Clinical Services Plan

Developing our health services for the next ten years

Final draft 22 August 2018

Mihi

[To be added]

Prepared by

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for Hutt Valley District Health Board

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Foreword

[To be added]

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Executive Summary

This Clinical Services Plan (CSP) sets out two significant challenges our health services need to meet over the next decade. The first challenge is posed by the persistent health inequities which we now have greater insight into. The long-run effects of these health inequities pose a challenge we need to take head on and require a very different way of working from that we are used to.

The second challenge is growth in service demand caused by the ageing of our population. We will increasingly feel demand grow in general medicine, rehabilitation services, cardiology and psychogeriatric services. Our surgical teams will become increasingly busy with general surgery and orthopaedics in particular. Our general practices will come under further pressure with demand for more and more complex consultations. We need to find a way to deal with this forecast increase in demand due to ageing at the same time as we find time, resources and service options to push against health inequity.

Recognising inter-dependencies in our response

The response to these two challenges is set out in the following strategic pillars:

- Radically reducing inequity
- Building strong primary and community care
- Prioritising the first 1000 days of life
- Proactive care to maintain the wellbeing of older people
- Evolving the character of our hospital

Several of these pillars have existing dedicated work programmes specifically designed to address priorities. Others do not have informal initiatives in place that rely on one or a handful of committed professionals. Of fundamental importance is the inter-dependent nature of these pillars; we often take action in one area such as primary care, or another area such as developing a leading edge ambulatory care service, but still see demand increase and health inequities persist. We recognise these inter-dependencies more clearly in this CSP. In particular, we need to rebalance our efforts to reduce inequity and support primary and community care, at the same time as we assist our hospital to be as efficient as possible.

Radically reducing inequity

Our health system works well for the majority of our population. However, we are clear from our health status reports and interviews with our communities, individuals and their whānau that there are material gaps both in how we deliver services and how they meet the needs of some population groups and communities. Māori and Pacific communities in particular experience inequitable health service access and health outcomes than our general population. In many cases these gaps are a complex mix of health and social issues, and in many cases social issues of necessity come first for some families and whānau. We need to simplify access for the majority, and intensify our access and approaches for those with complex health and social needs who are disengaged from the health system.

We will act district wide to build an alliance with health and social services providers to identify and address these needs at a granular level. We will work through our neighbourhoods, in collaboration with communities, to find the local responses that we need to improve.

Building strong primary and community care

We will experience a major shift in the balance of care. Health Care Homes are the places in the community where we will be managing most people's health needs and almost all long term conditions. Increasingly, these will be the clinical hub for multidisciplinary team work, and the vehicle to provide access to diagnostics and interventions with reduced need for further referral to hospital based services. They will be supported by an increased proportion of specialist services provided in community settings.

Prioritising the first 1000 days of life

We will prioritise those days that are most critical in both the gestational period and the early days of infancy/childhood. We are currently missing opportunities to do better for these people. Our services are often not well designed for out-reach, and the multitude of funders complicates our ability to commission in an integrated way. Services respond well if whānau are well supported, but whānau lacking good social supports can struggle to access our services. We will be more active in working with communities, funders and our providers to define culturally appropriate solutions that are more responsive, and make a comprehensive range of services accessible to those who need them.

Proactive care to maintain the wellbeing of older people

We need a holistic approach to managing the wellbeing of older people. Some of this starts with developing elder-friendly communities. We will support our older people to be valued members of society through proactive measures detecting pre-frailty and early signs of dementia, and will integrate our assessments and care management within our Health Care Homes. We will further develop our community teams and better integrate home and community support services to better assist our older people to maintain cognition and function, and therefore independence in the community.

If we focus on valuing patient time in our health system, and particularly in our hospital, we will in general see improved patient outcomes and experience, as well as more efficient use of scarce resources. We must look closely at how we can reduce admissions and readmissions, and how to rapidly return people back to their communities. We already do well compared to our peers in some respects, but seek to further improve our performance.

Evolving the character of our hospital

Our hospital exists within the wider catchment of hospital services across greater Wellington[1]. Hospital planning in the future should reflect this wider picture, which may result in different flows of patients between Hutt Hospital and other parts of the region. Overall, we will focus our hospital on acute care, with a higher proportion of activity conducted in ambulatory settings, and more of that ambulatory activity taking place in the community including people's homes, rather than within the walls of the hospital.

Key enablers

Key enablers typically include workforce, technology and facilities. Clearly, there is significant work to do on all three fronts to realise the potential benefits of this CSP. We need to plan ahead to identify opportunities to grow our existing workforce to meet increasing demand with more complex need. We also need to keep up with technological advances to ensure our information and

[1] Excluding Wairarapa DHB

technology capability enables integrated and advanced ways of working. Finally, we must plan for our future facilities across our hospital, primary and community care settings.

Our workforce, ICT and facility development will underpin these pillars. However, we have identified a further key enabler under stress, being the poor condition of our core management systems. We are not able to identify costs to activities reliably. We have an out of date pay roll system. We are not able to track operational activity with demand activity in the manner we will need to, to be as efficient as the best health systems. We will need to invest in systems that help us understand demand patterns and anticipate events before they happen. These systems have been ignored for years and need to be revamped to meet new information requirements of a much faster paced and more accountable health system.

INTRODUCTION

Our direction for the next ten years

Why a clinical services plan?

We fund and deliver health services within a dynamic environment. The Hutt Valley is experiencing an ageing population, increasing demand, technological advances and increasing community expectations. At the same time, we have a constrained health budget, an increasing prevalence of chronic disease and persistent inequities within some groups of our population. Although our health system performs well in many areas, we know that not everyone receives the care they need. We also know that we will not be able to meet future demand unless we reduce or shape this demand and redesign how we provide our services. It is within this context that we need a clinical services plan (CSP).

This CSP informs the priorities for future investment and change in Hutt Valley's health system. It takes a view of the health system as a whole, encompassing community, primary and hospital level care; and acknowledging the important influence of socioeconomic determinants on health. It sets out the likely demand for services in the future and a range of service options for how we will respond to that demand.

This CSP will underpin our Long Term Investment Plan, will inform facilities planning, a workforce strategy and will further inform our information and communication technology (ICT) plan. We take a long term planning horizon over a ten year horizon.

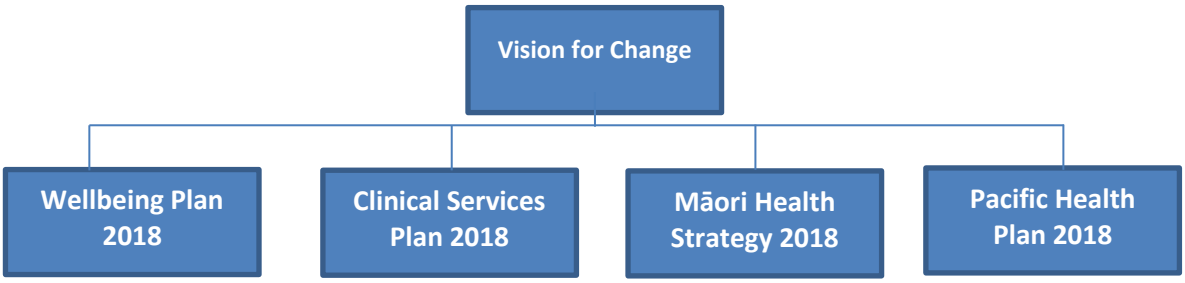
How does this clinical services plan fit within our strategic framework?

During 2017 we engaged widely with our community to develop our strategy: *Our Vision For Change: How We Will Transform Our Health System* ('Our Vision for Change'). This strategy outlines the health system we want and the strategic directions we need to take to achieve this. Our Vision for Change articulates our vision of "healthy people, healthy families, and healthy communities". To achieve our vision we have determined the following strategic directions:

- Living well
- Care closer to home
- Shorter, safer, smoother care
- Adaptable workforce
- Smart infrastructure
- Effective commissioning

This CSP sits under and is guided by this overarching strategy. It also sits alongside the recently completed Hutt Valley DHB Wellbeing Plan 2018 that focusses on prevention, developing resilient and healthy whānau and communities, and addressing the wider determinants and environmental factors that impact our wellbeing. It also sits alongside our Pacific Health Plan and Māori Health Strategy that sets out our commitment to improving the health of Māori in our district and accelerates Māori health equity.

Hutt Valley DHB strategic planning framework



This plan relates to national and regional priorities

This CSP sits within the context of the New Zealand Health Strategy, and other plans or strategies in the Central Region and at the national level. A number of other national strategies set the scene for this CSP, including the NZ Disability Strategy, He Korowai Oranga and Ala Mo'ui.

The Government has established a review into the health and disability sector to identify change that could improve the performance, structure and fairness of the sector. The review seeks to address the 'pervasive inequities that exist across our health system' and achieve a sustainable public health service in the face of demographic and inflationary pressures. Mental health and addictions and primary care have been identified as areas to be strengthened.

We are also part of the Central Region and rely on our regional DHB partners for provision of some tertiary level clinical care. Regional service arrangements will remain part of the landscape over the

life of this CSP and we are committed to the Central Region Services Plan. The Plan focuses on three priority areas, which align to our own local priorities: a health system that is digitally enabled, clinically and financially sustainable, with an enabled and capable workforce. The Plan also provides for the development of specialised care networks across the Central Region, for example cardiac and cancer services.

How did we develop this clinical services plan?

We developed our CSP through extensive engagement with our health care providers across the hospital, primary care and community. We listened to the views of people that use our health services, to gain a deeper patient centric view of what matters to them. The process for developing this CSP can be divided into the following key stages:

1. Understanding the current state of service provision and challenges for the future

We talked with a wide range of clinicians and managers in general practice, across community NGOs and within individual hospital departments to identify the main issues and challenges of current service provision and the implications of future service demand projections. We also canvassed what is working well now, and innovations planned or underway.

To gain an understanding of future demand we provided demographic volume forecasts for general practice and hospital services. These were in turn discussed with relevant stakeholders to gain a deeper understanding of likely future demand growth. We sourced Central TAS projections on future demand for aged residential facilities.

2. Mapping healthcare journeys through patient journey workshops

Patient journey workshops provided an opportunity for health professionals, patients and other stakeholders (e.g. police) to identify areas for improvement along the pathway, from a patient and whānau perspective, rather than an organisational perspective. At these workshops we mapped the journey for a patient using typical scenarios (e.g. elderly frail person with a fractured hip) and stepped through each encounter with our services, from entry into the health service (e.g. neighbour phoned an ambulance) through to exit (e.g. rehabilitation in the patient's home). We included patients, their whānau and support people wherever feasible. These journeys enabled the patient, whānau, and a broad mix of health professionals to workshop issues and missed opportunities and redesign an optimal patient journey.

3. Exploring options for service and model of care development in broad areas

We held workshops around four broad topics: acute medical flows, surgical flows, health services for the first 1000 days of life, and health services for older people. Participants included health professionals and managers from across the Hutt Valley health system. The response to the issues raised in that workshop is set out in this document.

4. Sub-regional DHB planning

We operate within a sub-region of hospitals with Wellington Hospital in Newtown and Kenepuru Community Hospital in Porirua. Over the Remutaka Range we have Wairarapa Hospital in Masterton. We have a number of sub-regional services (e.g. MHAIDS 3 DHB providing mental health, addiction and intellectual disability services) as well as regional (e.g. Plastics and Burns). Both Capital & Coast and Wairarapa DHBs participated in the development of this CSP as members of our CSP Steering Group, as well as meetings with the executive teams of both DHBs. We jointly recognise that there are significant opportunities to work together to design and deliver key services. Both our Hutt Valley DHB Board and the Capital & Coast DHB Board have recently approved our respective DHBs to

enter into a joint planning process to consider a range of clinical services that could be better delivered jointly across a network of hospitals.

5. Presentations and feedback

We will seek feedback on this draft CSP both within the hospital, with community based providers, with primary care and with Iwi and NGO providers, as well as through community groups.

THE CHALLENGE

Two dominant themes emerge with equity at the core of our challenge

Although we have made gains in a number of areas (such as reducing our average length of hospital stay and reducing hospital readmissions), we have a significant challenge ahead to achieve the best and fairest outcomes for our population whilst responding to demographic change and other demand pressures.

Some groups in our population experience unacceptable inequities in health outcomes, including Māori, Pacific peoples, people with disabilities or experience of mental illness and addictions, those living in socioeconomic deprivation and our refugee community. Despite improvements in amenable mortality rates (avoidable, premature deaths) Māori and Pacific rates in Hutt Valley are still more than twice that of non-Māori and non-Pacific. In the New Zealand Health Survey[2] Māori and Pacific in Hutt Valley were significantly more likely than others to report an unmet need for primary health care in the last year, and we know they have higher rates of hospital admission for avoidable conditions. Investing in services that are designed in meaningful partnership with people and whānau, so that we **achieve equitable access, experience and outcomes for all people in Hutt Valley**, is a thread that runs throughout this CSP.

There is a growing body of evidence that proves experiences during the first 1000 days of life, from conception to a child's second birthday, provide the foundations for lifelong health. The more 'trauma' or negative experience/neglect in these first 1000 days, the worst the long term impact is on lifelong wellbeing. This is why we focus on investing in a positive early start to life in our Vision for Change, and why our Wellbeing Plan focuses on tamariki and whānau with complex needs. Following on from *Our Vision for Change 2017–2027*, **this CSP prioritises investment and service development to support the first 1000 days of life**.

At the same time, we also know that our ageing population will bring a significant increase in service demand that is clinically and financially unsustainable. Not only will the volume of older people dramatically increase, but the complexity of those presenting to the service will also increase. **This CSP prioritises investment and service development for healthy ageing and the frail elderly.**

Inequities amongst our population persist

Our health needs assessments and routine monitoring shows us how we are tracking in measurable areas of inequity. Recent findings include:

- The proportion of Māori (57%) and Pacific (52%) women enrolling with a lead maternity carer in their first trimester of pregnancy has increased significantly between 2009 and 2016, but is still significantly lower than the rates for European/other and Asian women[3].
- The breastfeeding rate in Hutt Valley is significantly lower than national[4]. Māori babies are significantly less likely than European/other to be fully or exclusively breastfed, and babies living in deprived areas are significantly less likely than those in the least deprived areas.

[2] Ministry of Health. 2018. Regional Data Explorer 2014–17: New Zealand Health Survey [Data File].

[3] Ministry of Health. 2018. New Zealand Maternity Clinical Indicators 2016 – trends [Data File]

[4] Duncanson et al. 2018. Health and wellbeing of under-five year olds in Hutt Valley, Capital & Coast and Wairarapa 2017. Dunedin: NZCYES, University of Otago

- Hutt Valley has a higher rate of ambulatory sensitive hospitalisations of children and adults than national for the year to March 2018. The rate for Māori children is around one-third higher than other. The rate for Pacific children has improved, but is still 50 per cent higher than other[5]. Dental decay is the top cause of avoidable admissions for Pacific children and a major contributor for Māori children.
- Māori and Pacific adults in Hutt Valley are more likely than others to report unmet need for primary health care in the last year, for both themselves and their children[6].
- The prevalence of obesity is significantly higher amongst Pacific and Māori adults in Hutt Valley, compared to others; and significantly higher amongst Pacific children in Hutt Valley[7].
- Smoking rates are significantly higher for Māori and Pacific women, and Māori men, compared to other ethnic groups[8]. Of particular concern is the high proportion of Māori mothers that smoke. Maternal smoking for Māori in Hutt Valley is more than triple the rate for European/other[9].
- Ambulatory sensitive hospitalisation rates for Māori and Pacific adults (45-64 years) are around double the rate of other ethnic groups and have not shown any improvement in the last couple of years[10]. The top causes are angina/chest pain, cellulitis and chronic obstructive pulmonary disease (COPD).
- Māori (67.6%) and Pacific (68.5%) women in Hutt Valley had lower cervical cancer screening rates, in the three years to June 2018, than women of other ethnicities; and coverage has not improved over the last three years[11]. Breast screening rates have improved for Māori and Pacific women and there is now little difference between ethnic groups[12].
- The prevalence of anxiety disorders amongst Hutt Valley adults is significantly higher than the national average[13].

The first 1000 days lay the foundation for lifelong wellbeing

Our social, economic and physical environments are strong determinants of health outcome. Our social environments also influence our lifestyle and behavioural factors. Poverty, unemployment, overcrowded housing, social isolation, exposure to violence and at-risk behaviours are all strong indicators for health need. Across the country and in Hutt Valley, Māori and Pacific peoples are over-represented among the most deprived communities and this is reflected in inequitable health outcomes.

Socioeconomic status varies significantly within the Hutt Valley with almost equal proportions of people living in the most deprived areas (20 per cent in Quintile 5) and the least deprived areas (23

[5] Ministry of Health. 2018. SI1 report [Data File]

[6] Ministry of Health. 2018. Regional Data Explorer 2014–17: New Zealand Health Survey [Data File].

[7] Ibid.

[8] Ibid.

[9] [9] Duncanson et al. 2018. Health and wellbeing of under-five year olds in Hutt Valley, Capital & Coast and Wairarapa 2017. Dunedin: NZCYES, University of Otago

[10] [10] Ministry of Health. 2018. SI1 report [Data File]

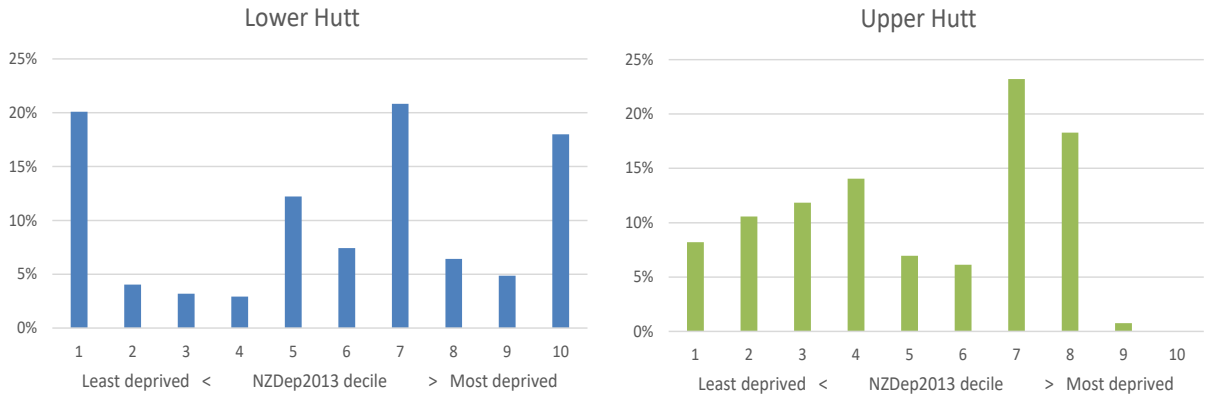
[11] Ministry of Health. July 2018. *NCSP New Zealand District Health Board Coverage Report: period ending 30 June 2018*. Wellington: Ministry of Health.

[12] Ministry of Health. April 2018. *BSA New Zealand District Health Board Coverage Report: period ending 31 March 2018*. Wellington: Ministry of Health.

[13] [13] Ministry of Health. 2018. Regional Data Explorer 2014–17: New Zealand Health Survey [Data File].

per cent in Quintile 1). By 2030, a greater proportion of the community is likely to be living in high socioeconomic deprivation if current trends continue.

