HUTT VALLEY DHB

Clinical Services Plan

Developing our health services for the next ten years

2018 – 2028

Foreword

This plan is the result of over twelve months of workshops with key stakeholders during 2017/18, as well as meetings, service modelling, and literature searches, to articulate our 10-year clinical services vision.

The Clinical Services Plan (CSP) is a once in a decade opportunity for us to set the direction of our health services for the populations of the Hutt Valley. The plan notes the need for Hutt Valley DHB to make decisions on where it can make the most impact, and to manage growing demand as much as possible. The recommendations of the CSP, and the opportunities it identifies, go a long way towards addressing the key directions envisaged in HVDHB's *Our Vision for Change 2017–2027*, as well as the government's priorities of addressing equity, increasing access to primary care, and improving child wellbeing. The CSP also complements *Our Wellbeing Plan* and *Māori Health Strategy 2018*, with our focus on children and the broader social determinants of health.

This plan furthers our strategic imperative for good stewardship of resources by taking a strong planning approach within the contexts of our future demand profile and the Wellington sub-region. The plan does not identify 'cost savings'. Rather, it provides greater clarity about what needs changing, where we need to invest to improve equity and health outcomes, and how to 'live within our means' long term.

We know, however, that changes to our facilities will be needed. Our hospital footprint is not fit-for-purpose, and we will soon outgrow our surgical and Intensive Care Unit (ICU) capacity.

Furthermore, we provide a range of services in a hospital setting that could be more community-based, closer to home, and responsive to the needs of whānau and communities. Shifting care closer to home was clearly endorsed by our communities and patients in the development of *Our Vision for Change 2017–2027*. Localities planning therefore is a core plank of this plan.

The CSP is also aware of the growing shift towards thinking about our services and infrastructure as part of the broader Wellington region. It has been developed just as we are about to embark on joint long-term investment planning with Capital & Coast District Health Board. That process will develop the key investment opportunities over the next decade across both DHBs, and provide greater clarity for both boards on where our infrastructure investments will need to be made. The CSP provides the framework for the models of care we are committing to, and these models will affect our future infrastructure needs within the context of the sub-region.

Transforming our health system will require strong leadership, at multiple levels within our system. We will need to identify the people with skills and insights to lead change and support them to work with communities, whānau and individuals. Implementing this plan will need an authentic and structured move away from a 'fortress mentality' – where we in the health system act to secure individual interests. We need to establish systems of care where we work with other organisations and services to address challenges and improve the health of the populations we serve.

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Our plan

Enablers

Executive Summary

This Clinical Services Plan (CSP) sets out two particularly significant challenges our health services need to meet over the next decade. The first challenge is posed by the persistent health inequities that exist for different population groups and communities in our district. We have gained more insight into the extent of these inequities and their consequential long-term effects on our people. If we are to address them, we need to work in a very different way from how we do now.

The second challenge is growth in service demand caused by our aging population. We will increasingly see demand grow in general medicine, rehabilitation services, cardiology and psychogeriatric services. Our surgical teams will become busier 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 while finding 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 1,000 days of life
- proactive care to maintain the wellbeing of older people
- evolving the character of our hospital within the context of the sub-region.

Several pillars have existing dedicated work programmes designed to address priorities. Others have informal initiatives 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 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 making our hospital as efficient as possible.

Radically reducing inequity

Our health system works well for most of our population. However, we know from our health status reports and interviews with our communities, individuals and their whānau, that there are material gaps in how we deliver services that meet the needs of some population groups and communities. 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 strategies 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 community level. We will work with our communities to find the local responses.

In particular, we will prioritise a rights-based approach to health that meets our unique responsibilities to Māori under Te Tiriti o Waitangi. We will continue to work with our Iwi Relationship Board, but in future we will also work in meaningful partnerships with individuals and whānau to design and deliver the health services they need.

Building strong primary and community care

We will experience a major shift in the balance of care. Health Care Homes is where we will be managing most people's health needs and almost all long-term conditions. Increasingly, these will be the clinical hubs for multidisciplinary team work, and the vehicle to provide access to diagnostics and interventions, with reduced need for further referral to hospital-based services. Health Care Homes will be supported by more specialist services provided in community settings, through a variety of models (e.g. specialists offering community clinics, tele-health consultations, improved GP access to specialist support).

Prioritising the first 1,000 days of life

We will prioritise those critical days of gestation and early infancy/childhood. We are currently missing opportunities to do better. 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 for well-supported whānau, but are much less effective for those whānau lacking good social support. We will be more active in working with communities, funders and our providers to design 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

Improving services for older people requires us to address a multitude of factors, given the complexity of issues faced by older persons and the multitude of services they use. We will need to focus on the continuum from supporting healthy, active ageing and independence through to proactive measures such as detecting pre-frailty and early signs of dementia. We will need to provide rapid support close to home in times of crisis, responsive and timely discharge planning and post-discharge support, good rehabilitation after acute illness or injury and high-quality nursing and residential care for those who need it. We need to offer choice and support towards the end of life.

In order to achieve this we need close integration across providers to provide person-centred coordinated care. Our specialist teams must support our primary health teams to respond to frailty, and our needs assessment and service coordination and community support services must provide rapid, responsive and proactive services so our older people can maintain cognition and function and independence in the community.

If we focus on valuing patient time in our health system, and particularly in our hospital, we will see improved patient outcomes and experience, as well as more efficient use of scarce resources. We must look closely at how we can reduce hospital admissions and readmissions, and how to rapidly return people 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 will reflect this wider picture, which may result in different patient flows between Hutt Hospital and other parts of the district. Overall, we will focus our hospital on acute care, with a higher proportion of activity conducted in ambulatory settings, and more of that activity taking place in the community – including people's homes – rather than within the hospital. If possible, we will seek to become a Greater Wellington hub for elective and day surgery.

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 and more complex needs. We also need to keep up with technological advances so our information and 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 priorities. However, we have identified a further key enabler under stress as 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 payroll system. We are not able to track operational activity with demand activity in the manner we need to to be as efficient as the best health systems are. We 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 the new information requirements of a much faster-paced and more accountable health system.

> "...we will focus our hospital on acute care, with a higher proportion of activity conducted in ambulatory settings, and more of that activity taking place in the community, including people's homes..."

1 Excluding Wairarapa DHB

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 for services, 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 this 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, and will inform facilities planning, a workforce strategy and our information and communication technology (ICT) plan. We have a long-term (ten-year) planning horizon.

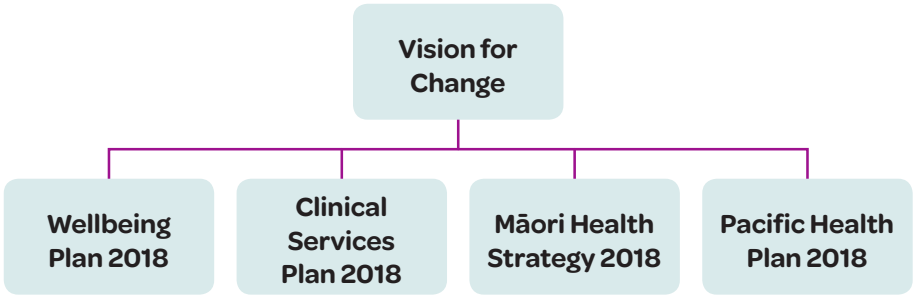
How does this plan fit in our strategic framework?

During 2017 we engaged widely with our community to develop our strategy: *Our Vision For Change 2017–2027: How We Will Transform Our Health System*. This articulates our vision of "healthy people, healthy families, and healthy communities" and outlines the health system we want and the strategic directions we need to take to achieve:

- 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 sits alongside the recently completed HVDHB's *Wellbeing Plan 2018* that focuses on prevention, developing resilient and healthy whānau and communities, and addressing the wider determinants and environmental factors that impact on wellbeing. It also sits alongside our *Pacific Health Plan*, and our *Māori Health Strategy 2018* that sets out our commitment to improving the health of Māori in our district and accelerating Māori health equity.

Hutt Valley DHB strategic planning framework



How 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 needing strengthening.

We are also part of the central region and rely on our regional DHB partners for 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 areas which align with our local priorities - a health system that:

- is digitally enabled
- clinically and financially sustainable
- has 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 we developed this plan

We developed our CSP through extensive engagement with our healthcare providers across the hospital, primary care and community. We listened to the views of people that use our health services, to gain a deeper view of what matters to patients. 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 widely with clinicians and managers in general practice, across community NGOs and within individual hospital departments to identify the issues and challenges of current service provision, and the implications for 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 health care 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 patient journey for 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) to exit (e.g. rehabilitation in the patient's home). We included patients, their whānau and support people wherever feasible. These journeys helped us work through issues, identify 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 1,000 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 those workshops is set out in this document.

4. Sub-regional DHB planning

We operate within a sub-region of hospitals, with Wellington Regional Hospital in Newtown, Kenepuru Community Hospital in Porirua and 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 ones (e.g. plastics and burns). Both Capital & Coast and Wairarapa DHBs participated in the development of this CSP, with representatives sitting on our CSP steering group, and meetings between the executive teams of both DHBs. We jointly recognise the significant opportunities for working together to design and deliver key services. Both boards have approved a joint planning process to consider a range of clinical services that could be better delivered across a network of hospitals.

5. Presentations and feedback

We will seek feedback on this draft CSP from within the hospital and from community-based providers, primary care, iwi, NGO providers and community groups.

The Challenge

Two dominant themes emerge

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 people, 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 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 1,000 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 1,000 days, the worse the long-term impact is on lifelong wellbeing. This is why we focus on investing in a positive early start to life in our strategy, *Vision for Change 2017–2027*, and why *Our Wellbeing Plan* focuses on tamariki and whānau with complex needs. Following on from these planning documents, this CSP prioritises investment and service development to support the first 1,000 days of life.

At the same time, we also know our ageing population will bring a significant increase in service demand that is clinically and financially unsustainable for our DHB. 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.

"... so we achieve equitable access, experience and outcomes for all people in Hutt Valley..."

"...this CSP prioritises investment and service development to support the first 1,000 days of life."

"This CSP prioritises investment and service development for healthy ageing and the frail elderly."

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

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 nationally.[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 to be fully or exclusively breastfed.
- Hutt Valley has a higher rate of ambulatory sensitive hospitalisations of children and adults than nationally 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% higher than other.[5] Dental decay is the top cause of avoidable admissions for Pacific children and a major contributor for Māori children.
- Ambulatory sensitive hospitalisation rates for Māori and Pacific adults (age 45–64) are around double the rate of other ethnic groups and have not shown any improvement in the last couple of years.[6] The top causes are angina/chest pain, cellulitis and chronic obstructive pulmonary disease (COPD).
- 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.[7]
- 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.[8]
- Smoking rates are significantly higher for Māori and Pacific women, and Māori men, compared to other ethnic groups.[9] Of particular concern is the high proportion of Māori mothers who smoke. Maternal smoking for Māori in Hutt Valley is more than triple the rate for European/other.[10]
- 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]

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.

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

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

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

8 Ibid.

9 Ibid.

10 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.

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

The first 1,000 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 behaviour. 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 people 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% in Quintile 5) and the least deprived areas (23% in Quintile 1). By 2030, a greater proportion of the community is likely to be living in high socioeconomic deprivation if current trends continue.

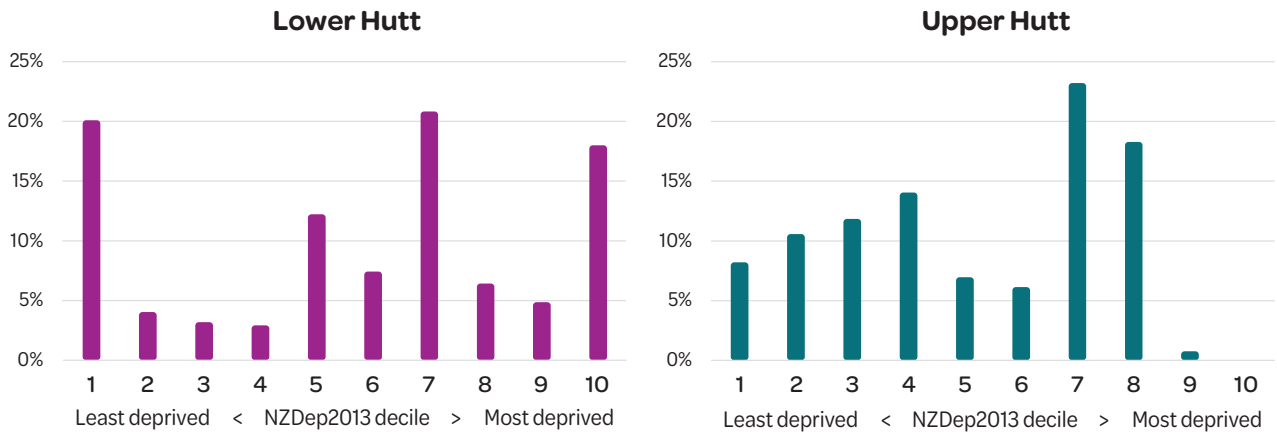
The first 1,000 days (conception to a child's second birthday) are strongly influenced by the determinants of health. There is strong evidence poverty and other confounding socioeconomic factors (e.g. parental education, maternal age) negatively affect child health outcomes such as low birth weight, 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%) 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 15% of Hutt Valley children lived in overcrowded housing, including 40% of all Pacific children.

The impact of poverty is reflected in our avoidable hospital admission rates, particularly for infectious and respiratory diseases where families live in low-quality, overcrowded 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 hospitalisation (ASH) rates[14] for preschoolers. 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.

There is an increasing and unsustainable demand for assessment and intervention for children with 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.

