBs
Support service contracts (POTENTIAL)	There is significant potential to include the WCDHB into the support service contracts operated through the Division including <ul style="list-style-type: none"> <li>- Food and access to cook chill</li> <li>- Cleaning</li> <li>- Fleet control and management systems</li> <li>- Courier services</li> <li>- Travel</li> </ul>
Supply Chain	Procurement – we previously provided this service to WCDHB in the past (over 5 years ago) saving WCDHB around \$100k We provide telephone assistance and guidance to WCDHB supply dept, eg queries on stock management process, pricing comparison, procurement policy, etc. As required, we negotiate purchasing on behalf of WCDHB, where vol from WCDHB and CDHB can be combined to gain bargaining power.
Pandemic Planning – support and training (Potential)	Can provide support in terms of advice or training, with regard to pandemic planning.

**Appendix C - Tertiary Services provided from Christchurch Hospital – under IDF arrangement****Allied Health**

AH01.01	Dietitian
AH01.03	Occupational Therapy
AH01.05	Physiotherapy
AH01.06	Podiatry
AH01.07	Social Work
AH01.08	Speech Therapy

**Cardiology**

AH01-003	Nurse/Non-Medical Clinics
CS04.01	Community Referred Tests
M10.01	Inpatient Services
M10.01-A	Inpatient Services - Acute
M10.01-E	Inpatient Services - Elective
M10.01-IDF	Inpatient Services - Elective IDFs
M10.02	First Attendance
M10.03	Subsequent Attendance
M10.04	Cardiac Education and Management

**Cardiothoracic**

AH01-004	Nurse/Non-Medical Clinics
S15.01-A	Inpatient Services - Acute
S15.01-E	Inpatient Services - Elective
S15.01-IDF	Inpatient Services - Elective IDFs
S15.02	First Attendance
S15.03	Subsequent Attendance

**Clinical Pharmacology**

HS0006	GP Drug Advisory Service
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**Dental**

D01.01-A	Inpatient Services - Acute
D01.01-E	Inpatient Services - Elective
D01.01P	Inpatient Services - Paed and Special Needs Adults
D01.02	Outpatient Dental Treatment
S60.02D	Maxillofacial First Attendances
S60.03D	Maxillofacial Subsequent Attendances

**Dermatology**

AH01-031	Nurse/Non-Medical Clinics
M15.01	Inpatient Services
M15.02	First Attendance
M15.03	Subsequent Attendance
M15.04	UV Treatment

**Diabetes**

AH01-032	Nurse/Non-Medical Clinics
M20.04	First Attendance
M20.05	Subsequent Attendance
M20.06	Diabetes Education and Management
M20.10	High Risk Type I Diabetes Support
M20.15	High Risk Type I Diabetes Support - age <18
MAOR0127	Maori Diabetes

<b>Emergency</b>	
ED06.01	Emergency Dept - Level 6 - Non-Admitted
ED06.01A	Emergency Dept - Level 6 - Admitted
M00.01E	Inpatient Services
<b>Endocrinology</b>	
CS04.05	Community Referred Tests
M20.01	Inpatient Services
M20.02	First Attendance
M20.03	Subsequent Attendance
<b>Gastroenterology</b>	
ADJ101-R	Adjuster - New Zealand Familial Bowel
AH01-008	Nurse/Non-Medical Clinics
CS04.04	Community Referred Tests
DOM1.09A	Comm. Services - enteral feeding
HS0105	Capsule Endoscopy
M25.01	Inpatient Services
M25.02	First Attendance
M25.03	Subsequent Attendance
M25.04	ERCP
M25.05	Colonoscopy
M25.06	Gastrosocopy
M25.07	Motility Investigations
M25.08	Gastroenterology - Capsule Endoscopy
<b>General Medicine</b>	
AH01-034	Nurse/Non-Medical Clinics
M00.01	Inpatient Services
M00.02	First Attendance
M00.03	Subsequent Attendance
M00.06	Blood Transfusions
<b>General Surgery</b>	
AH01-009	Nurse/Non-Medical Clinics
CS04.06	Community Referred Tests
S00.01-A	Inpatient Services - Acute
S00.01-E	Inpatient Services - Elective
S00.01-IDF	Inpatient Services - Elective IDFs
S00.02	First Attendance
S00.03	Subsequent Attendance
<b>Haematology</b>	
AH01-036	Nurse/Non-Medical Clinics
M30.01	Inpatient Services
M30.02	First Attendance
M30.03	Subsequent Attendance
M30.04	Chemotherapy
M30.06	Haemophilia - Case Management
M30.11	MUD Harvest/Search Fee
M30.14	Blood Transfusions
<b>Infectious Diseases</b>	
AH01-038	Nurse/Non-Medical Clinics
HS0107	Specialist Home IV Service

M40.01	Inpatient Services
M40.02	First Attendance
M40.03	Subsequent Attendance
M40.05	HIV/Aids Viral Load Testing
MS01001-C	Cellulitis Pathway Project
<b>Intensive Care Unit</b>	
M00.011	Inpatient Services
<b>Nephrology</b>	
AH01-055	Nurse/Non-Medical Clinics
M60.01	Inpatient Services
M60.02	First Attendance
M60.03	Subsequent Attendance
M60.04	Recurrent home based CAPD
M60.05	CAPD Training
M60.06	Recurrent home based haemodialysis
M60.07	Home haemodialysis Training
M60.08	Incentre Dialysis
M60.11	Pre-Renal Replacement Therapy Programme
T01.08	Organ Donation Co-ordination
<b>Neurology</b>	
AH01-039	Nurse/Non-Medical Clinics
CDHB-33	Chemotherapy
CS04.02	Community Referred Tests
M45.01	Inpatient Services
M45.02	First Attendance
M45.03	Subsequent Attendance
M45.04	Botulinum Toxin therapy
<b>Neurosurgery</b>	
S35.01-A	Inpatient Services - Acute
S35.01-E	Inpatient Services - Elective
S35.01-IDF	Inpatient Services - Elective IDFs
S35.02	First Attendance
S35.03	Subsequent Attendance
<b>Nuclear Medicine</b>	
AH01-604	Nurse/Non-Medical Clinics
CS01.01-N	Community Radiology DHB
M20.02-N	First Attendance
M20.03-N	Subsequent Attendance
<b>Oncology</b>	
AH01-040	Nurse/Non-Medical Clinics
M30.21	Oral Chemo Oversight cancer haem non paediatric
M50.01	Inpatient Services
M50.02	First Attendance
M50.02E	First Attendance
M50.03	Subsequent Attendance
M50.05	Radiotherapy
M50.09	Blood Transfusions
MS02.09	IV Chemotherapy - Cancer
<b>Ophthalmology</b>	

