South Canterbury
District Health Board

Integrating health provision in South Canterbury: to be the best provincial health service in the land

South Canterbury Health Services Plan

20 July 2011

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From the Chairman and Chief Executive Officer:

As Chair and Chief Executive of South Canterbury District Health Board we are proud to present South Canterbury's Health Service Plan. The plan has been developed over the past 6 months involving engagement and dialogue with a wide range of people who are involved in various ways within the South Canterbury Health System. It is important to recognise that while the plan was supported through the District Health Board the plan is far bigger and broader than the District Health Board activities; it will affect all aspects of health service regardless of whether they are provided in the hospital, primary care, community or the home.

A number of health organisations, both nationally and internationally develop a Health Service Plan when facing particular challenges (such as fiscal viability, significant workforce shortages, or major capital redevelopment). While there are a number of pressures, South Canterbury is not facing any significant challenges on these fronts presently. Investment in hospital and community facilities will however be required over the next decade, workforce pressures are evident and are only likely to increase over time, and the fiscal outlook is certainly challenging. We commissioned this planning process to ensure that we laid the appropriate foundations to ensure that as we move forward and confront the challenges of the next few years we invest our time, energy and resources in a manner which will optimise the health and well being of our community.

The plan will be used to guide service development and strategic direction locally, while also feeding into, and being fed by, regional and national initiatives and activities.

Our population is unique to New Zealand, we have the highest proportion of people over the age of 65 living within our community, and the best information we have available suggests that our overall population is unlikely to move materially over the next 10 to 20 years. This will challenge us in as much as we will not have population growth funding to utilise for service development and innovation, we have to create opportunity through working smarter and driving efficiencies and productivity from our Health System in order to be able to reinvest in services and innovations to meet the needs of our future. The current

government's policy setting of "Better, Sooner, More Convenient" is something that we can all relate to on a personal front, with health services for our ourselves and our family/Whānau to indeed deliver to this policy.

The plan contains a significant amount of information which will be useful in mapping out our future. It identifies a series of priorities which include:

- Prevention and early intervention
- Resilient primary care
- Seamless patient flow
- Centre of excellence for older persons
- Best hospital services

The Health Service Plan is deliberately not prescriptive, however it paints the strategic focus, and these priorities will become the forefront for encouragement of innovation and development. Resourcing, timing, and effort will deliberately be prioritised to initiatives and activities which will support the achievement of these priorities.

Regardless of who we are, as a South Canterbury resident we are all participants in the South Canterbury Health System, and it is incumbent on us all to hold the South Canterbury Health System to account to ensure that Integrating health provision in South Canterbury indeed delivers on the vision of being "the best provincial health service in the land".

Murray Cleverley
Chair

Chris Fleming
Chief Executive Officer

About Sapere Research Group Limited

This report was prepared for South Canterbury District Health Board by Sapere Research Group. Sapere Research Group is one of the largest expert consulting firms in Australasia and a leader in provision of independent economic, forensic accounting and public policy services. Sapere provides independent expert testimony, strategic advisory services, data analytics and other advice to Australasia's private sector corporate clients, major law firms, government agencies, and regulatory bodies. Sapere has a busy health practice, providing advice for government agencies and a range of funding, provider and professional bodies.

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Executive summary

The South Canterbury District Health Board has prepared a health services plan. This plan provides the framework for strategic and operational planning for the medium and long term, with the goal of providing a high quality of care and access to health services for the people of South Canterbury.

The plan was prepared on the basis of interviews and workshops with a range of clinical and management staff from across health services in South Canterbury, both within and outside services operated by the DHB. Interviews and workshops assessed the current state of health services in South Canterbury, and explored options and priorities for future development.

Health services in South Canterbury have important strengths upon which to build:

- A high level of access to services;
- Developing clinical leadership models;
- Low staff turnover;
- Financial stability;
- Confidence of the community; and
- Good health outcomes in many areas.

But there are also major challenges around workforce, service integration, facilities and clinical information. These are underpinned by historical fragmentation across services both within the DHB and across health care services more widely, and by the emerging challenge of an ageing population, with a rapid rate of increase in the complex elderly. Addressing these challenges will make the difference between two distinct futures for health services in South Canterbury:

Desired state

- Primary care is resilient and increasingly able to manage a wider range of services in the community; hospital care is more integrated with primary care and community based services; community and hospital professional workforces are stable; South Island regional networks are supportive, rather than centralised.

Risk state

- A state in which community and hospital workforces lose stability, demand for health services increase beyond the ability to respond, equitable access to services declines, quality of care is badly affected. Care is increasingly managed and provided outside South Canterbury, and financial deficits cannot be avoided.

There are a number of issues which will need to be addressed on an individual basis in order to enable the DHB to move forward in the desired direction:

Health information

This is a key area which will underlie the future effectiveness of services across primary, community and hospital settings. This is the single highest priority for action expressed consistently by health professionals throughout all health services. Improved sharing of clinical information is a pre-requisite for better

integration and coordination among health professionals and across health organisations, and for ensuring high quality, timely care in the future.

Workforce

South Canterbury has historically been an area in which recruitment of some health professional groups is challenging, although retention is high. Workforce recruitment will become more difficult, Having the workforce to provide effective services is essential to the future of health care in South Canterbury. Addressing the challenge of recruitment will require continued progress in clinical leadership, the development of new clinical roles, and effective support for health professionals. It will require closer engagement with some aspects of clinical training.

Networks

As a small DHB, South Canterbury operates within the wider environment of health services across the South Island. It is a high priority in many areas of service to improve regional networks, providing better specialist advice when it is needed, and peer education and support for health professionals. It will be essential to ensure that regionalism does not become centralism, and genuinely supports local delivery of services where that is safe and appropriate.

Facility

The present hospital facility is a constraint upon the effective delivery of care across a range of services. Developing a comprehensive facilities master plan, which is also financially viable, is an key challenge for the DHB. Given the long term nature of refurbishment and rebuilding processes, this issue will need to be considered in the near future.

Best practice integration

Some aspects of integration across health service in South Canterbury are good – continuity of workforce can support long term relationships and communication between individual clinicians. But there are many areas in which different services could improve coordination around the needs of patients, including referral pathways and discharge processes, and the overall level of integration between primary care, hospital and community based services. This issue is intimately linked to the challenge of improving shared clinical information, but is broader and will require attention to clinical pathways and models of care.

Sustainability

Addressing health information, workforce, networks, facility and integration issues will provide the population of South Canterbury with a sustainable, effective health service for the future.

Conclusion

Health services in South Canterbury are at a cross roads. The historical strengths of high levels of access to care and a stable financial position will, without careful stewardship of clinical services and financial resources, rapidly deteriorate. The impact upon health services for the people of South Canterbury will be declining access to services, lower quality of care, and greater turnover in the clinical workforce.

Conversely, grasping the opportunity for service development will place South Canterbury in a strong position, as a leader in the provision of health services in a provincial setting. The existing strengths of health services in South Canterbury are a good basis for meeting the challenges of the future. With strong clinical leadership, effective management and a common commitment to address fragmentation and work together as a health system, South Canterbury will have the best provincial health service in New Zealand, and will be a model for others to follow.

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Introduction

This plan establishes a future direction for health services for the population of South Canterbury. It draws upon both quantitative and qualitative information about the state of health needs and services, collected during an extensive programme of interviews and analysis. It identifies key issues and challenges for the future state of health services, and identifies a number of programmes of action for the South Canterbury District Health Board, working in collaboration with partner organisations and professionals from across the health sector.

This is not an operational plan, but it will provide a comprehensive framework for operational planning for the South Canterbury District Health Board over the coming decade.

The plan presents an overarching framework for action across four key areas. It proposes a number of specific approaches within each of those areas. It also identifies a number of important strategic decisions, and supports the South Canterbury to approach those issues with an analysis and decision framework.

Contents

Why develop a health services plan?

Health services constantly change and develop. Change is driven by many factors, which include changing populations, new technologies, and evolving clinical practice. In order to safeguard the future of health services for the people of South Canterbury, and to achieve the best possible health service in the future, the South Canterbury District Health Board has developed a health services plan. This is a tool for identifying future challenges, and the priorities for action which will address those challenges.

In 2010 the South Canterbury DHB identified a number of decisions which will arise in the near future, in areas such as facility redevelopment and workforce sustainability. This provided an impetus for the development of a comprehensive health services plan, which could develop a framework for addressing key decisions about the future of health services in South Canterbury, and for identifying specific areas of activity for the future.

The goal of the plan is therefore to provide a structured approach which can help South Canterbury DHB to move confidently into the future, providing a comprehensive approach to the decisions which will have to be made on matters such as workforce development, configuration of facilities, the sustainability of services and the nature of regional networks.

- Safeguard and improve future health services for the people of South Canterbury
- Identify challenges and priorities for action
- A framework for future decision making
- A consistent basis on which to consider decisions about facility, workforce and service sustainability
- Issues over a horizon of 15 years

The plan will consider the issues which will present to the South Canterbury District Health Board over a horizon of fifteen years, identifying the key areas of challenge which the DHB will have to address.

Process

Project stages

Project initiation

The plan was initiated in January 2011, with Margaret Hill, General Manager of Strategy, Planning and Accountability, as project sponsor.

Current state

Interviews were conducted both individually and in groups, with a range of stakeholders both within the DHB and across the health sector. Three stakeholder workshops were held.

Analysis and forecasting

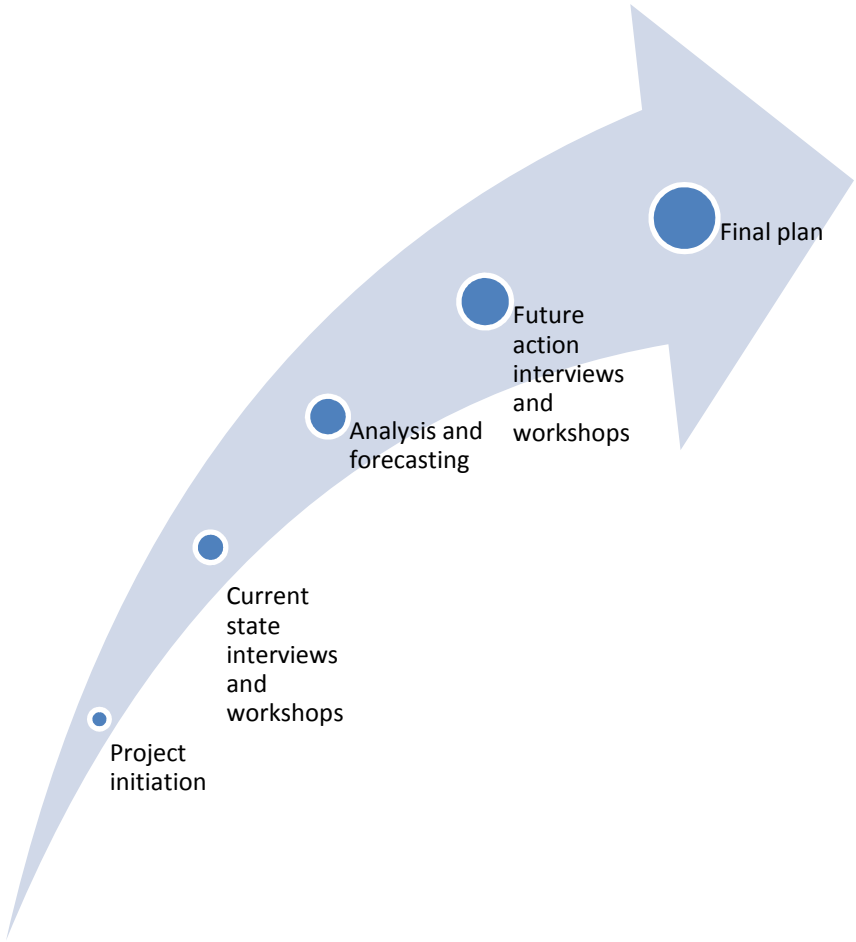
Analysis of future service demand and financial implications was completed.

Future actions

Interviews were conducted both individually and in groups to identify potential actions for the future development of health services. Three stakeholder workshops were held.

Plan drafted and finalised

The plan was drafted after an outline was presented to a SCDHB Board workshop.



Methodology

The plan was developed with a mixed methodology, involving data analysis, qualitative interviews and workshops.

Current state interviews with clinicians, management and external providers canvassed perceptions of strengths and weaknesses of the existing system of care, and future risks. These perceptions were synthesised and presented back to group workshops in order to check the perceptions, and to assess the overall consensus on issues. The workshop discussions were supported by population profile information, ageing predictions, and forecasts of pressure on future service demand.

Once current state issues were clarified, further interviews were conducted with individuals and groups in order to elicit priorities for action. The material gathered from interviews was used to form a framework which was presented to group workshops, were priority actions were elicited from attendees in small groups and presented back for discussion to larger groups, crossing clinical and management disciplines.

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CURRENT STATE

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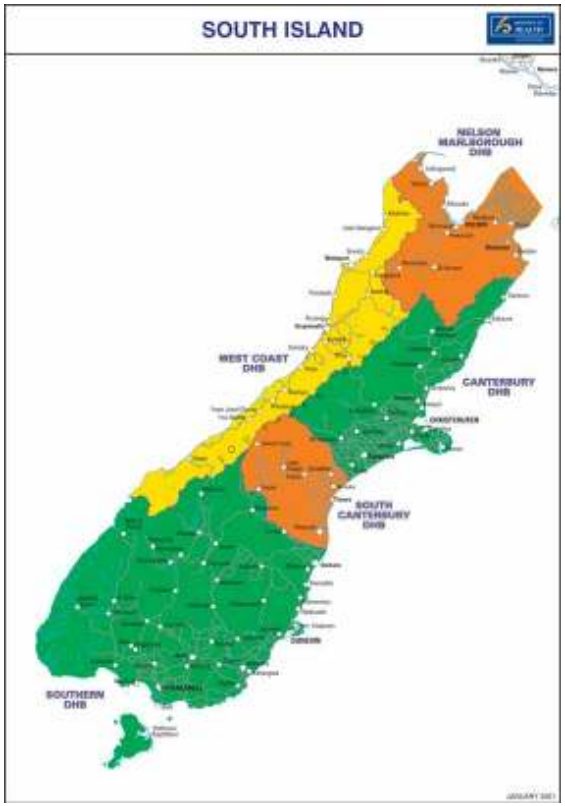
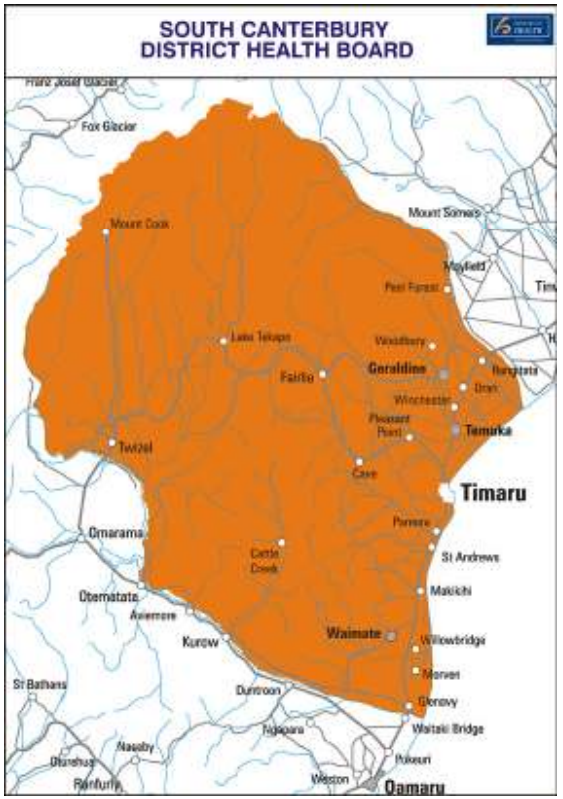
Setting the scene

The South Canterbury District Health Board lies between the two larger Southern and Canterbury DHBs. It operates a secondary level hospital in Timaru, funding and providing a comprehensive range of primary and community care, both directly from DHB operated services and via private and non governmental organisations. Outside Timaru it serves a predominantly rural area, with a mixture of local and visiting populations. The 2006 census found that 29% of the South Canterbury population lived in rural areas.*





* 2006 census data for people living in remote rural and rural areas with low or moderate urban influence.