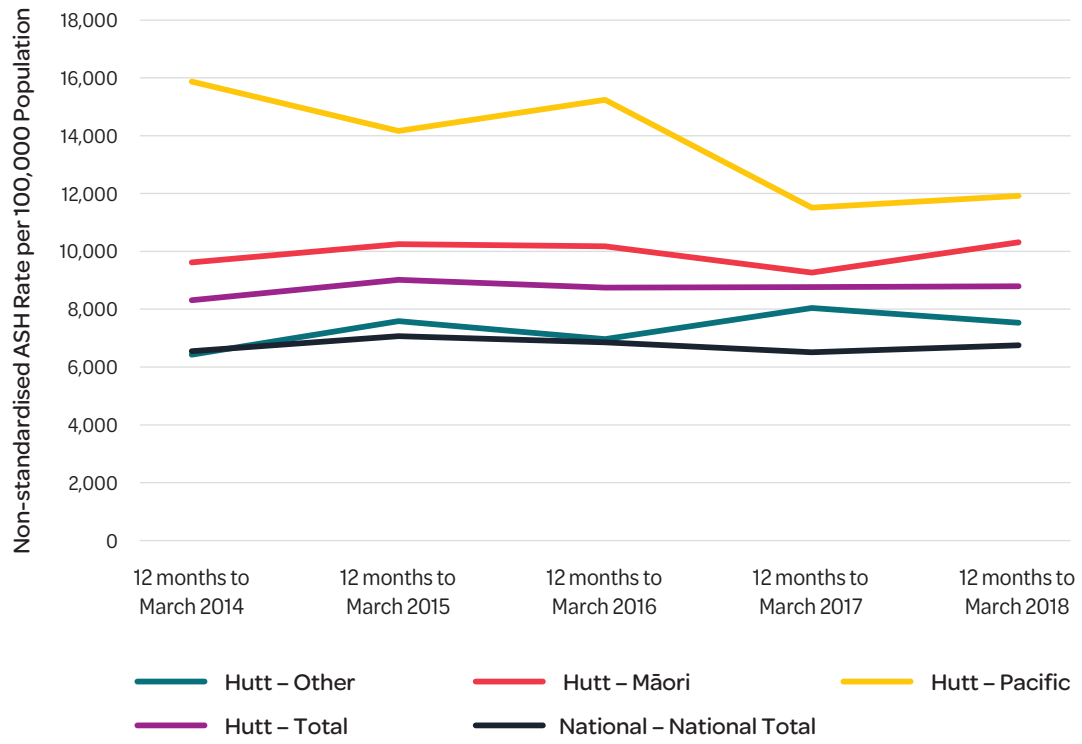
Figure 1 Hutt Valley population by NZ Deprivation Index 2013

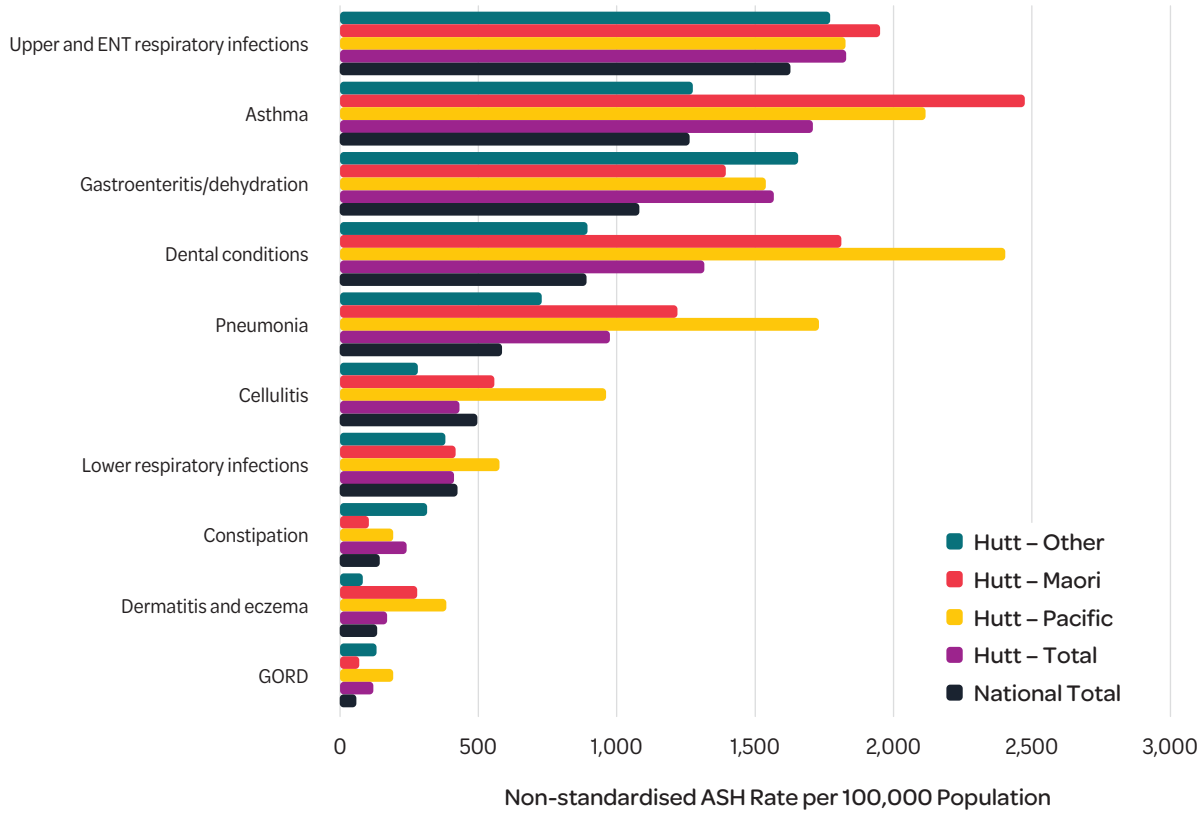


SOURCE: University of Otago, Sapere analysis

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

Figure 2: ASH Rates 0-4 years





SOURCE: Ministry of Health

Managing demand and needs in an ageing population

As our population ages, we are seeing more people 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 people, refugees, disabled people and those living with a mental illness:

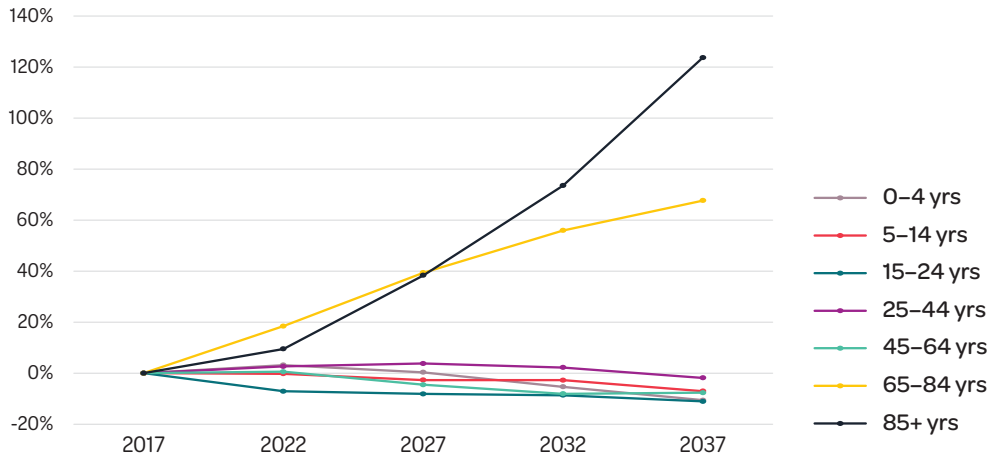
Ageing leads to a gradual decrease in physical and mental capacity and an increasing risk of age-related health conditions (often several at the same time). Old age can also be characterised by the emergence of syndromes such as frailty, delirium and urinary incontinence.[16] Older people are not a homogeneous 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% or around 7,000 people), although there are both short- and long-term plans for housing development in Lower Hutt and Upper Hutt cities. However, 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.

As a consequence of our changing population, increased demand will occur across our health system in community care, primary care, aged residential care and in the hospital at the same time as our working-age population decreases.

> "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."[17]

Figure 3 Hutt Valley growth on 2017 by age group



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

15 **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.

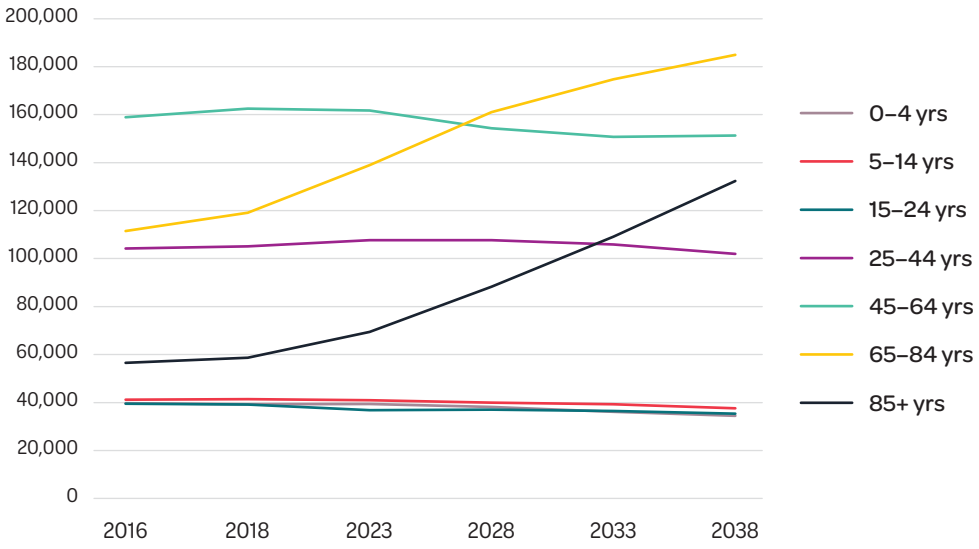
16 **who.int/news-room/fact-sheets/detail/ageing-and-health**.

17 Associate Minister of Health 2016. *Health Ageing Strategy.* Wellington: Ministry of Health.

Pressure on primary care will build

Between 2016 and 2038, consultations for enrolled patients are forecast to grow 20% 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



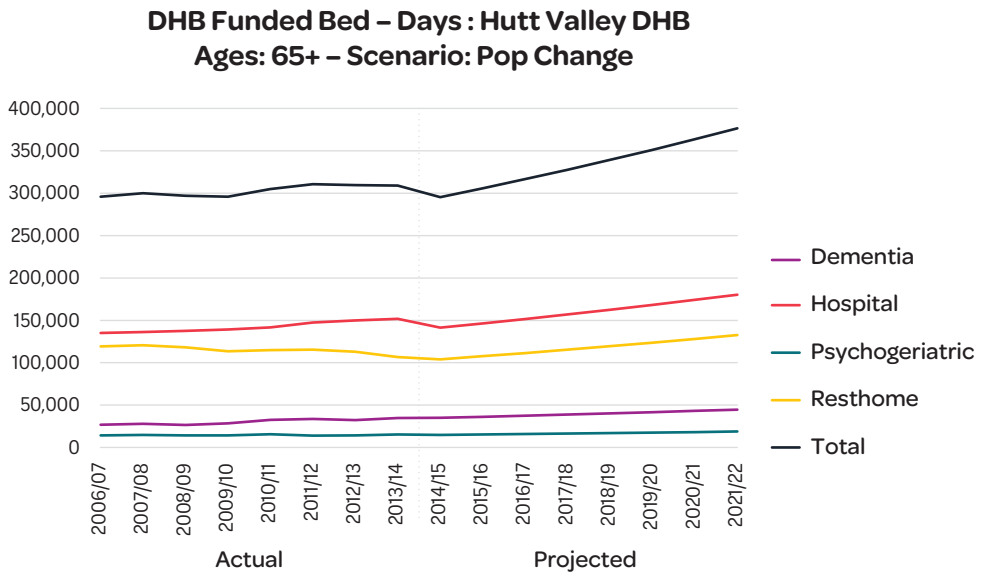
SOURCE: Karo Data Management, Sapere projection

> "Between 2016 and 2038, consultations for enrolled patients are forecast to grow 20% overall across Hutt Valley practices."

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% by 2026/27 and 74% 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

> "Demand for DHB-funded aged residential care bed days for people over the age of 65 years will increase 40%."

18 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%, 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 the ageing population will have upon the need for services if current models of care continue. The clear message is; average complexity of total population cases will increase across the hospital and there will be substantial pressure upon bed capacity under existing models.

Figure 6 Hospital service demographic demand growth

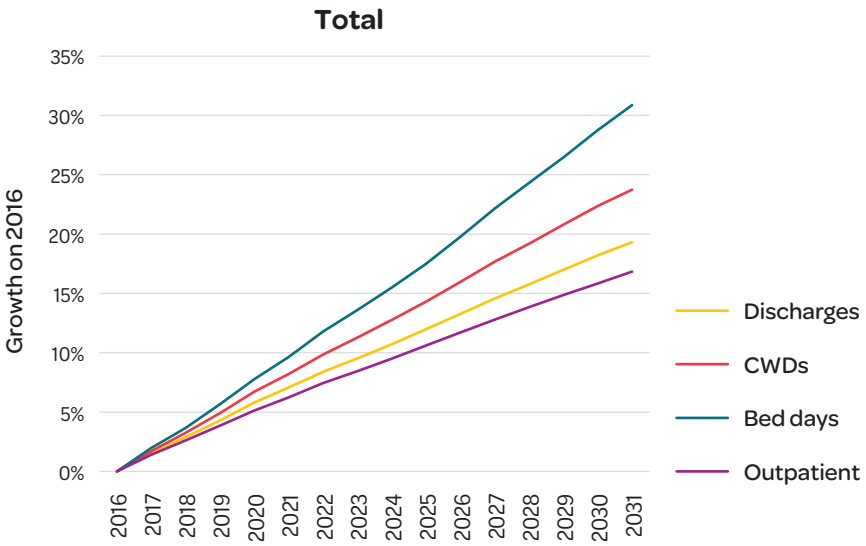
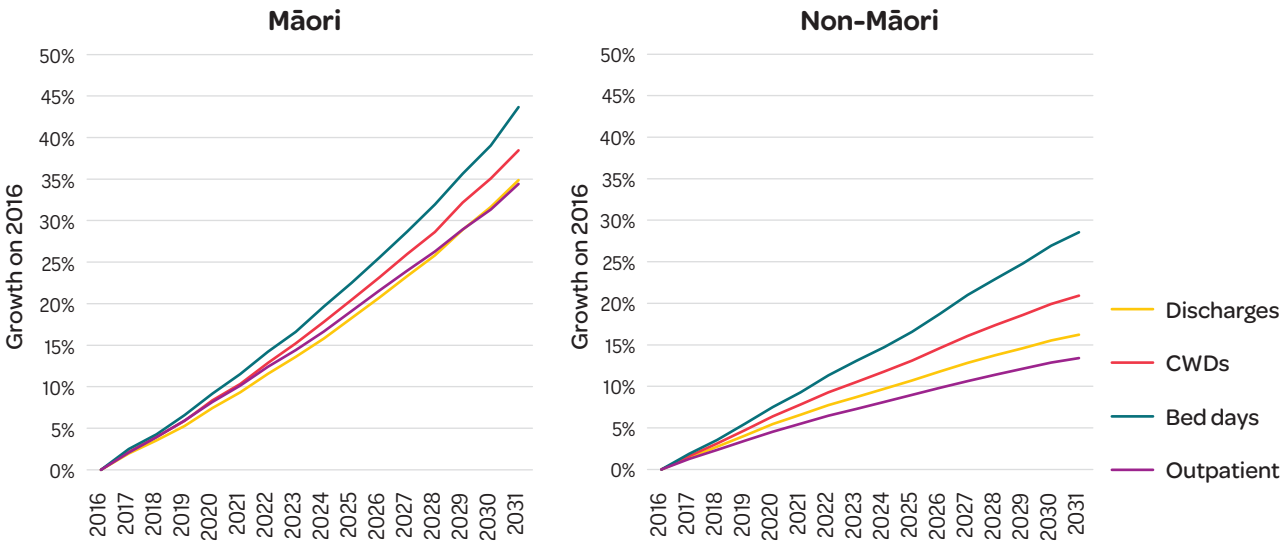