AH01.04	Orthoptist
AH01-007	Nurse/Non-Medical Clinics
M20.07	Diabetes - Retinal Screening
M45.04O	Botulinum Toxin therapy
S40.01-A	Inpatient Services - Acute
S40.01-ASX	Inpatient Services - Acute - SX
S40.01-E	Inpatient Services - Elective
S40.01-ESX	Inpatient Services - Elective - SX
S40.01-IDF	Inpatient Services - Elective IDFs
S40.01KM	Inpatient Services - Cataract Initiative
S40.02	First Attendance
S40.03	Subsequent Attendance
S40.04	Minor Eye Procedures
S40.05	Eye - Laser Treatments
<b>Orthopaedics</b>	
AH01-012	Nurse/Non-Medical Clinics
S45.01-A	Inpatient Services - Acute
S45.01-E	Inpatient Services - Elective
S45.01-IDF	Inpatient Services - Elective IDFs
S45.01KM	Orthopaedics - Inpatient Services (DRGs) - Ortho Initiative (OI)
S45.02	First Attendance
S45.03	Subsequent Attendance
S45.04	Fractures - First Attendance
S45.05	Fractures - Subsequent Attendance
<b>Otolaryngology</b>	
AH01-006	Nurse/Non-Medical Clinics
CS04.03	Community Referred Tests
M50.03E	Subsequent Attendance
S25.01-A	Inpatient Services - Acute
S25.01-E	Inpatient Services - Elective
S25.01-IDF	Inpatient Services - Elective IDFs
S25.02	First Attendance
S25.03	Subsequent Attendance
S25.07	Otorhinolaryngology - Minor Procedures
<b>Pain/Anaesthesia</b>	
CDHB-22	Anaesthesia Allergy Testing
OT05.01	Hyperbaric Chamber
<b>Plastics and Burns</b>	
AH01-014	Nurse/Non-Medical Clinics
HS0115	Craniofacial
S00.08	Minor Operations
S60.01-A	Inpatient Services - Acute
S60.01-E	Inpatient Services - Elective
S60.01-IDF	Inpatient Services - Elective IDFs
S60.02	First Attendance
S60.03	Subsequent Attendance
S60.07	Plastic Surgery - Minor Procedures
<b>Radiology</b>	
CS01.01	Community Radiology DHB

CS01.01M	Community Referred Radiology - Maternity Ultrasound
HS0116	Community Radiology (Mammography - Symptomatic)
<b>Respiratory</b>	
AH01-049	Nurse/Non-Medical Clinics
CS04.08	Community Referred Tests
DOM1.02	Comm. Services - home oxygen
M00.10-R	Respiratory - Virtual FSA
M65.01	Inpatient Services
M65.02	First Attendance
M65.02-SL	Respiratory - 1st Attendance - Sleep
M65.03	Subsequent Attendance
M65.04	Respiratory Education and Management
M65.05	Bronchoscopy
M65.06	Sleep Apnoea Assessment
M65.07	Sleep apnoea - long term treatment
<b>Rheumatology/Immunology</b>	
AH01-052	Nurse/Non-Medical Clinics
M70.01	Inpatient Services
M70.02	First Attendance
M70.03	Subsequent Attendance
<b>Sexual Health</b>	
S-85	First Attendance
S-86	Subsequent Attendance
<b>Urology</b>	
AH01-019	Nurse/Non-Medical Clinics
CS01.01-U	Community Referred Radiology - CT Haematuria
CS04.07	Community Referred Tests
MS02.09U	IV Chemotherapy - Cancer
S70.01-A	Inpatient Services - Acute
S70.01-E	Inpatient Services - Elective
S70.01-IDF	Inpatient Services - Elective IDFs
S70.02	First Attendance
S70.03	Subsequent Attendance
S70.04	Chemotherapy
S70.05	Cystoscopy
S70.06	Lithotripsy
S70.07	Urodynamics
<b>Vascular Surgery</b>	
AH01-020	Nurse/Non-Medical Clinics
S75.01-A	Inpatient Services - Acute
S75.01-E	Inpatient Services - Elective
S75.01-IDF	Inpatient Services - Elective IDFs
S75.02	Vascular Surgery - First Attendance
S75.03	Vascular Surgery - Subsequent Attend.

## 7.11 Clinical leadership

### APPENDIX 11

The following is a snapshot of the 'formal' clinical networks, governance boards and leadership groups in the South Island DHBs. This does not represent all of the activity and engagement as there is a wealth of collaborative relationships, professional linkages and supportive leadership groups informally responding to need and supporting patient pathways across the South Island, but is an attempt to provide an overview of the picture at the highest organisational level.

	'Formal' Clinical Leadership
SDHB	<p>Clinical Advisory Committee - <b>Planned 2010/11</b>, governance structure to advise the Southern Board subsequent to the merger of the Otago and Southland DHBs.</p> <p>Clinical Board - Dunedin Hospital site ownership and oversight of clinical practices and standards.</p> <p>Senior Clinician/Management Partnership - Southland/Lakes District Hospital Site operational, clinical and financial oversight.</p> <p>PHO Clinical Governance - <b>Planned 2010/11</b>, to support the consolidation of nine PHOs into one with oversight over clinical structures and processes.</p>
SCDHB	<p>DHB Clinical Council - ownership and oversight of clinical practice and standards.</p> <p>Clinical Governance Group (primary and community) - <b>Planned 2010/11</b>, multidisciplinary group but with cross-sector elements through joint oversight and membership with the Clinical Council. Also has ownership and oversight of clinical practice and standards. A Chief Primary Care Medical Officer has been appointed to this group to support decision making and accountability for service design and delivery across the continuum.</p>
WCDHB	<p>Clinical Quality Improvement Team - ownership and oversight of clinical practice and standards.</p> <p>Primary Health Organisation Clinical Governance Group - multidisciplinary and cross-sector, focused on improving coordination of patients across the continuum of care.</p> <p>Combined Clinical Governance Framework being developed, focused on a whole of West Coast health system integration.</p>
NMDHB	<p>Clinical Advisory Council - Multidisciplinary and cross-sector, role in decision making regarding allocation of funding, resources and capacity utilisation under new NMDHB structure.</p> <p>Strategic Clinical Group - multidisciplinary, independently chaired, focused on providing advice on effective organisational re/development of NMDHB.</p> <p>DHB PHO Partnership Alliance Clinical Governance Board - <b>Planned 2010/11</b>, multidisciplinary and cross-sector, focused on improving coordination of patients across the continuum of care.</p>
CDHB	<p>Clinical Board - Multidisciplinary and cross-sector, ownership and oversight of clinical quality, standards and policies with leadership role in raising standard of patient care.</p> <p>Canterbury Clinical Network Transitional Leadership Board - Multidisciplinary and cross-sector, independently chaired, focused on the implementation of Canterbury Better, Sooner, More Convenient Business Case.</p> <p>Combined Clinical Governance Framework - <b>Planned 2010/11</b>, multidisciplinary, focused on integration between West Coast and Canterbury DHBs.</p>

## 7.12 Our regional planning response – priority service areas

### APPENDIX 12

This section provides greater detail in our approach to Section 5 of this document 'Addressing our Challenges'. An outline of the approach and work plan for 2010/11 is provided below for each of the regional work streams.

In addition to this work, sub-regional activity across a wide range of services is underway and Nelson Marlborough DHB is involved in cross regional activity with the Central region.

### Mental Health Services

'Our mental health is important. It enables us to seize new opportunities, overcome challenges and reach our potential. It also helps us to make the most of our families, our friendships, our jobs, our communities and to live our lives to the full' Te Tāhuhu: Improving Mental Health 2005-2015, Ministry of Health Strategy.