Source: Ministry of Health

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The District Health Board is part of the wider regional network of health services across the South Island, and works with other DHBs to provide a number of services to its population. The major neighbouring institution, Christchurch Hospital, provides the majority of more specialised secondary and tertiary services to the people of South Canterbury, although some services are provided from Dunedin Hospital. Some services are provided by visiting clinicians who make the journey to Timaru, while other services require patients to travel to Christchurch.

Significant populations in the adjacent areas of Waitaki and Ashburton largely flow to Dunedin and Christchurch respectively for non urgent hospital care.

The DHB lives within its means financially, and has managed to maintain a record of good fiscal management while maintaining high levels of access to services. This means that the DHB has a relatively wide scope of choice to invest in different services or reconfigured models of care, by comparison with more financially constrained DHBs in other parts of New Zealand.

- Small District Health Board surrounded by two larger neighbours.
- Longstanding key relationships with neighbouring health boards.
- Overall 2010 population 55,655, with approximately 27,000 in Timaru.
- 15,000 people (27%) live outside towns
- Oldest DHB population profile in New Zealand
- Substantial rural area, by comparison with .

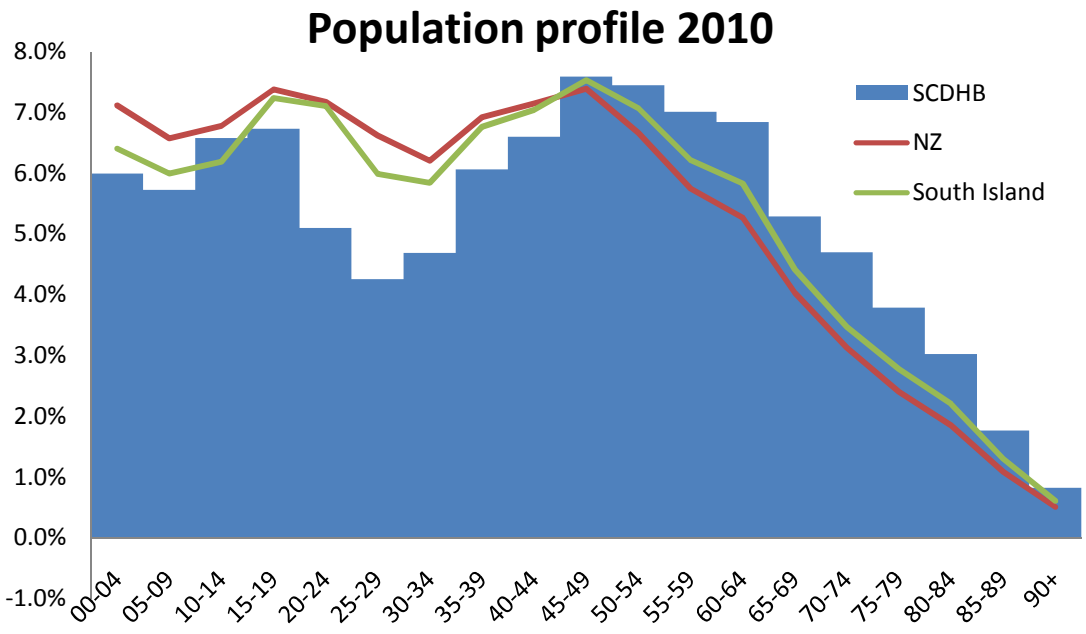
Population

The population of SCDHB shows a different age profile from New Zealand overall. In 2010 the DHB has a hollowed out profile of younger people, particularly between the ages of about 20 and 40. There are a disproportionately large number of people aged over 50 in the population, with a bulge which extends to the very aged, at 90+ years. The South Island overall matches the national age profile more closely than the SCDHB population does.

There are proportionately fewer Maori and Pacific Island people in SCDHB than in New Zealand, and somewhat fewer than in the South Island overall.

Some areas service a substantial population of visitors and tourists, in addition to the resident population. In rural areas a substantial proportion of the population live in isolated areas and farms, rather than in towns and smaller villages.

The recent earthquakes in Christchurch may have some impact upon population in South Canterbury, with a number of people moving to the area in 2011. the longer term nature of that population change is unknown.



	Maori	Pacific	Other
New Zealand	15.3%	6.5%	78.2%
South Island	8.4%	1.7%	89.9%
South Canterbury	6.7%	0.8%	92.5%

Source: Statistics New Zealand projections for the Ministry of Health

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Primary care

The current approach to primary care in South Canterbury is a traditional one, focussed upon small independent general practices.

There are 29 general practices in the DHB area. The majority of practices are operated by a sole GP, although a few practices work with two or three partners. Nearly all practices work with a practice nurse.

A nurse practitioner provides services in one rural area, in collaboration with existing general practice.

Continuity of care is seen as a traditional strength of the small practice model of general practice which operates in South Canterbury. When patients move into residential care, they often continue to be enrolled with the same general practitioner who has cared for them in the community. However existing General Practice registers are under pressure, and a number of practices in Timaru no longer routinely accept new enrolled patients.

The population of general practitioners is beginning to age, with a number likely to move in to retirement in the next five to ten years.

Current State

- Small practices
- Nurse practitioner role developing
- Strong continuity of care
- High level of population enrolment
- Registers beginning to be closed to new patients
- Older population of GPs
- Effective DHB Primary and Community arm
- Effective after hours service in Timaru

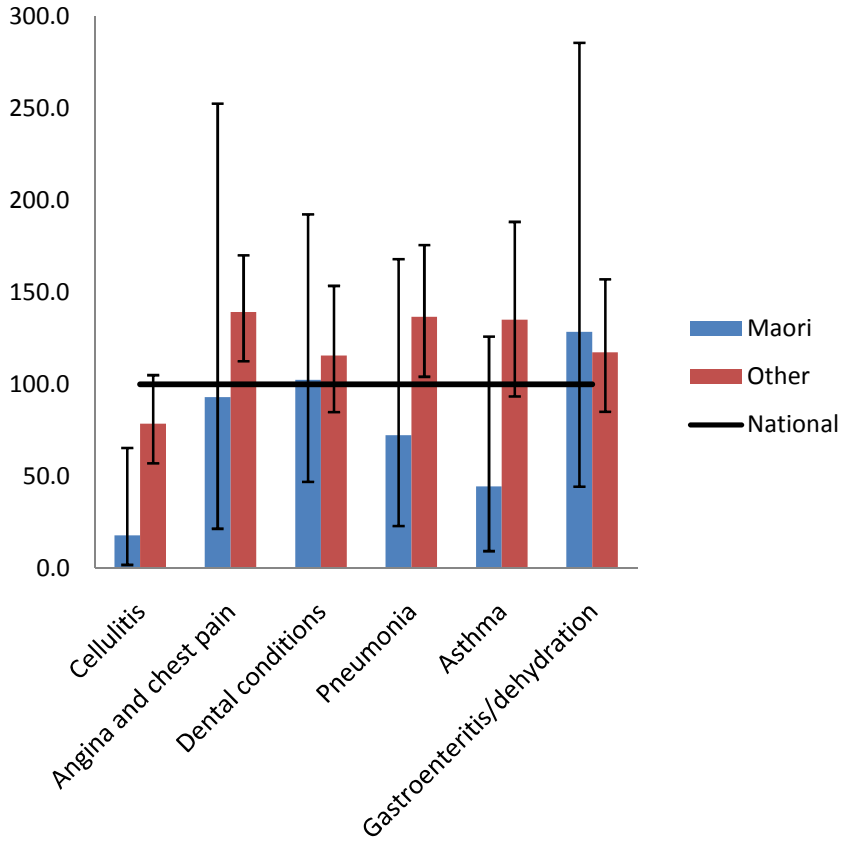
The DHB population has somewhat high rates of ambulatory sensitive hospitalisation (ASH) over all, and has a challenging target to meet, which will require improvement. Upon detailed examination, among the main ASH measures, angina and chest pain, and pneumonia are significantly above the expected rate at the 95% confidence level. This may indicate a need for focus upon long term conditions management, as well as some aspects of acute demand. ASH rates for Maori are difficult to assess, given the wide confidence intervals around small numbers.

The PHO Performance Programme shows high levels of performance for primary care on many indicators, although targets have not been achieved for diabetes detection and cardiovascular risk assessment. Results are low for the newly introduced smoking status recording measures (Source: PPP Dashboard to 30 September 2010).

The DHB has a unique Primary and Community arm, which works with primary care and has superseded the earlier PHO role. There appears to be a lot of enthusiasm for this approach, and a view that it is a more effective and open structure than has previously existed. There is a high level of population enrolment, with an average of 54,947 enrolled patients across the 2010 year (Source: SCDHB primary and community arm).

There have been a number of attempts to develop larger general practices with more comprehensive services co-located in single sites. Projects have been considered in Waimate, Timaru and Temuka. These have not proceeded to development, with participants in those projects reporting difficulty achieving a commonly agreed approach.

South Canterbury DHB:
indirectly standardised rates for 6 major ambulatory sensitive conditions



Source: Ministry of Health: ASH rates age 00-74 for year to 30 September 2010

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Interviewees and workshop participants identified a number of issues which confront primary care, and which will hamper future development. These can broadly be categorised as issues to do with the internal configuration of primary care, and issues to do with relationships between primary care and other parts of the South Canterbury health system. The appetite for change is limited, although a nationally changing primary care environment is beginning to make itself felt in South Canterbury, as practices begin to investigate non traditional ownership arrangements.

Primary care configuration in South Canterbury faces a number of specific challenges. The workforce is at the older end of the spectrum, and the recent experience of GPs who have tried to sell their practice as a prelude to retirement has been mixed, with some experience of a very long lead time before sale. The small single practitioner structure of the majority of existing practices appears to have declining attraction for the generation of GPs who are entering practice, and represents a risk for the existing cohort of practitioners who are planning for retirement. Relatively small individual practices also constrain the available physical resources for teaching, training and education activities.

This circumstance is combined with a heavily loaded primary care sector. A number of GPs and nurses described the management of large patient loads, and and many of the urban practices in Timaru are closing their registers to new patients.

Current state of primary care

- Ageing workforce;
- At capacity, registers often closed;
- Allow general practice to work smarter, exploit the potential of capitation;
- Need for more training, but teaching requires better facilities;
- Rural issues: on call and recruitment, maintaining service levels;

Primary care professionals identified a number of key constraints in their relationship with other health services. These largely focus around issues of fragmentation; incomplete sharing of clinical information, and inefficient or ineffective patient pathways, including access to diagnostics in a timely fashion. This issue, and particularly the challenge of sharing information more effectively was noted

quite widely across many (but not all) groups of informants. Pharmacists noted that while they tended to have a close working relationship with individual general practitioners, they were often at the mercy of poorly managed or inaccurate information from the hospital or aged care services, which can result in considerable wasted time and resource.

A strong relationship exists between many individual GPs and hospital consultants, reflecting the relatively small number of senior hospital doctors in Timaru. However the relatively high turnover of hospital SMOs in general medicine has resulted in less continuity of clinical relationship with that department.

The SCDHB is increasingly developing links with primary care, and has a number of clinical specialists who support primary care services with expertise in dietetics, smoking cessation, and specialist nursing skills. The management of long term conditions is perceived as an area where there is scope for improvement, and where greater support and coordination should exist between primary care and hospital based services.

General practice provides an after hours service in Timaru, supported by the 24 hour HML telephone triage service. 24 hour emergency services are provided by the hospital emergency department, with the understanding that where patients who could be managed by general practice present to ED during normal working hours, those patients will be redirected to general practice services.

Primary care issues in relation to other health services

- Patient pathways: waste and duplication;
- Access to diagnostics;
- Shared clinical information;
- Stable general medicine workforce in secondary care; and
- Challenge of capacity to meet demand of ageing population.

A substantial proportion of South Canterbury's general practices work in a rural setting, and face the commonly identified challenges of professional recruitment and highly intensive on call rosters. Rural practices have a variety of arrangements to manage these issues, including working with the nurse practitioner and sharing rosters where this is geographically tenable.

In the rural setting, the PRIME system for responding to emergency events is beginning to break down, with fewer practitioners taking up PRIME training. The vulnerability of rural emergency services is a risk for rural populations. The existing nurse practitioner role plays an important part in helping to maintain services, but risk of burnout and need for improved coordination in rural primary care is an everpresent challenge.

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Hospital services

Timaru Hospital provides a 131 bed facility, with approximately 12,000 discharges per annum.

The hospital operates a clinical model with a high proportion of Senior Medical Officers (SMOs) compared to other DHB staffing models. SMOs directly carry a large proportion of the workload. This represents a contrast with the usual configuration in a larger urban hospital, in which junior medical staff and registrar roles conduct a greater proportion of the overall activity.

The SMO led model means that patients often have care which is provided directly by senior medical staff. This is widely perceived as a particular strength of hospital services in South Canterbury.

Overall levels of patient satisfaction are high, as measured in regular surveys and reported in Ministry of Health indicators.

Twenty-four hour cover is provided in general medicine, general surgery, orthopaedics, gynaecology anaesthesia and psychiatry, with a range of other specialty services available from locally based SMOs. Neurology, cardiology, renal, dermatology and oncology services are partly delivered by local specialists, and partly by visiting clinicians.

There is a significant outsourcing component to some services, particularly ophthalmology and obstetrics.

	SMOs	FTE
Psychiatry	3	2.8
General Medicine	5	4.4
Aged Care AT&R	2	2.0
Paediatric Medicine	3	2.1
Emergency Medicine	4	3.8
Dental	2	0.8
ENT	2	1.7
Ophthalmology	1	0.4
General Surgery	4	5.0
Orthopaedics	4	3.4
Gynaecology	3	2.5
Anaesthetics	9	8.2

Source: South Canterbury DHB – current establishment as at April 2011

The last major refurbishment of Timaru Hospital was completed in the year 2000. Many informants expressed a view that the present facilities were not able to support the volume or high quality of care which the hospital should be capable of providing. A number of specific issues were raised, including the day patient suite, outpatient, emergency department, ambulance bay, and psychiatric facilities, as well as the overall size and capacity of the hospital. There is a widespread view among hospital based staff that redevelopment of the hospital facilities is urgently needed.

Laboratory and radiology services are currently contracted to external providers. This arrangement is viewed positively by most informants, with reports of a high level of responsiveness and good overall performance in these services.

Maternity services are subcontracted to Obstetric SMOs who work as Lead Maternity Carers (LMCs) supported by continuity midwives, who use the delivery facilities at Timaru Hospital. Independent midwives also offer LMC services to women in South Canterbury, but this currently represents a minority of births. The relationship between independent midwives and the shared care service has historically been variable, and remains so.

The DHB has an active quality improvement programme. Hospital services have implemented a number of quality and efficiency improvement initiatives, including discharge early in the day, and improved utilisation of ward resources. Progress against targets is actively monitored, and results are presented in public displays throughout the hospital.

Informants perceived a range of issues which need to be addressed in order to improve hospital services. High among these was the problem of poor management of clinical information. Staff do not have ready enough access to computer workstations, information is not well shared between community and hospital settings, and booking systems do not work as well as they should.

Current state

- 131 bed secondary hospital.
- Consultant led hospital care seen as a particular strength.
- Growing workforce of nurse specialists
- 24 hour cover for core specialties of general medicine, general surgery, orthopaedics, O&G, anaesthesia and psychiatry.
- Subcontracted radiology and laboratory services
- Contracted lead maternity carer services.
- Recent introduction of multidisciplinary clinic approach within orthopaedic department
- High levels of patient satisfaction

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The effectiveness of patient pathways was raised as an issue by a number of informants, while noting that a new patient pathway project has been signed off for implementation, which may address some of these issues. But the pathways for referral in to services, and discharge back to the community, with appropriate workup and investigation are not always clear, and have to some extent grown up through custom and practice rather than through good design.

Across the hospital service more generally, there are a number of interlinked issues which bear upon the overall sustainability and configuration of the service. These focus around the sustainability of specialist services in a provincial secondary facility in light of pressures from some quarters to centralise services regionally, and the difficulty of maintaining some specialty services with a relatively small patient population.