Figure 7 Hospital service demographic demand growth, Māori and non-Māori

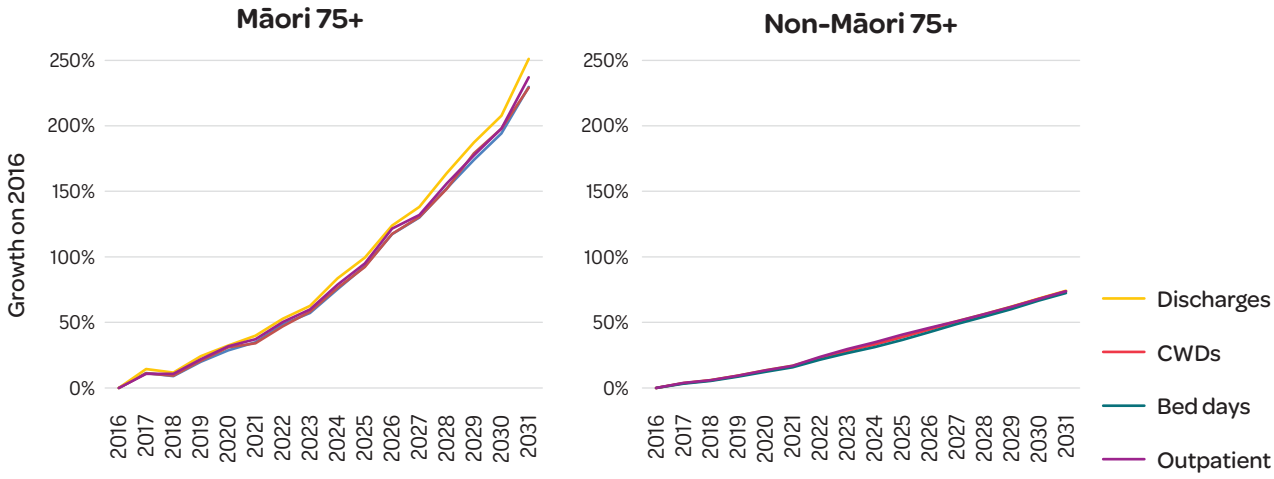


SOURCE: NMDS & NNPAC, Sapere projection

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 increase of older Māori is projected to be higher than that of older non-Māori. Hospital discharge demand growth for Māori will increase by around 35% compared to 16% for non-Māori. For Pacific people, the overall demand growth is more moderate as our Pacific population is not projected to increase significantly.

The absolute numbers of Māori and Pacific people aged 75 years and over, remain much smaller than those of non-Māori and 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 people living into old age is to be celebrated, but we need to ensure we deliver care that is appropriate, that meets the needs of individuals and their whānau and carers, and that eliminates inequities within our system.

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



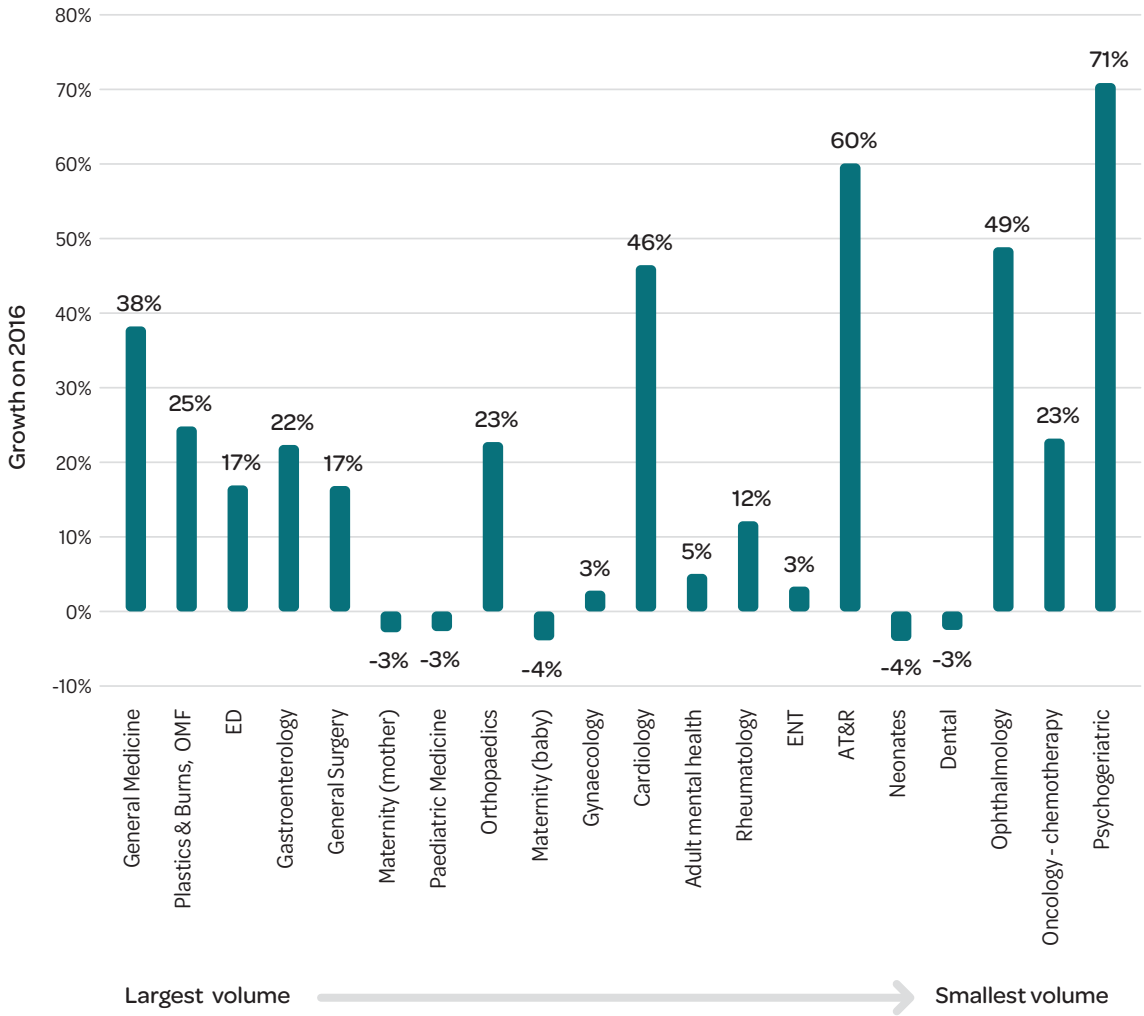
SOURCE: NMDS & NNPAC, Sapere projection

Services for managing our older people will experience the greatest demand

Our ageing population is driving our increasing demand for hospital services, with increases in discharges from 2016 to 2031 in the order of 40% to 70% 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.

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.

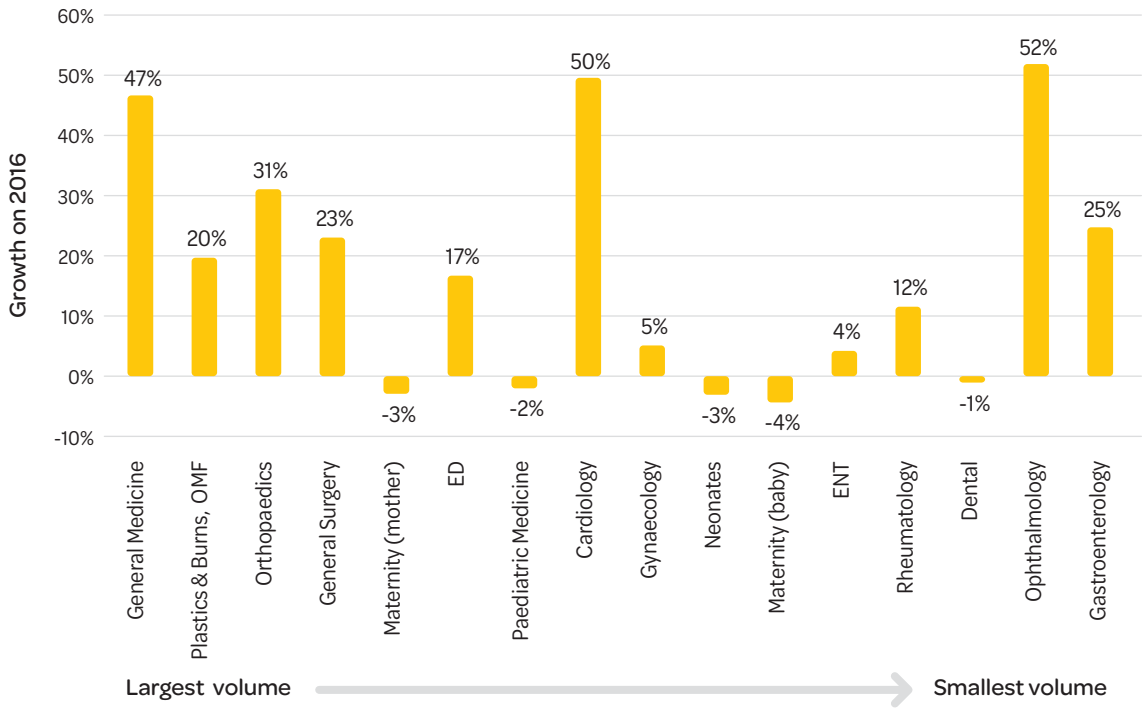
Figure 9 Growth in hospital discharges 2016–2031



SOURCE: NMDS, Sapere projection

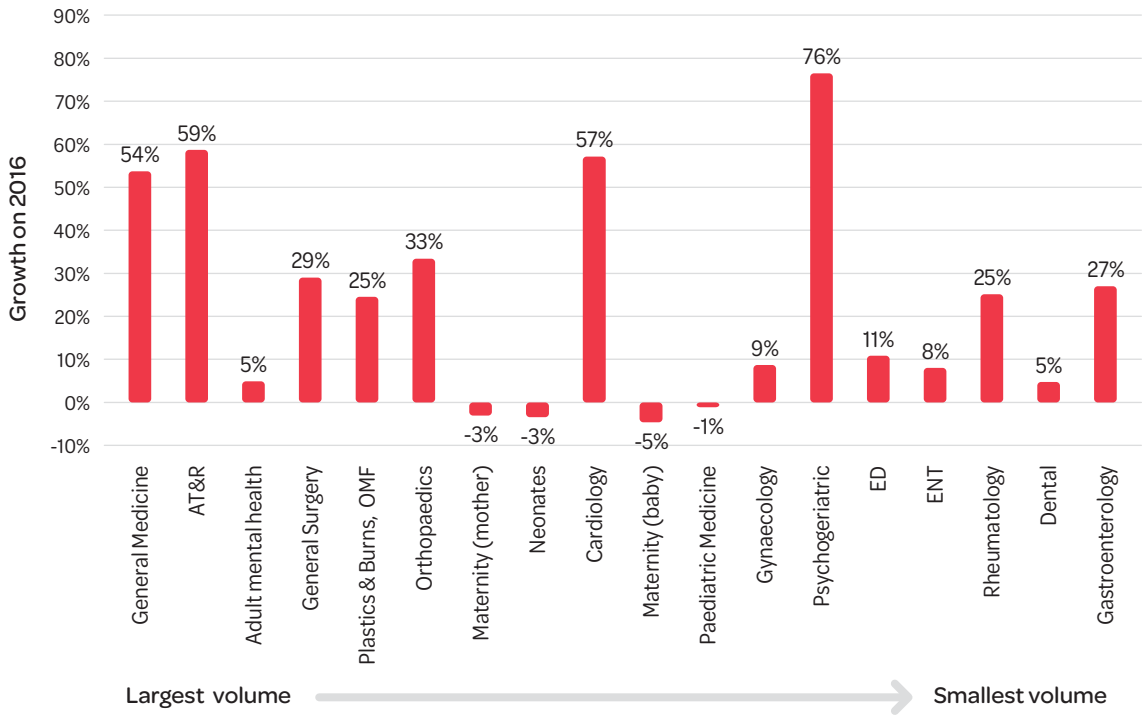
19 Case weights measure the relative complexity of treatment and reflect the required resources.

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

Running out of beds

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

Figure 12 Bed use forecasts

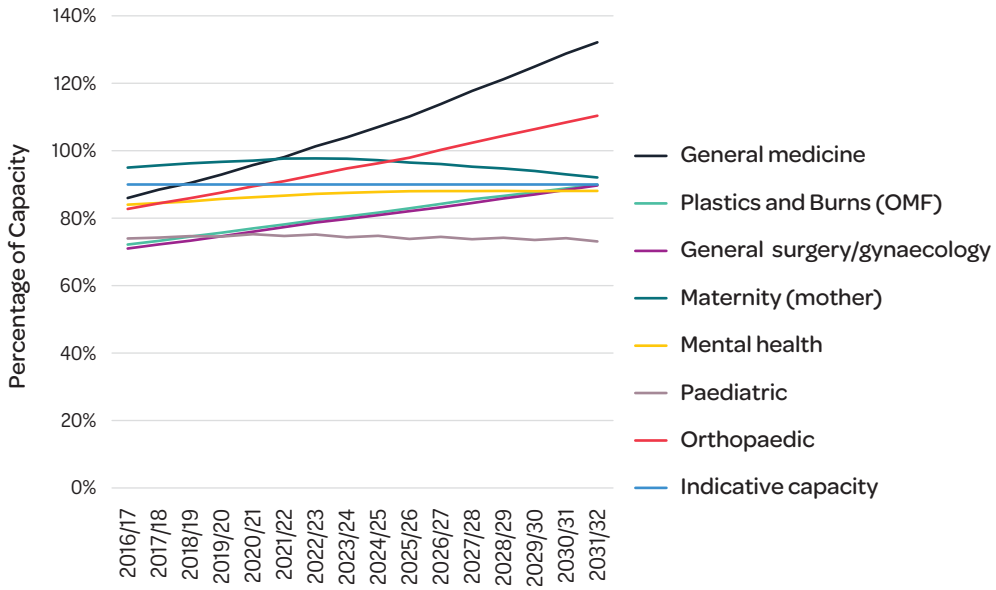
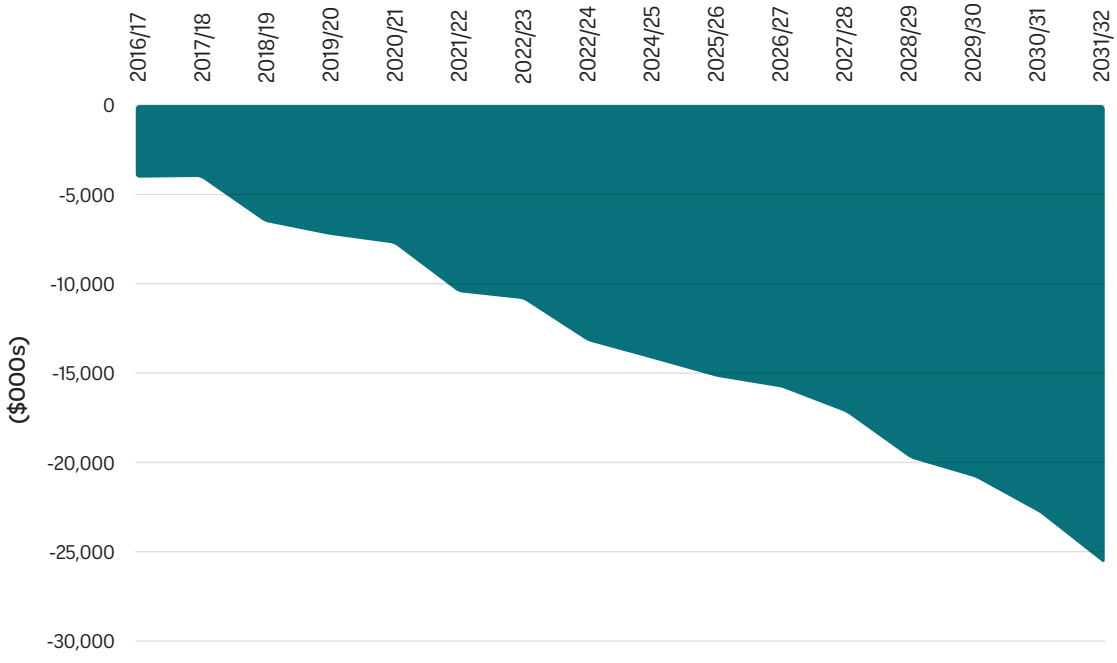


Figure 13 Forecast deficit to 2031/32



Service delivery issues

In general, we provide a good health service for most people. 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 future demand to the standard our community expects.