Figure 1 Hutt Valley population by NZ Deprivation Index 2013



Source: University of Otago, Sapere analysis

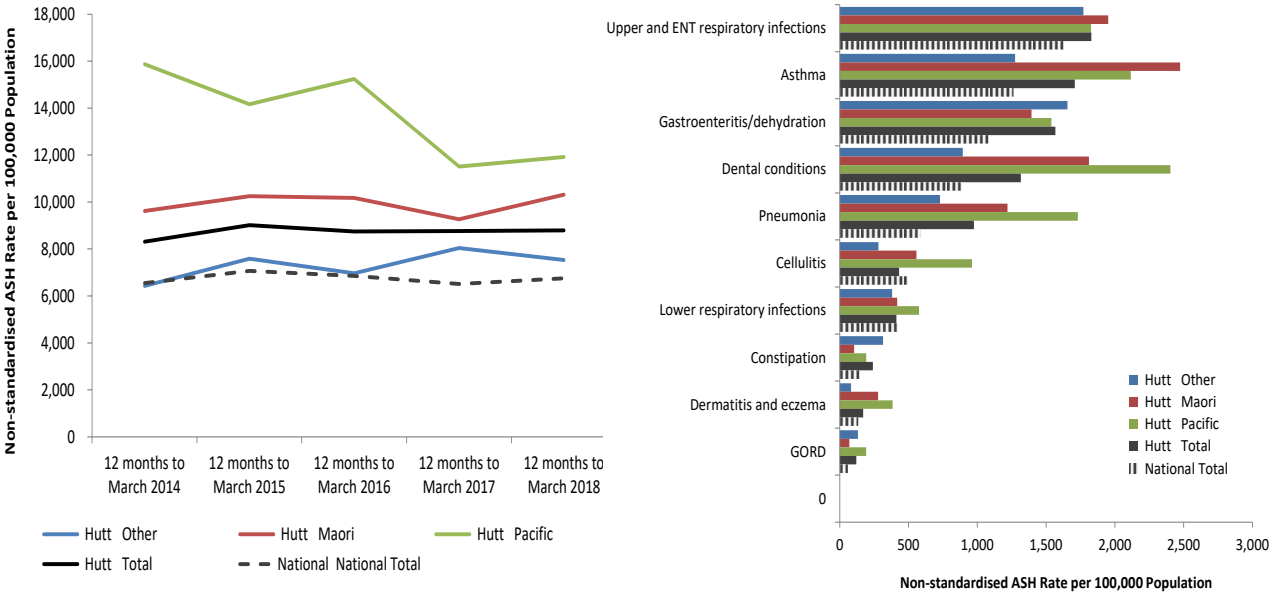
The first 1000 days (conception to a child's second birthday) is strongly influenced by the determinants of health. There is strong evidence that poverty and other confounding socioeconomic factors (e.g. parental education, maternal age) negatively affect child health outcomes such as low birth weight, infant mortality, poorer mental health and cognitive development and avoidable hospital admissions.

A large number of Hutt Valley children are living in poverty. According to 2013 census data 6,768 children aged 0–17 years (~ 25 per cent) lived in sole parent households and 4,648 children were reliant on a recipient of state benefits. During the same year, 2,039 youth aged 16–24 years were receiving a state benefit. At the time of the census around fifteen per cent of Hutt Valley children lived in over-crowded houses, and forty per cent of all Pacific children in Hutt Valley lived in over-crowded housing.

The impact of poverty is reflected in our avoidable hospital admission rates, particularly for infectious and respiratory diseases where families live in low quality, over-crowded housing and are unable to pay for many basic needs such as heating, health care, medicines and nutritious food. Our DHB has higher than national average ambulatory sensitive hospitalisations (ASH) rates[14] for pre-schoolers. Rates for Pacific children have decreased over time but are still significantly higher than for non-Māori non-Pacific, and admissions have increased for Māori and Pacific children in the most recent 12 month period. The major causes of these avoidable admissions are dental decay, respiratory infections and asthma.

[14] ASH rates are typically acute admissions that could potentially be reduced through prophylactic or therapeutic interventions provided in the community.

Figure 2: ASH Rates 0-4 years



Source: Ministry of Health

There is an increasing and unsustainable demand for children who require assessment and intervention for developmental and behavioural issues (e.g. Autism Spectrum Disorder). Our Child Development Service is underpowered for this challenge and our health care providers identify children being admitted to our wards that should instead receive care in their communities.

Managing demand and needs of an ageing population

As our population ages, we are seeing more people live with long term health conditions and multi-morbidities. People are living longer than previous generations, but are living longer in poorer health[15]. This is particularly so for Māori, Pacific peoples, refugees, disabled people and those living with a mental illness.

> *Māori males aged 65 can expect the shortest remaining time of living without disability or long term illness (5.5. years on average) and the highest proportion of remaining time lived with disability requiring support[16].*

Ageing leads to a gradual decrease in physical and mental capacity and an increasing risk of developing age related health conditions (and several at the same time). Old age can also be characterised by the emergence of syndromes such as frailty, delirium and urinary incontinence[17]. Older people are not a homogenous group and many people over the age of 65 years will continue to be active and independent members of their communities. However, as a result of increasing health and social care needs, older people generally require a far greater share of health care resources than younger people.

Our total population is not expected to grow substantially over the next 20 years (just under 5 per cent or around 7000 people), although there are both short and long term plans for housing

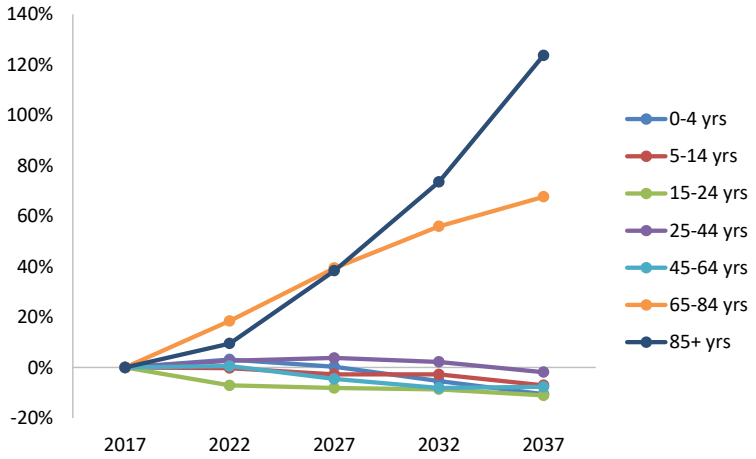
[15] http://www.who.int/news-room/fact-sheets/detail/ageing-and-health Ministry of Health. 2018. *Health and Independence Report 2017. The Director-General's Annual Report on the State of Public Health.* Wellington: Ministry of Health.

[16] Associate Minister of Health 2016. *Health Ageing Strategy.* Wellington: Ministry of Health

[17] http://www.who.int/news-room/fact-sheets/detail/ageing-and-health

development in Lower Hutt and Upper Hutt cities. There will be a significant increase in the number of older people, with current projections suggesting that in 2038 almost one-in-four people will be aged over 65 years. The population aged over 80 will double. The overall number of children and working age adults is expected to decline.

Figure 3 Hutt Valley growth on 2017 by age group



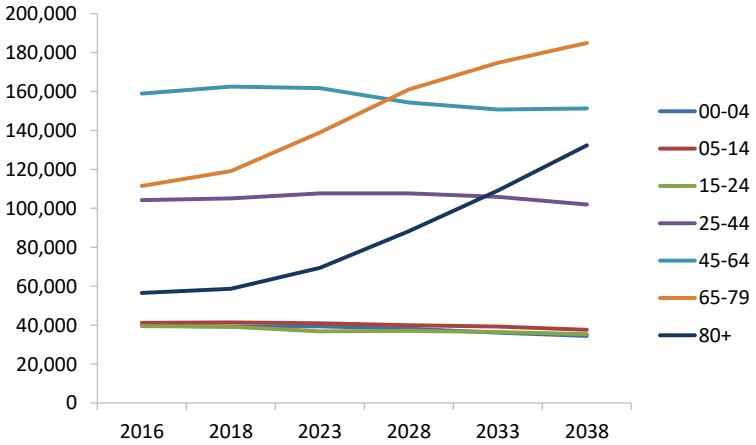
Source: Statistics New Zealand population projections prepared for the Ministry of Health

As a consequence of our changing population needs, increased demand will occur across our health system in community care, primary care, aged residential care and in the hospital.

Pressure on primary care will build

Between 2016 and 2038, consultations for enrolled patients are forecast to grow 20 per cent overall across Hutt Valley practices. This growth is driven by ageing, with consultations for people aged 80 years and over expected to more than double. In absolute terms this would require nearly another 150,000 consultations per year.

Figure 4 Hutt Valley forecast GP consultations by age groups

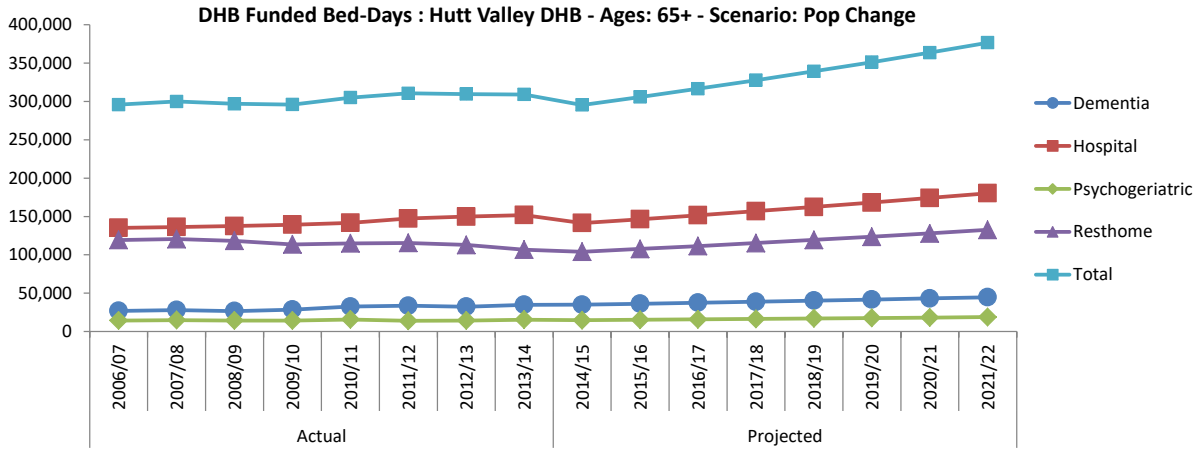


Source: Karo Data Management, Sapere projection

Aged residential care demand increases significantly

Demand for DHB funded aged residential care bed days for people over the age of 65 years will increase 40 per cent by 2026/27 and 74 per cent by 2031/32[18].

Figure 5 DHB funded aged residential care bed days, Hutt Valley 65+ years

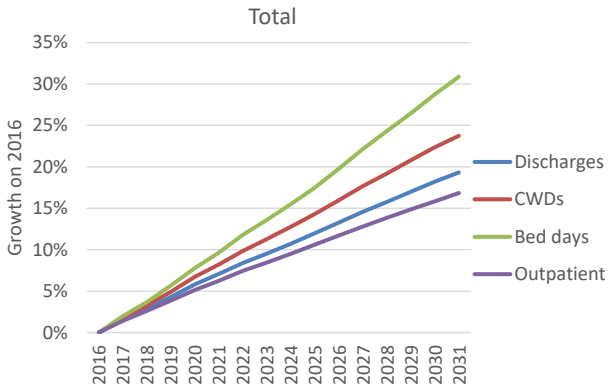


Source: Central Region Technical Advisory Services, Aged Care Demand Model, March 2018

Substantial growth in demand with increasing acuity and length of stay

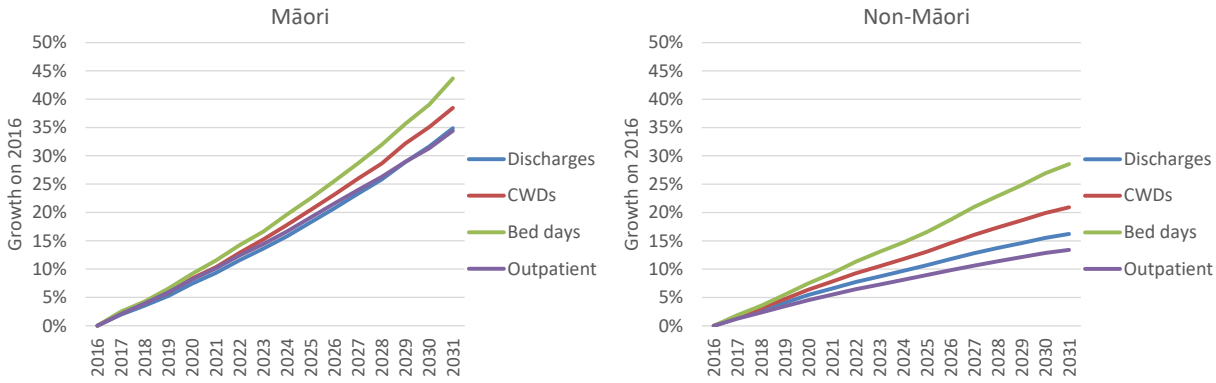
The increase in total discharges is substantial, at 19 per cent, but is outpaced by the increases in case weights and bed days. These reflect the current age distribution of the more complex, higher case weight events, their length of stay, and the impact that the ageing population will have upon the need for services if current models of care continue. The clear message is that the average complexity of total population cases will increase across the hospital and that there will be substantial pressure upon bed capacity under existing models.

Figure 6 Hospital service demographic demand growth



[18] Central Region Technical Advisory Services, Aged Care Demand Model, March 2018

Figure 7 Hospital service demographic demand growth, Māori and non-Māori

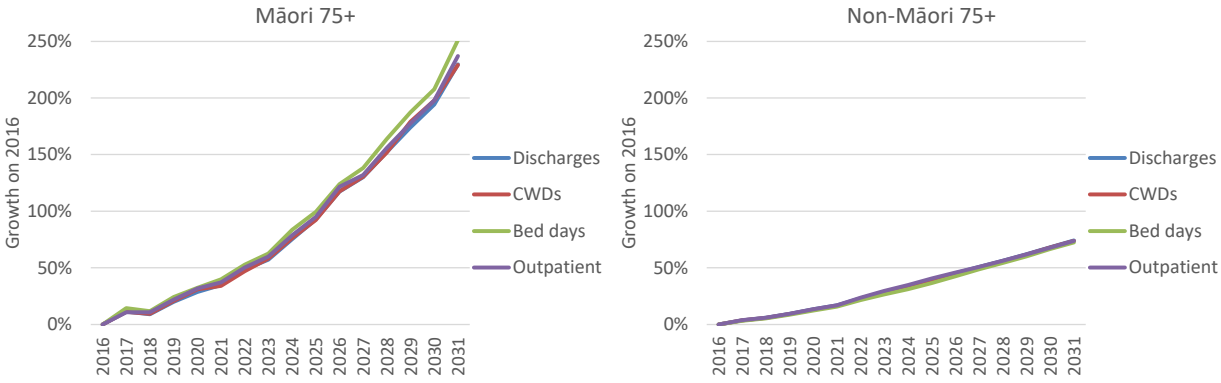


Source: NMDS & NNPAC, Sapere projection

Demand growth across inpatient and outpatient services is projected to be higher for Māori compared to non-Māori. This is because our Māori population is projected to increase more rapidly than our non-Māori population overall, and the percentage increases for older Māori are projected to be higher than for non-Māori. Hospital discharge demand growth for Māori will increase by around 35 per cent compared to 16 per cent for non-Māori. For Pacific, the overall demand growth is more moderate as our Pacific population is not projected to increase significantly.

The percentage growth for older Māori is markedly higher than for older non-Māori. It is also higher for older Pacific peoples (although not as high as for Māori). The absolute numbers of Māori and Pacific aged 75 years and over remain much smaller than for non-Māori non-Pacific, however the large proportionate increases have important implications for both hospital and community services. An increase in the number of Māori and Pacific living into old age is to be celebrated, but we need to ensure we deliver care that is appropriate, meets the needs of individuals and their whānau or carers, and eliminates inequities within our system.

Figure 8 Hospital service demographic demand growth, Māori and non-Māori, 75 years and over

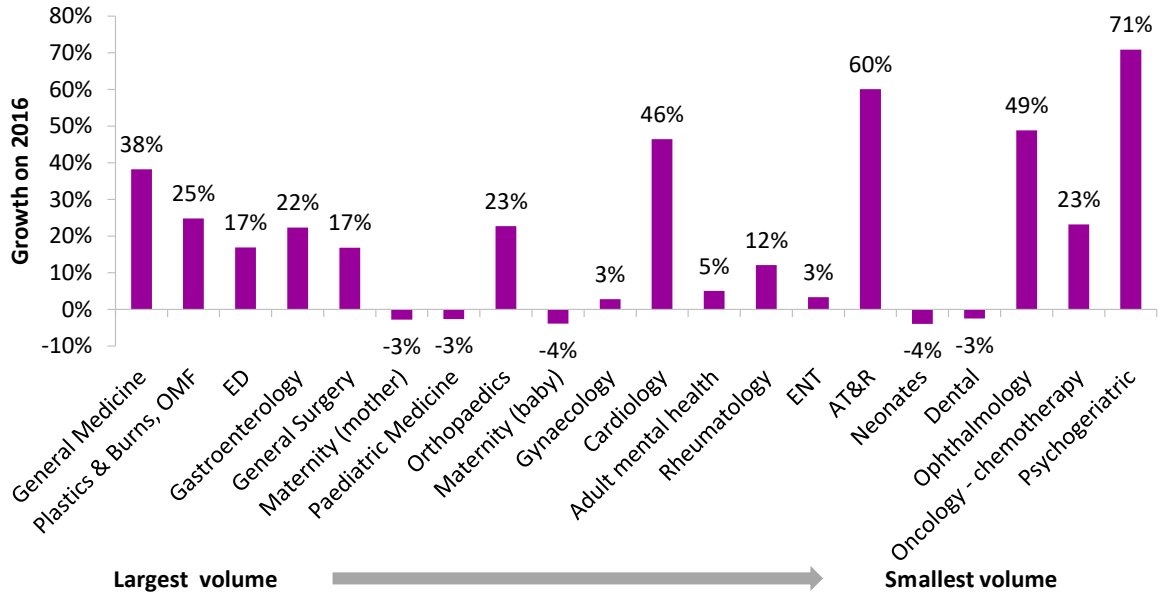


Source: NMDS & NNPAC, Sapere projection

Services managing our older people will experience the greatest demand

The underlying dynamic of the increasing need for hospital services is also one of ageing, with increases in discharges from 2016 to 2031 in the order of 40 to 70 per cent for key areas of activity such as general medicine, ophthalmology, cardiology, rehabilitation, and psychogeriatric. This level of service demand means the way we do things now will have to change.