The South Island Regional Mental Health Network was formed in 2001 as a South Island (SI) DHB Planning and Funding forum. The network is consultative and its structure provides linkages for stakeholder groups and, through projects, key services to be represented. The network also provides an interface on behalf of the districts, for regional issues, with the MOH, and other intersectoral agencies or services. In particular the network assists the districts in meeting the goals in the national strategic plan<sup>43</sup>, by coordinating information flow, and linkages and representation with key national projects.

The South Island Shared Services Agency (SISSAL) co-ordinates and provide the resources to support the Network in achieving the purpose and objectives of the Network.

Current Situation	Future Direction
<p>The aim of <i>Te Tāhuhu</i><sup>44</sup> and the action plan, <i>Te Kōkiri</i>, is to encourage and assist both government and non-government (NGO) service providers to work more closely together, to jointly develop solutions to problems, and to work towards improving outcomes for people with experience of mental illness and/or addiction.</p> <p>The network functions to support the SI DHBs in meeting these outcomes through the following key areas:</p> <ul style="list-style-type: none"> <li>▪ Promotion and Prevention through primary mental health initiatives within Primary Health Organisations.</li> <li>▪ Building Mental Health Services to provide treatment and support in the least restrictive environment including: building community services, primary mental health services, expanding on existing services and caring for people in their own homes.</li> <li>▪ Responsiveness to local demand and local needs and priorities including: better communication channels, more robust data collection and information analysis to support a continuous quality improvement approach.</li> <li>▪ Workforce and Culture for Recovery - commitment to maximising efficiency by working together on workforce development activity.</li> <li>▪ Māori Mental Health - SIRMHN supports local and</li> </ul>	<p>Seven principles underpin the functioning of the Network:</p> <ul style="list-style-type: none"> <li>▪ Strive to provide services that are trusted and high performing, so that people will have confidence that if they need them, they can access high-quality mental health and addiction services.</li> <li>▪ Recovery-focused mental health services provide choice, promote independence, and are effective, efficient, responsive and timely.</li> <li>▪ Work across boundaries and enable service users to lead their own recovery.</li> <li>▪ Strive to continuously improve the quality of our services, which are outcome focussed and based on best practice.</li> <li>▪ Collaborative planning and teamwork will enable the implementation of regional sustainable strategies to improve health outcomes.</li> <li>▪ Promote innovation in the mental health and addiction sector and the sharing of good ideas.</li> <li>▪ Value diversity and support and enable all people with experience of mental illness and addiction to fully participate in society and in the everyday life of their communities and whānau.</li> </ul> <p>The Network are looking at the MoH led development of clinical networks as a mechanism to achieve the seven principles,</p>

43 Minister of Health. 2006. *Te Kōkiri: The Mental Health and Addiction Action Plan 2006–2015*. Wellington: Ministry of Health.

44 Minister of Health. 2005. *Te Tāhuhu – Improving Mental Health 2005–2015: The Second New Zealand Mental Health and Addiction Plan*. Wellington: Ministry of Health

<p>regional Māori mental health initiatives.</p> <ul style="list-style-type: none"> <li>▪ Primary Health Care - The Network provides regional representation to work closely with the MoH Primary Mental Health Team. The Network is committed to build and strengthen the capacity of the primary health care sector.</li> <li>▪ Addiction - Implementation of the 2004 South Island Alcohol and Other Drug (AOD) Services Review framework was reviewed in 2008. This identified the majority of Service Development Objectives had been achieved and continue to be addressed by the DHBs and AOD Service Providers. Objectives not achieved and gaps and issues in AOD service provision have formed the development of the strategic goals in the current strategic plan</li> <li>▪ Funding Mechanisms for Recovery - the SI mental health planners and funders understand the need for funding mechanisms that are flexible, responsive and built on genuine respect. Funding mechanisms are being linked to outputs and outcomes, and are being informed by increased monitoring of data to provide meaningful analysis and understanding</li> <li>▪ Transparency and Trust - In addition to SIRMHN sharing information, all SI DHBs have forums to share information with their local sector to improve transparency and trust.</li> <li>▪ Working Together - SIRMHN endeavours to improve efficiency and effectiveness by collective problem solving and sharing of information. The SISSAL mental health team is tasked with supporting the Network to achieve these goals.</li> </ul>	<p>strengthen vulnerable services and improve regional service planning.</p> <p>The Network has a desire to share collective knowledge and expertise to support district and regional planning. They seek better alignment with the South Island Health Services Planning, and want better engagement with clinical leadership.</p> <hr/> <p>Our patients will have:</p> <ul style="list-style-type: none"> <li>▪ Greater independence through recovery focused services</li> <li>▪ The option and be supported to lead their own recovery</li> <li>▪ Access to timely, quality services</li> <li>▪ Access to sustainable services across the South Island</li> </ul>
<p>Regional Action</p>	
<p>Regional activity is based on the ten strategic challenges identified in Te Kokiri and the SI DHB's strategic activities in order to achieve these challenges. The SIRMHN has prioritised four main areas for projects for the current year, under:</p> <ul style="list-style-type: none"> <li>▪ Assisting regional mental health service to continue to meet the population needs. <ul style="list-style-type: none"> <li>- Identify models of care for SI Regional Mental Health Services which best meet the needs of the SI population, being cognisant of advancement in treatment modalities, resourcing issues and the requirement to be more responsive. Specifically Mothers and Babies, Eating Disorders, Medical Detoxification, Child and Family, Youth Inpatient and Child and Youth AOD residential.</li> <li>- Implement the recommendations in the SI Forensic Strategic Plan</li> <li>- Implement the recommendations in the South Island Eating Disorders Strategic Plan</li> </ul> </li> <li>▪ Support the engagement with the Disability Support Service to develop interface guidelines that improve outcomes for all service users.</li> <li>▪ Tangata whaiora requiring regional specialist clinical services, experience services that provide choice, promote independence and are effective, efficient, timely and responsive.</li> <li>▪ Consolidate our research and development foundation and build and share our knowledge base to achieve better outcomes for tangata whaiora and whanau.</li> <li>▪ Actively participate in the MoH led development and implementation of national service provision frameworks <ul style="list-style-type: none"> <li>- Develop a regional plan for the implementation of the MoH guidelines on co-existing disorders.</li> </ul> </li> </ul>	

## Older Person' Health Services

'Older people participate to their fullest ability in decisions about their health and wellbeing and in family, whanau and community life. They are supported in this by co-ordinated and responsive health and disability support programmes' Health of Older People Strategy, Ministry of Health 2002.

The South Island Regional Health of Older People Network (SIRHOPN) was formally established in October 2009, in response to the demands and issues identified below. Its purpose is:

- to provide effective regional Health of Older People service planning and funding advice and recommendations to the South Island Planning and Funding Network;
- to promote effective and appropriate sharing of information that supports a regional perspective on Health of Older People services; and
- to develop, prioritise, implement and monitor regional activities which contain prioritised goals and allocated resources for each financial year, that deliver outputs which will have an overall strategic aim for regional development.