We have 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 to be 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 exists 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 are unable to 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 a lower-priority. 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 services operate in silos within the hospital and between the hospital and community, and the community itself.
- 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. Our hospital teams (medical, nursing and allied health) must work more closely with our primary care and community providers as part of broader multidisciplinary teams, so 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, when they could and should be seen by health professionals and support workers 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 people 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 ways of communication and contact.

Mixed patient/whānau experience

- 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 run down, not well designed, 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 for patient transfers.
- Long average length of stay for inpatients may have various causes; complex social issues that delay 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, which leads to duplication and is hard for people and whānau to navigate.

Our workforce needs to adapt

- Our workforce is our most valuable asset. We need to build one that is flexible and responsive to rise to the challenges the future brings.
- As with the rest of the world, we have an ageing workforce and more people who are 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 overuse 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 benefit from more cultural competency training.
- In general, our workforce reports being under pressure, to varying degrees, across 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 use new professions, work inter-professionally and maximise available technologies.

We need smart technology and modern facilities

- Our workforce is frustrated with the outdated technology, especially information and communication systems that, in many cases, hinder modern care delivery. We must invest in smart technology to improve access to services (e.g. patient portals, tele-health), 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 a focus on departments rather than people. We need modern, flexible facilities that meet modern expectations of health facilities.

We need a new approach

We need to change the way we provide 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 Vision for Change 2017–2027* which wil be*:*

- *equity:* our decisions will support the elimination of health inequalities
- *people-centred:* our decisions will improve individual and whānau experiences of care, and address what matters most to them
- *outcomes-focussed:* our decisions will improve health outcomes and wellbeing for individuals and whānau
- *needs-focused:* our decisions will be based on where the greatest needs lie
- *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.

Te Tiriti o Waitangi

Māori as the indigenous people of New Zealand have unique rights under Te Tiriti o Waitangi (the Treaty of Waitangi). This means:

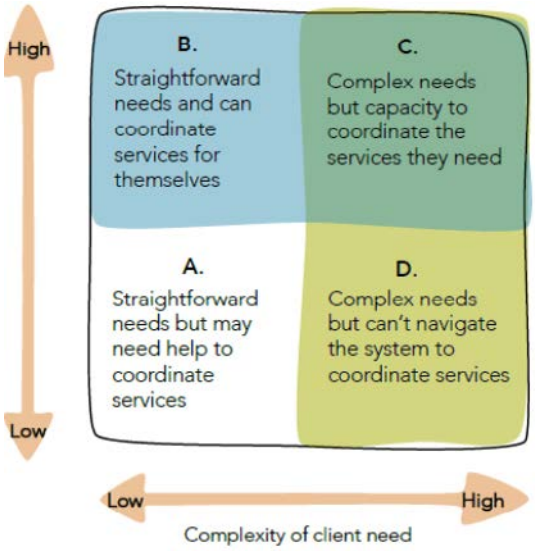
- *partnership:* working together with iwi, hapu, whānau and Māori communities to develop strategies for Māori health gain
- *participation:* involving Māori, at all levels of the sector, in decision-making, planning, development and delivery of health services
- *protection:* working to ensure Māori have at least the same level of health as non-Māori, and safeguarding Māori cultural concepts, values and practices

Clearly Māori experience unacceptable inequities in health access and outcomes. We will apply a rights-based approach to health that meets our responsibilities under the Treaty.

The system performs differently for different clients

The New Zealand Productivity Commission separates different client characteristics into four groups depending on their complexity of need and 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.

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



Overall our health system performs well for most of our population – those with straightforward needs who 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). However, we need to consider what additional support we provide for people with complex needs who 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, wrap-around 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

We will continue to evolve our services 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 transfers back to the community.

Our hospital will be oriented to older people, who are frail. These people and their medical conditions drive our rates of growth in surgery and medicine. Our community and primary care resources should be able to identify those who ought to be connected in to our services but are not.

We need the same vigour in delivery of Women's and Children's Health services, with an even greater focus on working locally, in co-designed partnerships with families, NGOs, 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, or more importantly don't use, our services, working with them to design services that best meet their needs
- the way we work together in multidisciplinary teams to provide holistic service responses
- how we bring resources to complex service delivery through mechanisms such as Needs Assessment and Service Coordination (NASC) functions
- our tools for predicting, identifying and resolving 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 face 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 on providing more preventative, primary and community health services, so people receive high-quality care closer to home at the lowest-cost opportunity. In the community, we must 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 by implementing new models of primary and ambulatory care; and we will 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. In most cases we are not suggesting reducing the absolute number of discharges, but reducing 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 determine the absolute number of beds our hospital will require in the future. It helps us set targets, and more detailed bed modelling will 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). Surgeries that we have outsourced to a private hospital are included. Some of the bed nights will have been spent in the ICU (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 reductions rely upon.

Reducing growth in acute medical care discharges with good primary care

Scenario: Instead of the full demographic growth, we constrain this to just 20% of demographic growth each year, for 10 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

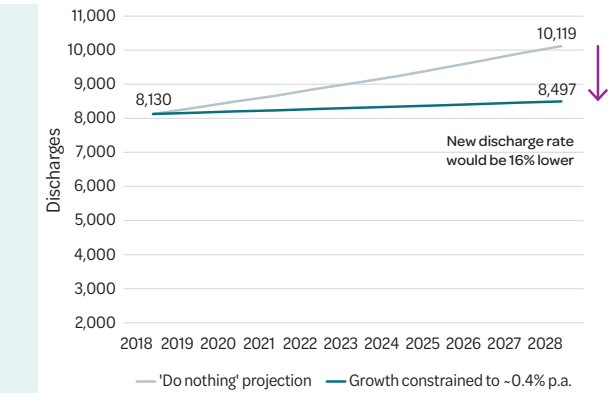


Figure 15 Impact on total medical beds

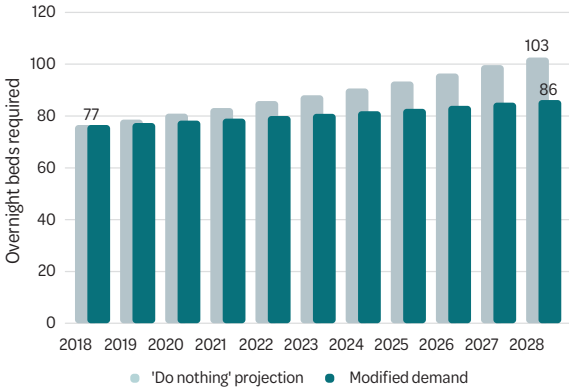
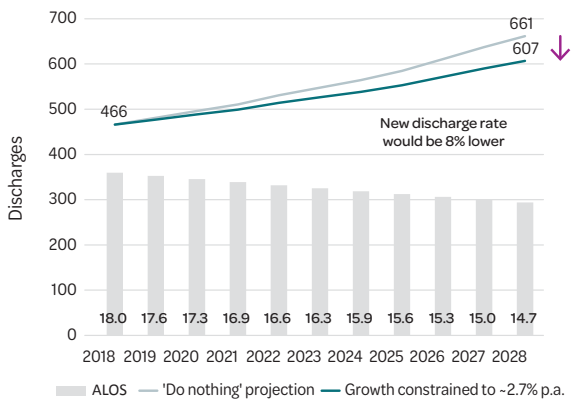


Figure 16 Rehab (65+) discharge scenario



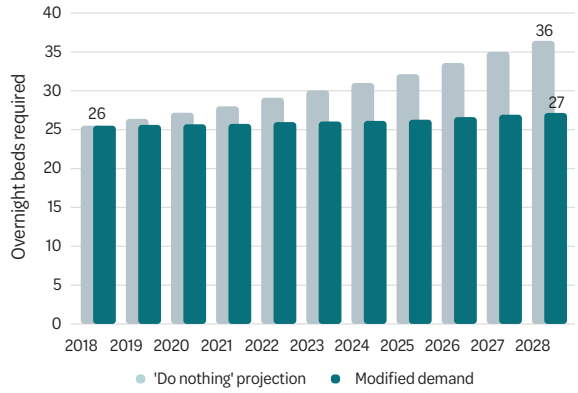
Holding rehab bed numbers

Scenario: Instead of the full demographic growth for people aged 65+ years, we constrain this to 75% of demographic growth each year, for 10 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 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] that 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 alternatives to inpatient rehabilitation) we could potentially hold the number of acute hospital rehabilitation beds we need.

21 **ahsri.uow.edu.au/aroc/index.html**

Holding surgical bed numbers

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 discharges 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

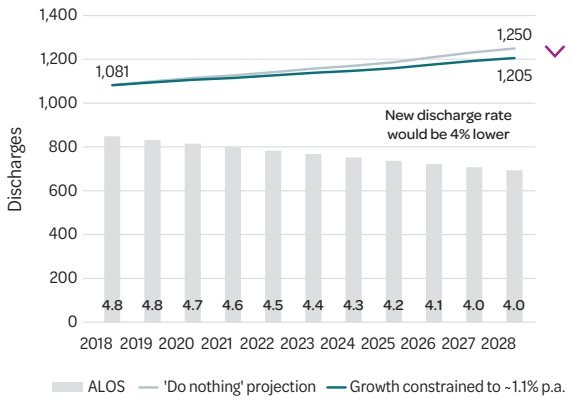
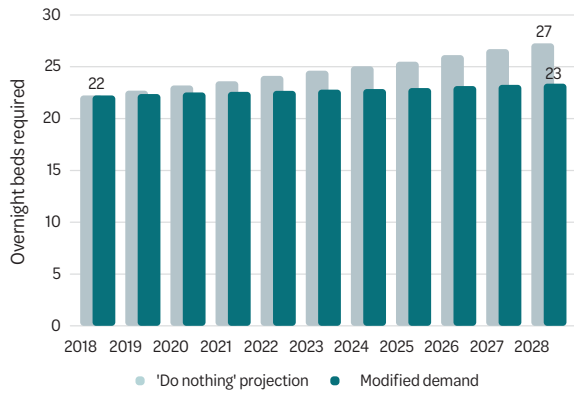


Figure 19 Impact on total orthopaedics beds



Plastics scenario: Instead of the full demographic growth in acute discharges, we constrain discharges to 75% of demographic growth each year, for 10 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

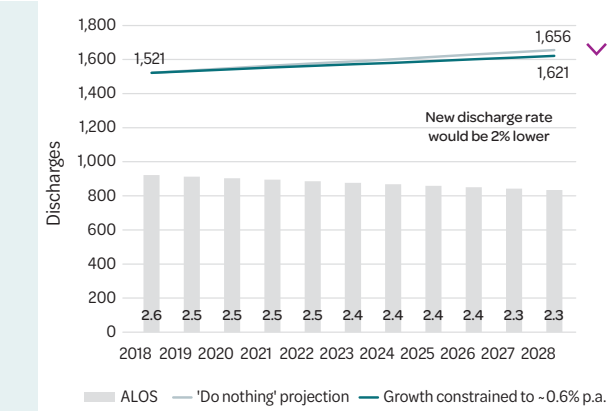
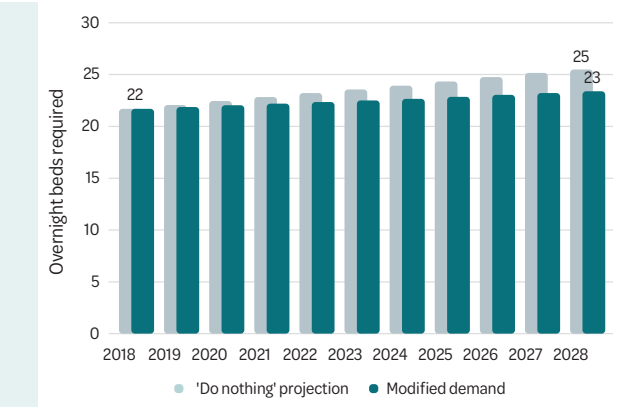


Figure 21 Impact on total plastics beds



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 10 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

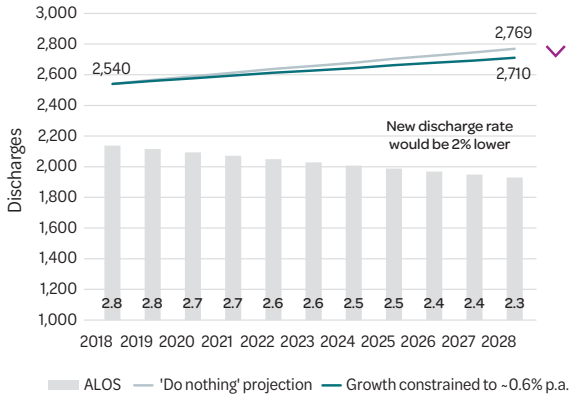
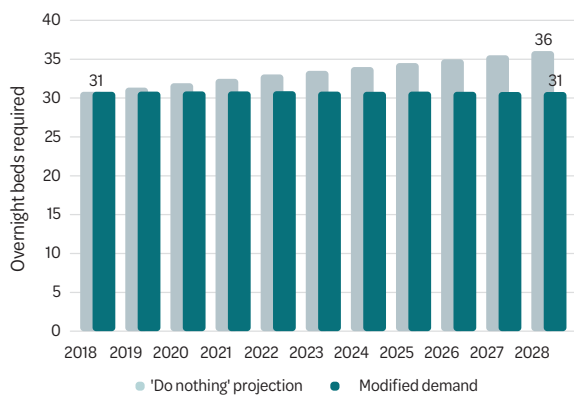


Figure 23 Impact on total general & other surgical beds



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.