Figure 9 Growth in hospital discharges 2016–2031

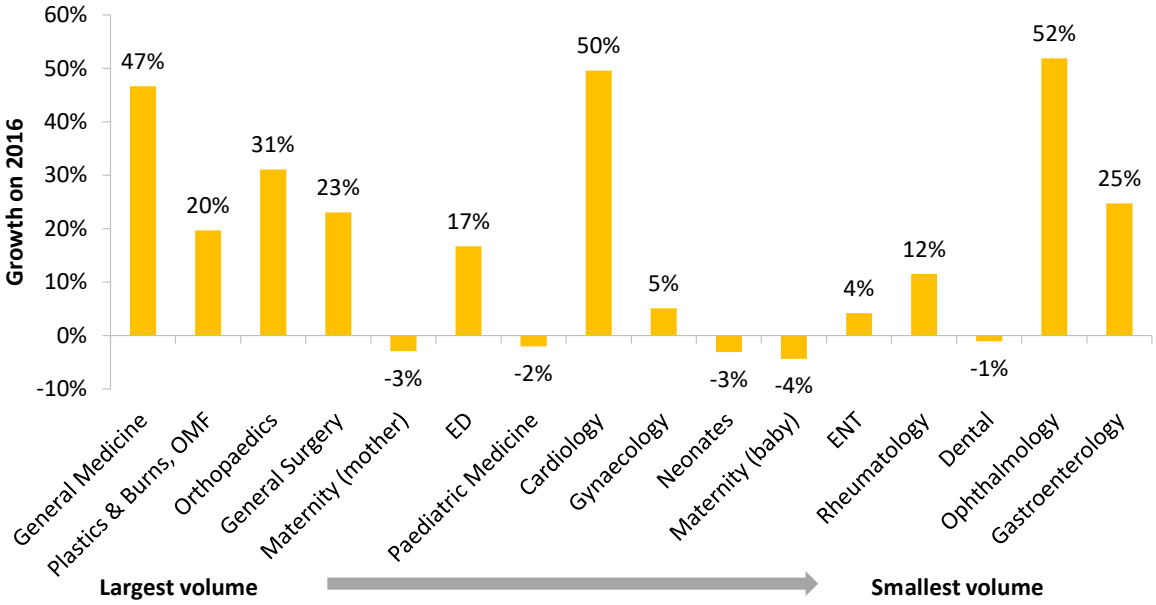


Source: NMDS, Sapere projection

Our case weight[19] growth outstrips discharges in general medicine, cardiology, orthopaedics, and general surgery. This growth in case weights reflects an increase in older people presenting with more complex health needs requiring more resources. Bed day growth is higher again in medicine reflecting the longer length of stay for older people.

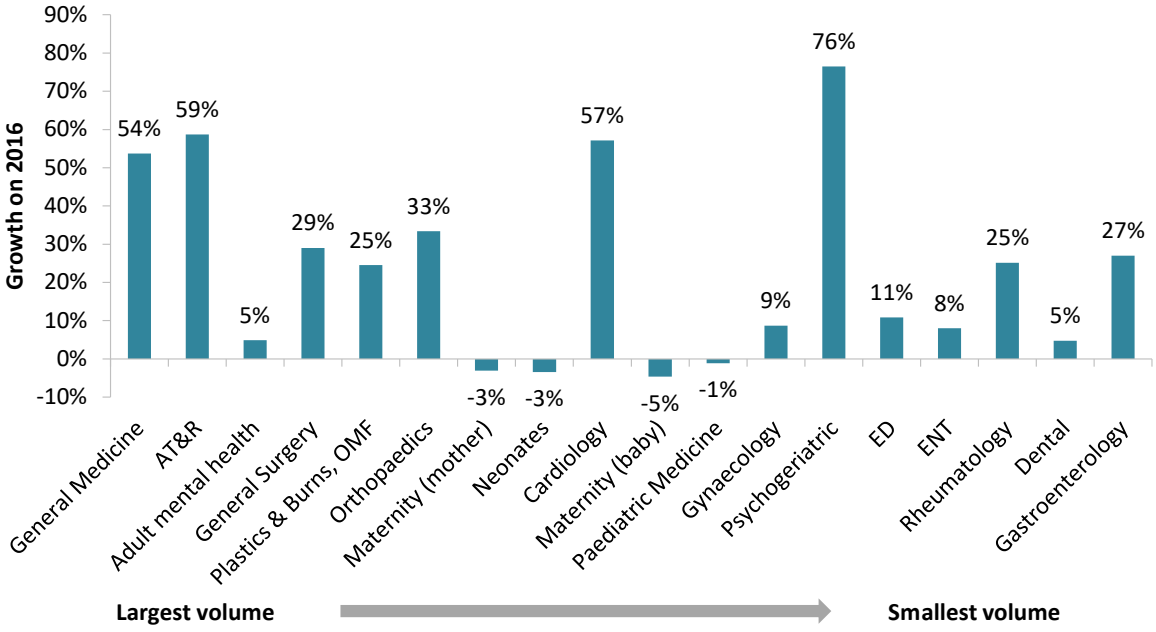
[19] Case weights measure the relative complexity of treatment and reflect the required resources.

Figure 10 Growth in hospital caseweights, 2016–2031



Source: NMDS, Sapere forecast

Figure 11 Growth in hospital bed days, 2016–2031



Source: NMDS, Sapere projection

We will run out of beds let alone money

The stark reality is we will run out inpatient beds if we keep on doing things the way we are. The chart below shows our bed use rate would accelerate to and beyond capacity particularly in general medicine. The second chart works with a simple extrapolation of case weights and shows the way we currently operate our health system becomes increasingly unaffordable.

Figure 12 Bed utilisation forecasts

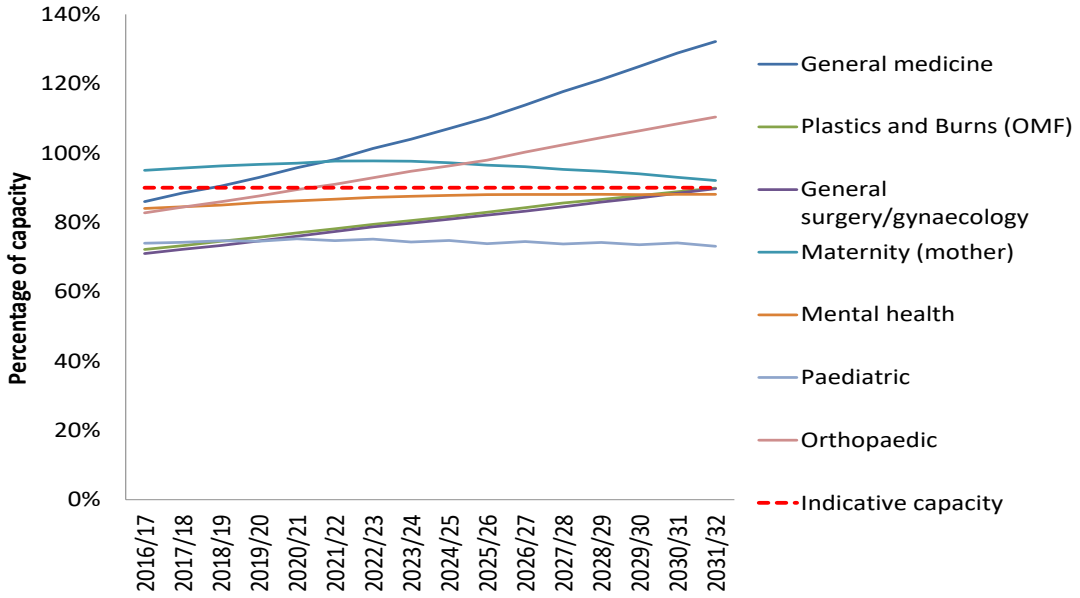
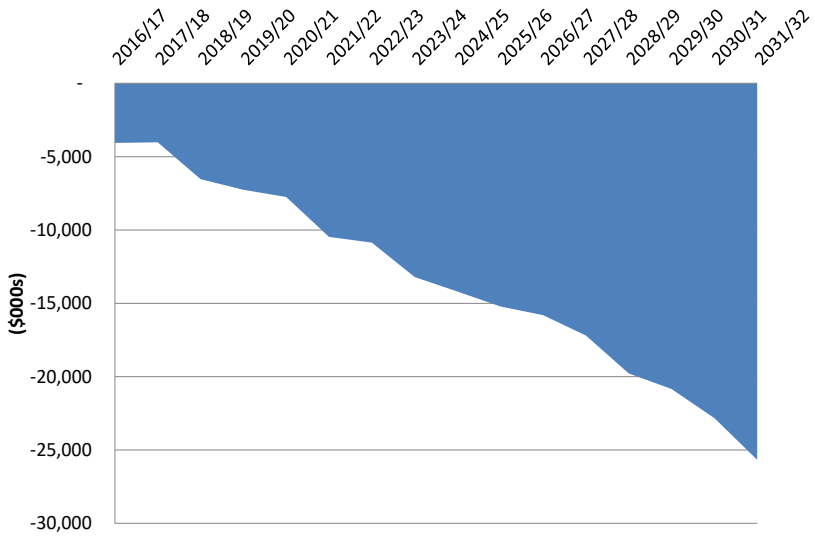


Figure 13 Forecast deficit to 2031/32



Our health system's service delivery issues

In general, we provide a good health service for most of our people who use it. We continue to perform well for our community and meet or exceed many indicators including some of the Minister's Health Targets. We provide high quality care for the majority of our population, but our goal is to provide this level of care for 'every person, every time'. And we do know that if we don't change our approach (*simplify for many, and intensify for a few*) we will not eliminate health inequities or meet our future demand to the standard we and our community expects.

However, we have also identified a series of opportunities for improvement, outlined below. This description is not exhaustive, nor do all of these issues apply to all services, health care professionals or patients.

Not everyone can access our services

Most people are enrolled in a general practice and access primary and community health care services when they need them. However, the proportion of Hutt Valley Māori enrolled in a general practice appears low, although there are known difficulties with estimation of coverage rates by ethnicity. There are individuals and whānau that do not know what breadth of services exist and/or cannot access services that meet their needs.

- Some people struggle to see their health professional in the community due to cost and/or transport issues.
- Others can't take time out of work or other activities during the working day for appointments.
- Some individuals and whānau within our district have more immediate social and economic needs (e.g. safe, affordable housing) that render non-acute health care as a lower priority issue. As a result, these people may miss out on preventative and standard health care.

Many of our care models are outdated

Many of our existing models of care are outdated across a number of services. There are examples of excellence, but on the whole our services operate in silos both within the hospital and also between the hospital and the community, and within the community.

- People are coming to the hospital for care when they could be better served in the community. Our services need to be more community facing—we need our hospital teams (medical, nursing and allied health) working more closely with our primary care and community providers as part of broader multi-disciplinary teams, so that people can receive the care they need closer to their home or workplace.
- People are coming to the hospital and being treated by specialist staff, where they could and should be seen by health professionals and support workers that work in the community.
- Care is often organised around the service rather than the people it serves (we make people fit into our working hours and settings).
- Services tend to be focussed on single issues, rather than holistic care (with whānau ora the exception). The single issue focus stops many of our health professionals and service providers from referring to the most appropriate service.
- We continue to use traditional approaches to delivering health care (bringing people in for multiple face to face appointments), despite increasing availability of information and

communication technologies and many people expressing a desire for different modes of communication and contact.

Our patient and whānau experience is mixed

Many of our patients and their whānau reported a positive experience and commented on how hard our caring staff work. But not everyone had a good experience.

- Wait times can be long leading to frustration, anger, clinical deterioration and out of pocket expenses.
- People may not feel their time is valued.
- Our Māori patients have described various experiences of racism and racial profiling within our services.
- Our patients experience too many referrals and appointments that are not coordinated.
- We don't always provide clear, culturally appropriate communication tailored to our patients and their whānau.
- Our spaces are not well designed, run down and can be inappropriate for children, older people, and whānau.

We can improve our patient flow

- We have made great strides to improve our patient flow in a number of areas. However we need to look ahead to the future demand profile and ensure that we identify and address those issues that impede patient flow from a whole of health systems view.
- Poor patient flow through our health system occurs for a number of reasons. For instance, long waitlists in ED may result from lack of same day appointments in primary care or urgent care in the community, and/or a lack of inpatient beds to transfer patients to.
- Long average length of stay for inpatients may be the result of complex social issues that delays a person's return to the community, inefficient discharge planning practices, lack of timely access to diagnostics and insufficient allied health care particularly on weekends (among other things).
- There are multiple uncoordinated entry points to our health system that leads to duplication and is hard for people and whānau to navigate.

Our workforce will need to adapt

Our workforce is our most valuable asset. We need to build a flexible and responsive workforce to rise to the challenges the future brings.

- As with the rest of the world, we have an ageing workforce and an increasing number of people eligible for retirement. We need to create a retirement profile and develop succession plans for our specialised staff in particular.
- In some areas, we find it difficult to recruit and retain staff. In other areas, we have skill shortages and over use overseas trained staff.
- We don't have enough cultural diversity in our workforce and in particular, we lack Māori and Pacific staff. Our mainstream workforce could also gain from more cultural competency training.

- In general, our workforce reports being under pressure to varying degrees through the spectrum of different professions—administration, management, nursing, maternity, mental health, allied health and medical workforces.
- We need to develop contemporary approaches: work to the top of our scope, adopt care models that utilise new professions, work inter-professionally and maximise available technologies.

We need smart technology and up-to-date facilities

- Our workforce is frustrated with the outdated technology, particularly information and communication systems that, in many cases, hinder rather than aid modern care delivery. We need to invest in smart technology to improve access to services (e.g. patient portals, telehealth), and enable efficient and effective care (e.g. shared health records, tablets and smart phones).
- We offer people a poorer experience through lack of privacy, poor condition of physical facilities, difficulty of access and orientation to departments rather than people. We need modern, flexible facilities able to change as our models of care change, that meet modern expectations of health facilities.

We need a new approach

It is clear that we need to change the way in which we are providing services to achieve equity among our population and meet the future demands we face. We need to design services around our people, whānau and communities recognising their diverse social, economic and cultural positions.

Our principles

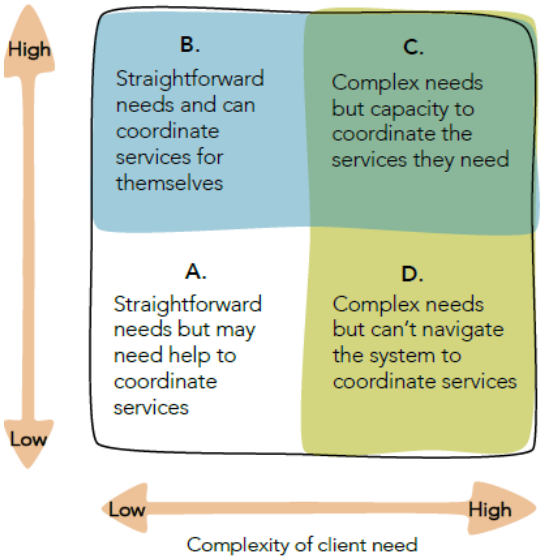
We will develop and commission services in accordance with the principles of our strategy *Our Vision for Change 2017–2027:*

- *Equity*—our decisions will support the elimination of health inequalities
- *People centred*—our decisions will improve individuals and whānau experiences of care and address what matters most to them
- *Outcomes focused*—our decisions will improve health outcomes and wellbeing for individuals and whānau
- *Needs-focused*—our decisions will be based in where the greatest need lies
- *Partnerships*—our decisions will increase connections between individuals, whānau, health and social services
- *Systems-thinking*—our decisions will benefit the health system as a whole
- *Co-design*—our decisions will draw on the knowledge and expertise of our partners and be co-designed with them
- *Stewardship of resources*—our decisions will ensure we get the best value from our funding and carefully balance the benefits and costs of our investments

The system performs differently for different types of clients so how we think about service delivery is important

The New Zealand Productivity Commission separates different client characteristics into four groups depending on their complexity of need and their ability to manage their needs[20]. This model provides a helpful view to understand how we need to simplify services where we can, and intensify where we need to.

Overall our health system performs well for the vast majority of our population—those with straightforward needs and can coordinate their own services (quadrant B) and those with straightforward needs but who may need some help to coordinate their services, such as older people with a specific need (quadrant A).



[20] The New Zealand Productivity Commission – Te Kōmihana Whai Hua o Aotearoa. August 2015. More Effective Social Services

However, we need to consider what additional support we provide for those people with complex needs and have the capacity to coordinate their own care (quadrant C). These people experience frustration coordinating care across multiple providers, with limited ability to make their own choices on what they can access and when. In particular, we need to consider how we provide services for our most vulnerable population—those with complex needs who can't navigate the system (Quadrant D), who often have multiple social and health issues for whom services span multiple agencies.

We will adopt case management, wraparound services and service coordination for our most vulnerable individuals and whānau. These people require care from multiple services, agencies and sectors. Case management is a targeted approach aimed towards those who do not have their own capability, capacity or support systems to access and coordinate the services they need.

Our response will be a step change on what we already do

There is no easy answer, but the solution is not unachievable. We continue to work with and evolve our services and have good examples of service delivery. Currently, we have a responsive Older Persons and Rehabilitation Service with components of the service working at the front door of the hospital (importantly, a stroke physician), in surgical wards (ortho-geriatrician), and through the hospital (allied health) particularly with respect to transfers back to the community.

Our hospital will be oriented to the older people many of whom may be frail. These people and their medical conditions underpin our rates of growth in surgery and medicine. Our community and primary care resources need to be attuned to identifying actively those who ought to be connected in but aren't.

We need the same vigour in delivery of Women's and Children's Health with an even greater focus on working locally, in co-design partnerships with families, NGO, primary care and other agencies. Maintaining the functional health of our older people means we can focus on growing and nurturing services for young families, and improve the health and wellbeing of those currently missing out.

We will keep on improving:

- Listening to communities, individuals and whānau that use, and more importantly don't use, our services; working with them to design services that will best meet their needs.
- The way we work together in multi-disciplinary teams to provide holistic service responses.
- The manner in which we bring resource to complex service delivery through mechanisms such as Needs Assessment and Service Coordination (NASC) functions.
- The tools we use to predict, identify and resolve issues; proactively planning for events and ensuring transitions of care are seamless.
- Inter-professional skill sharing to support workforce resilience and sustainability.

We must set our level of ambition

We have highlighted the demand pressures on our primary care and hospital services if we don't change the way we do things. Clearly this level of demand is unsustainable. We need to shape or reduce the demand on our hospital services, and focus our investments in providing more preventative, primary and community health services; so that people receive high quality care closer to home and at the lowest cost opportunity. In the community, we will need to offer people new ways of accessing care, as the current model will not be able to absorb demand from demographic change as well as a determined shift in the balance of care.

We will constrain the demand growth for hospital services, particularly those provided in an inpatient setting. To do that, we will reduce acute admission rates through implementing new models of primary and ambulatory care; and ensure people don't stay in hospital longer than they need to by becoming more efficient and improving flow.

In the sections below, we set out the size of the reductions required to contain growth in hospital bed days, under scenarios for different service groupings. Note that in most cases, we are not suggesting a reduction in the absolute number of discharges, but that we will reduce the *rate of growth* from the full demographic growth.

This analysis is indicative; its purpose is to show 'what it might take' to hold or minimise bed growth, rather than to provide the absolute number of beds our hospital will require in the future. It helps us to set targets, and more detailed bed modelling would be part of capital planning processes. For this exercise, services have been grouped according to Health Specialty Codes in the national inpatient datasets (which may not always be aligned to hospital wards), and surgeries we have outsourced to a private hospital are included. Some of the bed nights will have been spent in the Intensive Care Unit (or the ED).

This CSP aims for reductions of the magnitude suggested below over the next ten years, and the plan that follows describes the future system that these impacts rely upon.

We will minimise the growth in acute medical discharges through our primary care strategies

Scenario: Instead of the full demographic growth, we constrain that to just 20% of demographic growth each year, for ten years. Projected Average Length of Stay (ALOS) remains the same. Maintaining the projected ALOS will require continued effort as short stay cases are avoided.

Impact: Growth in acute discharges would be held to approximately 0.4% each year, compared to an average of 2.2% a year if we do nothing.

Assuming an occupancy planning benchmark of 85%, the total overnight medical bed requirement (including planned cases) would increase from around 77 beds to 86 beds. Under the 'do nothing' scenario we would need 103 beds.