Current Situation	Future Direction
<p>Our population is ageing and DHB's currently have different policies and access criteria for services, To ensure a consistent approach to quality care for our older people the South Island DHBs need to address:</p> <ul style="list-style-type: none"> <li>▪ The associated increase in health service demand;</li> <li>▪ Current and evolving service gaps;</li> <li>▪ Financial sustainability of the health sector and current issues with quality and workforce.</li> </ul>	<p>Service development supports the national Ageing in Place Strategy</p> <p>Service development will</p> <ul style="list-style-type: none"> <li>▪ Be financially sustainable and cost-effective</li> <li>▪ Support fair and equitable access to services</li> <li>▪ Support high quality clinical service delivery</li> </ul> <p>Our population will:</p> <ul style="list-style-type: none"> <li>▪ Have access to the care they need to support them as they age</li> <li>▪ Have the same assessment and case co-ordination approach where ever they live</li> <li>▪ Have access to carers who are supported in their role</li> <li>▪ Receive quality community support residential care</li> <li>▪ Have access to sustainable services.</li> </ul>
Regional Action 2009/10	
Q1	<ul style="list-style-type: none"> <li>▪ Implement the regional dementia advisory service</li> </ul>
Q2	<ul style="list-style-type: none"> <li>▪ Develop a regional approach to supporting carers</li> <li>▪ Develop a regional approach to improving quality in aged residential care, in particular, issue based audits and clinical leadership</li> <li>▪ Establish regional database to monitor patterns of expenditure and utilisation for residential and home support services</li> </ul>
Q3	<ul style="list-style-type: none"> <li>▪ Implement standardised eligibility criteria and processes for entry to services</li> <li>▪ Implement a common service specification and funding model for the reconfiguration of home support services on a restorative model.</li> </ul>
Q4	<ul style="list-style-type: none"> <li>▪ InterRAI fully implemented across SI DHBs</li> </ul>

## Cancer Services

“The South Island DHBs operate within the context of a dynamic and evolving health environment, where wider societal changes and expectations of Government, demand that services and plans are reviewed regularly to ensure responsiveness to meet changing demands.”

The Southern Cancer Network is one of four Regional Cancer Networks in New Zealand established to implement the New Zealand Cancer Control Strategy and Action Plan 2005-2010. The purpose of the Southern Cancer Network is to take a leadership, facilitation and co-ordination approach to support providers of cancer care in the South Island who work collaboratively with the community to:

- support the implementation of the New Zealand Cancer Control Strategy and associated Action Plan 2005-2010, the dual key aims of which are:
  - to reduce the incidence and impact of cancer
  - to reduce the inequalities with respect to cancer
- improve the journey of cancer patients and their family/whānau through the complex pathway of care (aiming for high quality, equitable, patient-centred, multidisciplinary and evidence based care).

The Southern Cancer Network stakeholders represent and work across the full range of areas on the cancer continuum: South Island Region DHBs, NGOs, GPs and Primary Health Organisations (PHOs), cancer service providers, cancer consumers and their family/whānau, hospices, and research organisations. The SCN is hosted by the South Island Shared Services Agency (SISSAL).

Current Situation	Future Direction
<p>Cancer control is a national and regional priority area. The National Cancer Programme Work Plan 2010-2011 is an integrated national programme that covers the Ministry of Health, DHBs' and regional cancer networks' activity across the cancer continuum to implement the Cancer Control Strategy and Action Plan. Cancer interventions (diagnostic and treatment) have undergone rapid and significant technological improvements and are increasingly reliant on complex, high cost facilities, equipment and treatment protocols. Robust information on regional cancer service outcomes is limited, even more so in relation to cost benefit. NGOs are increasingly picking up community support of the cancer patient without being funded to do so. In an environment of acknowledged fiscal pressure and an increasingly aging population (increasing the incidence and mortality rates of cancer) the SCN aims to provide a horizontal coordinating mechanism to ensure:</p> <ul style="list-style-type: none"> <li>▪ service efficiencies, economies of scale and quality improvements are identified and implemented</li> <li>▪ innovation and infrastructure planning and development is supported to reduce inequalities and build regional capacity and capability.</li> </ul>	<p>The SCN's three strategic directions for 2009-2014 are to:</p> <ul style="list-style-type: none"> <li>▪ share knowledge and information to enable informed decision making</li> <li>▪ facilitate regional service quality improvement leading to better, sooner, more convenient services and</li> <li>▪ support innovation and infrastructure development to reduce inequalities and build capacity and capability.</li> </ul> <p>Our patients will:</p> <ul style="list-style-type: none"> <li>▪ receive timely, high quality care</li> <li>▪ be supported across the continuum of their care</li> <li>▪ have equitable access to services</li> </ul>
<p><b>Regional Action</b></p>	
<p>The SCN provides direct support to the five Local Cancer Networks which are all linked into the Southern Cancer Network Steering Group. The Local Cancer Networks are in the process of developing, updating or implementing a Local Cancer Plan to coordinate and prioritise key work which supports cancer control implementation and quality improvements sub regionally. There will be a focus on Reducing Inequalities projects guided by the Local Cancer Networks in 2010-2011.</p> <p>Regional activity is guided by the SCN's Regional Strategic Plan 2009-2014. Actions that supports this plan include:</p> <ul style="list-style-type: none"> <li>▪ SCN Network Groups are operational and make progress against their terms of reference and the work programme measures pertinent to each group below; SCN Steering Group, Maori Leadership Group, 5 Local Cancer Networks, South Island Lung Working Group, South Island Bowel Working Group, South Island Oncology Research Group, Palliative Care</li> </ul>	

Network Groups, South Island PET Scan Variance Committee, South Island Cancer Nurse Network, Synoptic Reporting Advisory Group

- South Island Clinical Cancer Information System
- South Island Health Needs Assessment
- South Island Cancer Services Directory in collaboration with the Cancer Society
- Reducing Inequalities Projects
- SCN website and newsletters updated quarterly to share network information
- Support the increased utilisation of multidisciplinary meetings for cancer patients within the South Island
- Support the development and monitoring of regional cancer key performance indicators
- Support the South Island Cancer Centres as required to meet the national and regional targets
- Develop reports (including the South Island Regional Bowel Cancer Report) that identify efficiency gains, improvements and recommendations and monitor the progress against these recommendations.
- Support the establishment of a regional Adolescent and Young Adult service

## Child Health Services

'Governments do not bring up children, but most of their decisions affect families in some way. A more sustained and integrated approach to children's services and policy is necessary. Investing in child development, especially in the early years, brings positive results for children and future productivity. We must do our best for all children, especially those being left behind.' Pauline Barnett, Chair, Public Health Advisory Committee, June 2010.

The South Island Child Health Services plan aims to strengthen and enhance the provision and delivery of child health services in the South Island at an individual District Health Board (DHB) level and supported by a collective SI DHB led service. The plan is underpinned by an integrated approach for the provision of tertiary, secondary and primary healthcare services for children and their families living in the South Island.

The planning process and the proposed actions for stage one have been informed by a wide group of clinicians and operational managers from the six (now five) South Island DHB tertiary and secondary service providers.