A number of informants felt that the size of the hospital means that the nature of specialty services is very contingent upon individual clinical appointments. As an individual SMO

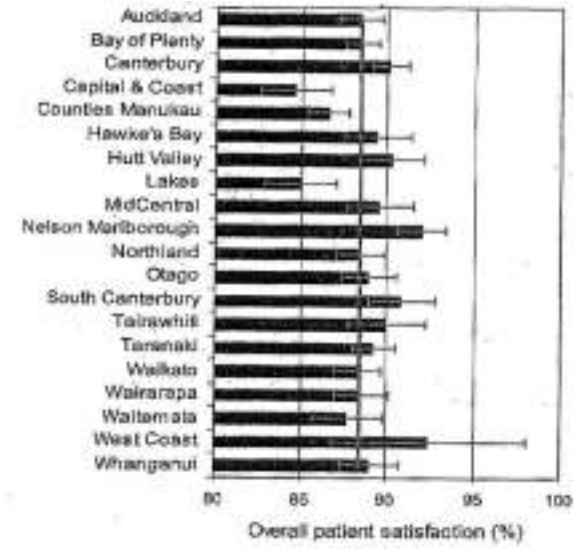
Issues

- Shared electronic clinical record
- State and capacity of the facility
- Patient pathways and linkage with primary care
- Effective regional service relationships
- Patient transport
- Recruitment of medical staff
- Ageing workforce
- Maintaining specialty services
- Sustainability of services with a small population

joins a department, they may bring a given specialty interest. But realistically, it may not be possible to anticipate coverage of a given range of interests with the SMO workforce, so the particular range of skills and capacity within the clinical workforce at any one time is difficult to plan for. For example, whether an interest in cardiology or respiratory medicine can support more specialised services in those fields is dependent upon the particular individuals who have been recruited to the general medicine department. In an environment in which recruitment is a challenge, and the ability to choose among medical applicants is consequently limited, this constrains the ability of the DHB to plan its offering of specialised services.

The range of services provided in the hospital must, to an extent, therefore be built around the particular range of skills and interests which are available at any one time in the clinical workforce. This is an important difference from the position in a larger hospital, where a bigger workforce means that recruitment can be more targeted towards specific services.

This tension between the reality of a generalist service in a relatively small hospital, balanced against pressures to maintain a range of specialised services for the community, is a fundamental challenge for hospital services in South Canterbury. To some extent this issue is inherent in the task of operating a relatively small hospital service. The choice for the DHB is seen by a number of informants as between a) increasing the scale of hospital services in order to improve the capacity and stability of the service, or b) restricting the range of specialty services which are locally resourced.



Source: Ministry of Health Hospital benchmarking Information to March 2010

Nurse specialist roles within the hospital continue to develop, and to work with better coordination with clinical teams. Positions exist in persistent and acute pain management, diabetes, cardiology, respiratory, stroke and AT&R. Further positions are under development in youth health and sexual health. Issues which arise for this workforce include the effectiveness of outpatient booking systems, and access to consultant input into some elements of care. The continuing development and implementation of strategy around long term conditions management will be important for this workforce.

The orthopaedic department has developed another key area of interdisciplinary work, in the form of a multidisciplinary clinic involving nursing and physiotherapy skills. This clinic has been able to provide alternatives to surgical intervention for a number of patients.

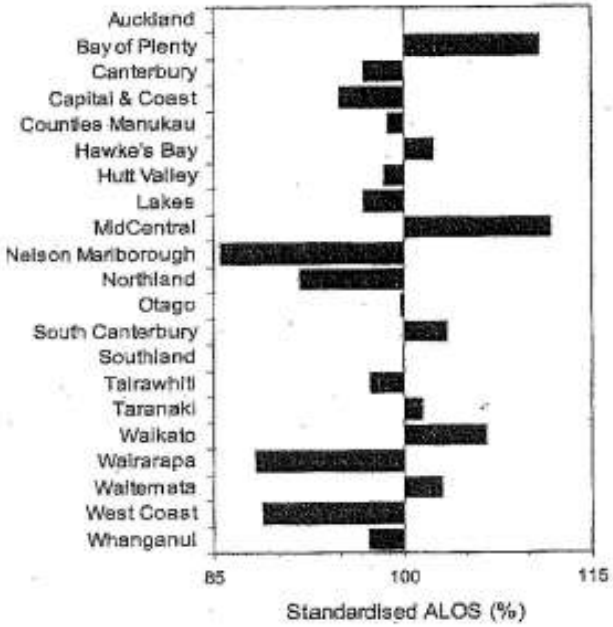
The workforce in the hospital is ageing, reflecting the overall trend of health workforce in South Canterbury. Recruitment is seen as a challenge across the board, but especially for senior medical posts. Retention, however, is particularly strong, with staff remaining at the hospital for long periods of time. This brings the benefits of a stable workforce, and the potential for a well integrated, familiar team of health professionals, but also presents challenges in maintaining the professional development and continuing education of staff.

The hospital does not have a resident medical officer workforce. Some informants saw a need to introduce registrars. Reasons for registrar positions included improving cover arrangements in small departments, acknowledging a professional obligation to train medical staff, and exposing trainee staff to the experience of working in a provincial hospital. However, the presence of registrars could also have the potential to undermine the consultant led model of medical care which is currently seen as a particular strength of the service.

In areas where recruitment has been difficult, most notably general medicine, locum medical staff have been used over a long period of time. Informants from both hospital and non hospital settings perceived this as a problem for continuity of care, and the development of consistent relationships and clinical patterns of practice.

Mental health services provided from Timaru Hospital are perceived as a strength, with good access to consultant level care for the population. The adequacy of psychiatric facilities is a concern for some staff, although a refurbishment of that facility is planned.

Hospital discharges in Timaru have a relatively long length of stay for a small provincial secondary service. The reason for this is not clear, and is currently the subject of further investigation, although the Discharge By 11am and Medical Improvement Projects are expected to have an impact on this measure. Other patient satisfaction and hospital process and efficiency measures, such as Day of Surgery Admission Rate, meet or exceed targets (source: SCDHB 2010 annual report).



Source: Ministry of Health Hospital benchmarking Information to March 2010

South Canterbury District Health Board

Older persons health community services

While important elements of older persons health care are provided in hospital and general practice settings, a substantial component of these services is delivered by a range of community providers. Home Based Support and Aged Residential Care Services represent an important component of care for the elderly population, and are supported by Needs Assessment and Service Coordination (NASC) functions.

South Canterbury DHB has engaged in substantial service change in this area over the past five years. NASC services have been contracted to an external provider. This has seen a doubling of referrals to NASC, and the introduction of InterRAI assessments. NASC has the functioning of managing access to aged residential care services, other than dementia and psychogeriatric care, where medical input is needed for access decisions.

A programme of restorative home based support has been piloted, evaluated and rolled out. Restorative support, based upon multidisciplinary support for individual clients to set and achieve rehabilitative goals, offers a comprehensive approach to identifying clients with need who will benefit from the available suite of services. Providers of these services noted the effectiveness which had already been demonstrated, and the scope for continued development in this area.

Current state

- Contracted NASC service, using InterRAI
- Implemented restorative home based support with four community providers, scope for more development
- Issues of timely shared information between hospital, primary care and community providers
- Issues of integration and coordination with hospital services
- Issues of coordination with general practice and after hours services
- Issues of sustainable funding in aged residential care
- DHB owns Talbot Park aged residential care facility, including the only psychogeriatric care facility in South Canterbury.
- Home based support coverage more difficult to provide in a rural setting.

Residential care providers are largely owned and operated by the private and charitable sector, although the DHB operates Talbot Park, which includes rest home level and psychogeriatric level care, and is the only psychogeriatric facility in the DHB area. Providers of rest home care noted that recent volumes had been declining, although it is expected that the demand for these services will increase markedly in the future, and that issues of investment in facilities will become important.

As with a number of other services, challenges were noted around providing care in a rural setting, where travel time becomes an important factor, and managing effective coordination between the different professionals involved in delivering a comprehensive service can be complex.

Informants noted a number of issues of coordination, and the sharing of accurate and timely information with primary care and hospital based services. In particular, electronic communication and record sharing with NASC and with general practice were identified as issues.

A particular complexity of the relationship with primary care is that the majority of residential care clients continue a relationship with the general practitioner who cared for them at home. Care homes therefore have to work with a large number of GPs, and can sometimes find this a coordination burden, and a challenge to ensure good communication among all involved with the care of the patient. A further specific issue was identified with after hours services, where the nurse telephone triage system effectively duplicates the assessment which a rest home has already been able to conduct with their own registered nursing staff.

Residential care and home based support providers also identified a lack of coordination among themselves, and expressed an interest in working more closely with the District Health Board to improve communication throughout the older persons health sector.

Home based support and residential care providers acknowledged a good relationship with community pharmacy services, and appreciated the support which community pharmacists often provide for their clients.

Discharge planning from the hospital was an issue identified by a range of older persons health providers, and improved protocols and better communication with hospital services was widely perceived to be an area with considerable scope for improvement. Electronic discharge processes were seen as a key mechanism for addressing these issues.

Older persons health services continue to be developed, with the launch of dementia day care in early 2011, and voluntary day care provided by the Alzheimers Society. Both DHB and community providers see a need for continued strategic development for older persons health services across the whole of the health sector in South Canterbury.

South Canterbury District Health Board

Mental health services

Mental health is an area in which South Canterbury has been historically well served, with responsive, effective services. Relationships with primary care are good, and historically there has been good access for patients to both nurse and consultant services. The service also has good links to mental health services in Christchurch, providing specialist expertise when required, as well as peer support for clinicians.

The existing consultant workforce relies upon locum cover, and SMO recruitment for the service is a pressing concern. While the complement of nursing staff is presently at full strength, nursing recruitment has been a challenge.

The state of the existing facilities are a pressing issue. While having services provided from a single site is a strength, that site has inadequate space, and lacks a de-escalation area, outdoor areas and suitable ensuite units. Lack of de-escalation facilities can lead to a greater use of exclusion than would otherwise be considered optimal.

The face of mental health is changing, as the service becomes busier, with more emphasis upon acute care. The recent introduction of the CAPA assessment tool is a key initiative to improve the responsiveness of the service.

Current state:

- Historically strong service.
- Good linkage with primary care.
- Good linkages with services in other DHBs.
- Inadequate facilities
- Recruitment challenges in both surgical and nursing workforce
- Ageing workforce

The mental health workforce is ageing, and it is to be expected that recruitment issues will increasingly challenge the service. Initiatives to integrate training into the service may help to address these problems in the future. Existing moves in that direction have been taken, with trainee interns now working in the service.

Private sector

The private sector in Timaru is represented by the Bidwill Hospital, operated by a charitable trust. The facility has three theatres, 14 inpatient beds and 14 day patient beds. The hospital has recently finished a redevelopment programme, and has been in a phase of growth for five years, although this has moderated during the economic recession.

Bidwill has some linkages with Timaru Hospital, particularly in terms of education activities, although perceive opportunity for greater sharing and coordination, for example in shared diagnostic services, procurement, shared pool and locum staff, and risk management activities. Capacity exists to perform more publicly funded surgery, if that can be performed in a cost effective manner.

Bidwill performs the majority of ACC procedures in South Canterbury.

The presence of private hospital care in a community is an important element of medical recruitment and retention for some specialties. As such, private health services form a part of the overall strategy for recruitment, which is a key issue for SCDHB.

Current state:

- Bidwill private hospital in Timaru
- Recent redevelopment and expanded capacity
- Coordination with SCDHB on some aspects of education.
- Potential for more coordination in support services, procurement and pool staff
- Private facilities play an important role in medical recruitment and retention.

South Canterbury District Health Board

Overview of current state

Health services in South Canterbury have some distinct strengths, which are clearly perceived and proudly articulated by those involved in providing them. The level of access to services, the continuity of staff, the confidence of the community and the generally good level of population health outcome are all important achievements. The development of effective mechanisms of clinical leadership is seen as an area where much progress has been made in recent years.

In the process of interviewing a wide range of informants, the commitment of health professionals to the people of South Canterbury was made clear at all opportunities. The view that health services, while small in terms of population and capacity, should aspire to match or exceed the quality and access to care experienced in any other part of New Zealand is held consistently by people from across the health sector.

Many informants acknowledged the view that South Canterbury faces inherent constraints in providing health care, as a small population at a distance from a tertiary centre, with a substantial rural catchment. But notwithstanding this challenge, there was a commonly expressed opinion that it could and should be the best small hospital, and the best provincial health service in New Zealand. The attitude of taking what you have and being the best at it is a key asset for the future of health care in South Canterbury.

Key strengths:

- High level of access to services
- Clinical leadership models developing
- Low staff turnover
- Confidence of community
- Good health outcomes generally

But in characterising the current state of health services in South Canterbury, informants identified key challenges in maintaining the workforce; improving service integration; developing modern, high quality facilities; and improving the quality and sharing of clinical information. These issues apply across all settings, whether primary care, hospital or community services.

These challenges will be addressed in detail later in this document. But it is worth noting that the issues of integration and information sharing were particularly commonly expressed concerns, and were noted across the spectrum, from community, primary care and hospital based health professionals and managers.

If some of the challenges noted by informants arise from being a relatively small District Health Board, the same is true of many of the strengths. Size provides some opportunities to address the issues of service integration and information sharing, since a relatively small number of individuals are involved, and problems of coordination can be less extreme than in larger DHBs. The potential to develop a more seamless health service for the people of South Canterbury is a great opportunity, and one which many health professionals would support.

Key challenges:

- Workforce
- Service integration
- Facilities
- Information

South Canterbury
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FUTURE POPULATION AND SERVICE DEMAND

Population ageing

Most populations in developed countries are ageing. This applies to New Zealand, and is often considered to be a major challenge for the future of health services. The impact of an older population upon health care is typically to increase demand for a wide range of services, both in the community and in the hospital. Older patients often present with more comorbid conditions, presenting more complex problems for health professionals. The specific nature of the aging population is therefore a key input into health planning.

South Canterbury has an unusual age structure. It is a particularly old population, and as such has already experienced some of the effects of an ageing population. The number of people aged over 65 is already high compared to other parts of New Zealand, and is not predicted to increase as quickly as in areas which presently have a relatively young population, such as South Auckland.

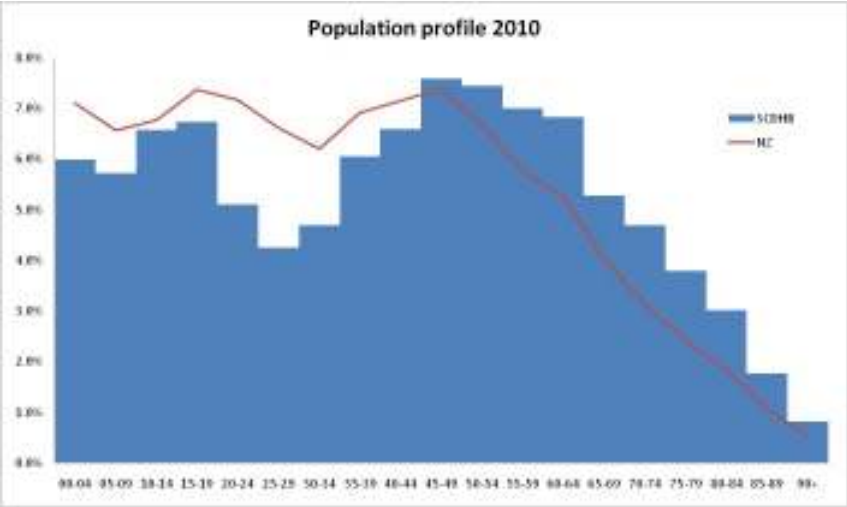
The ageing pressure for South Canterbury over the next 15 years is likely to be felt in the transition from the old (65-75) to the very old (75+). It is in these age groups that the demand for aged residential care, psychogeriatric care, and complex medical support become very large. This is a distinctive issue: the pressure of an ageing population in South Canterbury is just as real as in other parts of New Zealand, but the nature of that pressure will be different.