Figure 14 Acute medicine discharge scenario

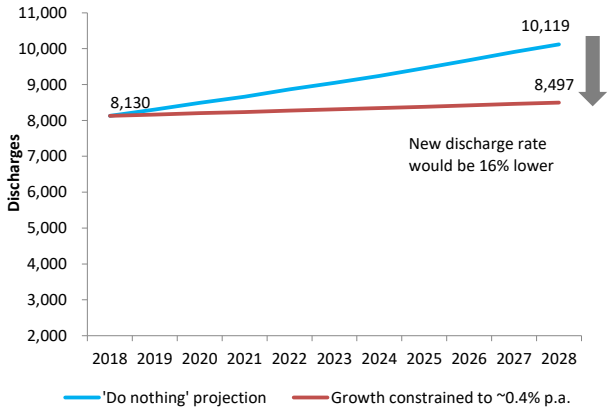
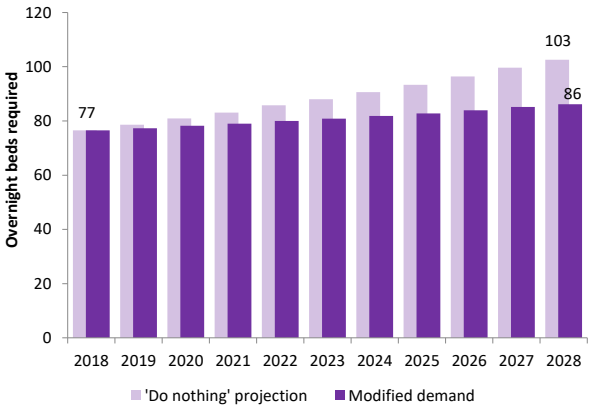


Figure 15 Impact on total medical beds



We will hold the number of rehab beds through a whole of hospital functional rehab focus and community alternatives

Scenario: Instead of the full demographic growth for people aged 65+ years, we constrain that to 75% of demographic growth each year, for ten years. In addition to this, ALOS is decreased by 2% each year.

Impact: Discharges would grow by approximately 2.7% each year, compared to an average of 3.6% a year if we do nothing. The ALOS is shown in the grey bars in the chart below, and reduces from 18 days to under 15 days.

Assuming an occupancy planning benchmark of 90%, the rehab bed requirement for older people would be held almost the same (a negligible increase from 26 to 27). Under the 'do nothing' scenario we would need 36 beds.

Figure 16 Rehab (65+) discharge scenario

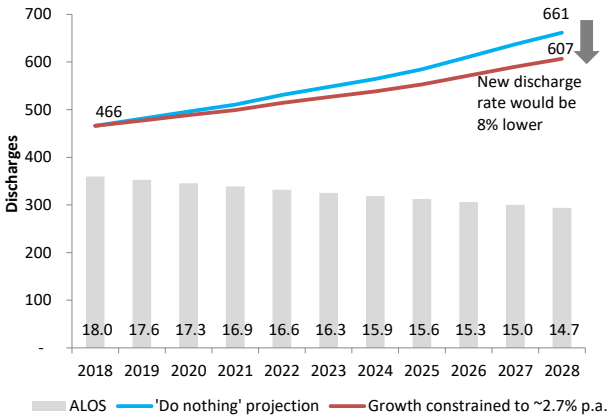
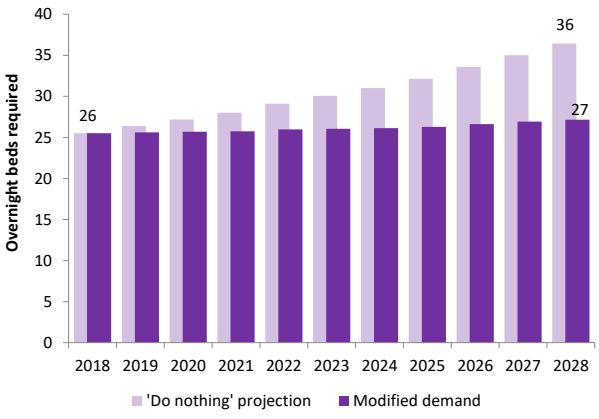


Figure 17 Impact on rehab (65+) beds



The reduction in length of stay is more challenging—we have reduced our rehabilitation length of stay in the last couple of years and we know from Australasian benchmarking[21] we now have a lower length of stay compared to the average across hospitals. However, if we can avoid the need for some admissions and further reduce length of stay (for example, by providing community

[21] https://ahsri.uow.edu.au/aroc/index.html

alternatives to inpatient rehabilitation) we could potentially hold the number of acute hospital rehabilitation beds we need.

A small reduction in acute discharge growth together with a shorter length of stay, holds the number of surgical beds

In surgery, we aim to constrain admission growth through preventative care and non-operative management of some conditions, as well as timely provision of elective surgery where there is benefit and shifting some minor procedures to primary care. We aim to shorten stays by increasing surgical efficiency and enhanced recovery after surgery.

Orthopaedic scenario: Instead of the full demographic growth in acute discharges, we constrain that to 75% of demographic growth each year, for ten years. In addition to this, ALOS is decreased by 1% each year.

Impact: Acute discharges would grow by approximately 1.1% each year, compared to an average of 1.5% a year if we do nothing.

Assuming an occupancy planning benchmark of 85%, the total overnight orthopaedic bed requirement (including elective cases) would be held almost the same (a negligible increase from 22 to 23). Under the 'do nothing' scenario we would need 27 beds.

Figure 18 Acute orthopaedics discharge scenario

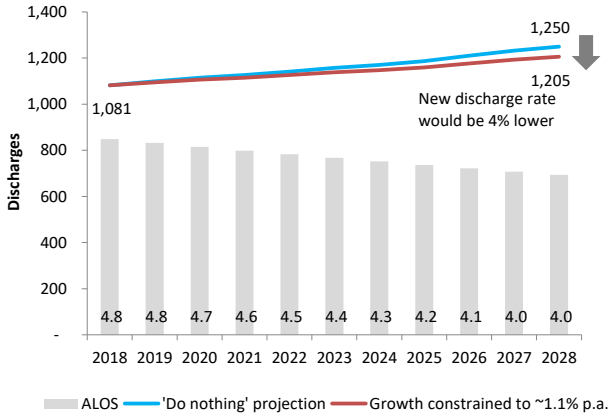
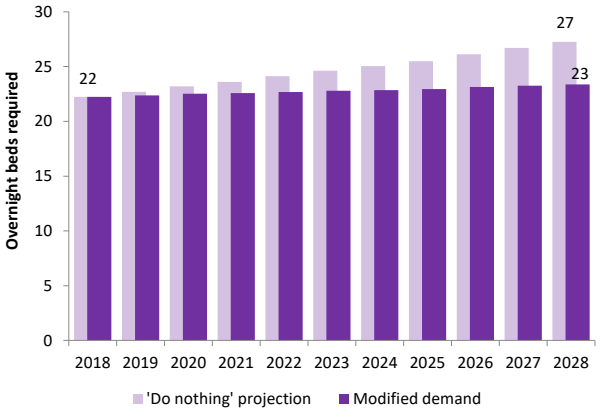


Figure 19 Impact on total orthopaedics beds



Plastics scenario: Instead of the full demographic growth in acute discharges, we constrain that to 75% of demographic growth each year, for ten years. In addition to this, ALOS is decreased by 1% each year.

Impact: Acute discharges would grow by approximately 0.6% each year, compared to an average of 0.8% if we do nothing.

Assuming an occupancy planning benchmark of 85%, the total overnight plastics bed requirement (including elective cases) would be held almost the same (a negligible increase from 22 to 23). Under the 'do nothing' scenario we would need 25 beds.

Figure 20 Acute plastics discharge scenario

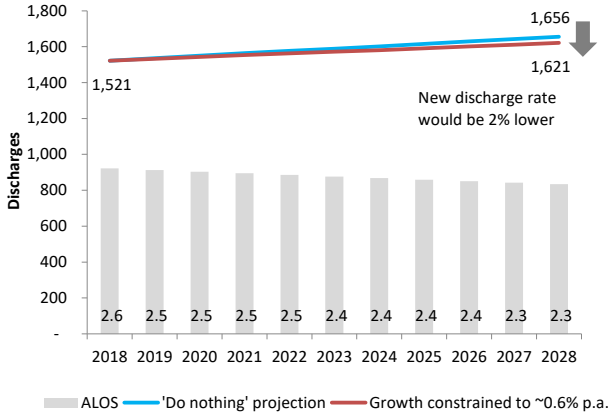
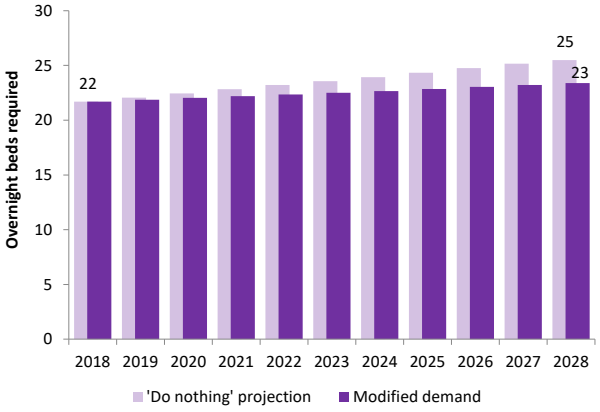


Figure 21 Impact on total plastics beds



General and other surgery scenario: Instead of the full demographic growth in acute discharges, we constrain that to 75% of demographic growth each year, for ten years. In addition to this, ALOS is decreased by 1% each year.

Impact: Acute discharges would grow by approximately 0.6% each year, compared to an average of 0.9% a year if we do nothing.

Assuming an occupancy planning benchmark of 85%, the total overnight bed requirement (including elective cases) would be held the same, at 31 beds. Under the 'do nothing' scenario we would need 36 beds.

Figure 22 Acute general & other surgical discharge scenario

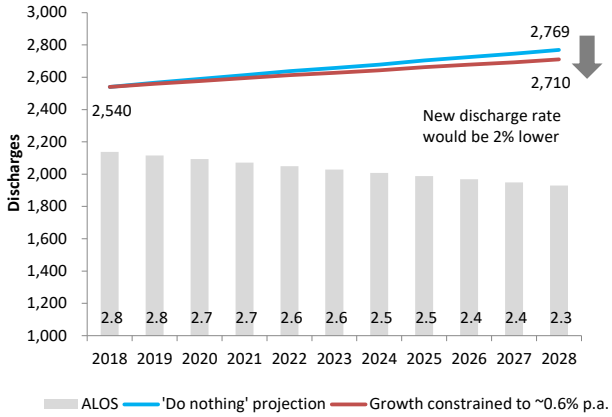
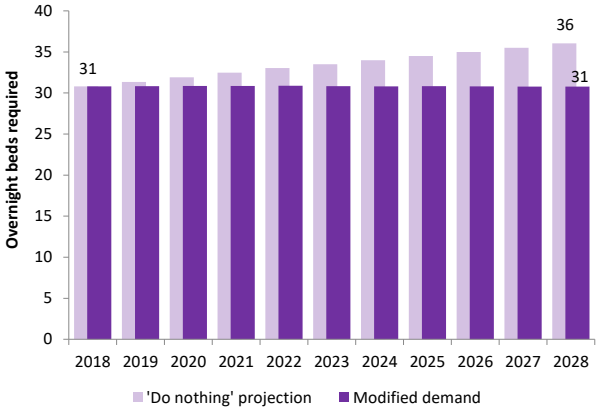


Figure 23 Impact on total general & other surgical beds



The slowing of growth in acute surgical discharges is modest in the scenarios above. By contrast, achieving a reduction in ALOS, when the base demographic would suggest an increasing ALOS with an older patient cohort, is more challenging.

We will reduce paediatric admissions year on year and child health services will be community-facing

Scenario: Acute paediatric medical discharges decrease by 3% each year, for ten years, but projected ALOS remains the same. Maintaining the projected ALOS requires continued effort as short stay cases are avoided.

Impact: Acute discharges decrease 3% each year, compared to an average decrease of 0.2% a year if we do nothing.

Assuming an occupancy planning benchmark of 75%, the total paediatric bed requirement (including surgical cases) would decrease from around 14 beds to 11 beds.

Figure 24 Acute paediatric medical discharge scenario

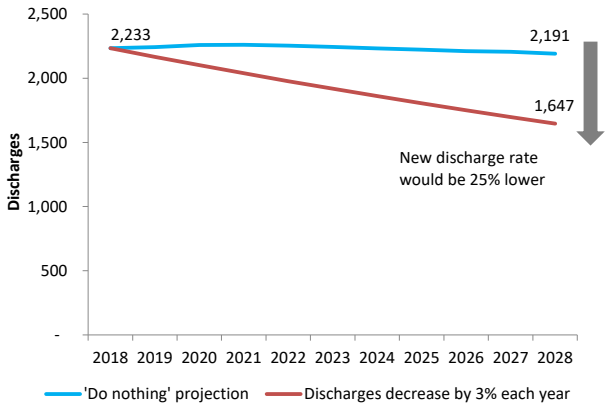
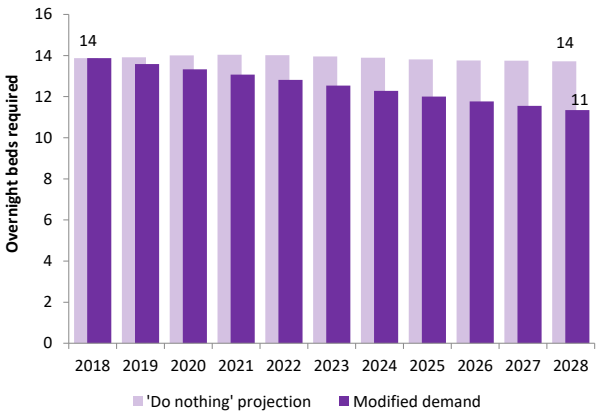
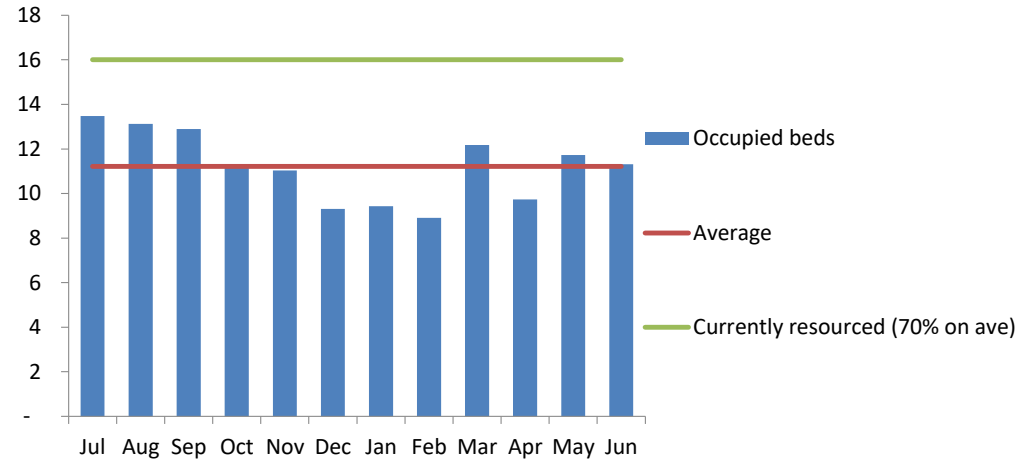


Figure 25 Impact on paediatric beds



There is also an opportunity to think about the way that paediatric beds are resourced across the year. The chart below (Figure 26) shows that occupancy is lower during the summer months.

Figure 26 Occupied paediatric beds by month, 2017/18



Summary of inpatient scenarios over ten years

Service	Do nothing scenario	Possible scenario	Bed impact
Medicine	Acute discharges grow by ~2.2% a year **26 more medical beds needed**	Acute discharge growth is only 20% of expected, i.e. ~0.4% a year	**Only 9 more beds needed**
Rehabilitation 65+ years	Discharges grow by 3.6% a year **10 more beds needed**	Discharge growth is only 75% of expected, i.e. ~2.7% a year ALOS decreases 2% a year	**Only 1 more bed needed**
Orthopaedics	Acute discharges grow by ~1.5% a year **5 more beds needed**	Acute discharge growth is only 75% of expected, i.e. ~1.1% a year ALOS decreases 1% a year	**Only 1 more bed needed**
Plastics	Acute discharges grow by ~0.8% a year **3 more beds needed**	Acute discharge growth is only 75% of expected, i.e. ~0.6% a year ALOS decreases 1% a year	**Only 1 more bed needed**
General & rest of surgery	Acute discharges grow by ~0.9% a year **5 more beds needed**	Acute discharge growth is only 75% of expected, i.e. ~0.6% ALOS decreases 1% a year	**No more beds needed**
Paediatrics	Acute medical discharges decrease by ~0.2% a year **No more beds needed**	Acute medical discharges decrease by 3% a year	**3 fewer beds needed** Flex between summer & winter

OUR PLAN

Place based planning

Design and deliver locally relevant services

Place-based planning is about engaging collaboratively by putting communities, individuals and whānau at the centre of planning, decision making and working together to identify issues and design responses to meet their needs. Institutional boundaries are deliberately blurred so as to focus on whānau need rather than the individual service or administrative silo. Decision making is participatory and consultative with those using services. The community, health planners, other social service agencies (education, justice, police, social welfare, Oranga Tamariki) and local authorities come together to tailor solutions relevant to them and their community.

Currently our services are designed around our institutional boundaries, rather than the communities where our population reside. Thus we have hospital and primary care services, but rarely do we look at a geographic area and work with communities to design and plan the services they need. Individual communities are unique and therefore options and solutions to improve health outcome can be varied between communities even to a neighbourhood level. For instance, some communities will have older people needing more support, some may have a higher level of metabolic disease and some may have a number of residents with complex health and social issues needing more intensive and multi-disciplinary services. Some localities will have mix of all.

This work is time consuming and resource intensive and needs to be targeted to those areas where there is the most need. Our drive in the first instance will be on reducing health inequity focussing on the first 1000 days of life.

Collaborative place-based approaches are the most effective when the problems are complex and the solutions either uncertain or require multiple forms of intervention, such in those situations where we find greatest health inequity. A collaborative approach is needed and justified in communities with entrenched health and social problems, (for instance those in quadrant D being patients with high complexity needing support). These communities are likely to have multiple touch points with some or all health and social services agencies, and NGOs. Other communities may benefit from other forms of service design and delivery arrangements particularly if existing service provision is appropriate.

Critical to successful place-based planning and in line with our Wellbeing Plan we need to ensure the services and programmes we commission have a strong equity focus to achieve best outcomes for individuals, whānau and communities with the greatest need. We will need to monitor progress against equity indicators and develop shared accountability mechanisms, so that we all work towards improving health equity.

Align with health and social service providers

We will form a health and social services alliance across our district to identify need and design our place based services. This alliance will be made up of health care service providers, our broader social service partners and our two territorial authorities. Over time we will include other social service providers such as education, housing, justice, police, and Oranga Tamariki. Representation will be broad and will include mental health service providers and non-governmental organisations, and Iwi based organisations in particular.