Reducing paediatric admissions year on year

Scenario: Acute paediatric medical discharges decrease by 3% each year, for 10 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 by around 3 beds.

Figure 24 Acute paediatric medical discharge scenario

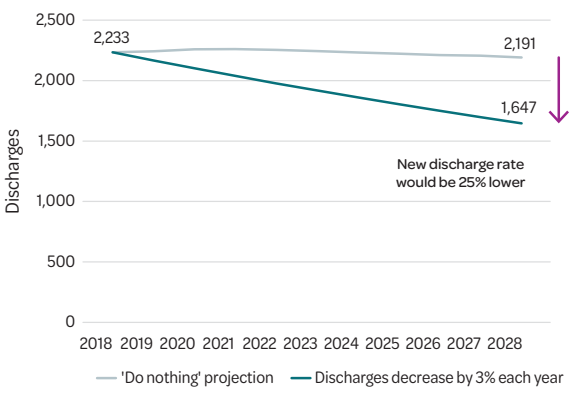
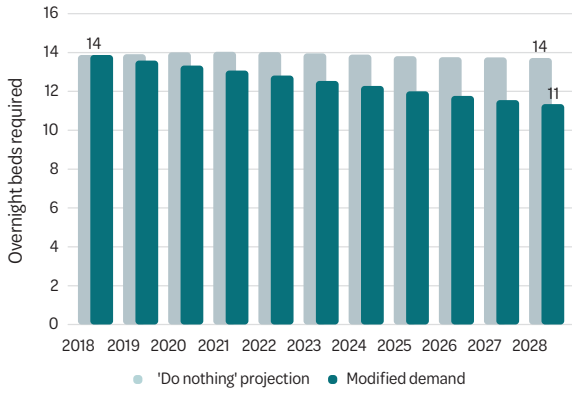


Figure 25 Impact on paediatric beds

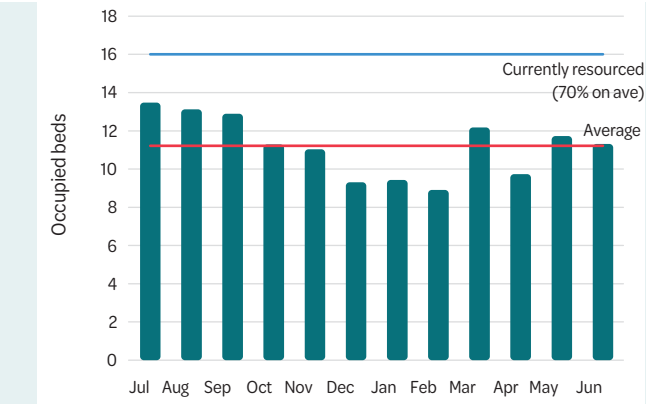


The data above is drawn from the national data collection and is based on paediatric health specialty codes and overnight surgical cases for children aged under 15 years. It may not align exactly to occupied beds in the paediatric

ward, and together with an occupancy planning benchmark that is slightly higher (75%) than the actual average (70%), suggests a slightly lower bed requirement (14) than is currently resourced (16). Figure 26 below is drawn from the DHB's own occupancy reporting and shows current resourced beds against monthly and average annual occupancy.

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

Figure 26 Occupied paediatric beds by month, 2017/18



Summary of inpatient scenarios over 10 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 putting communities, individuals and whānau at the centre of planning and decision-making to identify issues and design responses. Institutional boundaries focus on whānau need rather than the individual service or administrative silos. Decision-making is participatory and consultative with those using services. At the heart of this co-design approach, the community, health planners, other social service agencies (education, justice, police, social welfare, Oranga Tamariki) and local authorities, come together to tailor relevant solutions.

Currently our services are designed around our institutional boundaries, rather than communities. Our hospital and primary care services rarely look at geographic areas and work with communities to design and plan the services they need. Options and solutions to improve health outcomes can be varied between communities, even down to a neighbourhood level. For instance, some communities will have older people needing more support, others have a higher level of metabolic disease and some may have more residents with complex health and social issues needing more intensive and multidisciplinary services. Some communities will have all these. Collaborative place-based approaches are the most effective when the problems are complex and the solutions are either uncertain or need multiple interventions such as situations where we find greatest health inequity. A collaborative approach is needed and justified in communities with entrenched health and social problems, (for instance 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.

We need to ensure the services and programmes we commission have a strong equity focus to achieve the 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 we all work towards improving health equity.

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 focused on the first 1,000 days of life.

Align 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 of health care providers, 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 include, in particular, mental health services, non-governmental organisations and iwi-based organisations.

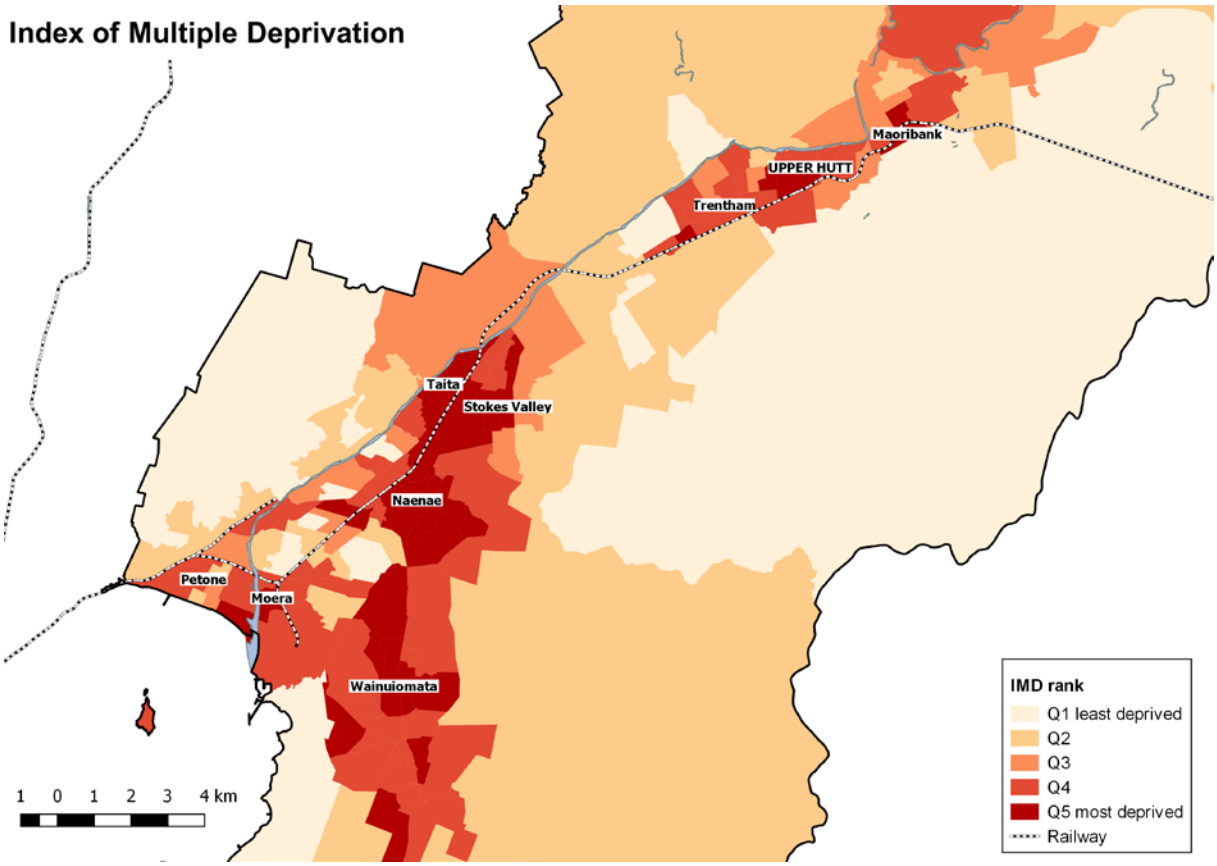
An alliance approach requires different funding and provider stakeholders to agree on common objectives, the use of resources, and where resources should be applied flexibly or shifted across services. Organisational infrastructure supporting the alliance, including a secretariat will be needed. The formality of an alliance provides the mechanism for making resource decisions jointly, and sustainably.

Coordinate regionally but act locally

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

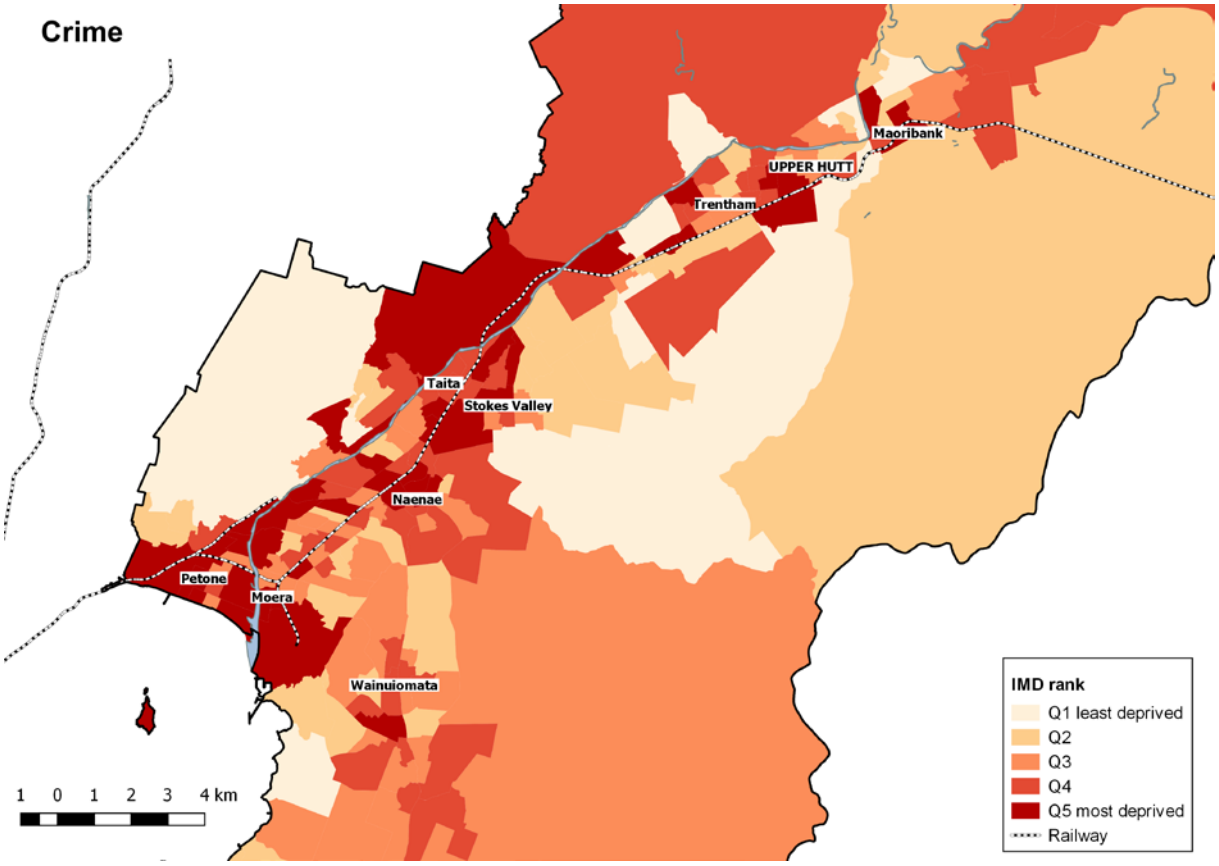
According to the IMD overall measure of multi-dimensional deprivation, the Hutt Valley has a higher proportion of areas classed as quintile four or five (the most deprived) compared to New Zealand as a whole. Priority areas include Taitā, Naenae, Wainuiomata, Moera, the western side of Stokes Valley; 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 with 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 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:

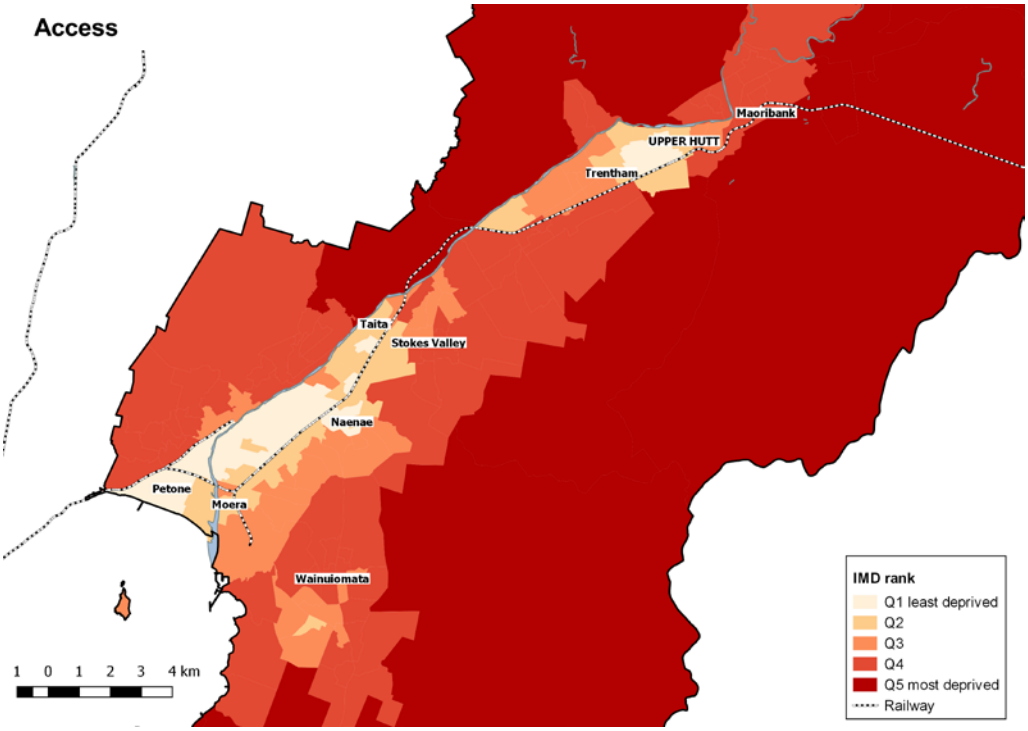


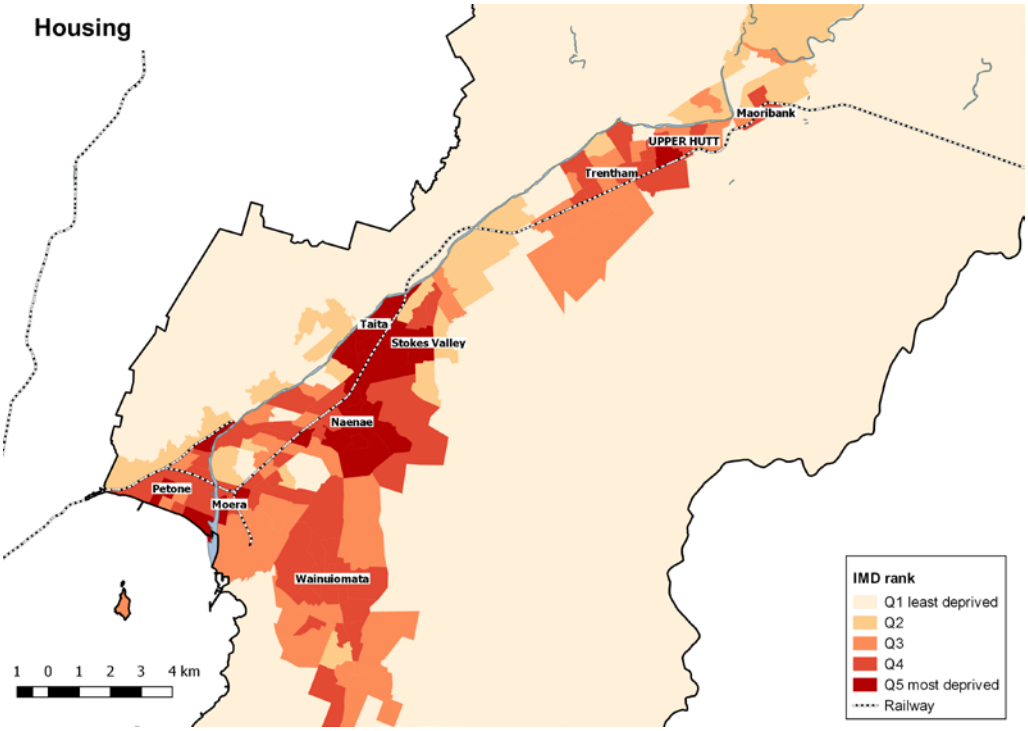
"The access index shows us the least well-served areas... are Wainuiomata, Stokes Valley and northern parts of Upper Hutt..."

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 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 there).

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.


Access
Maoribank
UPPER HUTT
Trentham
Taita
Stokes Valley
Naenae
Petone
Moera
Wainuiomata
1 0 1 2 3 4 km
IMD rank
Q1 least deprived
Q2
Q3
Q4
Q5 most deprived
Railway


Housing
Maoribank
UPPER HUTT
Trentham
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Stokes Valley
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IMD rank
Q1 least deprived
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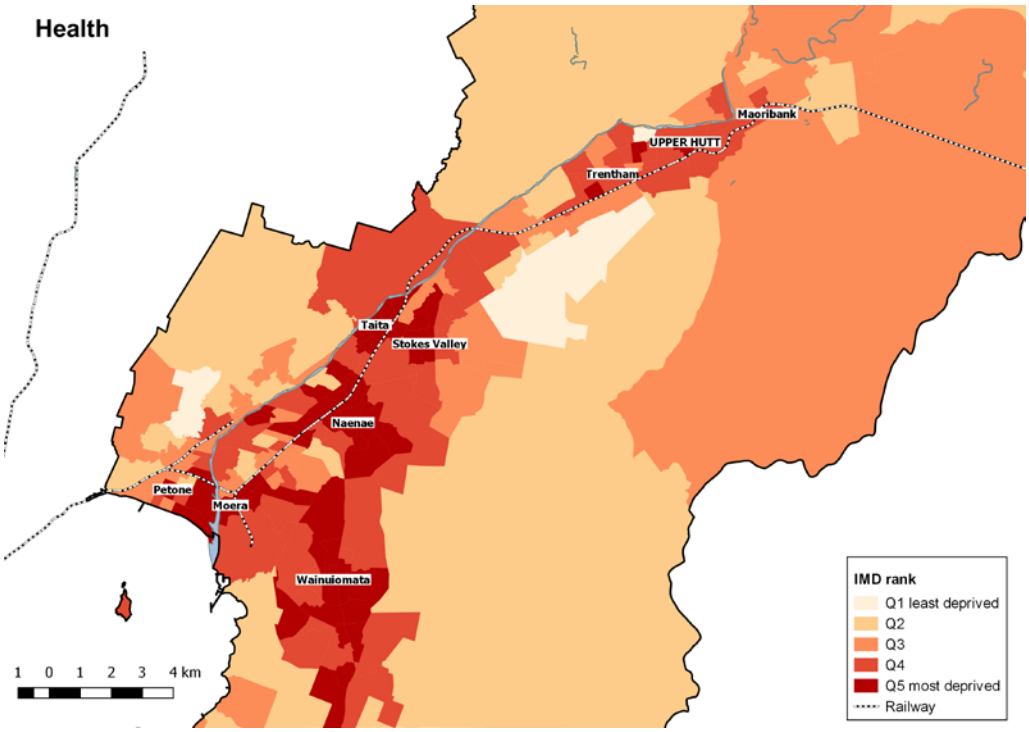
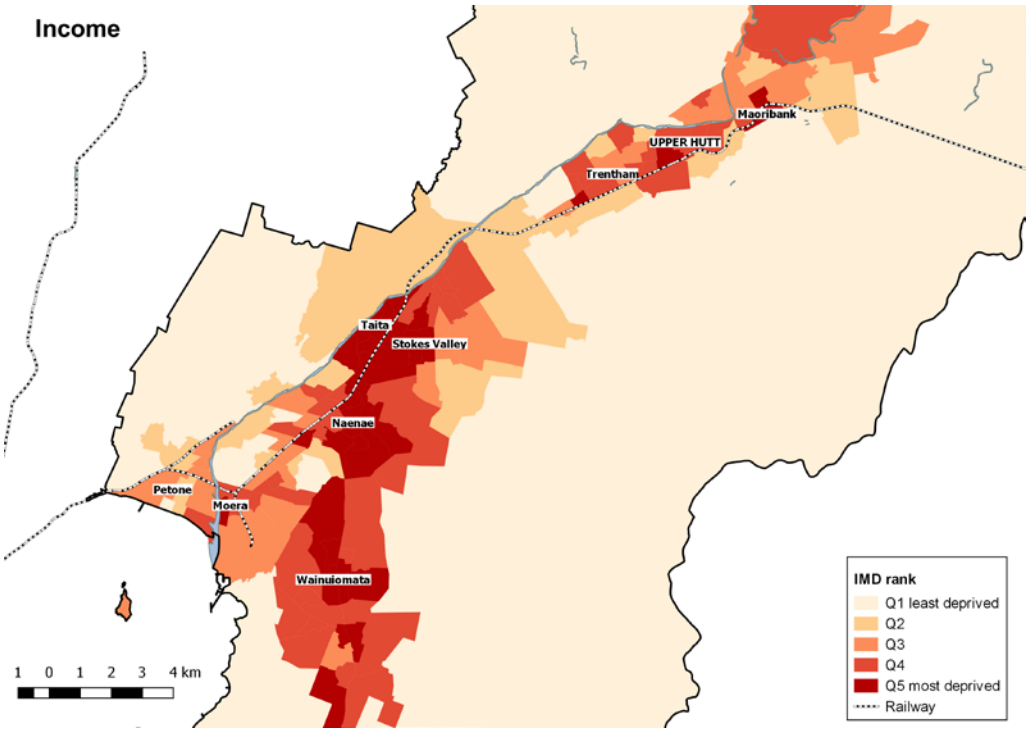
Q4
Q5 most deprived
Railway


Health
Maoribank
UPPER HUTT
Trentham
Taita
Stokes Valley
Naenae
Petone
Moera
Wainuiomata
1 0 1 2 3 4 km
IMD rank
Q1 least deprived
Q2
Q3
Q4
Q5 most deprived
Railway


Income
Maoribank
UPPER HUTT
Trentham
Taita
Stokes Valley
Naenae
Petone
Moera
Wainuiomata
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IMD rank
Q1 least deprived
Q2
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Q4
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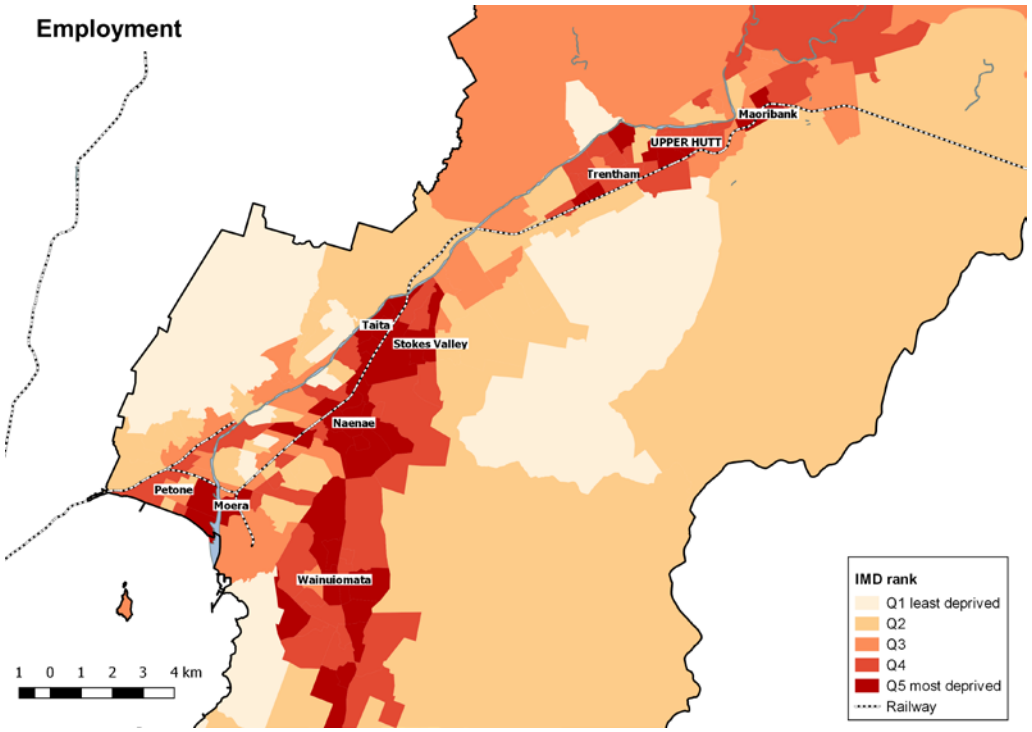
Railway


Employment
Maoribank
UPPER HUTT
Trentham
Taita
Stokes Valley
Naenae
Petone
Moera
Wainuiomata
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IMD rank
Q1 least deprived
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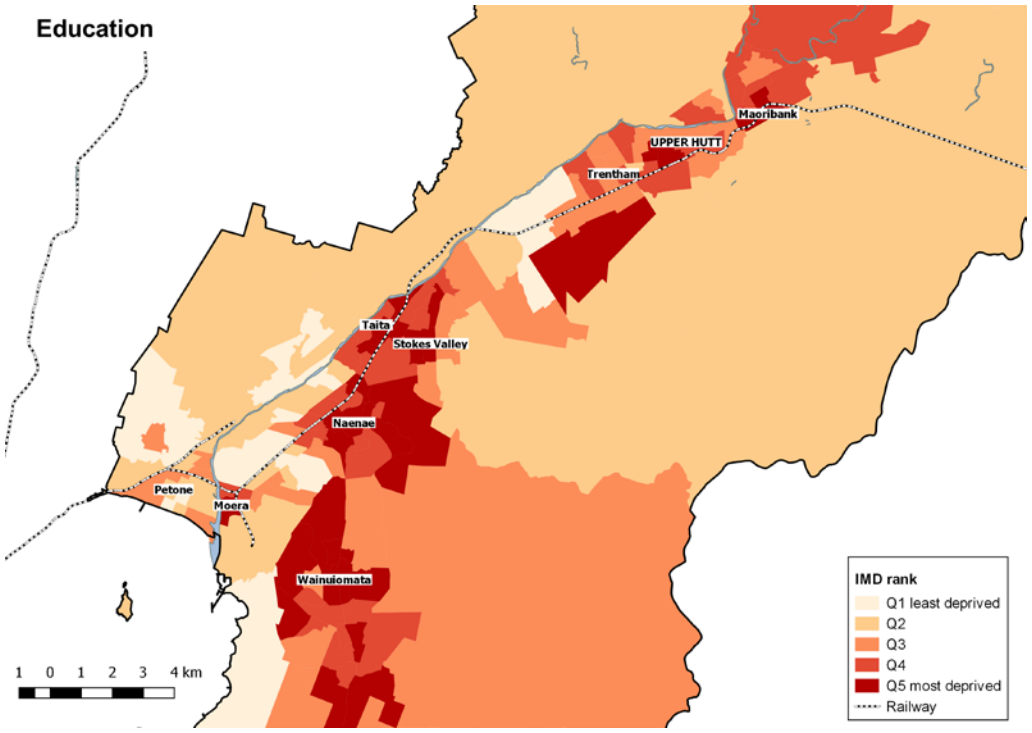
Railway


Education
Maoribank
UPPER HUTT
Trentham
Taita
Stokes Valley
Naenae
Petone
Moera
Wainuiomata
1 0 1 2 3 4 km
IMD rank
Q1 least deprived
Q2
Q3
Q4
Q5 most deprived
Railway

Start in areas with the greatest need

We will start by focusing on our communities with the poorest health and social outcomes, and work with them towards a goal of achieving equity. We will initially focus on:

- 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.

We will develop/optimise internal and cross-agency collaborative arrangements, including infrastructure and processes, and identify the range of need and current service issues.

Our services will be reviewed to identify how they can be improved where there are gaps. We will work with communities to identify priorities and design services.

Agreement will be reached on where resources will be targeted and used, and how each provider will play a part. We will commission services as our alliance proposes, facilitating the delivery of services for complex social need that allows carers from different organisations to be part of a Hutt Valley wide team with a single goal and agreed approach.

We will also:

- develop a cross agency triage process for at-risk tamariki and whanau
- develop and initiate integrated agency responses for at-risk tamariki and whānau
- monitor outcomes.