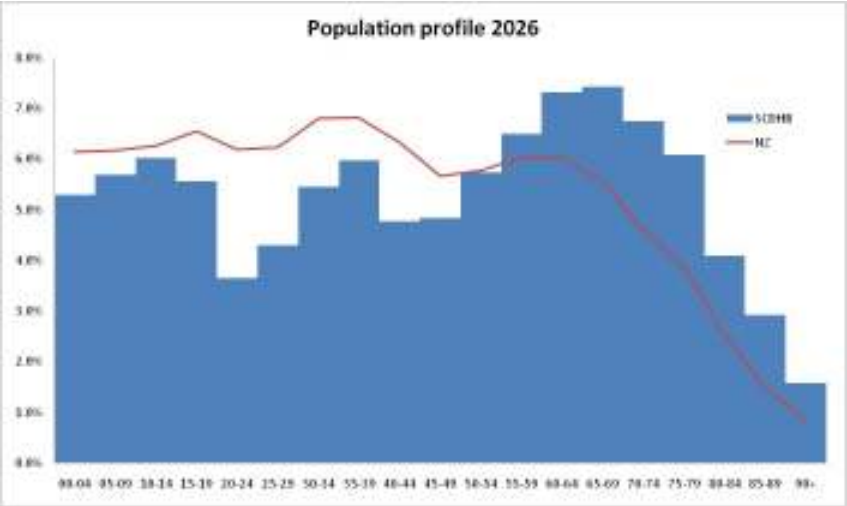
Population Forecasts

Statistics New Zealand provides specific population projections for district Health Boards, commissioned by the Ministry of Health. Forecasts take into account the most up to date information available about trends in regional and international immigration, fertility and death rates.

A population projection is a forecast, and as such can turn out to be incorrect for a variety of reasons. But it represents the best available information about future population trends. Statistics New Zealand updates its DHB forecasts each year, as new information comes to hand.

Profile relative to New Zealand



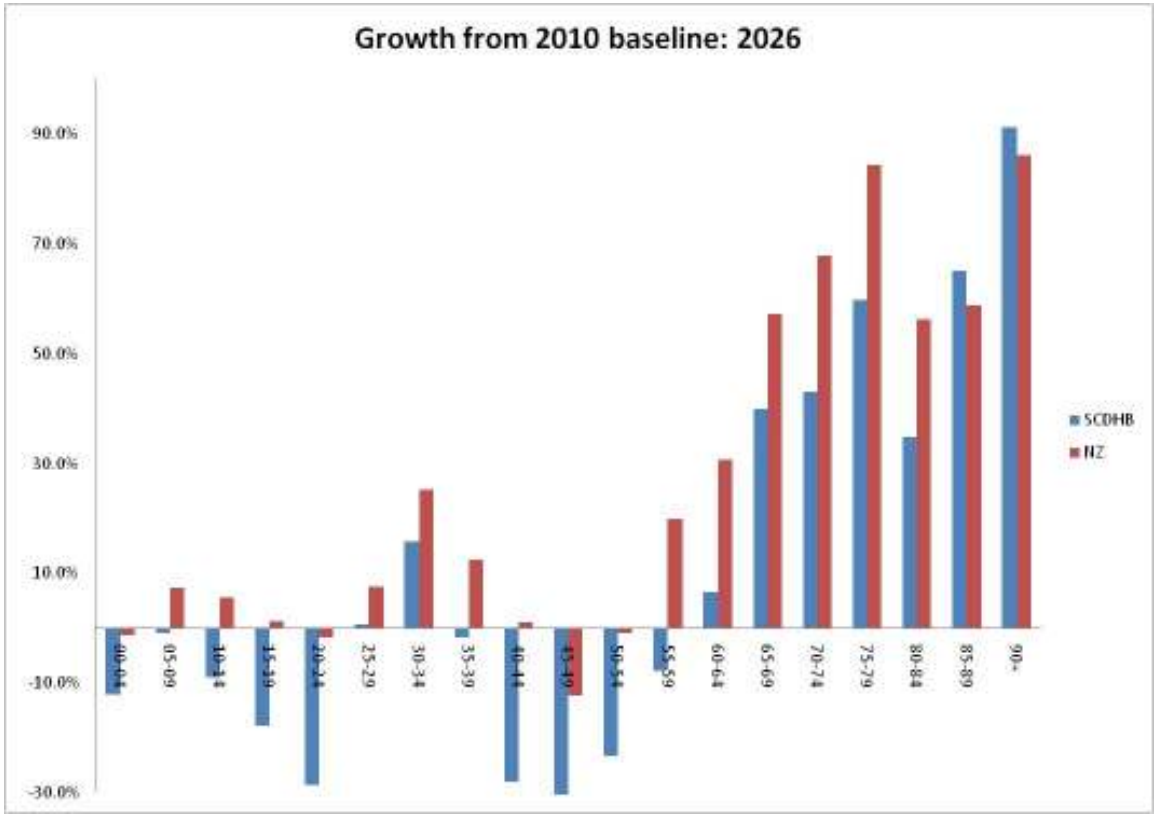


- SCDHB population has proportionally more old people than the New Zealand population overall, in both 2010 and projected in 2026.
- In 2010 the SCDHB population has a gap in the age range approximately 25 to 40.
- In 2026, the SCDHB age gap is wider, compared with the New Zealand population, ranging from approximately 25 to 50.
- Although the absolute numbers are smaller, SCDHB will have proportionately nearly twice the number of people aged 85+ as the rest of New Zealand.

Source: Statistics New Zealand projections for the Ministry of Health

South Canterbury District Health Board

Population change by age band



Source: Statistics New Zealand projections for the Ministry of Health

This graph shows the percentage increase in the South Canterbury and in the New Zealand population for each five year age band, over the period 2010 to 2016. It clearly shows the projected decrease in South Canterbury for most ages younger than 60, while for New Zealand as a whole these ages are largely flat or slightly increasing.

Among the older age groups, it is clear that the rest of New Zealand is projected to increase more quickly than South Canterbury in the range from 60 to 84, but that South Canterbury see a proportionately bigger increase in people aged 85 and over.

Demand forecasting: method

The forecasts presented here have been generated from statistics New Zealand DHB projections. The method involves:

- Calculating an index of increase for each category of age and sex for every year to 2016.
- Calculating the number of health events (eg. hospital discharges, or GP consultations) for each age band and sex category for the base year.
- Multiplying through the base year volume of health events by the index of increase for each year in each age/sex category.
- Summing the consequent volumes for each age and sex category for each year.
- The large number of calculations are managed in database tables, and outputted to spreadsheets for graphing and subsequent analysis.

This method is applied at a high level, across whole services, and does not take into account underlying epidemiological trends. To the extent that older populations may be healthier in the future than they are now, these forecasts may overestimate demand. Equally, to the extent that more services are required to keep older people healthy, these forecasts may underestimate some aspects of demand. A forecast may ultimately prove to be too high or too low, but represents the best possible estimate of future trend, given the information which is currently available.

The results presented here are intended to inform general conclusions about where ageing populations will exert pressure on services.

Interpreting demand forecasts

- The forecasts presented here answer the question: what would the future population demand be if we continue to provide services in exactly the way we currently provide them?
- There are a number of factors which are likely to affect these forecasts. For example, if older people are healthier in the future than they are at the moment, then they may not have the same rate of need for services. The forecasts presented here do not attempt this sort of detailed epidemiology.
- These forecasts are intended to give an idea about which areas of care are likely to face the greatest pressure from the ageing population.

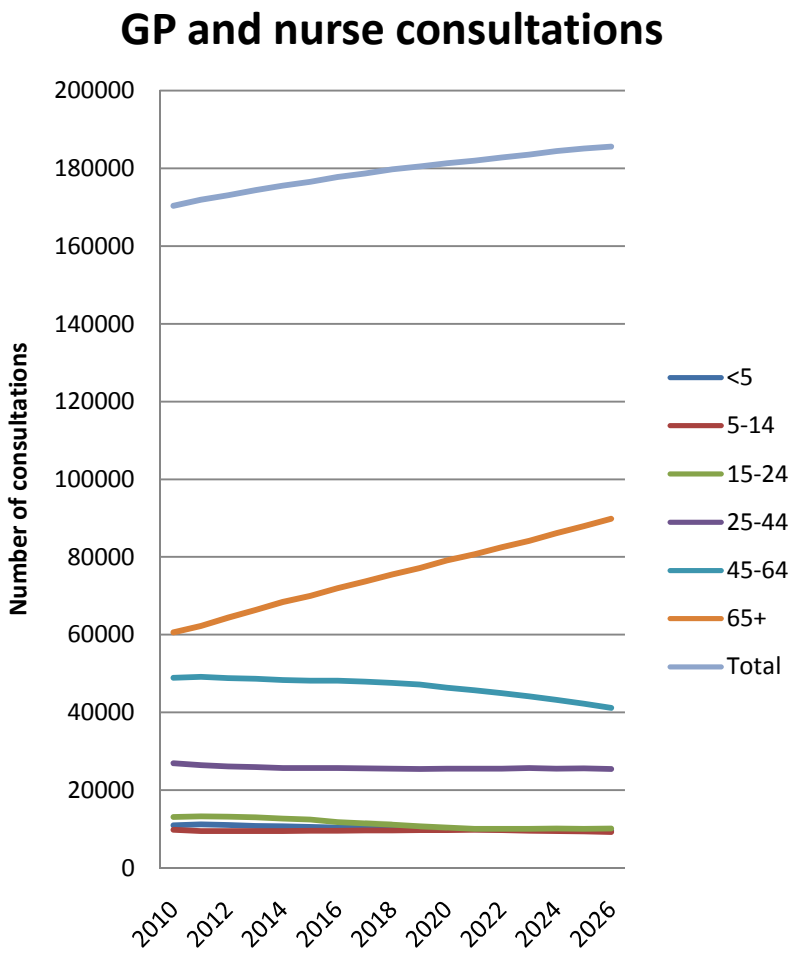
Demand: primary care

The forecast for consultations in general practice has an important limitation: the base volume data were not available in detailed age bands. For the elderly population, only the volume of consultations for patients over 65 was available. Therefore, the differential impact of patients aged over 85 could not be taken into account. For that reason, this forecast may underestimate some of the growth in demand for general practice consultations in the older age group.

The overall result of this forecast is that the increase in total consultations over the next 15 years is likely to be modest, at 9%. This is because increases in demand from the elderly will be counterbalanced by falls in demand from other age groups, particularly those aged 15-24 and 45-64.

This is, however, purely a forecast of volume. Given that the increase is largely to be seen in the elderly, it is likely that the average complexity of consultations will increase, as a greater proportion of patients present with comorbidities and complex conditions. The moderate increase in overall demand may underestimate a greater overall increase in workload.

Given the greater level of complex prescribing and polypharmacy for the elderly, this forecast implies that pharmaceutical volumes (and cost) will increase at a faster rate.



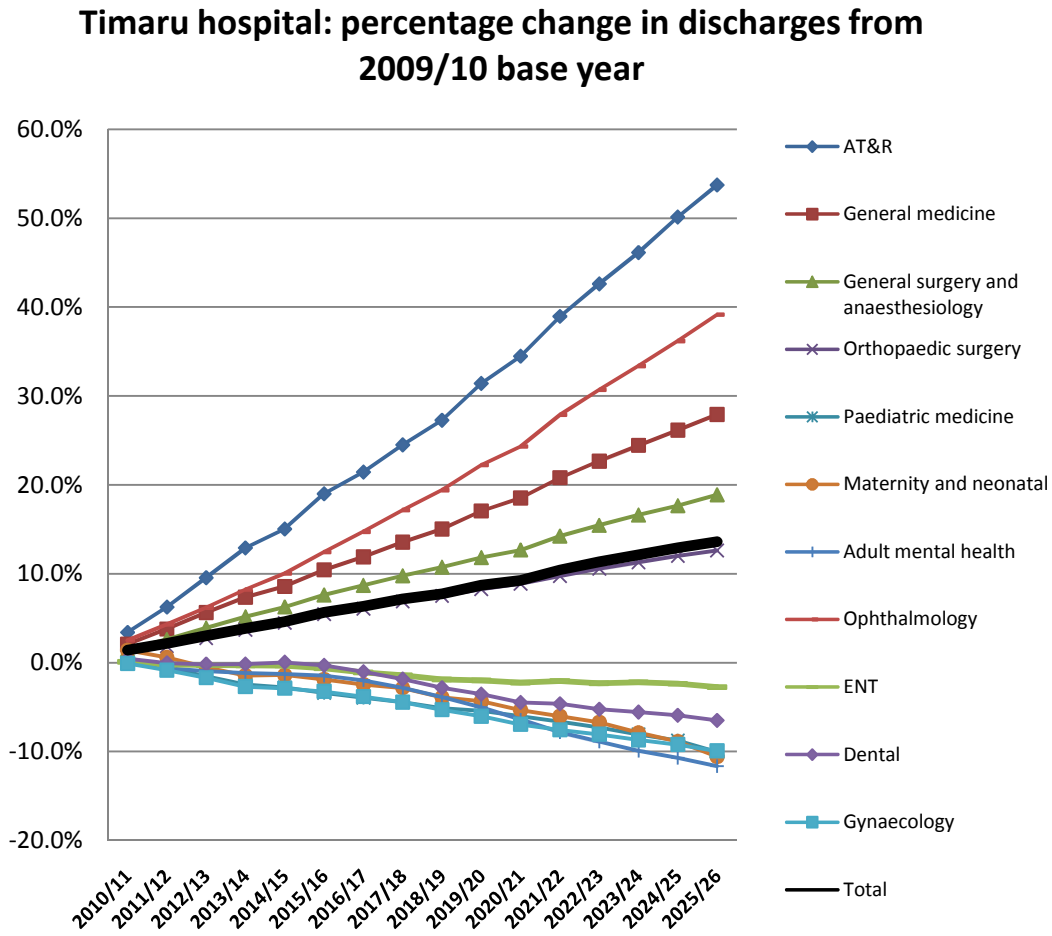
Source: General practice utilisation data for 2010 calendar year, supplied by SCDHB

Demand: hospital care

The overall change in hospital discharges forecast for the South Canterbury population the next 15 years is relatively moderate. The total percentage increase is 13.6%: less than 1% per annum.

This relatively moderate increase reflects the older than average population of South Canterbury DHB at the base year. Since the population has already aged beyond the New Zealand average, the additional pressure from continued ageing is felt in a handful of services, which are particularly sensitive to the demands of older age groups. These include AT&R discharges, ophthalmology, general medicine and general surgery. Orthopaedics would not see a large increase in demand in order to maintain current levels of access to services.

A number of services are expected to see a decline in demand, including paediatrics, maternity and gynaecology.



Source: NMDS discharge data for the South Canterbury resident population

South Canterbury District Health Board

The picture for hospital services changes somewhat when the forecast is applied to casemix rather than to raw discharges. The overall increase over the 15 year period is now 21%, or an average increase of 1.4% per annum. This is still a relatively moderate increase from ageing population pressures, but is somewhat larger than the 12% increase in discharges.

As an approximate indication of the financial magnitude of this increase, at the 2009/10 caseweight price of $4315.48 this implies in increase in hospital expenditure of approximately $10 million dollars in real terms. The nominal increase in cost to operate hospital services, once inflation has been taken into account will be greater.

The service with the biggest discrepancy in increase between discharges and caseweights is orthopaedic surgery, which is forecast to increase by 13% in terms of discharges, but by 23% in terms of caseweights. Orthopaedics therefore has a distinctive pattern of moderate increase in volume demand, but a substantial increase in the complexity of cases which will present in the next 15 years.

General medicine is also expected to increase in complexity more than in volume, with a 28% increase in discharges, and 33% increase in caseweights. Other specialties areas do not show significant discrepancy between caseweight and discharge forecasts, with very little increase in complexity for general surgery.