Current Situation	Future Direction
<p>Children across the South Island receive good care from health care providers but we recognise that the approach to seamless care is not as good as it could be</p> <p>Individual DHBs are working through Better Sooner More Convenient approaches to support delivery of health services to the child population.</p> <p>The SI vulnerable services survey identified issues in SI DHBs relating to workforce including recruitment and retention; succession planning, which we know will affect community providers in their ability to support children and their families and whānau.</p> <p>In line with the national picture of Paediatric Services the South Island has identified there is:</p> <ul style="list-style-type: none"> <li>▪ no universal referral pathways across service providers</li> <li>▪ no defined clinical best practice guidelines</li> <li>▪ no account of critical mass of specialists or patients</li> <li>▪ a risk of sub optimal outcomes compared to</li> </ul>	<p>A South Island Regional Child Health Service coordinated through a South Island child health group to develop:</p> <ul style="list-style-type: none"> <li>▪ South Island child health referral pathways for accessing all health services</li> <li>▪ Best practice guidelines defined and adopted</li> <li>▪ Service plans that consider best use of constrained resources and prevent duplication</li> <li>▪ Optimal outcomes for the children of the South Island through sharing innovation and successful models of care and provide a framework and template for new models of care</li> <li>▪ Clinically sustainable services through improved access to training and training resources—medical, nursing and allied health</li> <li>▪ improved quality standards, accreditation, up-skilling outreach service staff</li> <li>▪ An infrastructure that: <ul style="list-style-type: none"> <li>• provides supportive self care, health promotion, health education</li> </ul> </li> </ul>

<p>international standards</p> <ul style="list-style-type: none"> <li>▪ inequity of access and outcome, with children in some parts of the country able to access services, while others cannot</li> <li>▪ unsupported clinicians</li> <li>▪ lack of peer review</li> <li>▪ no planning for, or consideration of, infrastructures</li> <li>▪ financial unsustainability.</li> </ul>	<ul style="list-style-type: none"> <li>• improves service networks and protect families from gaps between services</li> <li>• supports sharing of services such as telephone help lines, patient information websites and community support groups</li> <li>• includes better information management— benchmarking, evaluation audit and output, process and outcome markers</li> <li>• includes shared information technology solutions and clinical information systems</li> <li>• improved communication and peer support</li> <li>• improved transport systems and policies</li> <li>▪ Innovative funding systems.</li> </ul> <p>Our children and their families and whānau will:</p> <ul style="list-style-type: none"> <li>▪ have equitable access to services</li> <li>▪ be supported across the continuum of their care</li> <li>▪ be supported to manage their own health and decrease episode requiring care</li> <li>▪ recognise improved communication and coordination between providers</li> </ul>
<p>Sub-Regional Action</p>	
<p>Appointment of a joint Paediatrician SMO to West Coast and Canterbury DHBs.</p>	
<p>Regional Action</p>	
<p>Establish a South Island Child Health Network agree workplan to :</p> <ul style="list-style-type: none"> <li>▪ Develop a South Island Child Health Framework that includes <ul style="list-style-type: none"> <li>• strategic planning within paediatrics,</li> <li>• clinical input into DHB strategic planning and decision-making</li> <li>• data and information on services,</li> <li>• equitable access to services,</li> <li>• integration of services.</li> </ul> </li> <li>▪ Plan for a sustainable South Island paediatric workforce <ul style="list-style-type: none"> <li>• registrar training network</li> <li>• shared nursing training programme</li> <li>• sharing of resources</li> <li>• centralised recruitment</li> <li>• benchmarking and defining future workforce needs</li> </ul> </li> <li>▪ Determine opportunities for sharing and collaboration <ul style="list-style-type: none"> <li>• education and training opportunities</li> <li>• child health early warning score protocol</li> <li>• child health directory (clinical version of Kidzfirst website)</li> </ul> </li> </ul>	

## Public Health Services

'Public health makes a difference when society moves collectively on an issue. The basis of effective public health action is not a single service or intervention, but the organised efforts of society itself.' Ministry of Health Public Health Webpage 2010

A joint MoH, SI DHBs and PHUs project, Healthy South, was developed during 2008 with the aim of building South Island-wide capability to improve the health of populations. This project began in response to a need to: connect the sector better; develop lasting collaborative relationships; minimise service gaps and duplication; and look for opportunities for regional planning to ensure value for money and the best health outcomes for the South Island population

In late 2009 it was identified that because Healthy South sat outside other regional collaborations, the current steering group should be disestablished and a more appropriate regional structure identified for meeting the aims of Healthy South.

During 2010 it has been agreed that Public Health will be a workstream under SI Health Services Planning. Funding for a programme leader has been secured from MoH to undertake an agreed programme of work.

Current Situation	Future Direction
<p>There are three Public Health Units in the South Island leading to the same issues as identified nationally in relation to fragmentation at regional and local level due to poor co-ordination of service purchasing in some areas, resulting in:</p> <ul style="list-style-type: none"> <li>▪ duplication of services,</li> <li>▪ multiple providers,</li> <li>▪ and limited requirements, incentives or frameworks for integration</li> </ul>	<p>Consistent and coherent South Island approach</p> <p>Connections within and across SI DHBs</p> <p>Strong credible leadership</p> <p>Maximised use of resources, including workforce and funding</p>
Regional Action	
2010/11 Q1 and 2	
<ul style="list-style-type: none"> <li>▪ Workplan developed for SI Action Networks for tobacco and alcohol</li> <li>▪ Develop SI approach to workforce development, supporting national approaches, and Public Health workforce development within current resources</li> <li>▪ Develop SI approach to Whānau Ora linking with national and regional approaches</li> <li>▪ Develop SI approach to Knowledge Management building on current systems to support regional access and sharing</li> </ul>	
2011	
<ul style="list-style-type: none"> <li>▪ Successful implementation of a regionalised service as described in the agreed workplan, outcomes framework, and implementation plan</li> </ul>	

## Elective Services

Elective services are important for improving peoples' independence and ability to participate in the activities of daily living. Reasonable access to electives services is also essential to ensure public confidence in the public health system as a whole.

The South Island COOs and GMs PandF have developed a regional approach to Elective Services. The aim is to ensure the South Island (SI) DHBs have the capacity to deliver the required levels of service. This includes the ability to deliver increasing elective volumes (meeting the Ministers expectations), provide equitable access to surgical services,

the development and implementation of an integrated SI production plan and capacity modelling to support future investment.

Clinical leadership is seen as key to ensure the success of the approach.

Current Situation	Future Direction
<p>The South Island DHBs agree to improve access and equity to elective services. There is a need to make the most of existing surgical services across the South Island through smarter choices about how, where and when we provide elective surgical services.</p> <p>To date most of the regional work has been within DHBs in order to better understand and where possible increase internal elective capacity. This has resulted in:</p> <ul style="list-style-type: none"> <li>▪ theatre capacity improving,</li> <li>▪ expanded resourced bed numbers and utilisation</li> <li>▪ DHBs meeting the current elective services targets.</li> </ul>	<p>Over the next three years the South Island will:</p> <ul style="list-style-type: none"> <li>▪ Provide a framework for the development and implementation of a collective approach for the delivery of elective surgical services across the South Island to ensure equitable access for all population groups</li> <li>▪ Improve equity of, and access to, surgical services that contribute to the health outcomes for the people of the SI</li> <li>▪ Ensure SI DHBs have the capacity to deliver the required levels of service to deliver increasing elective volumes</li> <li>▪ Ensure SI DHBs provide efficient and effective delivery of services</li> </ul> <p>Our patients will:</p> <ul style="list-style-type: none"> <li>▪ Have equitable access to elective services</li> <li>▪ Receive timely high quality treatment</li> </ul>
Regional Action	
<p>2010/11</p> <ul style="list-style-type: none"> <li>▪ Q2 Develop capacity model of physical capacity</li> <li>▪ Q4 Common production planning phase one developed</li> </ul> <p>2011/12</p> <ul style="list-style-type: none"> <li>▪ Implementation of common production planning phase one</li> <li>▪ Delivery of elective service volumes using common production planning and capacity model.</li> </ul>	

## Neurosurgery Services

'The South Island Health Services Plan will keep health services close to where people live, while also making sure they are viable in the long term from a clinical, workforce and financial perspective. South Island-wide planning to ensure a viable neurosurgery service was one of the first initiatives to get underway in the past year. This is an exciting challenge and will help shape access for South Canterbury residents and also the structure of services provided locally' South Canterbury DHB, A Year in Review 2009.