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

A vision for a specialist-led community gynaecology service in Wainuiomata

The community-based service located in Wainuiomata will provide specialist-led care for routine gynaecological conditions. The service will be provided by appropriately qualified clinical practitioners. The specialist will retain overall clinical responsibility for the service, the care team and quality of patient care and treatment. The specialist will not necessarily be physically present for all consultant-led activity but will take clinical responsibility for each individual's care. The service will receive referrals from GPs. Specialists and GPs will work collaboratively to develop shared care pathways and a seamless service across primary and secondary care. Strong relationships will be built with primary care, acute secondary care, other multidisciplinary services (e.g. physiotherapy), other support services and the wider community.

Services provided could include:

- minor surgical procedures such as hysteroscopy
- urinary incontinence/prolapse/urodynamic studies/pessary changes
- menorrhagia/ dysmenorrhea/ period problems
- menopausal symptoms
- vulvo-vaginal symptoms/lesions/cervical polyp removal
- subfertility
- benign ovarian cysts
- polycystic ovarian syndrome
- fibroids.

Prioritising the first 1000 days

The first 1,000 days is the time from conception to a child's second birthday. There is a growing body of evidence proving experiences during the first 1,000 days provide the foundations for lifelong health and wellbeing. Due to an infant's dependence on their parents and whānau during this time the wellbeing of whānau is integral and must be considered in how we provide services. To optimise the first 1,000 days there needs to be a focus on a healthy whānau, mother, pregnancy and early childhood. This is why we focus on investing in the 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 1,000 days as a priority in our CSP.

We recognise health services cannot be designed in isolation from social services. We need to refocus on meeting complex health needs and, at the same time, work with those who resolve complex social needs. In place-based planning, we talked about how we will prioritise our commissioning and stated that we will focus on the first 1,000 days of life. In this section we talk about how we will work with our whānau to deliver better services during this time of life.

Fragmented services not reaching all

There is a range of services in the first 1,000 days of life/early childhood area. Services for whānau include maternity, ante-natal, maternal mental health, Family Start, general practices, Well Child Tamariki Ora, school and community dental, and out-reach immunisation services. Other services include HealthLine, whānau ora providers, Pacific health providers, healthy housing, after-hours services, our paediatrics, and our Emergency Department (ED). Child development support and allied health professionals (eg speech therapists) also work with some families/whānau.

Most whānau know how to connect with these services and make good use of the health system. Often these 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 offer a range of virtual and electronic options for accessing services.

We are however, concerned for those who do not connect well to these services. We are not meeting the needs of a significant number of people – particularly families with trans-generational disadvantage and psychological trauma. We experience expectant mothers presenting late to our maternity service, we identify children living with family violence and we have presentations to our ED that suggest a wider view on health is needed. Currently we tend to only treat the specific episode prompting presentation. Our community providers see the same thing. Many of the problems encountered by these children and whānau are multi-faceted and cannot be addressed by one intervention or agency alone; multiple interventions need to be 'joined up' and coordinated in order to be effective. We see many of these occasions as systems failure and, for us, an opportunity to do better.

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

We can achieve relevance and reach by starting with the individual and whānau, rather than the service. Some services are already meeting broader needs by taking a whānau ora approach, and we need to bolster and expand these, ensuring they link in with the wider range of services. In particular, we need to make sure our whānau ora services are networked in with Health Care Homes. We will work with high-priority communities (as identified through our place-based planning approach), to develop a local approach to 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.

Organising our services

- Identification of vulnerable families through place-based approaches and pathways to care.
- A central coordination mechanism. We need active tracking and seamless hand-over to other providers as our 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 need
  - robust criteria-based access protocols
  - agreement on care coordination and what services are provided by who, where, and how they are interlinked.
- A network and partnership approach across our key providers including paediatric services, primary care, whānau ora providers, Pacific health and mental health services.
- Any door is the right door. We need to identify remaining barriers to accessing services – irrespective of whether that service setting is in the community, primary or the hospital. A referral from any point into the central coordination point is legitimate and will be assessed for service response.
- Case management: We will need community-based case management and services. Case management must be for whānau rather than individual-focused. Robust criteria-based access protocols will be developed.
- A culturally responsive workforce to deliver services: We need to ensure all 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 ED. Once the model has been developed, the range of referral sources will 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.

How this affects the way we work

Working in this way will have material implications for some 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.

It will also require authentic partnerships and governance arrangements between our key health and social providers working together across organisational boundaries towards a common goal. This will not be simple and will require collaboration and partnership at the highest levels.

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 midwifery workforce pressures. Alongside this we need to address our higher than national average caesarean rates, 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 those mothers who are most vulnerable in our community and support them through gestation to birth and 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 partner with these services in the community.

A community-oriented 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 community-oriented. This will include the full range of disciplines involved in paediatric care, including medical, nursing, dental and allied health professions.

We can do far more work with general practice and community providers, but changing practices will take time and resources. For instance, our hospital-based children's health service currently sees many children who 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 must 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.

> "... working in a new way will require authentic partnerships and governance arrangements between our key health and social providers with all of us working together across organisational boundaries towards a common goal."

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 unable to address all the health and related social needs of our 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 more health conditions to monitor, pharmaceutical, and other health interventions, to manage. Patients' cognition and social conditions change. These all put pressure on general practice and the services around it. We want an expanded primary care workforce that can relieve the burden on general practitioners.This will allow 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.

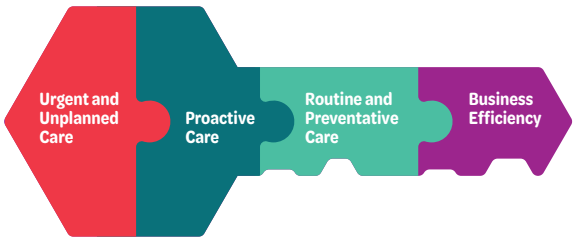
Our community health providers are also under significant strain. The level of unmet need and social complexity they are encountering has increased significantly in the last 5–10 years. We want our whānau ora and community health providers to be organisationally strong, with a well trained and equipped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

Health Care Homes – a main focus

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

The model has four core domains –

1. Timely provision of 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 preventative 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 services are delivered.



The changes, when fully in place, are a real improvement in service for patients as well as reducing pressure on general practice staff. The model aims to be patient rather than provider driven. There are different ways of providing consultations, including virtual care where appropriate. There is more emphasis on 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 coordinated and shared amongst providers. The general practice itself will be 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 Health Care Homes

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 preventative 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, are in a number of clinical areas internationally and in New Zealand.

Making Good Progress

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 more resilient organisations, with highly competent staff working together with greater effect, and robust and timely clinical support, 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.

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

Matching care to need

Health Care Homes, as well as the reorientation of specialist services to support comprehensive delivery of services in continuity with primary care, is our primary response to medical care needs.

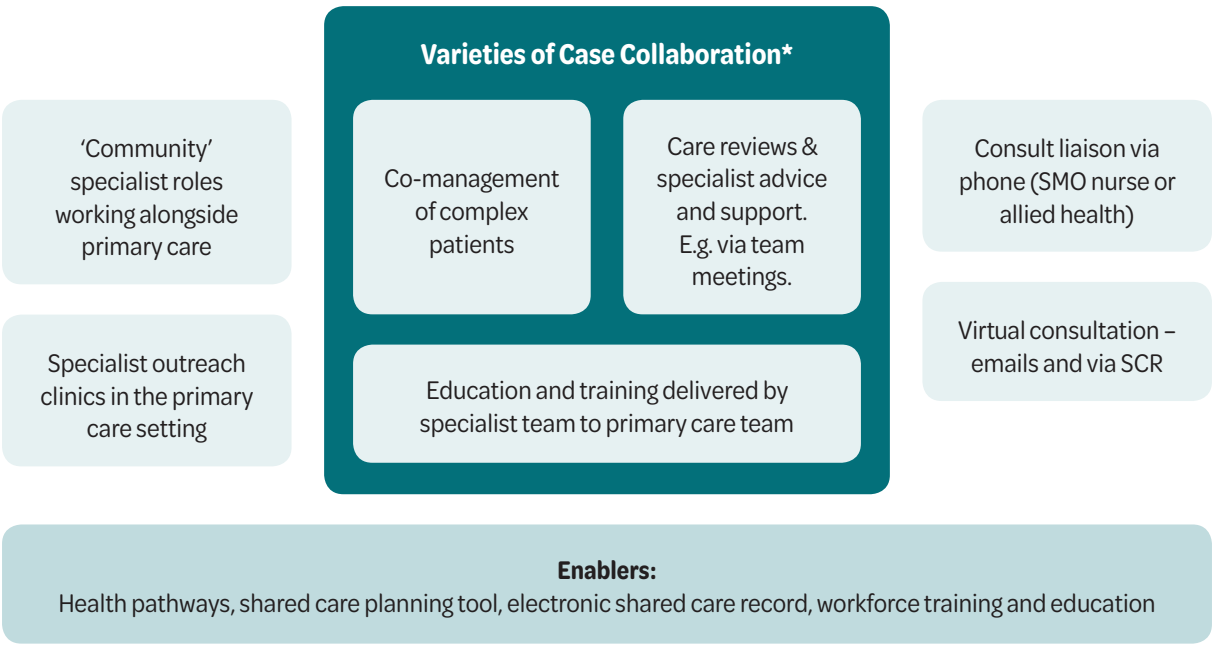
The levels of care offered will change in response to people and whānau with different levels of need:

- complex case management, working with partners across providers and disciplines
- long-term conditions requiring disease management and supported self-management
- acute care, with triage, and 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 options for providing acute care can be extended to cover a wider range of activity providing a range of services in situations where primary care teams believe they can reduce hospital admission, with comprehensive services including; practice support, mobile nursing service, home IV therapy, logistical support, extended care management, urgent tests/investigations and doctor visits, and home support.

The Nuffield Trust[24] describes this shift of balance of care well. Some cases are complex, such as some of those we discuss in the first 1,000 days of life. However, many cases may not be complex but need oversight and support from specialist medical, nursing and allied health teams so primary care can manage them well. Some of this is about capacity (e.g. having nurses based in Health Care Homes), some about skills (such as diagnostic skills), some about access to the right diagnostics, and some about the ability to look across the health pathways in the district, and optimise them locally.

Continuum of specialist support to primary care teams



* Care Collaboration can be delivered in a variety of ways and depends on the needs of each practice.

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

In light of the place-based planning process, and particularly for the 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 some specialist services in those facilities. In the medium term, if our place-based processes identify it as appropriate, we may consider purpose-built facilities to bring specialist services from the hospital setting to communities. Extended primary care facilities could provide a range of decentralised services such as chemotherapy and dialysis in the community, as well as cardiac and respiratory rehabilitation services.

We expect improved access to specialist services in the community will make them more responsive and reduce inequities in access, improving 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.

More detailed analysis of what is needed 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 multidisciplinary teams, 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, focused on the three strategic directions in *Our Vision for Change 2017–2027*: 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 the pharmacy contract will provide greater flexibility in commissioning pharmacy services, allowing for a greater diversity in the way pharmacy responds to communities across the Hutt Valley, and more flexibility in the way that pharmacy collaborates with the wider primary care team.

Integrating mental health services

Our mental health 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 aim, 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 with our whānau ora providers to assist in generating tailored solutions to complex whānau needs.

Medical and nursing specialists support primary care in a different way

Over the years many services have become centralised in hospital settings. In the future more services will be provided in the community. A decentralised approach will provide more direct and comprehensive support through primary care.

Technology and changing practice have moved a proportion of sub-specialist 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

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 is taking 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), interventions (such as injectable antibiotics to treat cellulitis) and advice. Sometimes these components are missing, 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, will expect primary care to become fully supported by 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 patient outcomes are achieved, as well as using those pathways to progressively improve what we do. We must 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 invest to make sure primary care has access to diagnostics and 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 have 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 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 who need it, to avoid 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. We will also work with Wellington Free Ambulance to support treating people at home or taking them to after-hours rather than ED, if appropriate.

> “Health Care Homes will provide extended hours to their patients, reducing demand for after hours services and providing continuity of care.”

A primary care vision for 2028

The table 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 • Multidisciplinary 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 • Care coordinators • Requirement for primary care staff to work with Māori and Pasifika communities 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 Māori, Pasifika, Hospice, WCTO ✓ Oral health ✓ 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 including: ✓ Infusion services ✓ Dialysis ✓ Chemotherapy ✓ Advanced skin cancer surgery ✓ Access to diagnostics ✓ Other therapeutics (joint injection) ✓ Endoscopy ✓ Oral health	<u>Workforce enablers</u> • Coaching • Pharmacists • Practice nursing with skills in chronic care management • 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 including e-therapies • 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	Access to advice and support from specialist services: ✓ Cardiology ✓ Respiratory ✓ Geriatric ✓ Paediatric ✓ Oncology ✓ Mental health ✓ Oral health ✓ Pharmacy ✓ Community physical therapists and Pain management services ✓ Maternity and WCTO

	Description of Service	Enablers	Integration points
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 including access to GPs on line Includes direct access to GP on-line • Same day and afterhours acute services in General Practice • Access to services including radiology, urgent diagnostics, and Fracture Services • Point Of Care ultrasound • Point of Care testing • Rapid response community • POAC • Monitoring services in acute care (e.g. low risk chest pain, AF, intermediate care options)	Workforce enablers • GP skilled in acute care (A & M level) IT enablers • 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 ✓ Oral health
Preventative management for those at risk (includes screening) **Targeted groups**	• High CV risk, metabolic disease and diabetes • Cancer screening (cervical, breast and bowel) • Osteoporosis • Immunisations	Workforce enablers • 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	Workforce enablers • 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

Maintaining the wellbeing of older people

Recognising and respecting 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. It is important to recognise that ageing does not necessarily follow a chronological order; older people are not a homogeneous group and age at different times and in different ways.

The health and wellbeing of older people is often a result of cumulative disadvantage experienced over the course of their life. For Māori in general the process of ageing occurs earlier and they die younger, which is a stark demonstration of the inequities Māori experience.

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 we will 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.

Improving services for older people requires us to consider each component of care, since many older people use multiple services, and the quality, capacity and responsiveness of any one component will affect others.

The key components are:

- healthy, active ageing and supporting independence
- living well with simple or stable long-term conditions
- living well with complex co-morbidities, dementia anjhyhuhd frailty
- rapid support close to home in times of crisis
- good acute hospital care when needed
- good discharge planning and post-discharge support
- good rehabilitation after acute illness or injury
- high-quality residential care for those who need it
- choice, control and support towards the end of life
- integration to provide person-centred coordinated care.