Description	2009/10	2025/26	Increase	$ Change at 2009/10 caseweight price
AT&R	978	1486	52%	$2,195,066
General medicine	2626	3506	33%	$3,794,118
General surgery and anaesthesiology	3299	4014	22%	$3,085,705
Orthopaedic surgery	1800	2217	23%	$1,797,657
Paediatric medicine	364	328	-10%	-$156,425
Maternity and neonatal	735	664	-10%	-$304,648
Adult mental health	623	578	-7%	-$194,951
Ophthalmology	159	221	39%	$266,979
ENT	327	318	-3%	-$41,344
Dental	83	79	-5%	-$19,740
Gynaecology	511	469	-8%	-$180,523
Total	**11507**	**13880**	**21%**	**$10,241,894**

Source: NMDS discharge data for the South Canterbury resident population

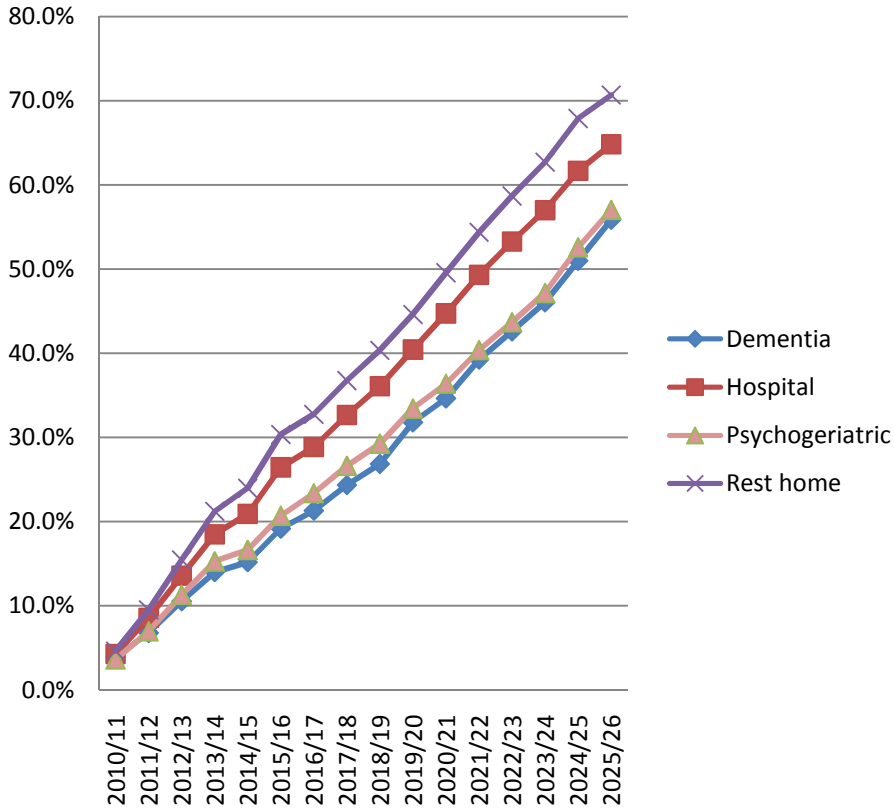
Demand: aged residential care

Aged residential care services show a substantial increase in demand over the next 15 years, ranging from a 56% increase in dementia bed days, to a 71% increase in rest home level bed days.

These forecasts represent a direct extrapolation of existing utilisation rates. However existing utilisation rates for rest home level care have been dropping over the past decade, and depending upon different scenario assumptions may continue to drop until either 2012 or 2016 before resuming sharp growth (source: Grant Thornton Aged Care Review, pp83-88). The demand curve in this forecast might therefore be expected to shift downwards to some degree, probably in the range of 5 to 25%. The present trend for hospital and dementia bed days, however, is still increasing (ibid. pp89-91).

The point remains that there will be substantial increases in aged residential care, and the funding of such care from the District Health Board. Even in the best case scenario from the Thornton review, where the present forecast over estimates growth to 2026 by approximately 25%, there would still be an increase of around 45% in rest home bed days over 15 years. This equates to an increase of around $7 million per annum in residential care funding, in 2010 dollars. This is a serious challenge to the future finances of South Canterbury DHB.

Aged residential care: percentage increase in bed days from 2009/10 base year



Source: ARC bed utilisation data supplied by SISSAL

Financial position

The overall revenue for South Canterbury DHB in 2009/10 was $166 million, largely derived from government population based funding. The DHB lives within its means, and has a strong balance sheet with a surplus of $468,000 in the 2009/10 year.

While the present situation is comfortable, there are a number of key risks which will make it increasingly difficult to maintain financial stability in the future. These include smaller annual increases in government funding in a more fiscally constrained environment; and demand pressures which will come with the need to provide services to an ageing population, particularly residential care services.

The future funding path for government revenue is unknown, but assuming that it will increase at approximately the rate of CPI, as has been the case for 2011/12, the DHB would have to constrain increases in hospital and community service funding to a similar level of growth.

Future capital expenditure will place additional demands upon funding. Servicing borrowed capital will mean that the annual operational budget will come under more pressure, and that the challenge of maintaining a sustainable fiscal position will be greater. This represents a major challenge for the DHB, particularly in a future environment in which other fiscal pressures are also increasing.

- South Canterbury DHB lives within its means
- New pressures arising from constrained funding environment and forecast increases in demand.
- Future government funding likely to be approximately in line with CPI. This is a lower level than forecast increase in demand.
- Servicing future capital investment will place additional pressure upon the operating budget at a time when other pressures are also increasing.

South Canterbury
District Health Board

Demand overview

The demand picture is complex, and shows patterns which are specific to South Canterbury. The unique factor is the nature of the population, which has already progressed to an older state, and which will now move to a situation in which a high proportion of people are very old. This means that there will be absolute increases in demand for some services, in which case the sheer volume of care required will represent a serious challenge. An example of this situation is the likely demand for AT&R care within the hospital, and demand for all kinds of aged residential care.

Some services will see more significant increases in the complexity of presenting patients, than in sheer volume. This is likely to be the case in primary care and in general surgery and orthopaedic services in the hospital. Care will need to become more effective in order to manage a greater proportion of patients with comorbidities and complex needs, likely to require coordinated services from a range of health professionals.

A third group of services will face the opposite challenge. As volumes decrease, it will be increasingly difficult to maintain quality and equitable access to care, and to roster 24 hour service coverage. A decrease in demand from the present level is likely to be an issue in particular for paediatric, gynaecology and maternity services.

South Canterbury
District Health Board

ISSUES AND CHALLENGES

Issues across the health system

Informants were largely interviewed as individuals or as groups of colleagues from the same service or professional grouping. While a range of issues were therefore identified from the specific perspective of individuals providing primary, hospital or older persons care, a number of common themes emerged which were commonly expressed by people throughout the range of health services in South Canterbury.

These are areas where there is potential for common cause among professionals and managers throughout the health services of South Canterbury. Some of these issues represent risks to quality and sustainability of care, such as the challenges of workforce recruitment and information systems. Others represent opportunities to improve services for patients, and to make the work of health professionals less frustrating and more effective.

To some extent the four issues identified here are interrelated, particularly the elements of information and service integration, which will have to be addressed hand in hand. But they are key aspects of planning for the future which South Canterbury DHB will have to address if it is to continue to provide high access to good quality care.

Key issues:

- Workforce
- Information
- Service integration
- Facilities

Workforce

Workforce problems are identified as a challenge across nearly all settings. Retention of staff in both primary and hospital care is very good, but recruitment is difficult. The short term effect of economic recession has eased pressure on nursing roles over the past two years, but the recruitment of medical staff in the hospital remains problematic.

The situation is complicated by the ageing workforce, itself partly a consequence of the stability and high retention among existing staff, who tend to stay in South Canterbury until retirement. Nearly 40% of DHB staff are over the age of 50 (source: SCDHB Workforce strategy). With the increasing risk that a large proportion of the workforce may seek to retire within a short space of time, particularly in primary care, there is increased pressure to be able to recruit a younger generation of clinicians in the near future.

Informants identified a number of recent initiatives which supported the emergence of new clinical roles, particularly for nurses. These included nurse practitioner and nurse specialist positions, and clear plans for the further development of these roles. The recent development of multidisciplinary clinic in orthopaedics appears to have been recognised as an effective innovation, and may suggest other possibilities for multidiscplinary services within the hospital.

Outside the hospital, workforce problems manifest themselves in a number of ways. Attracting new general practitioners, and to some extent experienced practice nurses, is already difficult, and will become more urgent over the coming years. The next generation of general practitioners are likely to have different expectations to the existing workforce, in terms of business models and willingness to take on the responsibilities of facility ownership and after hours care. Finding ways of attracting new primary care professionals to South Canterbury is one of the main challenges for service planning. Some steps have been taken in this direction, including establishing a general practice registrar programme, although facilities sometimes limit the possibilities of taking part in education and training activities.

Home based support and aged residential care providers face a different set of workforce issues. There are pressing needs for training in order to develop a partly unskilled workforce for the future of these services, which is likely to require greater skill levels of individual carers, within a constrained fiscal environment which makes it difficult both to train staff, and to reward staff who have achieved higher levels of training.

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Information

The timely and accurate sharing of patient information is identified as a major challenge by people from across all parts of the health sector in South Canterbury. But the issues of information play out in three different ways.

A number of interviewees pointed out the constraints of access to information systems within the hospital. These included access to individual work login and email accounts, and the limited number of workstations for clinical staff (to some extent a consequence of space constraints). There has been little investment in the clinical information systems used in Timaru Hospital, which are now dated and difficult to maintain.

Many informants made the point that poor sharing of patient information created quality risks, which take time and resource to address. For example, patients discharged from hospital to aged residential care may require new prescriptions, but discharge information and prescription information are not necessarily provided in a timely and complete fashion for a community pharmacist to review the prescription and dispense accordingly. This kind of situation risks patient safety, if the pharmacist has not been able to see the complete medication history of the patient.

More broadly, the lack of a shared electronic health record impedes the ability of health professionals to work together to provide comprehensive and seamless care to patients. The community pharmacist who does not have timely access to discharge information is only one example of the way that a lack of timely information makes it difficult for a health professional to do their job in a timely and efficient manner. Similarly, since much specialised hospital care for South Canterbury people is provided in Christchurch, better shared information between Christchurch and Timaru hospitals would improve coordination, and provide clinicians with a more complete and timely picture of the care provided to their patients.

General practice has recently made a wholesale change to the MedTech practice management system, which has the potential to improve integration with other health information systems.

There is a key regional dimension to IT development in South Canterbury, which is committed to working with South Island DHBs to work within a regional IT plan. This is an important regional initiative, which is likely to bring benefits for the whole South Island, although progress is sometimes inevitably slower when working on a large scale across five District Health Boards. While the pace of change will necessarily be determined to a large degree by the direction of larger DHBs in the region, and by national planning processes, South Canterbury can be a fast follower of change and innovation in this area.

Service integration

Service integration is seen as an issue by informants across all health organisations in South Canterbury. Widespread frustration was expressed at wasted time and duplication of resources when there are opportunities to streamline care, making it more convenient for patients and less resource intensive for health professionals. Examples included patient pathway and referral issues between general practice and the hospital, which can result in duplication of diagnostic testing; and inefficient referral of patients back and forth between primary and secondary care in order to access radiology services. Other examples included stories of lack of coordination on discharge, difficulties with referral and booking systems, and poor communication between professionals.

Many of these issues are related to the problems of information sharing, and could be addressed to some extent with the introduction of a shared clinical record. But other aspects lie more deeply in the nature of service design. For example, referral pathways which avoid duplication of diagnostic investigations could avoid wasted resource in consumables, reduce duplicated clinical activity, and be more convenient for patients. Similarly, improved discharge planning could reduce wasted or duplicated activity on the part of primary care professionals.

Some of the existing patient pathways may have grown up through custom and practice, while others may have been designed with different groups of health professionals, or different facilities and technology. South Canterbury DHB has made a decision to adapt the patient pathways work of Canterbury DHB for local services, which will provide an opportunity to address many of these issues. But it should be noted that only comprehensive engagement with local professionals will produce patient pathways which are truly tailored to local conditions, and which have enough clinical support for full implementation.

Service integration also has a regional dimension. While many informants felt that the reality of regionalisation is centralisation of services out of South Canterbury, it was acknowledged that there will always be a need for some services to be provided in other centres. A more integrated approach to regional services, with improved communication between local and tertiary clinicians and more effective patient transport systems was a strongly expressed desire, particularly among hospital staff, but to some extent also from primary and community based health professionals.

A further area where there is potential for integration is between health services and the wider range of social services provided by government and non governmental agencies in south Canterbury.

South Canterbury District Health Board

Facilities

Facility issues appear across a range of health services, both those owned and operated by SCDHB, and those owned and operated by other health organisations. The majority of interviewees within the hospital were clear that some areas of the present facility, which was refurbished in 2000, was in urgent need of redevelopment. Examples were given of inadequate outpatient facilities, cramped emergency department and awkward hospital entrance design. A number of informants felt that the overall size of the hospital was too small for the volume of care being provided, and several people made the point that inadequate psychiatric facilities for de-escalation meant that seclusion of patients was used more frequently than would be ideal. The absence of key capital assets, such as MRI equipment, was also noted by some informants.

The other element of the facility picture for DHB provided services is the role of Talbot Park, a residential care facility which provides the only specialist psychogeriatric aged residential care in south Canterbury. A variety of views were expressed about the value of the DHB owning this facility. Some see it as a strategic asset, with a role in providing a backstop where private aged residential care will not accept a challenging patient, and as a place where new approaches to aged residential care, such as sheltered housing, could be piloted. Others view it as inappropriate for the DHB to be directly involved in a part of the health sector which is dominated by the private sector.

Facility issues are also acknowledged in primary care, although with a very diverse range of views. Most general practices are single GP businesses, although in some cases they are effectively co-located. A number of GPs feel that this model has served them and their patients well, and that it will be sustainable in the future, while others see limitations. Teaching and educational activities, arranging cover, and providing medical input into nurse led clinics were all noted as activities which could be more easily managed in larger primary care facilities. Some GPs also felt that small practices had limited attractiveness for younger GPs, and could be hard to sell when approaching retirement. Recent attempts to develop larger integrated primary care facilities in Waimate, Timaru and Temuka have not come to fruition.

The aged residential care sector also faces potential facility challenges. Demand is increasing for hospital and dementia care, and the private sector has indicated a lack of willingness to invest in facilities under the current funding model. Developing appropriate and efficient facilities will have to be addressed within the overall future direction of aged care services, both as a local South Canterbury issue, and nationally.

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ALTERNATIVE FUTURES

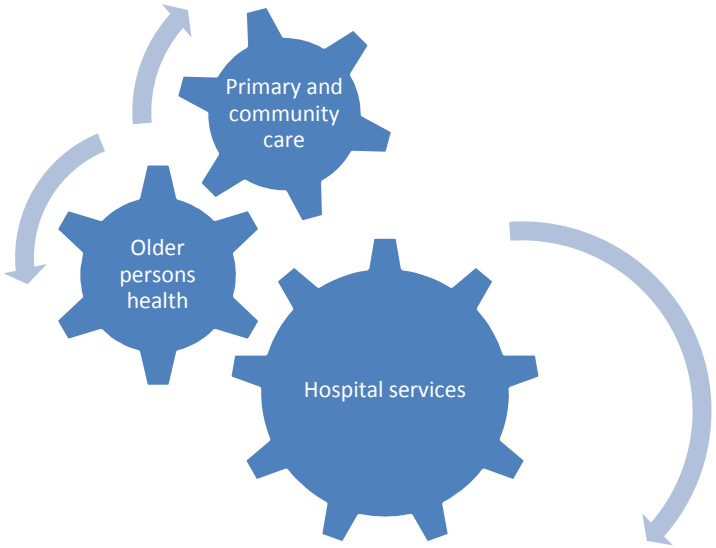
Risks and opportunities

South Canterbury DHB has a strong position compared to many District Health Boards. It has a strong balance sheet, good support in the community, a dedicated staff, and a high level of access to services. But the health care environment is a dynamic one, and changing circumstances constantly present new challenges to those who plan and deliver health services. Acknowledging the potential future states in which the DHB might find itself is the first step towards identifying the key actions which will be important for the DHB over the next ten to fifteen years.

Broadly, there are three key areas of service in which risks and opportunities arise: hospital services; older persons health; and primary and community care. Clearly, these services have fundamental linkages, and addressing in any one will require consequent changes in another part of the system.

The alternative futures presented here are, necessarily, speculative. But they are not improbable. Many of the situations described here, both desirable and undesirable, already exist in other parts of New Zealand. While the changing environment is always an important influence, it remains in the hands of the South Canterbury DHB to make decisions which will achieve a desirable future state.

Three key areas to manage:



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Primary care

GPs and DHB work together to develop the environment to attract new GPs, practice nurses and nurse practitioners to the area. Developments include new primary care facilities, models of care and business models which will attract a younger generation less concerned with the traditional sole business and facility owner model, and new GP with Special Interest roles. Primary care professionals are supported by direct access to relevant services, shared clinical information, and agreed pathways for care.