The proposal for considering a South Island approach to neurosurgical services developed following concerns that the Otago DHB service was having difficulty in recruiting a full complement of neurosurgeons. A meeting of key stakeholders was held on 19 February 2009. At that meeting it was agreed:

1. A single geographical South Island neurosurgery service be developed, acknowledging:
  - the service must fit in with North Island services
  - the exact involvement with Nelson Marlborough DHB is yet to be established
  - how each clinician will be involved
  - equity of access to quality advice and treatment will be a fundamental principle
2. That a working group be established to determine the timeline for, and configuration of such a service.

Current Situation	Future Direction
<p>The service at Dunedin Hospital has not had a full complement of neurosurgeons for some time. This has meant there are times when the acute patients have travelled to Christchurch and there has been little elective surgery provided as there has not been the capacity to deliver the additional work at Christchurch Hospital.</p> <p>The two neurosurgical services at Christchurch and Dunedin Hospitals have been managed independently</p> <p>Two reviews of neurosurgery services in SI undertaken in 2009 and 2010</p> <p>Both reports recommended a single service with six neurosurgeons based out of Christchurch providing services across South Island.</p> <p>South Island DHB CE consensus not reached and the issue was escalated to the Ministry of Health. An 'expert group' was established July 2010 to provide advice to the Ministry of Health on appropriate service configuration.</p> <p>Southern DHB appointed two neurosurgeons – July 2010</p>	<p>One South Island Neurosurgical service based in one or two sites with outreach services with:</p> <ul style="list-style-type: none"> <li>▪ A regional clinical governance framework including teaching and training</li> <li>▪ An outcomes measurement framework for the service</li> <li>▪ A demonstrably clinically and financially sustainable service</li> </ul> <p>Our patients will:</p> <ul style="list-style-type: none"> <li>▪ Have equitable access to elective services</li> <li>▪ Receive timely high quality treatment</li> <li>▪ Have support and coordination across the continuum of their care</li> </ul>
Regional Action	
To be agreed following the expert group decision.	

## Ophthalmology services

'The prevalence of vision loss trebles for every decade of life after 40 years of age. The ageing of the population will lead to a doubling of eye disease by the year 2020. Three quarters of visual impairment, however, can be prevented or treated.' Victorian ophthalmology services planning framework, 2005

The Ophthalmology Working Group was established in February 2010, following concerns regarding the sustainability of delivering public funded service in this specialty across the majority of DHBs in the South Island. The group is co-chaired by an ophthalmologist and DHB manager and includes ophthalmologists, nurses general practitioners and managers. The group or working groups established to undertake specific projects may extent to include other key stakeholders.

Current Situation	Future Direction
<ul style="list-style-type: none"> <li>▪ The patient needs are not being met across the South Island now and this challenge will increase as the population ages.</li> <li>▪ Ophthalmology services vary in access and models of care across the South Island. Sub-specialty service configuration needs a regional approach for future sustainability.</li> <li>▪ Majority of DHBs not meeting clinical need in the population. Growth of diabetes and older population, together with new treatments are and will continue to drive demand or pressure on the current model of care.</li> <li>▪ Mixture of public and private delivery, fully and partially contracted services. Sole practitioners in Blenheim and Timaru.</li> </ul>	<p>South Island team supporting:</p> <ul style="list-style-type: none"> <li>▪ A planned approach to coordinated and collaborative service delivery</li> <li>▪ Equity of access</li> <li>▪ Common referral, prioritisation and condition management tools used</li> </ul> <p>Linked to National Ophthalmology Network representative.</p> <p>Our patients will:</p> <ul style="list-style-type: none"> <li>▪ Have access to services in a timely manner</li> <li>▪ Have equal access no matter where they liveH</li> </ul>

Sub-Regional Action	
Q1	Agree access (videoconference or skype) for SCDHB clinician to participate in Christchurch and/or Dunedin clinical meetings.
Regional Action	
Q1	Send letter of support from Ophthalmology Working Group to Southern DHB business case for vitreoretinal equipment Review of current service innovative practices Agree national (or South Island if national not an option) intravitreal injection Purchase Unit Code and price Update current situation questionnaire for 09/10 volumes, FSA: F/up ratios, access data, issues faced 10/11
Q2	Survey DHBs for current ophthalmology workforce and succession planning with the aim of developing an approach to workforce including recruitment, training, scope of practice, investment
Q3,4	Review current tools for consensus approach on completion of PROMS assessment being undertaken in Nelson and Tauranga Review Diabetic retinal screening current approaches, future demand and options South Island position on vitreoretinal surgery and other sub-specialty areas, to be prepared for future reference, planning and service configuration

## Shared Services

The Strategic South Island Procurement Group (SSIP) is made up of procurement experts representing all South Island DHBs.

The principal goal of SSIP is to work toward converging South Island (SI) DHB Procurement procedures and policies, in the best interest of SI DHBs.

Current Situation	Future Direction
<ul style="list-style-type: none"> <li>▪ Annual work plans are developed through analysis of planned procurement, including capex, across the DHBs.</li> <li>▪ The work plan developed for the end of the 09-10 year has delivered more savings than originally estimated.</li> <li>▪ Procurement managers are having to put a majority of their time into developing national projects for P30, which means less time is available for SSIP projects.</li> <li>▪ The uncertainty within the Procurement and Supply functions continues to be highly disruptive with many of the “regional” initiatives planned to become “national” projects. There is still uncertainty around the timelines for many national projects.</li> <li>▪ Difficulties in getting clinicians to agree regionally to suggested procurement, even with clinical trials of products.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Standardised documents and policies.</li> <li>▪ The quantity of projects/contracts being undertaken at a national level is likely to increase.</li> <li>▪ Continued alignment of purchasing with all contracts including a privity clause in the South Island.</li> </ul>

Sub-Regional Action
<ul style="list-style-type: none"> <li>SDHB carrying out procurement activities on behalf of SCDHB including a joint procurement plan and agreements</li> </ul>
Regional Action
<p>2010/11</p> <ul style="list-style-type: none"> <li>overarching agreements in place with identified key providers.</li> <li>shared contracts for identified key products and services including medical gases and medical waste completed.</li> <li>Continue to align contracts. There is often a lead-in time to develop new contracts as the group waits for existing DHB contracts. In the mean time SSIP will work to align contracts as much as possible by using the opt-on clause to other DHB's existing contracts as contracts expire.</li> <li>collate capex and purchase plans for the South Island into a work plan.</li> </ul>

## Technology

The South Island Information Systems Plan 2010-2015 is currently being developed and is in first draft. The plan will identify how services will be consolidated, integrated and developed to deliver a South Island Regional Information Systems service. Detailed plans are still in development and subject to change however, the following information indicates high level direction.