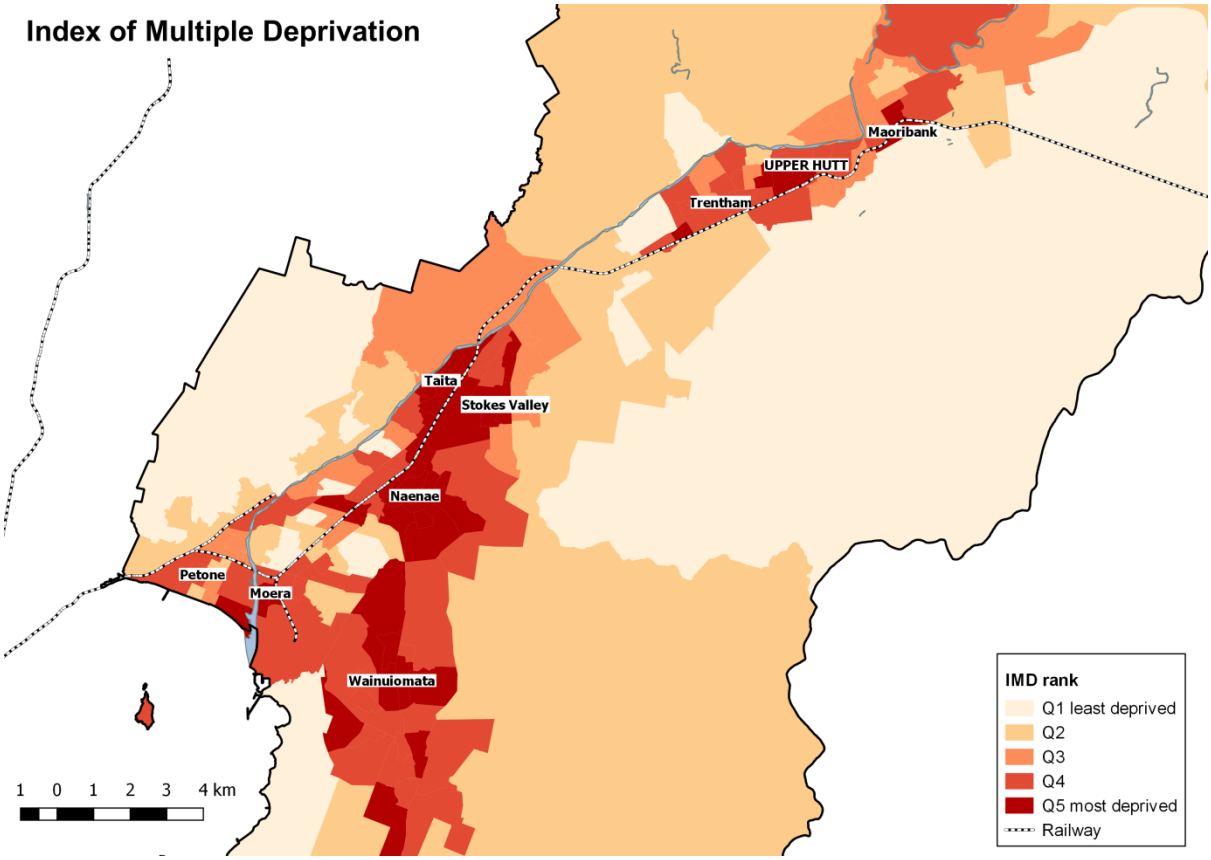
An alliance approach requires a range of different funding and provider stakeholders to agree on common objectives, the use of resources, and where resources should be applied flexibly or shifted across services. There will need to be organisational infrastructure supporting the alliance including

a secretariat. The formality of an alliance provides the mechanism for making resource decisions jointly, in a manner that will endure.

Co-ordinate across the district but act locally

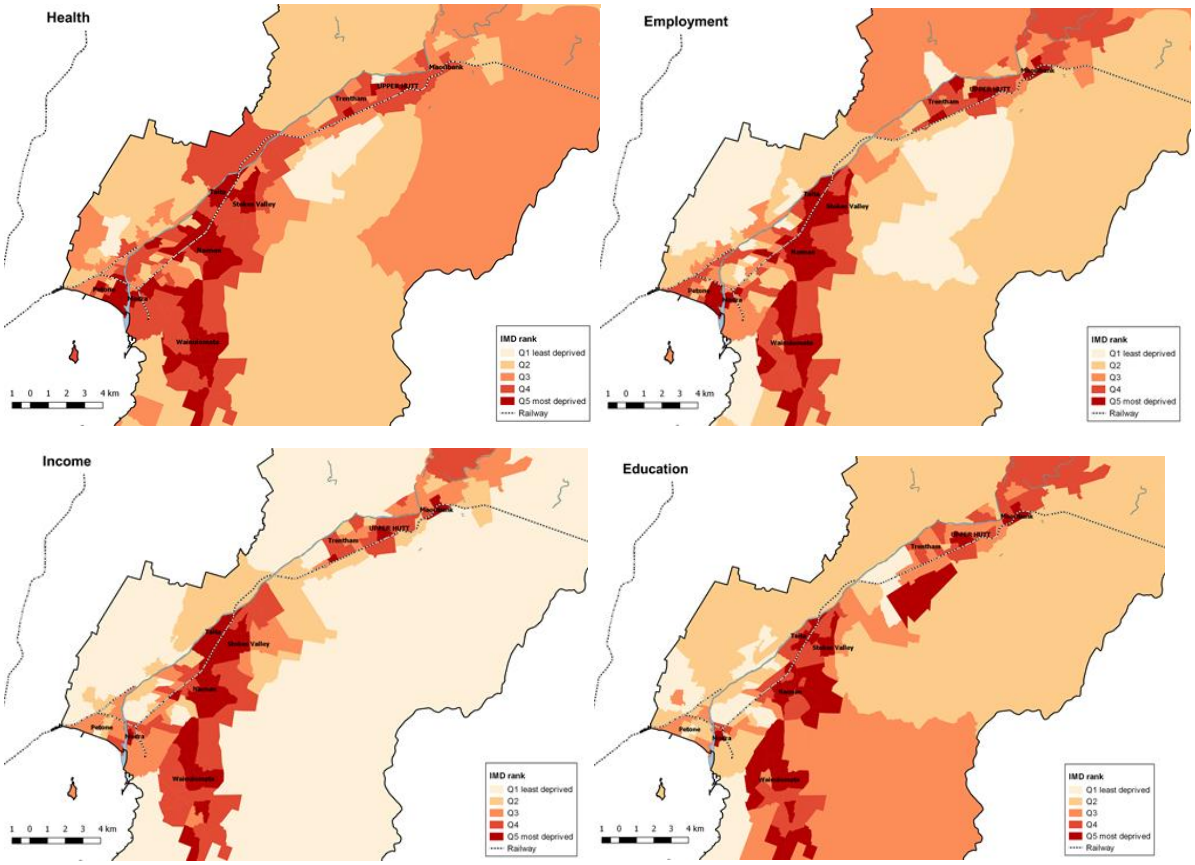
The alliance will need to think and act locally, in ways that are relevant to the different profiles of neighbourhoods and communities. The University of Auckland has developed a new set of tools for identifying concentrations of deprivation, that considers additional forms of disadvantage—the *Index of Multiple Deprivation* (IMD)[22]—such as health status/utilisation, crime rates, housing status.

According to the IMD overall measure of multi-dimensional deprivation, the Hutt Valley has a higher proportion of areas classed as quintile four or five (the most deprived) compared to New Zealand. Priority areas include Taitā, Naenae, Wainuiomata, Moera, the western side of Stokes Valley; and small pockets in Waiwhetu, Petone, Trentham and central/northern Upper Hutt. We can dig into the different dimensions to look at different forms of disadvantage across areas.

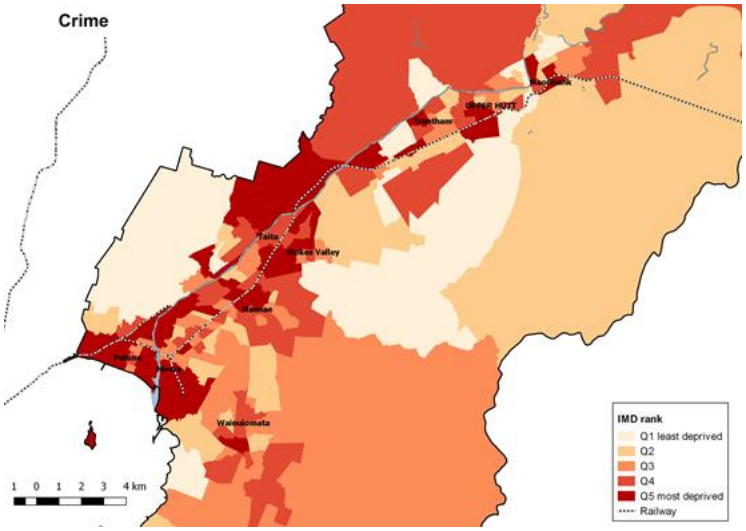


The IMD health index considers standardised mortality, hospitalisations due to selected infectious and respiratory diseases, ED attendances and cancers. This index shows more colouration than the overall index. The education, income and employment indices are broadly similar to each other, with the same hot spots, but some differences such as slightly higher levels of benefit or income support in eastern parts of Petone, and a hot spot for the education index where the prison is located in Upper Hutt.

[22] https://www.fmhs.auckland.ac.nz/en/soph/about/our-departments/epidemiology-and-biostatistics/research/hgd/research-themes/imd.html



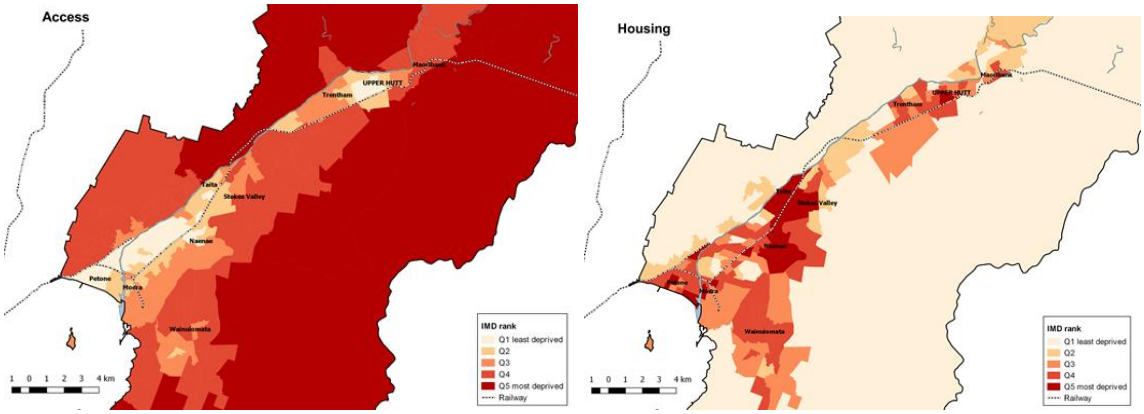
The pattern indicated by the crime index (an aggregation of personal and property crime) is quite different:



Access and housing

Two particular components of the IMD are access (to primary level education, health services; supermarkets and service stations) and housing. The access index shows us that the least well served areas, which include neighbourhoods with high overall deprivation, are Wainuiomata, Stokes Valley, and northern parts of Upper Hutt (although the deprived area is relatively small here).

Interestingly, Wainuiomata does not have such a large proportion of deprived areas as measured by the housing index. The housing index measures renters and overcrowding, so it suggests higher levels of home ownership in Wainuiomata compared to other high deprivation areas.



Start in areas with the greatest need first

We will start by focussing on our communities with the poorest health and social outcomes, and work with them towards a goal of achieving equity. For us, the localities we would focus on initially are:

- Wainuiomata
- Moera and Waiwhetu
- Taitā
- Naenae.

In each of these areas (and starting with one of these initially), we will:

- Work with our existing networks to develop an alliance of health care providers that will take a place based planning approach to service design and delivery. Once established and with the initial model running smoothly, the alliance will extend quickly to a wider range of participants, including social development stakeholders.
- Develop/optimise internal and cross agency collaborative arrangements including governance, infrastructure and processes.
- Identify the range of need and current service issues.
- Review services to identify improvements to deliver better results from existing services and identify gaps in service provision.
- Work with communities to identify priorities, desired outcomes and design services
- Agree on where resources are targeted, how they will be used, and how each provider will play their part.
- Commission services as our alliance proposes. Facilitate the delivery of services for complex social need on a basis that allows carers from different provider organisations to be part of a single Hutt Valley-wide team with a single goal and agreed approach.
- Develop a cross-agency triage process for at-risk tamariki and whānau.
- Develop and initiate integrated agency responses for at-risk tamariki and whānau.
- Monitor outcomes.

Priority action areas

These action areas will need to be replicated for each locality as the implementation happens over the next three to five years. We will start with one to two localities in the first one to two years and then progressively work through the remainder of the district.

Action	Task	Phase 1	Phase 2	Phase 3
Determine priority communities and undertake a needs analysis	Utilise data, consult and work with the community/stakeholders to identify where there are clusters of need with a focus on at-risk tamariki and whānau (cross agency triage and inter-agency responses) although acknowledging other groups will have needs.			
	Complete community level needs analysis to identify and prioritise needs and gaps and a process to update regularly.			
Form an alliance arrangement for overseeing place based planning to address complex health and social needs	Establish an alliance of relevant stakeholders such as: • Māori health providers • Pacific health providers • NGOs including mental health and youth health • Primary care • Hospital services (e.g. paediatrics and ED) • Education • City Councils • MSD • Patient representation • Iwi Agree terms of reference This linkage will need to occur at all levels from across the agencies as the levers for joined up action are different at each level. Operational field staff have good working relationships but structural or funding change requires meaningful engagement at (e.g. GM/ CEO level).			
Planning and co-ordination	Support local community involvement throughout the planning process from information sharing, need assessment to planning services.			
	Develop a central registry of community-based health and social service providers by geographical location and a plan to raise community awareness.			
Commissioning and funding	Investigate options to address the current complexities of funding			
	Explore and agree a commissioning framework such as the Commissioning Framework for Mental Health and addiction.			

Action	Task	Phase 1	Phase 2	Phase 3
Partnerships, co-location and links to other services	Review, design and improve services: • how they link or should link • where are they or should they be located to provide (e.g. consider co-location with other social services) • enhance and/or expand and invest in services that work well • build on prior experience when developing new options (e.g. the community partnership group) • identify any services that are not working well • identify new service initiatives			
Community hubs as settings	Take the services to the people and be more responsive locally with the co-design of services.			
	Build on services already available in primary care (e.g. general practice, dieticians, dental, district nurses, public health nurses in schools) and widen the range of HCPs working in primary care (e.g. physios, occupational therapists social workers, clinical pharmacists etc.).			
	Set up and resource location-based hubs, community-based clusters (not based in the DHB but in community).			
	Use existing structures/systems that are in place and build around them to enhance current hub-like facilities, consider the use of: • early childcare centres, kōhanga reo, Pacific language nests (dieticians, social worker, PHNs) • schools (education/health in partnership) • community cultural centres • MSD community hubs • council facilities Ensure strong linkages through to Health Care Homes that are not co-located with hubs.			
	Implement mobile services where required.			

The first 1000 days of life are our priority

The 'first 1000 days' is the time from pregnancy, conception to a child's second birthday. As already stated, there is a growing body of evidence that proves experiences during the first 1000 days of life provide the foundations for lifelong health and wellbeing. Due to an infant's dependence on their parents and whānau during the first 1000 days, the wellbeing of whānau is integral and needs to be considered in how we provide services. To optimise the first 1000 days there needs to be a focus on a healthy whānau, mother, pregnancy and early childhood. This is why we focus on investing in early start to life in *Our Vision for Change 2017–2027*, why our Wellbeing Plan focuses on tamariki and whānau with complex needs and why we have identified the first 1000 days as a priority in our CSP.

We recognise that health services cannot be designed in isolation of social services. We need to refocus on meeting complex health needs and, at the same, work with those who resolve complex social needs. In place based planning, we talked about how we will prioritise our commissioning. In the first 1000 days of life we will talk about how we will work with our whānau to deliver better services.

Small, fragmented services not reaching all

There is a plethora of services in the first 1000 days of life early childhood space. Offerings for whānau include maternity services, ante-natal services, maternal mental health services, Family Start services, general practices, Well Child Tamariki Ora services, school and community dental services, outreach immunisation services. Other services include HealthLine, whānau ora providers, Pacific health providers, healthy housing services, after-hours services, our paediatrics services, mental health services, and our Emergency Department. For some families/whānau, Child Development Support and allied health professionals (e.g. speech therapists) also exist to meet their additional needs.

The majority of families/whānau know how to connect with these services and make good use of the health system. Often these families/whānau are able to access the services they need on their own, or manage well through cross-referral between providers or health professionals. There is an opportunity to standardise practice, treatment protocols and pathways, and likely a range of virtual and electronic options to access services.

We are concerned with those who do not connect well to these services. We find ourselves in situations where it is clear we are not meeting the needs of a material number of people. We experience expectant mothers presenting late to our maternity service, identify children living with family violence and we have presentations to our Emergency Department that suggest a broader focus on health is needed, rather than the specific episode prompting presentation. Our community providers see the same thing. In this CSP we see these occasions as systems failure and, for us, an opportunity to do better.

We need to ensure that families/whānau are supported to care for their health needs in combination with other day-to-day basic needs (e.g. safe and affordable housing) so that health needs are not deprioritised. We also need to reduce barriers to accessing primary care. While primary care services are free for children, many barriers still exist such as transport issues and availability of acute appointments.

We can achieve relevance and reach by starting with the individual and family/whānau, rather than starting with the service. We do already have some services that are meeting broader needs by taking a whānau ora approach, and we need to bolster and expand these, and ensure they link in with the wider range of services. In particular, we need to ensure that our whānau ora services are

networked in with our Health Care Homes. We will work with high priority neighbourhoods and with those we identify, in a participatory process, whether with Iwi or our Pacific peoples, to develop a local approach to family/whānau health and social issues. How we do this is as important as what we do. Where appropriate, we will take a kaupapa Māori approach and a participatory approach in setting goals; developing plans and ensuring follow through.

How we will organise our services

There are a number of service components that are readily identifiable:

- Any door is the right door: We need to identify where the barriers to accessing services have not been removed, whether that is in community, primary or secondary care settings. A referral from any point is legitimate and will be assessed for services.
- A co-ordination mechanism. We need active tracking of activity and, likely, seamless hand over to other providers as our families/whānau may move from place to place in our district. The central coordination function requires: agreement on a methodology/criteria for assessing differing levels/types of needs, robust criteria based access protocols, and an agreement on care coordination and what services are provided by who, where, and how they are interlinked.
- Case management: We will need community based case management and services. The case management needs to be for family/whānau rather than individual focussed.
- A culturally responsive workforce to deliver services: We need to ensure all our services and those working within them, are culturally responsive, and demonstrate values and behaviours that are characterised as welcoming, inclusive, caring and non-judgemental. Preferably, our services acting in the community will be over-represented by Māori and Pacific Island health professionals.

Our first, pragmatic steps will be taking referrals from general practice, Well Child/Tamariki Ora services, independent midwives, our hospital services and our Emergency Department. Once the model has been developed the range of referral sources could be widened to include education and preschool providers and other social services.

As an end goal, we should be aware of the state of health of all of our families and be addressing issues they wish us to, in a way that suits them not us.

Significant implications for the way we work

Working in this way will have material implications for some of our DHB services. Specialist services will need to reconceive the issue they face as a whānau matter rather than a medical one. Thus, a child presenting with asthma to our respiratory service will likely be placed under care of a Health Care Home, and the issue of asthma will be managed as a holistic one incorporating home-based interventions and working with relevant community providers, such as Whānau Ora, Tu Kotahi, Healthy Homes and Family Start.

A holistic maternity service

Within maternity services we need to consider how we will manage the increasing complexity of pregnancies (e.g. gestational diabetes) along with current workforce pressures. Alongside this we need to address our higher than the national average caesarean rates, and higher sudden infant death rate and our lower than average breastfeeding rates.

We need to build resilience through improved health literacy and supporting positive mental health in mothers, children and whānau. In particular, we need to find and support those mothers that are most vulnerable in our community and support them through gestation to birth and through early

child development years. Over recent months we have developed additional (now seven) provider arm maternity community clinics. We will continue to develop stronger relationships with our wider health providers including whānau ora providers, primary care, well child, VIBE (youth health), and Family Start services (Naku Enei Tamariki) and will continue to provide services in the community in partnership with these services.

A community orientated paediatric service

Our paediatricians, paediatric nurses and allied health professionals (e.g. speech therapists) will need to become networked across a wide range of providers. In many instances, they may be supporting activity happening within our provider community including our Māori and Pacific service providers. Thus we need to reconceive our paediatric service as a community paediatric service. The community reorientation will include the full range of disciplines involved in paediatric care, including medical, nursing and allied health professions.