- Pressure upon recruitment is alleviated.
- New models of care arise, including GPs with Special Interest, nurse practitioners and better coordination with hospital services. There is better management of long term conditions, young GPs are attracted to the wider range of clinical roles.
- Agreed pathways of care give GPs better access to radiology and clinical support services, meaning that they can manage more complex cases more easily.
- Larger practices provide an environment in which nurses and pharmacists can play a greater role, supporting GPs to manage the increasingly complex workload from an ageing population. Support from a multidisciplinary team in the practice allows GPs to manage more complex cases within the practice. Teaching, from undergraduate to registrar level, is easier in new facilities.

Undesired state

A substantial proportion of the GP workforce retire over a ten year period.

Several practices cannot be sold, so GP owners choose to walk away.

- Patients cannot find a practice to enrol with. Over sized registers make it difficult for patients to get an appointment in less than a week.
- Under pressure, the DHB buys practices, but cannot employ regular GPs. A succession of locums, on six to twelve month contracts, become the main providers of primary care to South Canterbury.
- Community pharmacy is overloaded with demand from patients, and also had recruitment problems.
- The hospital emergency department is overloaded with patients who could be seen in general practice.
- Performance measures for primary care, such as ASH rates, immunisations, long term conditions management, worsen for the population of South Canterbury.

South Canterbury District Health Board

Hospital care

Desired state

Improved regional relationships mean that there is true regional support for locally delivered services, and locally based medical and nursing specialists, with effective peer support for the whole team of professionals.

Effective recruitment maintains an appropriate range of specialist skills to provide the core hospital service.

Increasing use of multidisciplinary teams, communication with primary care, and a shared electronic clinical record improves the efficiency of management for patients with complex needs, and presents patients with a seamless team of health care professionals from across hospital and community settings.

Redeveloped facilities support the delivery of effective care.

- A stable SMO workforce and effective multidisciplinary teams demonstrate a high level of skill in managing the complex elderly, and South Canterbury becomes known as a centre of excellence for older persons health.
- A consistent team of specialists from across South Canterbur y and other centres provide services in concert with clinical teams throughout the region. Fewer patients have to travel to receive care.
- Improved communication with a well supported and high capacity primary care service allows for patients to be discharged earlier to their own homes, with appropriate levels of support, increasing the capacity of the hospital to manage a higher volume of complex patients.
- Affordable refurbishment of hospital facilities improves patient flow, efficient use of the available space, and professional satisfaction with the working environment.
- There is enough financial and workforce resource to invest in innovation, and to drive new ways of doing things.

Undesired state

Professional college recommendations reduce the scope of practice for SMOs in generalist departments.

Long term vacancies exist for SMO posts

Hospital workforce is overworked and demoralised.

Struggling to manage volume of demand in the hospital, complex patients are managed in primary care, but without adequate multidisciplinary support.

South Island specialist services are centralised.

- As recruitment problems worsen, the high turnover of locums increases the difficulty of maintaining consistency and continuity of practice.
- As the reputation of the service suffers, recruitment problems arise in the nursing and allied health workforce.
- Waiting times for elective services lengthen, and increasing difficulty in meeting demand for acute care crowds out elective procedures even further, threatening funding for elective care and the financial sustainability of hospital services.
- Ineffective regional service arrangements result in long travel times and slow access for patients travelling outside South Canterbury for more services.
- Quality problems arising from understaffed, overcrowded services, and poor coordination with primary care result in a punitive public inquiry.
- A chronic fiscal deficit make makes hospital redevelopment impossible.

South Canterbury District Health Board

Older persons health

Desired state

Primary care, home based support services, residential care providers and the DHB work together to manage increased demand for aged care, both in the home and in residential care, by developing new more effective models of care.

Improved communication and sharing of records with both primary care and hospital means that clients can receive comprehensive care before getting to the point of hospital admission.

- Patients have access to a greater range of services at home or in residential care, and require acute hospital services less often.
- More resources go into providing hospital level residential care for the elderly with greatest need, while sheltered living arrangements and home based support provide care for those with less complex need.
- Demand for care is managed as services are targeted effectively to those who need them, and community expectations about aged residential care reflect the resources which are available.
- South Canterbury is a centre of excellence, leading development in older persons health in New Zealand.

Undesired state

Volumes of aged residential care services increase at 4% per annum, or more, for over a decade.

Residential care providers decline to invest in new facilities, leaving long waiting lists for entry to care.

Home based support services cannot cope with demand.

- Aged residential care services drive the DHB into fiscal deficit, destroying the capacity to invest in new services and models of care.
- With long waiting lists for residential care, and no investment in facilities from other providers, the DHB faces declining public confidence in its ability to provide service to the people of South Canterbury, and with no ability to invest on its own account.
- Under conditions of increased demand but great fiscal pressure, both home based support and residential care providers struggle to cope with demand, and cannot recruit and retain care staff, forcing services into a downward spiral.

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The environment presents a number of specific challenges to health services in South Canterbury. Some of those challenges arise from the nature of population change, and the increasingly complex care which will be needed for the elderly people of South Canterbury over the next decade. Other challenges arise from the difficulties of recruiting staff, and of managing the tension between a fundamentally generalist service for a provincial population, against the increasing demands of professional and bureaucratic directions towards more specialised health care. Yet more difficulties arise from pressures on the finances of the DHB, which have the potential to reduce the ability of the organisation to make active decisions about its future, and to invest in its priorities.

But the underlying message in these scenarios is that there are distinguishable future states for health services in South Canterbury. The District Health Board's decisions over the next two years will have a major impact upon which of those futures become real.

The scenarios canvassed here offer a range of possibilities, at the best and worst range of possible future states for SCDHB. They make the point that financial, quality and professional imperatives are closely entwined in determining the direction of the health system over all. It will be the job of South Canterbury DHB actively to grasp opportunities to achieve the best future outcome for the health of the people of South Canterbury.

Key points:

- The environment presents a number of substantial risks to health services in South Canterbury, and to the effective functioning of the South Canterbury DHB.
- Avoiding engagement with change risks allowing external influences to determine the direction of health services.
- There are risks of losing stability in both primary and secondary care workforces, with adverse consequences for quality and access to services.
- If services become fiscally unsustainable, the ability to invest in new models of care, and to achieve better health outcomes for the people of South Canterbury will be permanently lost.

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AREAS OF CHANGE

Population catchment

Maintaining a full range of services for a population, particularly specialist secondary level hospital services, requires a large enough population catchment to generate a sustainable level of demand. What the sustainable level of demand is, for a given service, will depend upon both clinical and economic criteria.

Clinical requirements for sustainability are usually influenced by professional college requirements for clinicians to perform minimum volumes of an activity in order to maintain expertise. Economic requirements for sustainability usually involve considering whether providing a given service locally is the best use of available resources. Both clinical and economic analyses usually find services more sustainable in larger populations.

South Canterbury DHB has a relatively small population, but manages to provide good access to generalist secondary care. A larger base population might develop the ability to provide more specialised services in South Canterbury, improving access for local people who would have to travel less often, and providing increased collegial support for clinicians. Increased population flows could be achieved by changing whole DHB boundaries, or by working with neighbours to change the configuration of specific services.

Changing the SCDHB population catchment is a complex and politically sensitive issue, requiring careful tradeoffs between community preferences, clinical requirements and funding. Changing boundaries may involve changing facility ownership as well as patient pathways, requiring careful analysis of potential liabilities.

A more detailed analysis of catchment volumes for key specialties and a potential framework for approaching the issue for is available in Appendix 2.

- Greater flows of patients through secondary care have the potential to improve clinical and economic sustainability of services in South Canterbury.
- A greater range of specialty services would improve access and reduce travel for the South Canterbury population.
- Increased volumes could be achieved through changing boundaries or by working with neighbouring DHBs to change flows for specific services.
- There is a need to develop a decision framework for determining the direction on catchment issues.

Electronic health record

Modern health services depend increasingly on the seamless flow of patient information from provider to provider. Consequently, it came as no surprise that the exchange of patient information was at the top of the list for all informants, whether in primary, secondary or aged care.

South Canterbury is building off strong foundations. Primary care in New Zealand is well computerised; with adoption of MedTech, primary care in South Canterbury is well placed for future development.

The DHB is committed to much more work. The hospital is implementing a new patient management system. South Canterbury is taking a leadership role in the development of an electronic health record for the South Island, providing input into regional health information processes.

Over the next two years, the DHB expects to utilise a regional repository for laboratory records, to implement e-discharge summaries to primary care, to allow look through both to and from GP and hospital based systems, and to link better with, for instance, rest homes. The DHB is working with primary care in a major clinical pathway development project to achieve this. The DHB will fully implement the processes and procedures needed to keep patient information secure and to make sure that information is used for the purposes

- Health workers will have the right information, at the right time, to best help their clients
- Primary and secondary care will share records, starting with laboratory records
- The patient management system in the hospital will be upgraded to allow progress in information management
- All primary care providers will be integrated including pharmacy and rest homes, to allow flow of relevant information
- The systems will integrate with other South Island providers to provide a seamless flow of information if patients are transferred; the DHB will take a leadership position on this matter
- Patients and other clients will be assured of appropriate use of information for health purposes only.

Emerging clinical roles

New clinical roles have the potential to support new models of care, providing more flexibility and choice about service delivery for both patients and clinicians. South Canterbury DHB has already explored some possibilities in this area, with nurse specialists operating in the community, and a multidisciplinary clinic providing assessment for patients in orthopaedics.

A further area where there may be room for new clinical roles is in the interface between primary care and the hospital. A number of informants suggested that General Practitioner with Special Interest positions could help to improve patient pathways between primary care and the hospital, as well as potentially attracting medical staff who are interested in a different role from the traditional GP.

Developing new nursing and allied health roles, and multidisciplinary teams, has the potential to support new models of care in older persons health, where patients often have more complex conditions and comorbidities.

- New clinical roles can support new models of care.
- Already demonstrated in orthopaedics and in community nurse roles.
- GP with Special Interest, or similar, roles may have the potential to support better primary secondary integration and attract GPs.
- Multidisciplinary teams will increasingly be important for older persons health services.

Regional networks

South Canterbury DHB exists within a regional context, as one of the five District Health Boards in the South Island. Relationships with other DHBs can take a number of forms in terms of service provision. These include flows of patients to other DHBs for specialised services which cannot be provided in South Canterbury; and flows of visiting clinicians to South Canterbury to provide more specialised services locally.

The potential of regional clinical networks for South Canterbury is to improve the range of services offered locally, and to provide more collegial support and professional development for South Canterbury clinicians operating within a larger group of peers. Well functioning regional relationships already exist in a number of services, and there is potential to improve regional networks in other areas. Shared training and education are potentially important parts of regionally coordinated activity for medical and other clinical staff.

Patient and clinician transport issues are one element of an overall regional picture which, if comprehensively addressed, can improve access to care and convenience and safety for patients. Another key element is having effective information systems in place, to that clinicians in South Canterbury remain an informed part of the tem providing care to patients, even when a patient spends some time in another area.

Health information issues are an key area which is being addressed by South island DHBs as a region. South Canterbury should be a fast follower of regional development in health information systems.

- Regional networks have the potential to improve access to care for patients.
- Regional approaches to education and professional support have the potential to help recruit and retain specialist clinicians in South Canterbury.
- Resolving patient transport issues should be part of the overall plan for addressing regional networks of services.
- Regional initiatives are key to progress in health information.

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STEPPING INTO THE FUTURE

South Canterbury District Health Board

Priorities

South Canterbury DHB will have to make conscious decisions about the actions which will help it to achieve the desired future. A number of important decisions have already been made, for example to implement a patient pathways project. Other key directions have been identified, but progress is dependent upon a range of wider factors, such as the Regional Health IT plan. Other decisions will have to be made in the future, in light of existing resources and programmes, and given the progress which has been made towards a desired future state.

Organising activities into five priority groups provides a framework for thinking about whether a given proposal or decision will feed in to the overall direction of the DHB. A range of people from health services across South Canterbury participated in workshops which considered the five programmes of action, and identified specific activities and priorities within each area. Participants also identified the highest priority areas for action.

- Prevention and early intervention;
- Resilient primary care;
- Seamless patient flow;
- Centre of excellence for older persons health;
- Best hospital services

South Canterbury District Health Board

Enablers

The priorities capture a wide variety of suggestions which have been generated from individual interviewees and group workshop participants. Each suggestion contributes towards the overall direction of the DHB. When invited to identify the highest priorities for action, both individual and workshop participants nearly unanimously indicate that development of a shared electronic health record, and using it to drive better coordinated care is the single top priority which they would like to see addressed by South Canterbury DHB.

The development of clinical information systems is increasingly a regional project, of which South Canterbury DHB is only a part. But the clear signal on this issue from health professionals in all settings, hospital, primary and community, should make it clear that South Canterbury DHB has a mandate to push the issue as hard as it is able to do so. There is an expectation among clinicians of all professions that they can use better clinical information to improve the quality, timeliness and efficiency of the care they deliver.

- Top priority: Shared electronic health record
- Other priorities
  - Primary care facility and business model development
  - Better integration between primary and secondary care
  - Regional clinical networks
  - Multidisciplinary team development, including regional professional development

Regional clinical networks

Regional clinical networks will be an important enabler of better patient pathways and more sustainable services. There are a number of specific steps which SCDHB can take to develop aspects of the regional clinical networks which will support the five key priorities.

Propagating models which work	•Systematic review of working models in the South Island and New Zealand more generally •Address patient transport issues as an element of regional clinical networks •Be open to moving clinicians around, both into and out of South Canterbury
Professional development and education	•Build upon shared training regional training forums for clinicians across different districts •Planned calendar for training across the region •More multidisciplinary training opportunities •Begin with physical meetings to establish relationships, but use teleconferencing and videoconferencing technology to continue them
Clinical and management relationships	•Acknowledge different strengths of different DHBs, both in clinical and management terms •Shared patient record, allowing shared care for local and distant clinicians •Agree collective responsibility for successful services

South Canterbury District Health Board

Prevention and early intervention

Developing health education and promotion

- Working with regional public health to tailor health education and promotion activities to the South Canterbury population.
- Working with the District Council and other government agencies to address determinants of health across a wider range of health and social services.
- Improving connections between health education and promotion services and both primary and secondary care.
- Integrating health education and promotion into older persons health services.

Early needs identification

- Continued focus on evidence based screening programmes
- Increased focus on risk assessment for long term conditions
- Better information sharing between health professionals, to identify complex needs.

Early intervention

- Patient pathways to support timely access to services
- Better use of allied health professions to provide intervention at an early stage, including the development of multidisciplinary teams with enhanced skills.
- Focus on long term conditions management in the community.

South Canterbury District Health Board

Resilient primary care

Succession planning

- Continue to develop registrar and undergraduate teaching programmes
- New business and facility models which are more attractive to younger GPs
- Work with business advisors, including local chamber of commerce.
- Focus on rural roster issues, which are a major barrier to succession in rural areas.

Facility planning

- Consider a new expression of interest approach for GPs to explore developing new facilities. Should be blank slate, options to include joint ventures with the DHB or other organisations.
- Consider the best facility for multidisciplinary teams linking to general practice: including innovative options such as schools.

Emerging clinical roles

- Consider GP with Special Interest or similar roles. Opportunities for GPs to work in different settings, with the potential to improve service integration and provide more diverse opportunities for new GPs in the area. These developments must be planned in tandem with evolving secondary care models and pathways.
- Continue to develop nurse practitioner roles, with closer collegial involvement of GPs and nurse practitioners.

Multidisciplinary teams

- Programme for general practice to meet and work with house surgeons and SMOs on a regular basis.
- Co-location of allied health with primary care, or further location of staff at a hub such as Woolcombe Street.
- Shared electronic health record to support a range of professionals providing care to an individual.

South Canterbury District Health Board

Seamless patient flow

Shared electronic health record

- A single record which is accessible across the health sector, including NGO providers. SCDHB must be a fast follower of the national rollout of integrated electronic health record systems.
- Consider a patient portal, allowing patients direct access to their information, and to key records such as discharge plans.

Agreed patient pathways

- Continue with development of the patient pathways project.
- Ensure health professional involvement in pathways development from across primary, community and hospital services. Use collaborative workshops.
- Support pathways with access to diagnostics and radiology from primary care.
- Review tertiary referral pathways, and pathways back to South Canterbury health services
- Consider a single clinical governance approach which crosses primary, community and hospital services.