Current Situation	Future Direction
<p>Core business applications vary across SI DHBs</p> <ul style="list-style-type: none"> <li>Differing network, infrastructure and data centre standards exist across SI DHBs</li> <li>Individual IT service desks operate at each DHB</li> <li>Individual procurement strategies are followed for IT services, software and hardware</li> <li>Differing standards on Disaster Recovery prevention and technology. No provision for support across DHBs in the event of a disaster</li> <li>Differing standards on service management, including policy development on security and operational standards</li> <li>No data standards in place across the SI</li> <li>No regional focus to prepare for Public Records Act compliance</li> <li>Differing collaboration software, intranet standards and website</li> </ul>	<p>The key principles for the South Island DHBs are:</p> <ul style="list-style-type: none"> <li>Centralisation: IT services at each DHB will be designed and operated through a centralised model;</li> <li>Leadership: Decisions on IT services will be agreed at a regional level to ensure conformity and standards across the South Island;</li> <li>Consolidation: Single instance of core IT Services for all South Island DHBs is a key priority;</li> <li>Standards: Common architecture will be followed across all locations to simplify IT service delivery, integration and consolidation;</li> <li>Service Model: Customer support will be provided regionally but capitalise on local expertise to maintain the quality and functionality provided</li> </ul>
Sub-Regional Action	
West Coast DHB	
<p>2010/11</p> <ul style="list-style-type: none"> <li>Q2 - Telemedicine expansion to enable improved clinical collaboration with CDHB</li> <li>Q2 - Colposcopy system aligned with CDHB</li> </ul>	

<ul style="list-style-type: none"> <li>▪ Q2 – Implement Dental PriSM system to align with CDHB</li> <li>▪ Q3 - Align laboratory upgrade systems with CDHB for regional convergence</li> </ul>	
2011/12	
<ul style="list-style-type: none"> <li>▪ Q2 - Align clinical information systems with CDHB</li> <li>▪ Q2 – Implement upgrade for Oracle financial systems to enable services with CDHB</li> </ul>	
South Canterbury DHB	
2010/11	
<ul style="list-style-type: none"> <li>▪ Q1 merge the Radiology PACS systems of both CDHB and SCDHB.</li> <li>▪ Q4 - Align clinical information systems with CDHB</li> </ul>	
Southern DHB 2010	
<ul style="list-style-type: none"> <li>▪ Implementation of SDHB Data Warehouse and Business Intelligence toolset spanning previous Otago and Southland DHB multiple systems.</li> <li>▪ Convergence of systems, standards and business rules</li> </ul>	
Regional Action	
2010-11*	
Q1	<p>Review infrastructure at each DHB including; core networking standards, technology standards , data networks and internet access standards, data centre standards and availability, communication services.</p> <p>Review service delivery at each DHB including: IS service desk, licensing and procurement strategies, service management practices, disaster recovery standards, security policies.</p> <p>Review information management at each DHB including; data standards, compliance with Public Records Act, how information is presented internally and externally.</p>
Q4	Develop a South Island technology roadmap to standardise core technology.
2011/12	
Q1	Commence projects at each DHB to consolidate, integrate and standardise standards, telecommunication services, data centres and data/applications and core communications network.
Q2	Programme of work to align Public Record Act requirements.
Q3	Commence projects at each DHB to rationalise and centralise Service Desks and define an overarching SLA, implement Service Management standards and policies, implement a standard Security Policy and associated standards across SI, to start using SI procurement and licensing approach.
Q4	<ul style="list-style-type: none"> <li>▪ Commence projects at each DHB to align disaster recovery standards and policy.</li> <li>▪ Implement information management standards, consolidation and integration of information presentation.</li> </ul>

\* Draft as at July 2010

## Workforce

The South Island CEs have agreed on principle for the need for a single payroll system and Human Resource Information System (HRIS); this direction is consistent with the general thrust articulated by the Shared Services Establishment Board (SSEB).

In order for this to be achieved it was agreed by the SI GMsHR that payroll and HRIS could not be considered in isolation from other HR activities and services.

Current Situation	Future Direction
<p>Historically the SI DHBs have operated independently from each other and moreover the GMsHR have made decisions and implemented practices in isolation.</p> <p>More recently, the SI GMsHR have begun to work collaboratively and as a result have agreed strategy, priorities, governance and entity structures as well as the need for targeted work streams.</p> <p>The basis of this future work will be enabling the integration of community, primary and secondary care.</p>	<p>Single payroll system from four; single MECA interpretator from individual DHB decisions; single policies, procedures and contracts.</p> <p>Capability framework will be the basis for all people related and HR systems work.</p> <p>Entity structure to be established on the basis of a small core corporate group that advises on policy, strategy, design and piloting; hospital based people facing support services; shared services transactional work relating to recruitment, payroll, learning and development industrial relations, health and safety, HRIT/metrics, this model to be established on the basis of centres of excellence and a distributed model.</p>
Sub-Regional Action	
<p>To be finalised based on agreed work plan but would include:</p> <ul style="list-style-type: none"> <li>▪ CDHB and WCDHB HR collaboration and integration - underway.</li> <li>▪ Convergence of Otago and Southland HR services into a single operating entity - underway.</li> <li>▪ Payroll/HRIS hosting for Taranaki DHB – in discussion.</li> </ul>	
Regional Action	
<ul style="list-style-type: none"> <li>▪ Strategic HR concept model - agreed.</li> <li>▪ Stocktake of roles and individual skills in the various HR teams – completed.</li> <li>▪ Governance structure – underway.</li> <li>▪ Workforce planning and strategic sourcing.</li> <li>▪ Learning and Development – direction document completed and agreed.</li> <li>▪ Rationalising of HR systems and mapping - underway.</li> <li>▪ Single SI IR view - underway.</li> <li>▪ Single core policies and procedures - underway.</li> <li>▪ Standardised employment contracts - underway.</li> <li>▪ Employee engagement and organisational culture surveys.</li> <li>▪ Systems work including performance management and development, succession and talent planning.</li> </ul>	

## 7.13 Glossary of terms

### APPENDIX 14

The following table provides definitions on terms used in this document:

Term		Definition
ACC	Accident Compensation Corporation	Crown Entity set up to provide comprehensive, 24hour, no-fault personal accident cover for all New Zealanders.
	Acute Care	The provision of appropriate, timely, acceptable and effective management of conditions with sudden onset and rapid progression that require attention.
ASH	Ambulatory Sensitive Hospital Admissions	Hospitalisation or death due to causes which could have been avoided by preventive or therapeutic programme
ALOS	Average Length of Stay	ALOS is the sum of bed days for patients discharged in the period (i.e. lengths of stay) divided by the number of discharges for the period.
	Blueprint Funding	Blueprint funding is allocated by Government to work to ensure the development of mental health services for the 3% of the total NZ population with moderate to severe mental illness. Service development is based on the service levels set out in the Mental Health Commission's Blueprint for Mental Health Services in New Zealand: How Things Need to Be (1998).
CAPEX	Capital Expenditure	Spending on land, buildings and larger items of equipment.
CWD	Case Weighted Discharge	Relative measure of a patient's utilisation of resources
	Continuum of Care	Exists when a person can access responsive services matched to their level of need at any time throughout their illness or recovery.
	Crown Entities	A generic term for a diverse range of entities referred to in the Crown Entities Act 2004. Crown entities are legally separate from the Crown and operate at arms length from the responsible or shareholding Minister; they are included in the annual financial statements of the Government.
CE Act	Crown Entities Act	The Act which governs Crown Entities set out in 2004.
CFA	Crown Funding Agreement	This is an agreement by the Crown to provide funding in return for the provision of, or arranging the provision of, specified services.
DOSA	Day of Surgery Admission	DOSA is a patient who is admitted on the same day on which they are scheduled to have their elective surgery. The admission can be as either a day case or an inpatient.
	Determinants of Health	The range of personal, social, economic and environmental factors that determine the health status of individuals or populations.
DAP	District Annual Plan	This document sets out what the DHB intends to do over the year to advance the outcomes set out in the District Strategic Plan, the funding proposed for these outputs, the expected performance of the DHB provider arm and the expected capital investment and financial and performance forecasts.
DHBNZ	District Health Board New Zealand	National representative body for all twenty-one DHBs.
ESPIs	Elective Services Patient flow Indicators	The ESPIs have been developed by the Ministry to assess whether or not DHBs are on the right track with the Government policies on elective services.
FSA	First Specialist Assessment	(Outpatients only) First time a patient is seen by a doctor for a consultation in that speciality, this does not include procedures, nurse or diagnostic appointments or pre-admission visits.
	Follow-ups	Further assessments by hospital specialists.
FTE	Full Time Equivalent	An Employee who works an average minimum of 40 ordinary hours per week on an ongoing basis.

Term		Definition
HIS-NZ	Health Information Strategy– New Zealand	The Government's Health Information Strategy for all DHBs.
HNA	Health Needs Assessment	A process designed to establish the health requirements of a particular population
	Health Outcomes	A change in the health status of an individual, group or population which is attributable to a planned programme or series of programmes, regardless of whether such a programme was intended to change health status.
HEAT	Heat Equity Assessment Tool	The HEAT Tool provides questions to assist people working in the health sector to consider how particular inequalities in health have come about, and where the effective intervention points are to tackle them.
HWNZ	Health Workforce New Zealand	HWNZ was formed to lead and co-ordinate the planning and development of the health and disability workforce. It ensures that we have a high quality, fit-for-purpose workforce and that workforce issues are aligned with planning of services. The HWNZ Board is directly accountable to the Minister of Health.
	Integration	'Combine into a whole' or 'complete by addition of parts'.
IDFs	Inter-District Flows	An IDF is a service provided by a DHB to a patient whose 'place of residence' falls under the region of another DHB. Under PBF each DHB is funded on the basis of its resident population therefore the DHB providing the IDF will recover the costs of that IDF from the DHB who was funded for that patient.
InterRAI	International Resident Assessment Instrument	Comprehensive geriatric assessment tool.
IT Health Board	National Health Information Technology Board	The role of the IT Health Board is to provide leadership on the implementation and use of information systems across the Health and Disability Sector. The IT Health Board is a sub-committee of the National Health Board and is charged with ensuring that health sector policy is supported by appropriate health information and IT solutions.
LOS	Length of Stay	LOS is the time from admission to discharge, less any time spent on leave. It is normal to exclude boarder patients when calculating length of stay.
MoH	Ministry of Health	The Ministry of Health aims to ensure that the health and disability support system works for all New Zealanders. The Minister of Health has overall responsibility for the health and disability system
MoU	Memorandum of Understanding	An agreement of cooperation between organisations defining the roles and responsibilities of each organisation in relation to the other or others with respects to an issue over which the organisations have concurrent jurisdiction.
	Morbidity	Illness, sickness.
	Mortality	Death.
NHB	National Health Board	The NHB was established in November 2009 is made up of a Ministerial appointed Board and a branded business unit within the Ministry of Health.
NGO	Non-Government Organisations	There are many ways of defining NGOs. In the context of the relationship between the Health and Disability NGOs and the Canterbury DHB, NGOs include independent community and iwi/Māori organisations operating on a not-for-profit basis, which bring a value to society that is distinct from both Government and the market. In reality this will mean that any profits are put back into the organisation, rather than distributed to shareholders.
OPF	Operational Performance Framework	The OPF is one of a set of documents known as the 'Policy Component of the DHB Planning Package' which sets out the accountabilities of DHBs. The OPF is endorsed by the Minister of Health and comprises the operational level accountabilities that all DHBs must comply with, given effect through the Crown Funding Agreements between the Minister and the DHB.
PMS	Patient Management System	PMS (secondary-care), or Practice Management System (primary-care) used to keep track of patients. In secondary care the focus is usually on tracking the admissions, discharges or transfers of patients, in primary care, the focus is on maintenance of the register.

Term		Definition
PHARMAC	Pharmaceutical Management Agency	Government Agency which secures the best health outcomes that are reasonably achievable from pharmaceutical treatment and from within the amount of funding provided.
PBF	Population Based Funding	Involves using a formula to allocate each DHB a fair share of the available resources so that each Board has an equal opportunity to meet the health and disability needs of its population.
	Primary Care	Primary Care means essential health care based on practical, scientifically sound, culturally appropriate and socially acceptable methods. It is universally accessible to people in their communities, involves community participation, is integral to, and a central function of, the country's health system, and is the first level of contact with the health system.
PHO	Primary Health Organisation	A new development in service delivery PHOs encompass the range of primary care and practitioners and are funded by DHBs to provide of a set of essential primary health care services to those people who are enrolled in that PHO.
	Public Health	The science and art of preventing disease, prolonging life and promoting health and efficiency through organised community effort. A collective effort to identify and address the unacceptable realities that result in preventable and avoidable health outcomes and it is the composite of efforts and activities that are carried out by people committed to these ends.
	Secondary Care	Specialist care that is typically provided in a hospital setting
SISSAL	South Island Shared Services Agency Ltd	SISSAL provides a consultancy service to the South Island DHBs, and works in partnership with them on health planning and funding issues. SISSAL is funded by the DHBs on an annual budget basis to provide these services including contract and provider management, audit, strategy and service development, analysis, and project and change management.
SDR	Standardised Discharge Ratio	The SDR measures the intervention rates for a selected group of procedures and compares them with the national average. If all DHBs were providing services at the same level, they would all be at 1. Intervention analysis does not necessarily indicate what the right rate might be, but compares DHBs with the national mean, taking board population demographics into account.
SOI	Statement of Intent	The Statement of Intent covers three years and is the DHB's key accountability document to Parliament. It is a statutory obligation under the Public Finance Act and has a high level focus of key financial and non-financial objectives and targets, similar to an executive summary.
	Tertiary Care	Very specialised care often only provided in a smaller number of locations
YTD	Year to Date	The 12 month period immediately prior to the date given.

## Contacts

FOR FURTHER INFORMATION WITH REGARDS TO THIS DOCUMENT:

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## SOUTH ISLAND REGIONAL HEALTH SERVICES PLAN 2010