We can do far more work with general practice and community providers, but changing practices will take time and resource. For instance, children's health services currently see many children that could be managed in primary care with nurse led clinics for allergies, constipation, eczema and incontinence. We may also need to adjust paediatric service delivery so some medically complex issues, such as helping children with cystic fibrosis, are managed and treated at Capital & Coast DHB.

Building a strong child development service

We need to provide stronger support for delivery of services for these early childhood years and maternal months. Our child development service could be strengthened by taking a regional approach, and must work closely with paediatrics to coordinate and case manage children with multiple and high needs. We need to consider determinants of health as part of this combined effort.

Priority action areas

Action	Task	Phase 1	Phase 2	Phase 3
Achieving our goal of equity	Using the localities planning process, identify and focus on our communities with the poorest health and social outcomes			
	Investigate the use of social commissioning and decommissioning to local service providers to support equity objectives			
Meeting unmet needs	Establish a system to identify and work with those with unmet and complex needs to identify their needs and the range of services that need to be wrapped around them.			
Case management and coordination	Establish active tracking and case management based around whānau			
	Establish a central coordination function responsible for monitoring and updating the picture of need across the Hutt Valley			
A single point of entry for whānau with complex needs	Establish Service Level Alliance with existing providers and stakeholders			
	Develop pathway and criteria for referral to services as appropriate			
	Establish overall resource available, and how shared			

Action	Task	Phase 1	Phase 2	Phase 3
	across provider organisations			
	Pilot with ED, paediatric and general practice referrals			
	Extend to wider range of social services both for referral and provision			

Building strong primary and community care

There are high expectations for primary and community care to respond better to our health needs. In particular, general practice in its existing form is under pressure. Our general practitioner and primary care nursing workforce is ageing, under significant workload pressure, and is unable to address all the health and related social needs of population. Access to care and outcomes of care are not equitable across our district.

While there has been some recent progress in building the primary care workforce, the demands on general practice increase significantly as our population ages. Individual patients have an increasing number of health conditions to monitor, and a larger number of pharmaceuticals and other health interventions to manage. Patient's cognition and social conditions change. These effects all exert pressure on general practice and the services around it. We want an expanded primary care workforce that can relieve the burden on general practitioners, thereby allowing our practices to provide active management of patient care, offer different channels of communication, triage patient needs, provide more teamwork and use the right person for the job at hand.

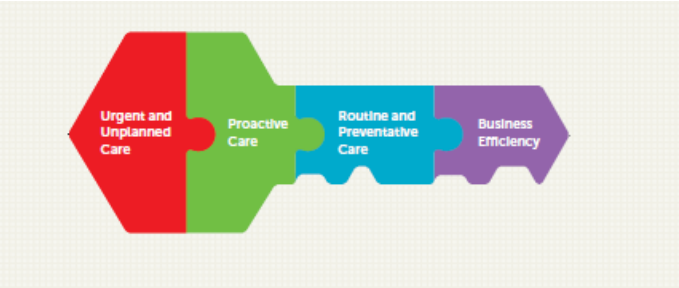
Our community health providers are also under significant strain. The level of unmet need and social complexity they are managing and supporting has increased significantly in the last 5–10 years. We want our whānau ora and community health providers to be organisationally strong, with a well trained and equipped workforce, integrated closely with our primary care services.

Health Care Homes are the main focus of our strategy

The Health Care Home model of care is now being implemented throughout New Zealand, and represents an opportunity for a fundamental and sustainable change in the primary care model to improve the quality of care delivered in and around general practices. It works to improve the management of people in community settings, to increase equity of access to primary care, and to enable greater integration with health and social services across the system as a whole.

The model has four core domains:

1. Timely response to urgent and unplanned care, including phone and e-consults, and a triage mechanism when people want urgent care;
2. Proactive care, with formalised care plans, self-management plans, and an interdisciplinary team approach;
3. Routine and planned care, using patient portals, and planned consultations;
4. Business efficiency, with efficient LEAN processes and systems for ensuring that quality data and outcomes are an integral part of the way that services are delivered.



The changes when fully implemented are a material improvement in service for patients as well as reduction in pressure on general practice staff. The model aims to be patient driven rather than oriented around the way providers currently work. There are different ways of providing consultations including virtual care where appropriate. There is a greater shift to planned care rather than reactive care. People will feel the model of care is tailored much more to their needs and will experience a care environment that is better co-ordinated and shared amongst providers. The general practice itself will be much more

sustainable with less work pressure and stronger viability. The skills and capacity of the entire practice team are used to meet the patient's needs and aspirations[23].

All patients under the care of a Health Care Home

Patients will be well informed about how to care for themselves and their whānau. They will know where and how to get the right help when they need it, and they will be able to access this care in a timely and affordable way. They will get the check-ups and preventive care they need, and if they have one or more long term conditions, they will know how to manage them. They will regularly use their patient portal on their phone or device to get advice, check their health results and communicate with their general practice team.

Each of the Health Care Homes will have its own character, depending on their patients' needs and other communities of interest. There may be cross-referral among primary care practices with special interests, where there is a particular capability or skill available in an individual practice. Such approaches, often known as General Practitioner with Special Interest schemes, have been implemented in a number of clinical areas both internationally and in New Zealand.

We have already started. We have our first tranche of Health Care Homes underway. A second tranche will follow. By 2020 general practices in the Hutt Valley will have made the transition to being Health Care Homes. This will mean that they are sustainable entities, with highly competent staff, and effective and efficient clinical, information, communication and administrative systems, all of which enable them to provide excellent primary care. We envisage that each of three tranches of Health Care Home implementation will cover approximately 33% of the Hutt population. However the high need population will be covered more quickly, with 38% of the high need population in the first tranche, and expectations that more than 33% of the total high need population will be included in the second.

Matching care to need

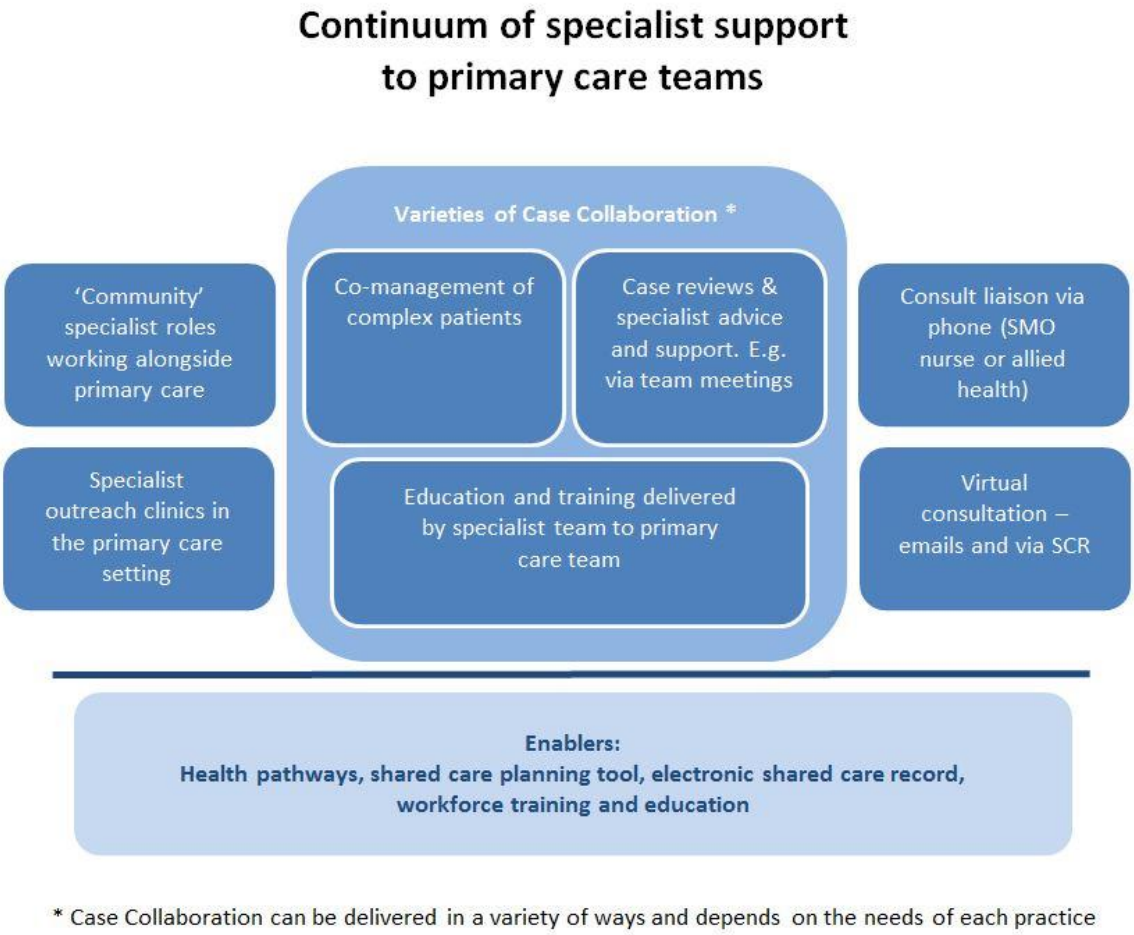
The Health Care Home, as well as the reorientation of specialist services to support comprehensive delivery of services with continuity in primary care is our primary response to medical care needs. The levels of care offered will change in response to people and whānau with different levels of need as covering:

- Complex case management, working with partners across providers and disciplines;
- Long Term Conditions requiring disease management and supported self-management;
- Acute care, with triage, extended Primary Options for Acute Care;
- Preventative management for those at risk (includes screening);
- Population health, capturing information on social determinants of health and inequities in outcome.

Primary and community care options for responding to acute care can be extended to cover a wider range of activity providing a range of services in situations where primary care teams believe that they are likely to be able to avoid hospital admission, with comprehensive services including: practice support; mobile nursing service; home IV therapy; logistical support; extended care management; urgent tests/investigations, doctor visits; and home support.

[23] *Evaluation of the New Zealand Health Care Home, 2010-2016*. Auckland: Ernst & Young, 2017.

The Nuffield Trust[24] describes this shift of balance of care well. Some cases are complex such as we discuss in the first 1000 days of life. However many cases are not complex, but may still require oversight and support from specialist medical, nursing and allied health teams so that primary care can manage them well. Some of this is about capacity (e.g. having nurses based in Health Care Homes), some is about skills (such as diagnostic skills), some is about access to the right diagnostics, and some is about the ability to look across the health pathways across the district, and assist to optimise those pathways locally.



In light of the place based planning process and particularly for complex patients we have described above, we will seek to match services to community needs. Where there is sufficient scale there may be co-location of services, reducing transport barriers to access to care, as well as providing opportunities for collegial collaboration among health professionals. In some cases, where there is capacity in existing Health Care Homes there may be scope for the provision of some specialist services in those facilities. In the medium term, if our place based processes identify it as appropriate for a given community, we may consider purpose built facilities to bring specialist services away from the hospital setting and closer to communities. Extended primary care facilities could provide a range of decentralised services such as chemotherapy and dialysis in a community setting, as well as services such as cardiac and respiratory rehab.

We expect that improved access to specialist services in a community setting will be more responsive to communities and as a consequence will reduce inequities in access, improving

24 Shifting the balance of care, 2017, Nuffield Trust.

outcomes for those who currently do not receive the specialist services they need. Ultimately this will lead to a more effective and equitable health service for our population as a whole.

More detailed analysis of the needs for implementation of these dimensions of our model of care is discussed below in our *Enablers* section.

Organising providers to support Health Care Homes

The Health Care Home infrastructure gives immediate gains in proactive care and better productivity. Over time, we can take advantage of this improved form of organisation to reinforce our community and primary care services. The following is some of what we expect to see:

- We will be able to work with Health Care Homes to better manage our frail elderly through multi-disciplinary team approaches, with wider hospital and community team meetings, to organise services most relevant to their retaining as much independence as possible.
- Relationships between community health and social care teams and Health Care Homes will develop so there is responsive and integrated management of people when events happen.

Our Pharmacist Services Strategy describes a future in which pharmacy realises more of its potential to work closely with the wider primary care team, focussed around *Our Vision for Change 2017–2027*, three strategic directions: services to support living well; shifting care closer to home; and delivering shorter, safer smoother care. These directions are supported by specific expectations and measurable indicators to monitor progress. We expect that the new pharmacy contract currently under consultation will provide greater flexibility in commissioning pharmacy services, allowing for a greater diversity in the way that pharmacy responds to communities across Hutt, and more flexibility in the way that pharmacy collaborates with the wider primary care team.

Integrating mental health services

Our mental health services and whānau ora services will be better integrated with Health Care Homes as our locality planning processes bring together local resources. As a medium term view, we want to locate staff from our mental health services with our Health Care Homes to build a fully integrated mental health service, starting from the bottom up. Likewise, we want our Health Care Homes to partner actively with our whānau ora providers to assist them to generate tailored solutions to complex whānau needs.

Medical and nursing specialists will support primary care in a different way

Over the years many services have become centralised in hospital settings. In the future services will increasingly be provided in the community, in a decentralised approach that both brings services closer to communities, and provides more direct support to primary care services in providing comprehensive care.

Technology and changing practice has moved a proportion of subspecialist activity from inpatient wards to outpatient and ambulatory settings. Increasingly, more of these sub-specialist services will be provided in the community, often by clinical nurse specialists, allied health professionals, or by general practitioners. The specialist role will often be working with the Health Care Home to manage patients in general practice rather than bringing them to hospital.

Primary care has taken up diagnosis and management of a range of issues in respiratory, cardiovascular disease, COPD and infectious disease. To do this, primary care needs access to

diagnostics (such as spirometry), access to interventions (such as injectable antibiotics to treat cellulitis) and access to advice. Sometimes these components are missing from primary care services and primary care is sometimes reluctant to take on extended care, due to resourcing and workforce challenges.

We will develop this support as Health Care Homes develop and, over a three year period, expect primary care to be fully supported with locality arrangements as well as sessions with specialist medical, nursing and allied health. For example, a general practice will be able to seek advice about a patient in an unstructured manner (such as a phone call) rather than a referral. It is likely that we will see specialist support start with geriatricians and paediatricians. Sub-specialities like rheumatology, diabetes and cardiology will see far fewer patients and only the most complex, and their time spent supporting general practice to manage a much larger number of patients will increase. The orientation of specialist services will be primary care first, rather than the hospital.

We need good IT to support this initiative, with a shared care record so we are all working with the same patient information. We need the ability to look across clinical pathways and ensure that patient outcomes are achieved as well as using those pathways to progressively improve what we do. We need to make referral processes less onerous and, where we can, provide unstructured SMO time that can be accessed as a virtual consult. At the same time, we need to be able to invest to make sure primary care has access to diagnostics and to packages of care without referral to hospital based physicians.

Extended hours and after-hours services

The Lower Hutt After-Hours service is open 4pm–11pm on weekdays, and 8am–11pm on weekends. After-hours services are, along with ED, facing rising demand and limited ability to respond to this increase. This is driven to a large extent by need from children, and in particular young children under five years old.

What happens in After-Hours is largely dependent on other primary care practices and the hours of service they are able to offer. Health Care Homes will provide extended hours to their patients, reducing demand for after-hours services and providing continuity of care. Health Care Homes will also ensure more access during their normal operating hours than is currently available. At the same time, we will ensure primary care is able to access urgent diagnostics for people that need it, to avoid a pathway via the ED.

After-Hours will work more closely with our ED and ED may start to refer people back to After-Hours if that better meets their needs. Also, we will work with Wellington Free Ambulance to support people to be treated at home or take people directly to After-Hours rather than ED, where appropriate.

A primary care vision for 2028

The table (over page) sets out what might be the vision for primary care, ten years out. The vision is organised using the Kaiser Permanente care triangle, with those at the peak requiring more care and closer monitoring.

	Description of Service	Enablers	Integration points
Complex patients requiring case-management **Examples:** **Palliative care** **Frail elderly** **Complex social determinants and poor access (Needs not being met by current model, and current dis-integrated models)**	Identification of people through smart tools Provision of comprehensive and patient centred care planning Multi-disciplinary teams (MDT) providing wraparound services to meet the needs of the patient. Focus on patients centred care including Advanced Care Planning and palliative care planning For complex social needs, the focus is on including social services in the MDT	**<u>Workforce enablers</u>** Culturally competent workforce, responsive to community needs Care co-ordinators Requirement for primary care staff (especially co-ordinators) to work with Maori and Pasifika communities (e.g. Whānau Ora providers) in a respectful and inclusive manner **<u>IT enablers</u>** Smart communication and coordination tools that support MDT in virtual way Smart risk stratification tools Use of Augmented Intelligence (AI) to identify those in need and those showing signs of deterioration	MDT based in general practice include ✓Pharmacy ✓DHB Community Services ✓Secondary Care Specialty services ✓NGOs, including Maori, Pasifika, Hospice, WCTO ✓WINZ ✓Housing ✓Maternity Services ✓Oranga Tamariki Facilities that support an integrated way of working between the above. Hubs in areas of high need.
Long term conditions requiring disease management and supported self-management **Examples:** **Chronic LTC such as Diabetes, Heart Disease, CHF, COPD, Musculoskeletal and Mental Health**	Care planning based in general practice Focusing on needs based goal setting and supported self-management Focus on integrating mental health and physical health Access to psychological services in practices or online Community provision of services to provide care closer to home ✓ Infusion services ✓ Dialysis ✓ Chemotherapy ✓ Advanced skin cancer surgery ✓ Access to diagnostics ✓ Other therapeutics (joint injection) ✓ Endoscopy	**<u>Workforce enablers</u>** Coaching Kaiawhina/navigator Practice nursing with skills in chronic care management and patient centred care Health Care Assistants Culturally competent and responsive staff (as above) Practitioners with skill and passion for Clinical governance and quality improvement **<u>IT enablers</u>** Shared Care Plan Digital solutions for self-management E-therapies for psychological support Smart analytics to guide best practice care Access to secondary care specialist advice via integrated communication systems-teleconferencing or chat. Use of AI to augment support provided One integrated practice management system for the district/ country	Access to advice and support from specialist services; cardiology, respiratory, geriatric, paediatric, oncology and mental health Pharmacy Community physical therapists and Pain management services Maternity and WCTO
Acute care **Examples:** **Either patients with the above LTC and experiencing an acute exacerbation, or well individuals with acute illness or injury**	Digital triage services based in general practice Includes AI and direct access to GP on-line Same day and afterhours acute services in General Practice Range of acute services including radiology access, urgent diagnostics, and Fracture Services Point Of Care ultrasound Rapid response community services to avoid hospitalisations and support discharge POAC Monitoring services in acute care (e.g. low risk chest pain, AF, intermediate care options)	**<u>Workforce enablers</u>** GP skilled in acute care (A & M level) **<u>IT enablers</u>** Smart digital services for triage AI and online Smart pathways linked to e-referrals	Responsive community services for hospital avoidance NASC Community nursing and allied health ARC
Preventative management for those at risk (includes screening) **Targeted groups**	Identifying populations and providing management or interventions to prevent occurrence of disease High CV risk, metabolic disease and diabetes Cancer screening (cervical, breast and bowel) Osteoporosis Immunisations	**<u>Workforce enablers</u>** Routine general practice services Behaviour change and coaching expertise	National Screening Unit Bowel Screening Maternity and WCTO SLM
Population health **All individuals** **Focus on priority populations**	Systems that focus on capturing data on all social determinants of health in automated way; Integration with IDI Services in general practice structured and funded to address these	**<u>Workforce enablers</u>** Public health training Practice HCA Behaviour change and coaching expertise	Regional Public Health PHO health promotion Social agencies such as WINZ, Housing, Education, Justice, Local City Council, sport and recreation providers

Priority action areas

Action	Tasks	Phase 1	Phase 2	Phase 3
Establish Health Care Homes **Tranche 2 and tranche 3 starting one year later**	Tranche 1 established and Tranche 2 to be established.			
	GP triage, call management, same day appointments.			
	Workforce changes implemented including primary care assistant.			
	Multidisciplinary teams established.			
	Proactive care in place.			
Further develop care pathways	Establish review programme.			
	Broaden access to diagnostics.			
	Extend POAC activities.			
Reorient specialist clinical services	Establish service by service programme.			
	Extend primary care capability in managing long term conditions such as cardiovascular and respiratory disease, and mental health.			
	Establish MDT meetings for each general practice's most fragile elderly patients.			
Embed in locality planning	Re-engineer services in a way that best responds to patient needs.			