Integrated services

- Extend the use of InterRAI assessments post discharge to aged care and mental health providers
- Develop the use of telemedicine and distance education technologies to support patients and health professionals in rural South Canterbury
- Improve discharge planning, involving a wider range of services, and communicating better with carers.

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Centre of excellent for older persons health

Better linkages with hospital

- Develop electronic medicines reconciliation system
- Focus on improved discharge planning
- Community providers involved in the multidisciplinary team before discharge
- Develop a shared electronic health record

Better coordination with primary care

- Develop a shared electronic health record
- Multidisciplinary primary care teams including allied health, improving access to comprehensive services
- Links to tertiary institutions, establishing research and development programmes and supporting sabbatical research roles for medical, nursing and allied health staff.

Plan for older persons health

- Develop an action plan for continued evolution of older persons health services in South Canterbury
- Develop the plan with broad scope, covering hospital, community and primary care components of service for older people
- Develop a collaborative approach to developing new models of care, involving people from across the DHB, private and NGO sector
- Acknowledge linkages with national planning and national reviews of older persons health.
- Consider the potential for an older persons health hub, providing a base for integrated older persons health services in the community
- Consider the potential for developing low income supported accommodation for older people

South Canterbury District Health Board

Best hospital services

Workforce

- Note the recently developed workforce strategy and action plan
- Raise the profile of the workforce plan with staff both within and outside the DHB, and maintain strong clinical engagement with the plan's actions
- Develop the workforce strategy in context of potential catchment/population flow changes, and debate about range of specialty services required to be delivered in Timaru
- Developing information skills among the workforce
- Supporting an ageing workforce

Multidisciplinary teams

- Continue development of multidisciplinary teams, including nursing and allied health roles
- Hospital based multidisciplinary teams may have roles in community outreach and primary care liaison
- Implement shared electronic health records

Catchment

- Consider catchment and population flows from neighbouring geographic areas to support volumes of care in Timaru
- Natural flows from Waitaki and Rangitata river catchments
- Work regionally to manage catchment via patient flow issues, or nationally consider catchment via boundary issues.

Facility

- Establish a framework for assessing hospital redevelopment needs in light of SCDHB priorities.
- Develop a whole of system facility masterplan which considers hospital, older persons health and primary services within a comprehensive approach

Next steps

South Canterbury District Health Board has a strong basis on which to plan health services for the coming decade. The main directions and priorities are clear. What will make a difference for the people of South Canterbury will be the ability to maintain a strong focus on priorities, and to ensure that resource and activity are well focussed upon achieving improvements across the South Canterbury health system.

This plan provides a starting point for the next steps of planning and decision making in South Canterbury DHB. The priorities identified here provide the framework for key decisions about facilities redevelopment, workforce planning and service integration. Making the right decisions on these issues will determine whether health services in South Canterbury can weather the challenges of the health service environment in the future. But careful planning and sound decision making do have the potential to support continued, and improved, quality and access to health services.

Managing and providing health services will always be a challenge, but with careful planning it will be a fruitful and rewarding one, which makes a positive difference to the people of South Canterbury.

Appendix 1

FINANCIAL FORECASTS FOR SOUTH CANTERBURY

Describing the base case

District health boards in New Zealand generally have to manage to both expectations of quality delivery of service – and also expectations of delivery within budget.

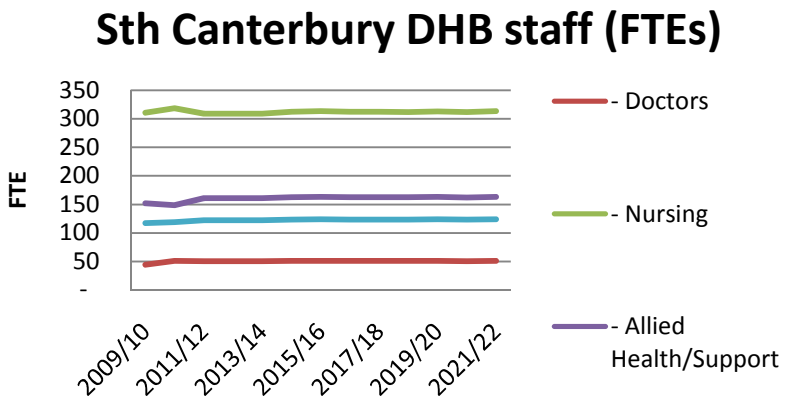
Delivery within budget has been a particular strength of South Canterbury DHB and, arguably, is particularly difficult for a smaller DHB where external cost drives can dominate expenditure. This health services plan sits within the constraints of the budget defined for the DHB through fore knowledge of the future funding path.

We have calculated the likely forward commitments of the DHB, have priced these commitments and have generated a forecast out over a number of years . The forecast shows a base case which is tight but manageable, and the forecast shows what might happen under a series of other conditions.

The forecast horizon is for the financial year to 2021/22. The projections are based on the District Annual Plan for 2011/12 and takes this years budget and the forecast generated by the DHB for the District Annual Plan as a given. We set out the key assumptions about the forecast model in the table below. A major part of the DHB cost structure is labour costs, expressed as full time equivalents (FTEs). We have forecast the labour requirement based on current service models and set out the labour requirement in the chart below.

The base forecast model assumes (from 2014/15):

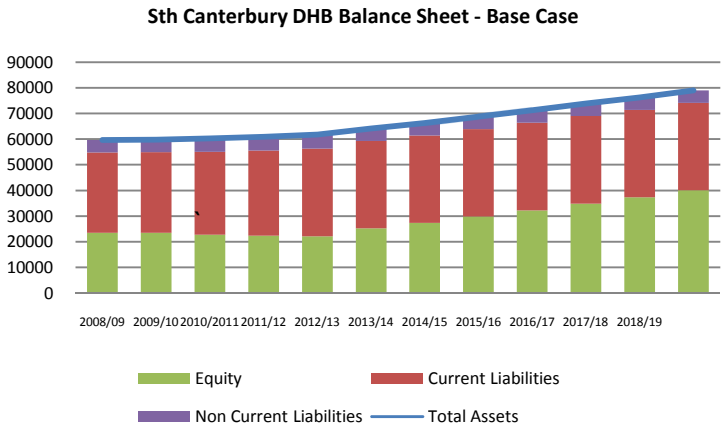
1. CPI is 2.5%
2. Out years revenue adjuster for the DHB is at CPI
3. Caseweight forecast drives workforce numbers and the majority of provider costs
4. External provider payments increase @ 2.5% (1.7% FFT + 0.8% demographic)
5. Efficiency gains on provider costs at 1% per year
6. Workforce remuneration increases at CPI +0.5%(@2.5%)
7. No changes to IDF flows or proportions
8. 8% capital charge on the previous year's equity balance
9. Capital costs met through reserves first, then borrowing from CHFA @ 3.1%

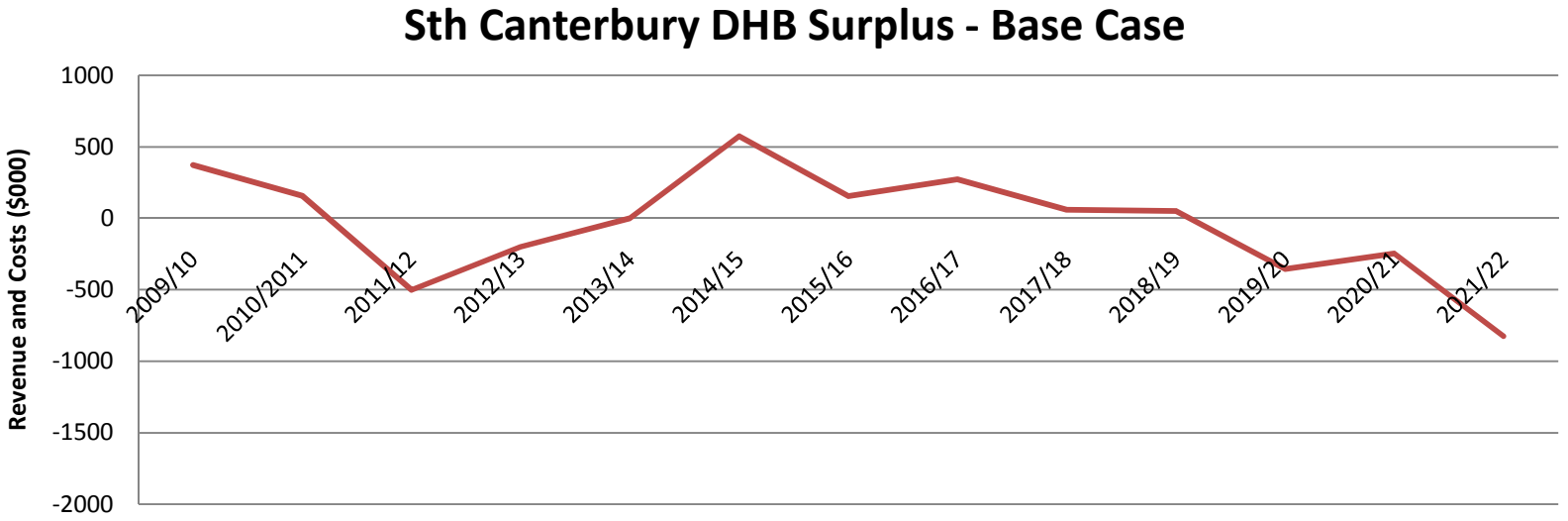


Base case financial performance

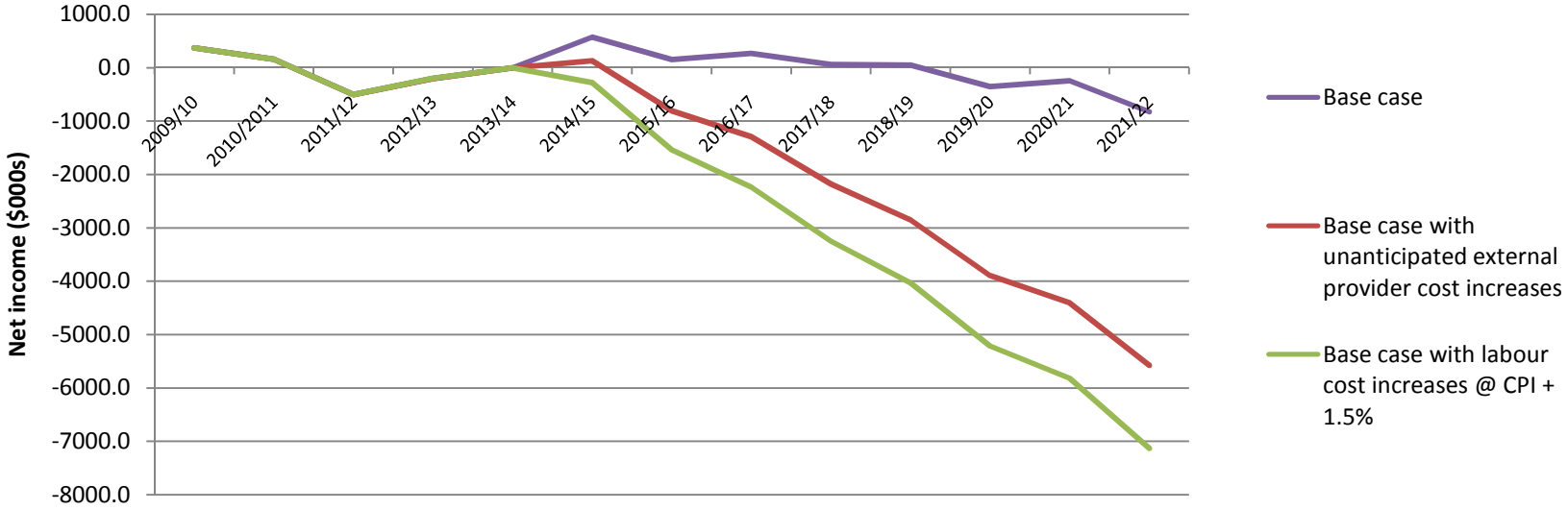
The charts below show the financial result for the DHB. Over time, all other things being equal, the DHB may be able to hold the line. The financial position tightens in 2015/16 but then improves in later years. The balance sheet, as a result, remains stable, and not startling.

However, the margin of error is demonstrably slim. The DHB will have to find small incremental savings and also try to mitigate the unexpected pressures that are part of managing a health sector budget.





Financial position is finely poised



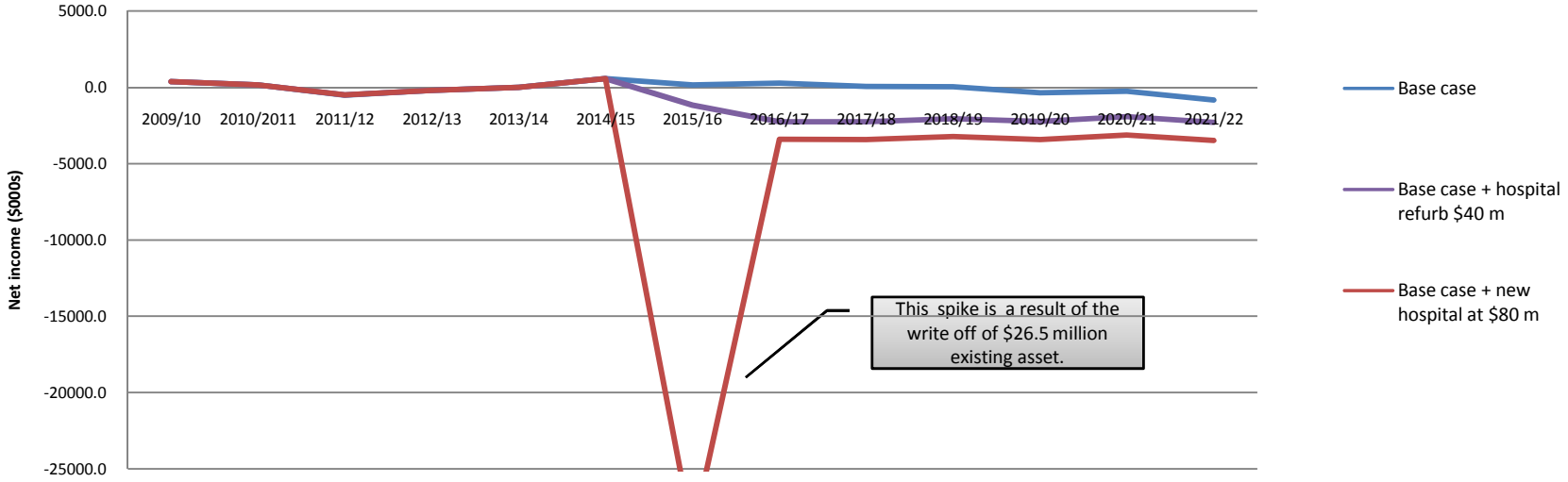
The financial position of the DHB remains fairly stable so long as efficiency gains are achieved, but it worsens sharply if costs increase. Particular points of sensitivity are external provider cost increases (particularly increases in rest home costs, community pharmaceutical costs and other primary care costs) and labour cost increases.

The scenarios illustrate how easy it would be for the DHB to slip into deficit with unanticipated cost changes. Efficiency improvements must be sought constantly in order to keep afloat.

Two variations on base case:

1. **Base Case plus labour costs increasing at a higher rate of CPI + 1.5%**
2. **Base Case plus external provider costs increased 0.8% per year over base case**

Financials with hospital refurbishment/rebuild



The approximate cost of a comprehensive hospital refurbishment is likely to be around $40 million, and a full hospital rebuild to be around $80 million.

The $80 million rebuild will be more likely to achieve efficiency gains than a refurbishment, since there would be greater flexibility to change models of care.

A new or refurbished hospital could be justified if efficiency gains in the base financial case are achieved.

As noted on the previous page, the DHB faces particular areas of cost sensitivity which will need to be managed to keep the financial position stable.

Two variations on base case:

1. **$40 million refurbishment, $20 million of debt and $20 million of reserves. No write off of existing building.**
2. **$80 million rebuild; $60m of debt and $20m of reserves. The existing building is written off. At a value of $26.5m**

Discussion

Health services throughout New Zealand face increasing challenges to their financial viability. Ministerial pressure on achieving surplus has increased, and the rate of annual funding growth for the health sector as a whole has decreased in recent years. This reflects a tighter fiscal situation for the government overall, and a greater to manage cost growth throughout the public sector.