Proactive care to maintain the wellbeing of older people

We recognise and respect the diversity of our older people

While the beginning of 'old age' is traditionally defined as 65 years, ageing doesn't automatically start then. In fact most people of this age are active and independent and want to continue to lead a normal life for as long as possible. There is a transitional phase between healthy active living and frailty that typically occurs between ages 75 and 85 years, although again there are exceptions to this rule. Frailty often occurs over the age of 85 years. However, it is important to recognise that ageing does not necessarily follow a chronological order. Older people are not a homogenous group—they age at different times and in different ways. It is important to note, however, that for Māori in general, the process of ageing occurs earlier.

We will take a person and whānau centred approach to ensure we are able to proactively prepare people their whānau and caregivers for their older years, and provide an appropriate response to our diverse population. In particular, we will work with our Māori and Pacific communities to find appropriate models of care that are responsive to their needs and those of their whānau and support people.

Ageing well and staying independent in older age

Elder and dementia friendly communities

We recognise that through the early stages of ageing most people will continue to function independently in their own homes, as valued active and contributing members of society—as paid worker, voluntary workers, caregivers and mentors. However, our communities typically aren't designed for elderly people. Our infrastructure—our public spaces, core public services and transportation for instance, are not always accessible or safe for our older population. Older people may experience negative attitudes, discrimination, exclusion and isolation from their communities based on their age.

We need to ensure older people are not 'locked in' to environments that inhibit or prevent them from mobilising, socialising and engaging in their communities in a safe way. Age-friendly cities adapt their structures and services so that they are accessible and inclusive of older people and those with varying needs. We will work with our local Councils, and other stakeholders to advance our own elder-friendly communities within the Hutt Valley.

Proactive screening and assessments

We will take a proactive approach to identifying those people that are transitioning towards becoming frail, work with them to identify any emerging issues, and together with them, their whānau and support people, plan and provide appropriate responses.

The key elements of our screening approach will include:

- design a tool for the identification of the pre-frail elderly (e.g. GPFEIT) alongside key partners;
- screen at key points through the health system (ED, inpatient admission) for signs of pre-frailty, elder abuse or where people would benefit from an assessment or treatment;
- identify/risk stratify for those people aged over 75 years that have not had an interRAI assessment;

- refer for an interRAI assessment where appropriate and where at all possible, within the person's home.

The NASC service will liaise closely with our Health Care Home teams that will provide the on-going point of continuity for older person's care. The level of care coordination will depend on the complexity of care required – for some, it may include a referral to a single provider such as a physiotherapist, and for others it could involve wrap around case management for those with complex care requirements. The goal will always be to keep people well in their homes for as long as possible.

Locality based teams

Our services will become more community facing with formalised arrangements put in place. A broad range of health and social care providers will form locality based care teams supporting Health Care Homes within the boundary determined for the locality (refer to the section in this CSP on 'place based planning'). The exact size and composition of the team will be worked through, but at their minimum will include the Health Care Home team, NASC, clinical pharmacists, district nursing and whānau ora providers. Geriatricians, geriatrician nurse specialists, rehabilitation specialists and allied health specialists such as psychologists, physiotherapists, occupational therapists and social workers will form part of the wider care team.

We will need to take stock of our existing workforce and assess how we can fill the current skill shortage over time. We will also need to consider efficient ways of working, for instance by expanding on Health Care Home access to specialist expertise (scheduled phone consults, tele-health) and adopting an inter-professional model of working.

Hospital avoidance

Referrals will be made through to Health Care Homes for pre-frail and frail elderly who are at risk of hospital admission or readmission. The referrals will be assessed by the Health Care Home and NASC team and depending on the needs identified, the appropriate assessment will take place (e.g. interRAI Contact Assessment or Community Health Assessment), care plan developed and/or services and supports provided (or referrals made). Depending on need, services may include home based support with nursing services/specialist nursing services, a range of allied health services (e.g. occupational therapy), medicines review, and education for the older person and their caregivers until the person is able to manage on their own or with assistance from their usual care giver. Several home visits may occur per day. Geriatrician support will be available over the phone. On-going clinical assessments will take place to look for signs of deterioration. We will work with our PHOs, Health Care Homes and locality based care teams to develop appropriate criteria and referral pathways.

Dementia services

The number of people with dementia in our district will rapidly increase with our ageing population. Nationally figures are expected to surge by 300 per cent between now and 2050[25]. The cost of dementia is considerable to the individuals and their whānau, the health system and society. We will develop a comprehensive model of care based for our population aligned to the national framework for dementia care. The Health Care Home will, in most cases, provide the point of on-going continuity of care, working with specialist workforces where required. Key elements for the model will include:

- Building, promoting elder and dementia friendly communities (refer above)

[25] Deloitte. 2017. *Dementia Economic Impact Report 2016*. Prepared for Alzheimer's New Zealand. Deloitte

- Early diagnosis, assessment of need and care management plan – increased uptake of the Cognitive Impairment Pathway, NASC working closely in partnership with the Health Care Home and locality based team. Services will be comprehensive and well co-ordinated around the needs of not only people with dementia, but their care givers as well.
- Early supported opportunities to plan ahead for end of life

Advanced care planning

Advanced care planning is not only for people over the age of 65 years, but for anyone that needs to, or wishes to plan for their end of life care. Advanced care planning is a voluntary option for people—we will respect people's rights to choose if they wish to develop an advanced care plan, and the pace at which they wish to do so. These discussions are difficult to have with people, but are more difficult if there is not clear guidance and material to support this process. It is particularly important to offer this service if a person is suspected or diagnosed with early dementia. We will continue with our current work programme of raising awareness, wider communication and training our health professionals.

Palliative care

Palliative care is the care of people of all ages that have a life-threatening or life-limiting condition. We will see an increase in the number of people dying each year, and particularly older people. While our health system is focused on wellbeing, preventing disease and disease progression we recognise dying as an integral part of our health system. Our recently developed Living *Well, Dying Well: A Strategy for a Palliative Care Approach 2017–2020* sets the direction for palliative care in the sub-region. The strategy seeks to ensure that all people receive the same access to palliative cares services that are responsive to their particular needs and those of their whānau regardless of their ethnicity, age, gender, socioeconomic status and location.

Priority action areas

Action	Task	Phase 1	Phase 2	Phase 3
Creating elder and dementia friendly communities	Identify and prioritise communities to pilot elder and dementia friendly development.			
	Work with our city Councils and other key stakeholders to localise the WHO Global Age-friendly Cities guide. Visit local examples of where this is being trialled in New Zealand.			
	Community consultation, scope and plan initiatives.			
	Implement initiatives.			
	Evaluate, refine process, and roll out to wider communities.			
Proactive screening and assessment	Determine a tool for the identification of pre-frailty. Roll out screening tool in clinical settings such as Health Care Homes, ED, and throughout hospital Work with business intelligence, NASC, Health Care Homes, general practices, Aged Residential Care, community groups to identify those that have not had an interRAI assessment—raise awareness for the need for a baseline assessment.			
	Establish a process to review the needs assessment and coordination functions and determine a sustainable model			

Action	Task	Phase 1	Phase 2	Phase 3
	for the future. Resolve any IT issues with access to interRAI in appropriate settings for trained approved staff. Train wider workforce in the complex assessment using interRAI.			
Locality based teams and community based care managers	Determine clusters of Health Care Homes for locality based teams. Determine the composition of the core team. Take stock of current workforce, identify skill and capacity gaps. Develop a sustainable roster with sufficient reach into communities.			
	Recruit or re-train existing staff into positions, facilitate and/or support inter-professional development.			
Hospital avoidance	Develop policy and processes to cover hospital avoidance for the pre-frail and frail that are at risk of hospital admission or readmission.			
	Roll out Hospital Avoidance Programmes by locality/Health Care Home.			
Dementia care services	Develop a model of care based on the national framework for dementia, and examples of excellence identified elsewhere. Develop an implementation plan.			
	Roll out implementation plan.			
Advanced care planning	Continue to develop and further promulgate services as per our existing work plan.			

Managing acute flows through the hospital

Our ability to manage medical acute flows through the hospital will determine to a great extent the success of our hospital system. The starting point is reducing the number of people coming to hospital, but when they do we will ensure their stay is planned from day one; with minimal wasted time and discharge at the earliest safe opportunity to avoid hospital related harms.

To do this, we need to proactively plan for events where people are likely to end up in hospital, and plan for their return home, at the same time as we strengthen children's and older person's teams working across the boundaries of community, primary and secondary care services.

The Institute for Health Care Improvement's White Paper 'Achieving Hospital-Wide Patient Flow' sets out a three-pronged strategy:

1. Shape or reduce demand (examples)
    - Reduce hospital acquired infections
    - Extended hours in primary care
    - Smooth elective surgical schedules
    - Reduce readmissions through initiatives such as Hospital in the Home
    - Do more in the outpatient and community settings
2. Match capacity and demand (examples)
    - Invest in data-driven operational management systems to forecast seasonal variation, plan for demand surges and match staff accordingly (month to month, and day to day, etc.)
3. Redesign the system (examples)
    - Change processes to make them more efficient (e.g. discharging planning based on discharge readiness criteria, increase rate of morning discharges).

We need to think differently about the front door of the hospital

Within our hospital, there are several areas where we need to think and respond differently, and the ED is the first place where we can manage demand in a new way. The Hutt Valley has high rates of ED attendance, and likely future high rates of attendance, for the following reasons:

- changing demographics (e.g. increasing births for Māori and increasing number of older people)
- persistent high rates of avoidable admissions for children with preventable illnesses (e.g. high rates of respiratory illness in children, especially Pacific).

A fundamental principle is that only people requiring the specialist care that an ED can provide should be managed in an ED. In future, the Health Care Home model will provide extended hours for people to access urgent care; and the primary care team will be able to access specialist advice, or arrange short-term intensive support in people's homes to avoid presentation to hospital. For others who do not require medical assessment or resuscitation, but do require hospital admission for further care, they should not be admitted via the ED.

There will always be people that need specialist assessment and decision making, particularly people presenting with undifferentiated symptoms. Early senior assessment in the ED, as well as a range of other professionals (e.g. geriatricians, allied health, psychiatric liaison, paediatric nurses, social workers and kaiawhina) sets the course for a streamlined hospital stay.

Health pathways within the hospital, or across primary–secondary 'boundaries' will ensure people are directed to the right service at the earliest opportunity (e.g. a hip fracture pathway that means people can be moved quickly from ED to the ward).

Changing the way we work with children

Our future model will see the paediatrics team providing greater support to ED so that there are timely decisions about a child's assessment and treatment needs, and children are treated in the most appropriate setting, potentially avoiding some admissions to the ward.

While there is a children's room in the ED (with no connection to paediatric services), the ED is generally considered as an unsuitable place for children to receive care. If the CAU was co-located with the ED, then it would have to be staffed adequately with paediatric staff. There are advantages in having an appropriately staffed CAU attached to the inpatient ward so that paediatricians, who also have to cover the Special Care Baby Unit, are more accessible.

Children presenting to the ED needs to be recognised as a systems failure. We need to see this presentation as an opportunity to identify missed opportunities and stream children back to primary care or into one of the more holistic interventions discussed elsewhere.

Re-design to ensure flow through and out of the hospital

Our health system is inter-related:

- Overcrowding and long wait lists in the ED may result from lack of urgent after hours care in the community, lack of inpatient beds to transfer patients to, poor business intelligence and planning processes, and the inability to match capacity to surges in demand.
- Long average length of stay (ALOS) for inpatients may be the result of delays in long-term facility placement availability, inefficient discharge planning practices, poor facility layout leading to 'safari rounds[26], lack of timely access to diagnostics, and insufficient allied health care (amongst other things).
- Lack of inpatient bed capacity can in turn lead to cancelled elective procedures.

All hospitals are re-orienting themselves both within and outside of their walls: hospitals work to separate out unplanned flows from planned flows, senior doctors seek to meet and treat patients in one session, patient time through the health system is measured and minimised. We are well on in our thinking, and our range of programmes includes:

- a focus on medical patient flow
- a revision of the approach to rapid discharge
- better supporting people in the community in partnership with primary care.

There will need to be more of this activity in and around the hospital. It is likely that geriatrician numbers will increase as they work both on the general medicine roster and in the ED, in rapid discharge units such as MAPU, and as physicians operating in the surgical ward, as well as partnering with primary care in the community. Geriatricians will be backed up by allied health teams. Those teams will offer extended hours with discharge happening in the weekend as well as during the week. The close physical association of diagnostics with the ED, and co-location of rapid discharge units with the ED are critical to many of these. Currently, our aim is the following:

- review all admission criteria for a general medicine intake

[26] 'Safari rounds' refers to specialists visiting patients on wards that are not the home ward for that specialty.

- implement the general medicine improvement plan
- criteria based admission from ED nursing staff (using nursing staff)
- criteria based discharge from ED and wards (using nursing staff)
- allied health available extended hours seven days per week
- aim to discharge the majority of people within 48 hours.

Early senior assessment, at the front door of the hospital, will ensure that planning for discharge starts on day one. With a set estimated date of discharge and daily multidisciplinary ward rounds we will ensure continued progress with any problems attended to quickly.

Supply will be matched to demand

A mismatch between patient demand and the hospital's capacity to deliver care often leads to poor patient flow and departmental crowding; and ultimately impacts on quality of care and outcomes.

We are aware of these issues and are progressively introducing plans to reduce demand on our hospital services, or divert that demand elsewhere, or to see and treat patients faster, to reduce ALOS. Our work in medical flow is aiming to see and treat patients once and to bring to the hospital a more consistent presence of SMOs, so senior medical advice is available for as much time as possible. As a result, we are seeing our ALOS decrease, although it could and will need to go further, albeit in the context of rising acuity. We still have a comparatively low proportion of discharges before noon[27]. We need to work towards a seven day a week hospital, including allied health support available over the weekend, to avoid stalling inpatient progress and bed block at the start of the week.

The Ministry of Health summarised a NZ centric set of suggestions in its *Top Tips for Improving Your Acute Demand Management*[28]. Among those topics, they identify capabilities such as an operational centre that can record and report hospital and other activity in real-time, and core processes such as rapid discharge. We will continue to build our operational intelligence including further development of our reporting and analysis of bed use, theatre performance and demand patterns.

Focus on rapid transfer of care for older people

We are living longer, but we are also living a greater proportion of our lives with ill health and disability, and multiple long-term conditions. We will see an increase in people presenting with delirium and dementia. Many of those people deteriorate rapidly in hospital and end up worse off than when the presented. Modern care models turn this hospital based medical care model on its head, ensuring that people don't come to hospital unless they need to, are discharged as soon as possible and are well supported in the community. In contrast, if we do not manage the frail older person well, we are likely to have to materially increase the number of medical beds we operate, suffer more congestion in the ED and also potentially cause further deconditioning.

The processes described above that streamline the inpatient journey; will support better transitions of care for older people, along with ownership by people and their families of their health journeys. We described earlier the service that will avoid the need for some admissions of older people, which provides intensive support in the home for a fixed period of time. These types of services primarily support early discharge, with continuing care from their general practice and multiple daily visits, under a goal based package of care delivered by therapists and nurses.

[27] Health Roundtable. 2017. Key Performance Indicators Report.

[28] Top Tips for Improving Your Acute Demand Management, Ministry of Health, 2018

Priority action areas

Action	Tasks	Phase 1	Phase 2	Phase 3
Implement direct referrals by GPs to services	Mental health			
	Aged care assessment and rehab			
	Hospital in home and post-acute services			
	Palliative care services			
	Child development services			
Ambulance services extend to treat on site	Work with Wellington Free Ambulance to implement interventions and training needs, particularly in rest home care			
Further develop rapid discharge	Proactive planning of frail elderly with primary care			
	Increase geriatrician time at ED			
	Implement paediatric support in ED			
	Increase allied health presence			
Improve pharmaceutical management	Implement drug reconciliation processes			
Continue to improve general medical model of care	Develop ED admission and discharge criteria for nurses			
Work with primary care to reduce demand	Implement frail elderly screening			
Continue to develop rehabilitation model				
Deal actively with social issues	Implement a 24 hour social services capability			
Improve Short Stay Planning Unit (replace MAPU)	Set expectations with patients			
Understand patient instructions	Fully implement Advanced Care Plans			

A networked hospital

The placements of New Zealand's hospitals are determined more by historic decision making (roading systems, a hill-side site, availability of land) as by current and future clinical need. From time to time, there are unique opportunities to reframe the scope and role of a hospital, through for instance the merger of Napier and Hastings Hospitals into Hawke's Bay Hospital. The opportunity was not taken to concentrate secondary services with other complex services in a tertiary hospital servicing the Wellington, Hutt Valley and Kāpiti Coast catchments. The sub-region now works with a network of hospitals in Newtown, Lower Hutt, and Porirua, with pressure to develop services further for Kāpiti Coast residents.

We need to set out the role, scope and level of service to be offered at Hutt Hospital, over the next ten to 15 years. Our hospital will face increased volumes and increased levels of patient acuity at the same time that many of our specialists will be oriented to support primary care to manage higher levels of acuity in the community. Ambulatory care demand will continue to increase as will medical and surgical day patient activities as work patterns and technologies change.

A sub-regional network of hospitals

Hutt Hospital is the acute hospital for our population of Hutt Valley albeit with a symbiotic relationship with Wellington Hospital based in Newtown. A large number of our people's hospital based interventions take place in Newtown and core clinical services such as laboratory services are provided across the two hospital sites (Lower Hutt and Newtown). In particular, complex operations or major trauma are dealt with in Newtown, with the exception of plastics and burns that are treated at Lower Hutt. Over time, there will likely be an increasing shift towards integrating services, workforce and capacity.

When considering options to integrate services, capacity and workforce between Hutt, a number of factors need to be taken into account:

- An acute hospital has some co-dependent elements, the removal, or reduction of which can have a domino effect leading to the diminution or loss of other services. Thus an acute hospital needs an ED, our Plastics and Burns service requires theatre, as do our acute surgery and obstetrics services. The ED, surgical services and our acute medical services require some level of intensive care support.
- There are minimum critical numbers of staff to support service delivery. There are minimum volumes below which services are less safe. Some complex procedures require highly specialised teams and equipment such as hybrid theatres for vascular surgery.
- There are different ways of working together across our hospital sites. One service may offer access in more than one site or a joint workforce may staff two separate services (e.g. one anaesthetist workforce may support two separate surgical teams).

Hospitals have maintained access to services, assuring safety and quality of service and providing an efficient health system in different ways. The West Coast ICU is supported remotely from Christchurch Hospital. Waitemata Hospital provides the ED for Waitakere Hospital overnight. Much of this innovation is service level innovation that may occur in our sub-region as discussions between Capital & Coast and Hutt Valley DHB Executive and Board continue to consider options.