South Canterbury DHB currently fluctuates approximately around a break even position. This base case assumes that a tight hold is kept upon external provider cost pressures and upon workforce costs within the DHB provider arm, allowing efficiency gains above CPI levels. This is a less generous regime both for external providers and for DHB staff than has obtained over the past decade.

Facility development is one of the major elements of future planning for South Canterbury. The particular approach to refurbishment or rebuilding will need to be determined in concert with planning for new models of care.

Affordability of an investment depends upon being able to support the costs of capital. In the case of hospital redevelopment it will be possible to support investment, so long as baseline, continuous efficiency gains are achieved. The difference in impact of refurbishment and full rebuild options upon the overall bottom line of SCDHB is actually relatively small, but in the event, a decision on the strategic direction for facility development will depend upon the confidence which can be achieved on making the efficiencies in operational activity to make such redevelopment affordable. To some extent greater operational efficiency may be achieved from a more radical rebuilding, but this must be traded against the greater investment required for that option.

- Base case scenario is approximately break even, but will be challenging to achieve.
- Facility development may be affordable, but will require efficiency gains.

Appendix 2

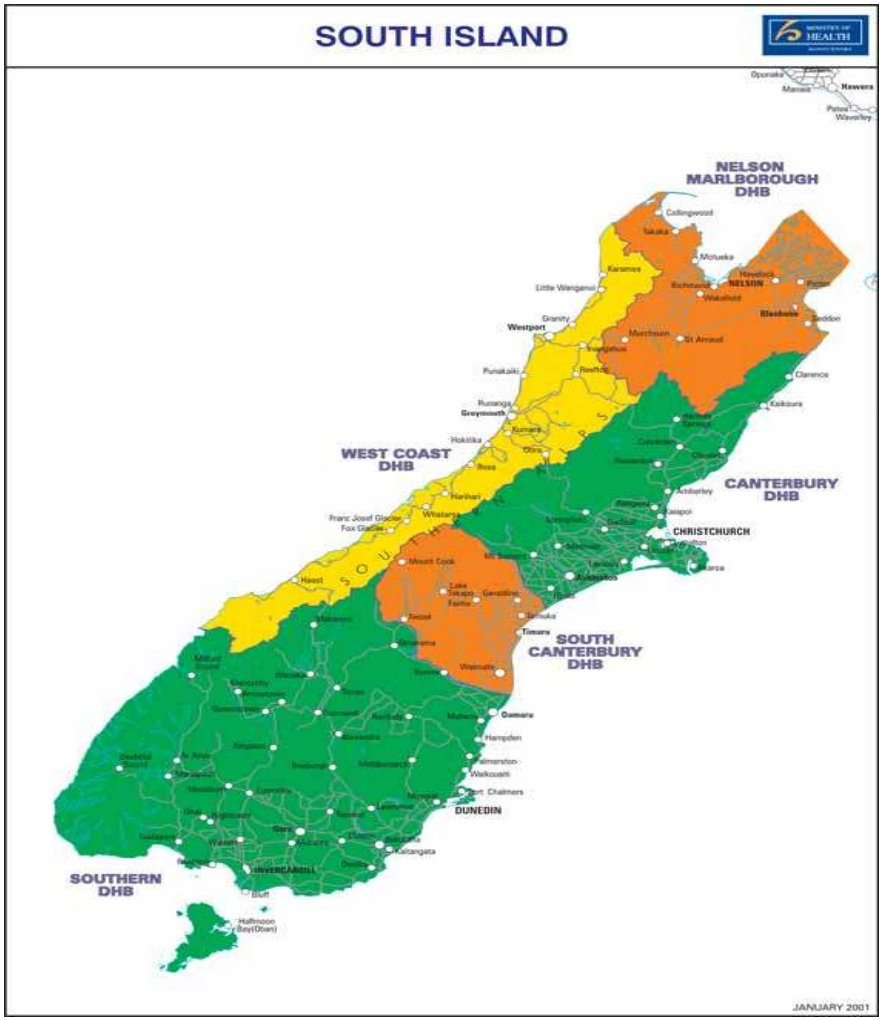
HOSPITAL CATCHMENT AREA: OPTIONS AND ISSUES

Background

South Canterbury District Health Board has an estimated population of 55,655 people in 2010. This places it at the smaller end of the range of District Health Boards in New Zealand. It is located between two larger DHBs, each of which has an outlying population centre at around a one hour drive from Timaru. Oamaru and Ashburton are both approximately equidistant between Timaru and the major hospitals of Southern and Canterbury DHBs respectively.

The relatively small population and the particular geographic location of South Canterbury DHB together present a challenge for the DHB's strategic direction. The size of population served is a constraint upon the range of specialist hospital services which can be offered to the population in South Canterbury. This means that patients often have to travel to other centres, particularly Christchurch, for specialist tertiary services.

A second aspect of a smaller population is the difficulty of achieving economy of scale. Where a minimum establishment of clinicians has to be retained in order to keep a roster fully staffed, a larger population can support a roster more easily, and economies of scale will start to mean that a roster can be covered across a larger group of clinicians with less demand upon each individual.

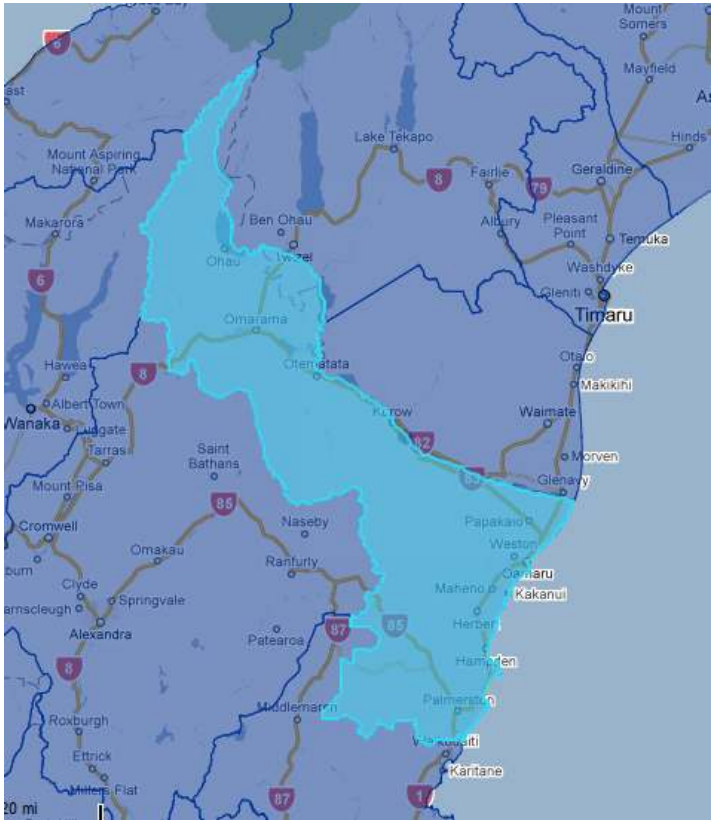


Given the challenges of maintaining a comprehensive range of locally based hospital services for the population of South Canterbury, one priority area for SCDHB is to investigate the issues around expanding the population catchment. This may have the potential to support more comprehensive services for South Cantabrians, and to ease pressure upon staffing for existing services.

The two Territorial Local Authorities which are neighbours to the SCDHB area are Waitaki, stretching from the Waitaki river North of Oamaru to a point south of Palmerston; and Ashburton, stretching from the Rakaia river in the North, to the Rangitata river in the South. People living South of Oamaru or North of Ashburton are closer to Dunedin and Christchurch respectively, than they are to Timaru. Waitaki District has a population of 22,000 people, and Ashburton district has a population of 29,000 people

Ashburton District

Waitaki District



Volumes of service: Oamaru population 2009/10

The Oamaru population is served by a small hospital, operated by a trust. The hospital is operated by Waitaki District Health Services Limited, a company owned by the District Council. General practice services are not physically integrated with the hospital.

Currently, nearly half of the hospital discharges of people resident in Waitaki occur in Dunedin. The majority of general medicine for this population is performed locally in Oamaru, although a large amount of general surgery is provided in Dunedin.

A number of subspecialty activities which occur in Dunedin are particularly susceptible to provision in Timaru hospital. These include ear nose and throat (ENT), ophthalmology, dental, urology, cardiology and respiratory services. If a proportion of these services were able to provided in Timaru, this may have the impact of supporting a greater degree of specialisation than currently exists. The areas in which there is the greatest scope for this appear to be ENT, Ophthalmology, urology and cardiology.

	Oamaru	**Dunedin**	**Timaru**	**Other**	**Total**
General Medicine	971	67	8	50	1096
General Surgery	387	300	10	80	777
Orthopaedics	0	291	5	38	334
Medical subspecialties	265	530	3	73	871
Surgical subspecialties	13	1016	11	163	1203
Maternity and neonatal	353	278	1	10	642
Other	455	31	0	88	574
Total	2444	2513	38	502	5497

Subspecialties done in Dunedin

	Discharges	% elective
ENT	172	91%
Ophthalmology	101	82%
Dental	29	86%
Urology	177	90%
Cardiology	117	47%
Respiratory	29	24%

Volumes of service: Ashburton population 2009/10

The Ashburton population is served by a 74 bed hospital owned and operated by the Canterbury District Health Board, serving a population of approximately 29,000 across the whole district. It provides acute general medicine and elective surgical services on an inpatient basis, and with a range of outpatient clinics. Staffing for Ashburton hospital operates on an integrated roster with other CDHB facilities.

Currently, 55% of hospital discharges for the population of Ashburton are performed locally, and 37% are performed in Christchurch. Among subspecialties where services are provided in Christchurch, and where there is particular potential to provide services in Timaru, there are ENT, ophthalmology, urology, and cardiology services.

In the case of both Oamaru and Ashburton, some proportion of the services which are currently provided in Dunedin and Christchurch respectively are likely to have to continue to be provided there, even under potential boundary changes or altered patient flows to Timaru. This particularly applies to tertiary services provided in Christchurch.

	Ashburton	Christchurch	Timaru	Other	Total
General Medicine	1797	53	73	10	1933
General Surgery	1680	126	122	3	1931
Orthopaedics	0	354	85	2	441
Medical subspecialties	84	558	2	30	674
Surgical Subspecialties	111	1318	138	7	1574
Maternity and neonatal	714	735	54	0	1503
Other	183	10	18	51	262
Total	4569	3154	492	103	8318

Subspecialties done in Christchurch

	Discharges	% elective
ENT	92	76%
Ophthalmology	145	92%
Dental	44	100%
Urology	71	86%
Cardiology	141	41%
Respiratory	39	72%

Options

There are a number of options which South Canterbury DHB could consider in pursuing the objective of supporting the sustainable provision of specialised services. These include:

- Status quo. Continuing with the present range of services which are provided locally in Timaru.
- Expanding DHB boundaries. This option could potentially see the boundaries of SCDHB move to the South and/or North of the present boundaries, increasing the base population served by the DHB.
- Changing inter district flow patterns. This option could potentially see altered flows from neighbouring populations to Timaru, providing extra critical mass to support key specialty activities.
- Developing regional clinical networks. This option could potentially see shared clinical teams working more seamlessly across DHB boundaries, with clinicians and patients moving both into and out of the existing SCDHB area to provide a more comprehensive single service rather than several different specialist services.

Main options:

- Status quo
- Expanding DHB boundaries
- Changing inter district flow patterns
- Developing regional clinical networks

Policy issues

	Status quo	Boundary change	IDFs	Networks
Clinical viability	• Small numbers of South Canterbury patients make some services difficult to sustain clinically.	• Increased viability if some proportion of secondary care activity from Ashburton or Oamaru is performed in Timaru.	• Increased viability if some proportion of secondary care activity from Ashburton or Oamaru is performed in Timaru.	• Increased viability of services by treating them flexibly as an integrated service which serves populations across different locations. • Increased travel by clinicians may be costly and time consuming and unacceptable to professionals. • Better professional peer support among larger clinical teams.
Patient access	• SC patients have to travel to other centres for some specialist services which could potentially be provided in Timaru.	• Some improvement for people in South Canterbury. Potentially a decrease in convenience for people in Waitaki and Ashburton who live closer to Dunedin and Christchurch than to Timaru.	• Some improvement for people in SCDHB. Changes for people in Waitaki and Ashburton may be more convenient in some respects, and less in others.	• Greater ability to provide care where patients live.
Financial viability	• Small numbers of SC patients make some services difficult to sustain financially.	• Increased population based funding for SCDHB. • Increased liabilities for infrastructure and ageing populations: need to operate three hospitals for new base population. • Where patient flows still need to go to Dunedin or Christchurch, new IDFs would occur from the new SCDHB population to SDHB and CDHB. Increasing cost of IDFs makes this a risk.	• Increased financial viability of specialist services at SCDHB, but at the direct expense of services in Dunedin and Christchurch.	• May be increased costs arising from supporting a larger service, and from greater levels of clinical time required to maintain peer networks. • May be easier to negotiate a mutually workable financial arrangement for neighbouring DHBs than a straight IDF model.
Strategic risk	• Dissatisfaction of SCDHB population with local access to specialist services.	• Boundary change processes may be slow to initiate if not a priority at a high level, and once initiated may not be predictable. • Boundary changes may be publically contentious. • Public expectations from new catchment areas may be heightened and difficult to fulfil.	• Tough negotiation with other DHBs, and clinical resistance from other hospitals is likely. • Enforced change in referral patterns may be publically contentious.	• Likely to take longest of all options to develop, since reliant upon developing widespread clinical consensus and management support.

Boundary change: operational and community issues

Operational Issues

Changing DHB boundaries would present some specific operational issues which would have to be addressed during implementation:

- Oamaru hospital operates relatively independently, but Ashburton hospital provides part of the wider district level hospital capacity for Canterbury DHB, making it potentially more difficult to separate from other CDHB services. CDHB advise that Ashburton hospital is integrated into their future planning.
- Ashburton staff rosters are integrated across CDHB rosters, which increases the sustainability of the service there. SCDHB would need to be able to match the level of cross institution rostering to be able to maintain the viability of the service there, but off SCDHB's smaller staff establishment. This is particularly an issue for 24 hour cover of acute services in Ashburton.
- GPs in Waitaki and Ashburton Districts would need to transfer their PHO membership to the SCDHB primary and community provider arm.
- Transfers of complex cases would potentially involve patients travelling from Oamaru/Ashburton to Timaru, and then to Dunedin/Christchurch.

Community Issues

There has been no formal consultation with the communities of Waitaki or Ashburton about potential changes to DHB boundaries. But preliminary views can be formed on the basis of anecdotal information, which would have to be checked and explored as part of formal consultation during a boundary change process.

Anecdotally, the communities of Waitaki and Ashburton are likely to respond differently to a proposal of changed catchment. The population of Oamaru may be receptive to the prospect of looking to Timaru for secondary services rather than to Dunedin. This possibly reflects a local perception that Oamaru is a cinderella site within Southern DHB, and might expect a higher level of health care resource in a different situation. Expectations from moving to a new DHB catchment could potentially be difficult for SCDHB to meet.

The Ashburton population is likely to see itself as closely linked to Christchurch, and residents of the area are likely to have non health related reasons for travel to Christchurch, as well as a need to visit for specialist services. Changing existing patterns of community focus may be difficult.

In both areas, where people live South of Oamaru or North of Ashburton, they will be closer to Dunedin or Christchurch respectively, than they are to Timaru. Existing District boundaries do not make a good fit with hospital catchments, whether they include Waitaki and Ashburton or not.

Discussion

A viable population base is a key element of planning for specialised health services. This is an important issue for South Canterbury DHB, and for the South Island more generally.

There are a number of regional processes which are intended to address issues of sustainability of secondary services. In particular, a first South Island regional clinical services plan was developed in 2010, and an alliance process among DHB Chairs and CEOs has been implemented to support regional decision making.

Changing DHB boundaries may be an answer to service sustainability, but as with an strategic decision will come with a range of benefits and costs, which will have to be weighed carefully in a specific analysis. A full consideration of the options, and the benefits of each, will need to be pursued in order to give the SCDHB board confidence that the greatest benefit and least risk are being delivered to the DHB, and to make a persuasive case to the Ministry of Health and other South Island DHBs.

Next steps:

- Formal review of options;
- Regional discussion about service sustainability;
  - Linkage to regional clinical services planning;
- Joint approach from DHBs to NHB/MoH.