Process and criteria for consideration

This DHB is fully committed to considering options for delivery of hospital services and our Board will work with the Board of Capital & Coast DHB to further integrate services, progressively, to make best use of resources for our populations. We are participating in a discussion with Capital & Coast DHB around the future of our hospital network. The Board is taking leadership in this with a sub-committee of the two DHBs, with a mandate to look to patient benefit and overall health system efficiency, and to ignore any institutional or funding issues that get in the way of implementation.

In doing so, we will take account of:

- Ensuring health inequalities are reduced
- The health system is made more efficient
- Services provided are sustainable and of good quality
- Responsiveness to local need is met?

All options are on the table. We will explore and challenge ourselves with a wide range of options ranging from lessening service levels to increasing service levels, to assist us to define the character of this hospital.

Hutt Hospital emergency department—a refocus on acutely ill patients

The options for ED in Hutt overlap with options for ED in Wellington. Trauma patients are currently taken straight to Capital & Coast DHB (with the exception of plastics and burns that come to Hutt Hospital), while most patients attending ED at Hutt Hospital are primary care or acute medical patients. Likely, continuing work on destinations for trauma or acute medical patients will reinforce this trend.

Status quo for ED is not an option; the service is left vulnerable because of the pressure that it is under. A great number of patients could better attend a primary care based urgent care or be seen in primary care by a Health Care Home offering extended hours. The patients would be better off as the service would be timelier and continuity of care is preserved.

We considered a wide range of options from extreme options of replacing ED with an urgent care facility, closing ED through post 10pm and sending patients to Capital & Coast DHB, to becoming a satellite ED within the sub-region closely networked with other EDs, through to extending senior medical officer presence at the front door. A major concern was expressed about the need to retain a 24 hour ED for medical training purposes.

Our preferred view is retaining ED, to retain the ability to resuscitate patients locally, but to refocus on acute flows, and turn away sub-acute presentations. A fact of life is that ED will need to continue to provide a safe haven for those suffering the physical impact of family violence. This shift to deal with acute situations should be possible over the next few years as our primary care strategy delivers more resilient and more accessible primary care services.

Medical services will deal with increasing acuity

Our general medicine services will be focussed increasingly on patient flow, working in concert with our older persons' service. Already there is partnering of the two skill sets and this will increase as our population ages. Over time, likely physicians will be even more active on surgical wards as surgeons come under increasing pressure due to the number of procedures needing to be

undertaken, and the co-morbid nature of patients. Nursing staff will, over the next decade, need to be trained and equipped to deal with increasingly unwell patients on general wards, who may previously have been admitted to a high dependency unit.

A networked and integrated cardiology service

Cardiology operates separately from General Medicine in a 12 bed ward with its own nursing team. Interventional cardiology services are provided in Wellington by Capital & Coast DHB; these are currently provided to the region but, over time, Palmerston North and Hawke's Bay will develop their own cardiac catheter (cath) labs. We all agree that it is not sensible to develop a cath lab in Hutt Hospital with one so close to us already.

The service provided has found a way that is sustainable at the moment. However, an unexpected consequence of the level of service provided in the hospital is de-skilling of the general medical team (as cardiac issues are dealt with on the cardiac ward), and a reliance of primary care on hospital based clinical nurse specialists. Around 60% of the department's activity could be undertaken in primary care.

There are a number of options for cardiology over the next decade, ranging from full integration with the general medicine service to integration of inpatient beds whilst maintaining the excellent diagnostic suite. These are complex issues to work through and the strategy is to refocus the service on supporting primary care, and revisiting integration of inpatient beds to provide greater operational resilience.

We need to offer excellent ambulatory care

A recent credentialing report highlighted the need to run medical day patient and outpatient activity as a whole of system response. We project high levels of ambulatory care and we know that other activities currently happening in hospital and in surgery can be undertaken in different facilities, outside of theatre suites. We know medical technology will offer different solutions leading to increasing demand for diagnostics such as scopes and complex imaging. More interventions will take place in offices and treatment rooms. More patients will have infusions and we need to be able to offer as many of these locally including in primary care. We need to organise ourselves for this growth in ambulatory activity by, first, taking governance of it across the hospital, in one place, and then progressively improving access and facilities across our district. It could be that an ambulatory care centre need not be on a hospital site in future.

ICU to step up to Level 2

Level 1 and 2 ICUs are able to manage single organ failure but not multiple organ failure. Multiple organ failure is best managed at Newtown Hospital. Over the next 10 years, we will move to a Level 2 ICU but the timing of that change will depend on availability of funds and other priorities. The priority for us is to provide sound critical care support to our medical and surgical patients and likely we need to need to be able to support some level of critical care on the medical ward. There is the possibility of extending ICU capacity to support sub-regional capacity but that would need to be a sub-regional decision.

The role of inpatient paediatric beds

Our paediatricians are clear they need to be active in the community and acknowledge the current service is too oriented to inpatient beds. Inpatient beds in the new children's ward at Capital & Coast will also be used by Lower Hutt paediatric patients from time to time just as they are now. The

beds at Hutt Hospital are used by young medical and surgical patients. There are social admissions that could be avoided and a surge in winter of medical patients, but more surgical patients through summer. We are not expecting material growth in our child population, and we already have high rates of avoidable admissions, so we may be able to reduce inpatient beds over time as our wellbeing, primary and community strategies are implemented. We will build in more flex between summer and winter, and would want those beds better integrated with local providers and being seen as a last resort, with medical issues being addressed in the community.

Managing maternity risk

We will retain secondary care birthing facilities particularly given the vulnerable profile of some of our women and whānau. Obstetricians need to be able to perform procedures quickly when a mother and her child are in trouble at birth. All risky births and those under 32 weeks gestation will continue to be referred through to Wellington, which is better able to manage the clinical risks of births below 32 weeks. We need to be careful to ensure the most vulnerable babies are birthed in the right facility. The poor state of our special care baby unit will have to be addressed at some point in time. Our caesarean rate is high and needs to reduce.

A sub-regional service for gynaecology

The nature of hospital gynaecology work in the future will change, with minor procedures shifting to the community and an increase in gynaecology oncology. With the implementation of strong health pathways, a sub-regional service for gynaecology looks an attractive option. The service would be more robust than the current vulnerable one, and could offer out-reach services.

Build surgical capacity to meet increasing demand

There will be an increasing need for theatre capacity as ageing pushes up the number of people requiring operations, particularly in general surgery and orthopaedics. We will do what we can to moderate demand; by focussing on prevention activities that achieve healthy weight (e.g. to avoid osteoarthritis) or reduction in smoking, and embedding alternatives to surgery within health pathways. An example of this is the Physiotherapy Primary Intervention Programme in South Canterbury DHB, which offers a physio-led exercise programme that delays the need for joint replacement and achieves better recovery from an eventual surgery if it is required.

However the extent to which we can reduce this demand will be moderate only. Additional surgical theatre capacity, with associated staffing and beds, will be needed across the sub-region as the region as the whole ages. Surgical interventions when appropriate are high value interventions. In addition to growth due to ageing, there is “growth of care” meaning there are more operations on older patients. Therefore our theatre forecasts will likely be exceeded.

Surgery capacity is important

Surgical interventions are also those using the most expensive part of the hospital, requiring highly trained surgeons, anaesthetists, nurses and others, as well as expensive consumables and costly infrastructure, including imaging and theatres as well as wards. There are questions of DHB efficiency, and then questions of effectiveness of sub-regional activity.

Theatre efficiency is a well-considered topic. We have seen shifts in surgery to shorter stays and to more day surgery. Theatre optimisation programmes such as The Productive Operating Theatre have been with us for many years, and we continue to work to increase theatre efficiency. These

programmes assist by ensuring there are no late starts, and that turnaround times are as short as possible. We are currently initiating a further theatre efficiency project.

Theatres will be operated more efficiently but could cross the boundary to becoming less efficient with more busyness. If flow through surgery is not managed well then there are blockages in the flow leading to material inefficiencies, wastage and poorer patient outcomes. At worst, underinvestment in elective surgery, or inability to find capacity to undertake elective surgery, may mean that disruptive acute operations increase in number. Thus, getting the number of theatres right is a critical investment point for a health system.

Capacity needs to be effective sub-regionally

Wellington Hospital is site constrained and there is opportunity for Hutt Hospital to offer additional capacity, if agreed across the sub-region.

There are clear opportunities to reorganise into sub-regional services, namely to move to one list of anaesthetists, and joined up lists of general or orthopaedic surgeons, as examples. These are not easy debates as a surgeon may feel out of place if having to operate over two sites with two different teams.

One option to consider is that most acute surgery is performed at Capital & Coast, with the more planned (elective) surgery at Hutt Hospital. There may be opportunity to integrate elective surgery currently undertaken at Kenepuru with Hutt. Taken together, there is an opportunity to re-describe surgical services across the sub-region concentrating more elective surgery in Hutt Hospital.

From a patient perspective, equity of access to surgery across the region is an attractive prospect and may point to the need to consider the three sub-regional surgery sites as one production unit.

Continue to provide a long-term home for the regional plastics service

The Plastics Unit is a well-run regional service of some significance. Chief amongst its needs is theatre time for ninety sessions a month. That is, broadly speaking, around three theatres worth of dedicated capacity to plastics operations.

There are areas of unmet need, and some evidence that DHBs are avoiding some high value interventions such as breast reduction due to costs of IDFs. However, even given the current level of activity, it is likely that the service will need one quarter more theatre space over our forecast period.

There are a set of questions about configuration and physical disposition when we look out over a decade:

- Co-location with other tertiary services has been considered over the past decade. The last time was four years ago, and the informal decision appeared to be that the required $50 million of capital spending was not attractive.
- Whether the services' preferred hub and spoke model is feasible. In this model, there would be networked capacity in local centres supported by a strong central hub. However, regional hospitals would need to commit to having local surgical staff, associated nursing and theatre capacity.

The service has had uncertainty of geographic disposition, and there is a clear decision needed either to keep it in the Hutt Valley, or to centralise it with other tertiary services in Newtown. This decision must stand for a decade, to allow consistent planning of surgical capacity across the network of

hospitals. At present, there is not the space for the service in Newtown and therefore the service needs to be retained by Hutt Hospital.

The character of Hutt Hospital

Taken together, these options describe whether Hutt Hospital, in future:

- Has a stronger focus on ambulatory and medical services
- Potentially, provides a growth hub for surgical services and plastics
- Provides the regional home for plastics services.

A strong home for medical services

We see provision of local medical services and in particular general medicine, paediatric and geriatric services as continuing as the central core of hospital based services. Increasingly, those physicians will likely manage across surgical wards as well as pushing out into community services.

Provide capacity for sub-regional surgical activity, focussing on electives

There is a substantial cost to acute theatres which typically run best at around 70 per cent capacity, compared to elective theatres ideally running at 85 per cent capacity. Moreover, Capital & Coast DHB currently needs to provide theatre capacity at Kenepuru, meaning that the sub-region is operating over three sites. This duplication of effort may be reduced if Hutt were to become more focussed on providing electives, while acute operations continue to be diverted to Newtown. This in turn has implications for the workforce and how it best supports these two sites, and for equal provision of elective operations (e.g. one pipeline for, for instance, orthopaedic patients)

Provide a secure home for regional plastics activity

The Plastics Unit is a well-run regional service of some significance. Chief amongst its needs is theatre time for ninety sessions a month. That is, broadly speaking, around three theatres worth of dedicated capacity to plastics operations. Capital & Coast theatre capacity is under pressure today, and is likely to be under even more pressure as it is asked to undertake more surgery for its regional client DHBs. The service needs security of tenure. A strong preference to be confirmed in the sub-regional process is that plastics capital and operational planning is based on its remaining in the Hutt.

Decision making must keep happening

This uncertainty in planning risks a state of paralysis, if even relatively modest local service decisions must wait for collective decisions across the region.

Our approach will be to identify those options we can progress in the short term to make changes that improve our services and reduce vulnerability. We will be explicit about those options that are dependent upon wider regional decisions, and will avoid pre-empting such decisions with local service changes.

ENABLERS

What needs to happen to support those capabilities

We identify a number of enablers needed to support the desired service capabilities set out above.

Growing our workforce across our health system

We need to grow our workforce capacity and capability to deliver our future models of care. This means up-skilling the workforce we have as well as the introduction of new roles.

All workforces will manage increasingly complex people. All roles will be working to the top of their scope of practice and will perform tasks that have traditionally been done by more senior roles. Senior nurses will take on some of what doctors currently do, and allied health professionals will provide critical support to a wide range of community as well as inpatient services. To allow this we will use care assistants and therapy assistants more effectively.

We are increasingly working alongside each other in an inter-professional manner rather than working within our professional silos. We need to keep on doing this, to be able to work with and include patients, whānau and carers as well as the range of skills in the health care team. This inter-professional practice requires a multi-disciplinary team focussed on collaborating and sharing skills to meet our populations' needs.

The Calderdale Framework[29] provides a clear and systematic method of reviewing skill mix and roles within a service to ensure quality and safety for patients. It is transferable to any health or social care setting, and enables people focused development of new roles and new ways of working, leading to improved efficiency in utilisation of roles.[30]

Improving health literacy and cultural competencies

It is not just the health literacy of our patient we need to focus on. We have a responsibility to ensure that information is provided to patients in a manner that they understand and is culturally appropriate. Unfortunately, we don't always make information easy for everyone to access and we often don't spend enough time ensuring patient and their whānau are able to process it. We need to ensure we develop the health literacy and cultural competencies of our workforce and embed a person and whānau centred practice.

[29] Smith R, Duffy J. 2010. Developing a competent and flexible workforce using the Calderdale Framework. IJTR 17(5):254-262.

[30] Nancarrow S et al. 2014. Implementing large scale workforce change: learning from 55 pilot sites of Allied Health workforce redesign in Queensland, Australia. Project report for Health Workforce Australia.

Priority action areas

Action	Tasks	Phase 1	Phase 2	Phase 3
Improve the health literacy practices of the workforce, with a particular emphasis on working with Māori and Pacific Island patients and whānau	Commit to making health literacy an organisational priority.			
	Introduce health literacy as a core competency for all health workers.			
	Establish a health literacy review team.			
	Identify the workforce's needs for development through various means (e.g. survey, team discussions etc.).			
	Develop and undertake training and development modules and prioritise training and development in working with Māori and Pacific peoples.			
	Embed as business as usual.			

Better information and communication technology

Our Information and communication technology (ICT) has not kept up with developments in many other parts of society. The health system we have described for the future relies on better ICT—without it we cannot achieve our plan. ICT is integral to shorter, safer patient journeys, supporting new models of care and service delivery, and sustainable health services for our population.

We need ICT that enables:

- Individuals and their whānau /families to have access to information and tools to maintain their health and wellbeing, and know that information relevant to their care is safely and seamless shared across their health team.
- Healthcare Professionals to have anywhere, anytime access to information and tools, so as to release more time for, and to provide the best care possible for their patients.
- Managers and Administrators to have the tools and information to efficiently and effectively allocate resources, manage operations and plan for the future.

In addition to maintaining and improving critical ICT systems and services, future investment will align to the following areas to support the goals of this plan:

- Digitising patient/consumer interaction: ICT that enables access to information personal health information, greater involvement in wellness & care planning, convenience of access to services including care closer to or in the home, easier navigation through the system & proactive, individualised care.
- Digitising end-to-end processes: ICT across the continuum of care than enables optimal workflow within and across services, shared care and service coordination within & across services, and better alignment of resources to demand.

- Digitally & data enabled decisions: Improve safety & individual/population health outcomes and reduce individual & population inequality through the use of data for better insights; support real-time decision making at point of care, risk stratification, population health planning, analysis of clinical outcomes to improve clinical care paths, system performance analysis & reporting.
- Mobility, Communications, Collaboration: ICT that enables greater levels of mobility, communication, coordination & teamwork amongst staff & external service providers and enable new models of care.
- Information governance & management: Ensure quality and trustworthiness of information; enable timely & appropriate access to knowledge & information.
- Stable, secure, responsive systems & sustainable ICT services: Ensure the integrity, continuity & performance of clinical & non-clinical systems, invest to be able to respond quickly to the changing needs of our health system and maximise the time spent by ICT on value-added activities.
- Regional systems: Support regional sharing of information, optimal use of scarce clinical resources and new models and processes for care.

What does this mean? There are many examples.

- We will have a shared electronic health record, shared care planning tools and a patient portal, accessible from anywhere and on any device. All health professionals involved in a person's care will have access to the up-to-date information they require, and can share details of their interactions with the patient/consumer. The patient portal will allow the consumer to view and contribute to their health information, and provides options for booking appointments and virtual interaction with their health care team.
- There will be greater use of tele-health will improve access to specialist services, particularly for those living at distance to main health facilities. This will include videoconferencing and sharing of static images. If patients/consumers do need to come to hospital, they will be able to book their own appointments electronically, select a time that is convenient for them and receive electronic reminders.
- Referral pathways will be streamlined, with electronic prescribing and ordering of diagnostics and the ability to view results. Referrals will be made electronically with feedback loops to referrers so they know the status and outcome.
- Consumers will have access to a greater range of online information, including health pathways and service directories. New technologies that support self-management, such as home based monitoring systems, wearable digital devices, and near patient testing, will be adopted with real time data feeding into systems that people can access easily.

Assets and infrastructure

Our view of assets needs to extend across community and primary care and not just be focussed on the hospital. We need fit for purpose primary care facilities and we need fit for purpose hospital facilities. We will make best use of all existing spaces and look for opportunities in new models of care that make use of non-specific assets.

Our maintenance and building programme for the hospital is likely to continue to be 'just enough' while we focus on improving service delivery outside and around the hospital. We need to find out what 'just enough' is with a Master Site Planning exercise over the next 18 months.

Health and business intelligence

Health and business intelligence plays a vital role in supporting evidence-based planning, funding and care delivery. This includes supporting the rapid evaluation of initiatives and provision of feedback for performance improvement. Health and business intelligence will be strengthened at strategic and operational levels, through an expanded health and business intelligence function working closely across primary and secondary care. Integration of data across primary and secondary care providers enables a deeper understanding of health journeys and health outcomes.

Increasing the effectiveness of our services will require a system that learns over time about what works, then spreads the successful approaches and changes or winds down those that don't achieve results.

A system that learns needs timely person-centred data and analytics to be available to decision makers at all points in the system. Cost-effectively collecting, sharing and analysing data across the health (and social) system will greatly increase our capacity to design and commission effective services, and to target resources to where they have the strongest effect on improving outcomes.[31]

Rebuilding hospital management systems

This CSP requires us to understand and manage our service flows and resources better. At the moment, we are well short of good practice in our core hospital management systems and activities. We have an out of date pay roll system, lack costing systems and are unable to provide managers or executive management with anything more than a high level understanding of current budgets and resource use. In short, our control systems are weak. This CSP requires us to be active managers of resourcing, to shift the balance to primary and community care, and that requires excellence in both operational planning as well as financial control systems.

Governance and leadership

Transforming our health system will require strong leadership, at multiple levels within our system. We need to identify the people will skills and insights to lead change and support them to work with communities, whānau and individuals to transform care and increase health equity.

Many parts of New Zealand's health sector operate in alliances but rarely do those alliances extend beyond health services. Bringing together local community, primary care and DHB resourcing, together with social services agencies (Education, Justice, Police, Social Development, Oranga Tamariki and our councils) will be needed for us to achieve our health goals. We will ally ourselves with social agencies at the health system level.

We have an existing Alliance Leadership Team, a number of Clinical Networks and a Clinical Council and an Iwi partnership board. Now we need to work to integrate patient and whānau views into our planning and service delivery. Building a strong Consumer Council is part of this, but we need to go further with the development of our co-design methodologies and strategies to ensure the community voice is heard in all parts of our system.

[31] The New Zealand Productivity Commission – Te Kōmihana Whai Hua o Aotearoa. August 2015. More Effective Social Services