Ageing well and staying independent

Older people should be able to enjoy long and healthy lives, feeling safe at home and connected to their community. Loneliness, social isolation and social exclusion are important risk factors for ill health. Effective interventions to combat older people's isolation and exclusion often combine public services action with volunteering and greater involvement by families and communities. We already have some excellent community-based, Māori and church-based groups supporting older persons and there is more than we can do to further support community action.

The quality, safety and affordability of housing can have a significant impact on the ability of people to remain well in their own homes. Older people are particularly vulnerable to poor health and hazards as a result of substandard housing; they are more likely to have long-term chronic conditions, be more susceptible to home hazards and more

likely than other age groups to spend most of their time in their homes. Older people, and those with low fixed-incomes, are also most susceptible to energy poverty and vulnerable to respiratory disease. Our *Wellbeing Plan 2018* outlines a series of actions to improve housing for the Hutt Valley, such as establishing a housing working group with key local partners, and building on existing housing initiatives.

Helping people to live well with simple or stable long-term conditions

Older people with simple or stable long-term conditions should be enabled to live well, avoiding unnecessary complications and acute crises. The fundamental principles of effective management of long-term conditions apply to people of all ages. They include population risk stratification, leading to personalised support that ranges from promoting health and wellness to supported self-care and shared care, through to specific disease management, care coordination approaches and case management. Our service response and effort increase as levels of risk and complexity increase. Risk stratification and year-of-care planning are core pillars of the Health Care Home model; primary care teams will undertake risk stratification through the health care home. Older people will be proactively screened and supported to live well with an increasing range of long-term conditions.

A key aspect of good management of long-term conditions will be ensuring that services and support provided reflect the person's, and their whānau's, circumstances and preferences. Another important role is supporting the carers, ensuring appropriate respite, support and learning opportunities are available for those caring for older persons.

Helping people live with complex co-morbidities, including dementia and frailty

Health and care services should support older people with complex multiple co-morbidities, including frailty and dementia, to remain as well and independent as possible and to avoid deterioration or complications as much as is practical. Frailty will be identified through conventional risk-scoring tools, and people who come into contact with the system with problems indicating frailty should receive initial screening, combined with comprehensive geriatric assessment and appropriate referrals to our assessment service (NASC).

The key elements of our approach will include screening, assessment and prevention as follows –

- Designing a tool for the identification of the pre-frail elderly alongside key partners.
- Screening at key points of the health system (ED, inpatient admission) for signs of frailty, dementia or elder abuse, or other conditions that would benefit from an assessment or treatment.
- Comprehensive geriatric assessment (CGA). A 'multidisciplinary, diagnostic process to describe the medical, psychological and functional capabilities of a frail older person in order to keep a coordinated, integrated plan for long-term treatment and follow-up'.
- An interRAI assessment, where appropriate, and undertaken where at all possible in the person's home.
- Support for physical exercise. Encouraging frail older people to take more exercise can improve outcomes and functional ability.
- Comprehensive falls prevention services, focusing on identifying and addressing risk factors such as postural instability, muscle weakness, visual impairment, home hazards or 'culprit' drugs.

Wherever frailty has been identified (primary care, hospital or aged care), the appropriate assessment will take place (e.g. interRAI Contact Assessment or Community Health Assessment), care plans will be developed and/or rapid response services and supports provided (or referrals made). The older person and his/her whānau or support person will be involved in all aspects of designing the care plan. If the older person is in an Aged Residential Care facility, that facility will be involved in the care plan development.

We will develop a comprehensive dementia model of care tailored to our population and aligned to the national framework for dementia care. The Health Care Home will, in most cases, provide the point of ongoing continuity of care, working with specialist workforces and key NGOs such as Alzheimers NZ and aged residential care services. Key elements of the model will include –

- Providing accurate early diagnosis, information and support for people with dementia and their carers when the condition begins to cause problems that are life-limiting.
- Ensuring that efforts to increase diagnosis rates are combined with adequate capacity in support services, including specialist psychogeriatric services.
- Reducing antipsychotic prescribing.
- Providing education and training to carers of people with dementia in how to support someone with that condition and navigate the system.
- Enhancing early supported opportunities to plan ahead for end of life.

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 community-based care teams supporting Health Care Homes within the boundary determined for the community (as determined through place-based planning). The exact size and composition of the team will be worked through, but at a minimum will include the Health Care Home team, NASC, clinical pharmacists, community nursing and allied health nurses and whānau ora and Pacific health providers. Geriatricians, geriatric 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

Hospitals should provide senior decision-makers near the front door of the hospital seven days a week, with full access to diagnostic facilities and other key multidisciplinary team members, and clear links to step-down or rapid response services. The focus should be on discharging patients who do not need to be admitted so that they can be assessed in the community; for those who do need to be admitted, the focus should be on anticipated discharge dates, clear clinical criteria for discharge, and admission into the right ward setting, under the right team, first time.

Similarly, in primary care, when the health or independence of older people rapidly deteriorates, they should have access to urgent care, including access to the rapid response and early supported discharge teams. We will establish rapid response multidisciplinary teams providing allied health, rehabilitation, equipment, nursing, personal carers, and medical review and/or nursing interventions in the home to avoid hospital admissions where possible. Geriatrician support will be available over the phone. Ongoing 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.

Rehabilitation

Our older people will receive adequate rehabilitation when needed, to prevent permanent disability, greater reliance on care and support, avoidable admissions to hospital, or delayed discharge from hospital, and to provide adequate periods of assessment and recovery before any decision is made to move into long-term care. While our hospital plays a part in ensuring adequate inpatient rehabilitation, most rehabilitation services could be provided in the community. The workforce required for home-based rehabilitation services should have an appropriate mix of skills that may include nurses, therapists, social workers and community psychiatric nurses, and should be led by a senior clinician.

High-quality residential care

We will primarily attempt to avoid long-term care where possible by ensuring our Home and Community Support Services are responsive and integrated within the wider primary and community care team, particularly in relation to older people and their families and whānau who have complex health and social needs. Responsive Home and Community Support Services focus on understanding the individual needs of older people, set goals and provide support services by appropriately trained support workers aimed at maximizing and maintaining independence for as long as possible. They have a strong restorative focus where appropriate, working under the Calderdale Framework. The older person is an active participant in planning their care, setting their own goals, and determining a range of possible services that could support them. Services are flexible (within the scope of support packages), allowing the support worker and carers to respond to the person's individual needs, and to adapt as needs change.

Though some people make a positive choice to enter long-term care, older people should only generally move into nursing and residential care when treatment, rehabilitation and other alternatives have been exhausted. Residents should consistently receive high-quality care that is person-centred. Aged care residents should be provided with enhanced, proactive primary care services that in turn provide access to the full range of necessary multidisciplinary and specialist services, including geriatricians and geriatric specialist nurses, therapists, allied health professionals, community pharmacists, and palliative care clinicians.

We will ensure that our aged residential care providers implement the core components of good quality care, including falls prevention, identification and management of incontinence, proactive medication review and adjustment, reduction in use of psychotropic drugs, and a better focus on end-of-life care.

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 their end-of-life care. Advanced care planning is voluntary; we will respect people's right to choose whether they wish to develop an advanced care plan, and the pace at which 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 who 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. Work is underway to:

- develop a consistent palliative care pathway: implementing strategies to improve the coordination and integration of services and to enhance best practice
- consolidate one comprehensive assessment/care planning tool and process
- establish a 'single point' of service facilitation and access for palliative care patients, re-aligning resources to match this new service specification.

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 persons' 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**

- 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 outpatient and community settings.

2. **Match capacity and demand**

- 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**

- Change processes to make them more efficient (e.g. discharge planning based on discharge readiness criteria; increased rate of morning discharges).

Thinking differently about the hospital's front door

The paramedic workforce will play an increasing role in hospital avoidance. With the Wellington Free Ambulance's paramedic workforce in the region developing its capacity, this could be a cost-effective approach to more integrated care. For example, there is an opportunity for medical and paramedic workforces to work together to reduce the number of low-risk COPD admissions by developing a new model of care that will treat people in their own homes.

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. Our hospital has high rates of ED attendance that, under the status quo model of care, are likely to remain high, for the following reasons:

- changing demographics (e.g. increasing birth rates for Māori and increasing numbers 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.

One option for consideration is an accident and urgent medical centre co-located alongside the ED, such as those in Nelson and Whanganui. The model is most applicable to smaller cities where a separate dedicated after-hours primary health facility is not sustainable and there are mutual benefits in sharing facilities and workforce.[25]

There will always be people who need specialist assessment and decision-making, particularly people presenting with undifferentiated symptoms. Early senior assessment in the ED, as well as the contribution of 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 an unsuitable place for children to receive care. If the Children's Assessment Unit were 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 need 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.

Redesign for flow through and out of the hospital

The parts of our health system are interrelated:

- 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 working to improve efficiency of flows through and out of their physical buildings. Separating elective from acute care, within the same facility, through the use of dedicated beds, theatres and staff for each can create efficiencies. Senior doctors may seek to meet and treat patients in one session, and 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
- supporting people better in the community in partnership with primary care.

25 After Hours Primary Health Care Working Party. 2005. Towards Accessible, Effective and Resilient After Hours Primary Health Care Services: Report of the After Hours Primary Health Care Working Party. Wellington: Ministry of Health.

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

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 the Medical Assessment and Planning Unit, 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 ambitions. Currently, our aims are the following:

- review all admission criteria for a general medicine intake
- 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 for extended hours seven days per week
- 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. Ultimately these impact 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, reducing ALOS. The aim of our work on medical flow is 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 New Zealand-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.

27 Health Roundtable. 2017. Key Performance Indicators Report.

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

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 they presented. Modern care models turn this hospital-based 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. Earlier we described services that will avoid the need for some admissions of older people, and which will provide intensive support in the home for a fixed period of time. These types of service primarily support early discharge, with continuing care from the patient's general practice and multiple daily visits, as a goal-based package of care delivered by therapists and nurses.

Early supported discharge for people with stroke

People with stroke conventionally receive a substantial part of their rehabilitation in hospital. Early Supported Discharge (ESD) services aim to facilitate early return home, while providing ongoing care and rehabilitation in the community, for people with acute stroke. Various models have been described; they are typically multidisciplinary in nature with input from therapy, medical and nursing staff.

A 2017 Cochrane review (Langhorne and Baylan, 2017[29]) concluded that appropriately resourced ESD services with coordinated multidisciplinary team input can reduce disability and the length of time in hospital, at least for a selected group of people with stroke. People receiving ESD services tended to have a moderate degree of disability (able to walk with assistance) and be sufficiently well to consider returning home.

The review of 17 clinical trials found the length of stay in hospital was reduced by approximately five days for the ESD group. At an average of six months after their stroke, ESD patients were more likely to be living at home and to be independent in daily life activities (moderate quality evidence). No substantial harmful effects were identified.

An earlier UK analysis (Saka et al., 2009[30]) concluded that combining ESD with stroke unit care was cost-effective for the management of people with acute stroke. Langhorne P, Baylan S, Early Supporte d Discharge Trialists. Early supported discharge services for people with acute stroke.

29 Langhorne P, Baylan S, Early Supported Discharge Trialists. Early supported discharge services for people with acute stroke. *Cochrane Database of Systematic Reviews* 2017, Issue 7. Art. No.:CD000443. DOI:10/1002/14651858. CD000443.pub4.

30 Saka O, Serra V, Samyshkin Y, McGuire A, Wolfe CC. Cost-effectiveness of stroke unit care followed by early supported discharge. Stroke 2009: 40(1): 24–29.

A networked hospital

The placements of New Zealand's hospitals are determined more by historical decision-making (roading systems, a hill-side site, availability of land) than 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 10 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 Hutt Valley population, albeit with a symbiotic relationship with Wellington Regional 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, which 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, 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.
- 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. 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:

- reducing health inequalities
- making the health system more efficient
- ensuring services are sustainable and of good quality
- responding to local needs.

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

Refocus ED 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, who 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 instead attend a primary-care-based urgent care centre 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 possibilities – such as replacing ED with an urgent care facility, or closing ED post 10pm and sending patients to Capital & Coast DHB – through 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 option is to retain ED, retaining 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 focused 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, physicians will likely 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

Acute Cardiology operates separately from General Medicine with a 12-bed Coronary Care Unit (CCU) and its own nursing team. Interventional cardiology services are, and will continue to be, provided at Wellington Regional Hospital by Capital & Coast DHB. Over time MidCentral and Hawke's Bay will develop their own cardiac catheter labs and additional capacity in the region will improve Hutt Valley's access to Wellington's interventional suite.

The service has found a way that is sustainable at the moment despite an acute roster in which SMOs are on-call one weekend in four. 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 by the specialist service), and a reliance of primary care on hospital-based clinical nurse specialists.

One option for acute inpatient services is to operate an integrated medical roster. Such a model operates in some secondary hospitals in New Zealand (e.g. Hawke's Bay), whereas others have moved away from it (e.g. Nelson). At Hutt Hospital it would require skill development so general physicians are able to confidently manage cardiac issues (Cardiology currently admits around one-quarter of acute medical inpatients).

Without Cardiology on-site 24/7, a CCU is unlikely to be sustained, which may curtail some of the options for more flexible high dependency medical care. Any decision on the acute inpatient service needs to be taken together with decisions on the configuration of critical care and the resources required to support integration work with primary care.

There are significant opportunities to support management of cardiovascular conditions within Health Care Homes. For example, Hutt Valley has particular skills in heart failure, and by working with primary care teams to better manage people with heart failure, we can expect acute admissions to reduce.

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 as possible 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

Currently Hutt Hospital has a Level 1 ICU operating as part of the wider anaesthesia service. With current staffing the ICU is able to care for critically unwell patients with multiple organ failure, but for a limited period of time. Four of its eight physical beds are currently resourced and the ICU is co-located with the High Dependency Unit (HDU). Access to HDU beds is limited for unwell medical patients.

The number of critically unwell medical patients will increase in the future and we have a plan to step up the level of ICU care we provide over the next 10 years, within our existing facility and bed-count. In addition, there is an opportunity to develop a combined CCU and HDU to enable better sharing of skills and facilities to care for very unwell patients. The nursing pool can be shared across ICU/HDU/CCU. As sicker people are cared for on the wards, we will re-establish a Critical Care Out-reach Nursing service.

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 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 of medical patients in winter, 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 want those beds to be better integrated with local providers and 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 be reduced.

A sub-regional service for gynaecology

Gynaecology services for older women will be an area of increasing growth. 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 focusing on prevention activities that achieve healthy weight (e.g. to avoid osteoarthritis) or reduction in smoking, and by 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 whole region 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

Surgery uses the most expensive parts 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.

Becoming busier could cause theatre efficiency to backslide. If flow through surgery is not managed well, then there are blockages 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 Regional 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, such as moving to one list of anaesthetists, or joined-up lists of general or orthopaedic surgeons. 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 be 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 redescribe 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 capacity dedicated 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 is 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.

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.

The character of Hutt Hospital

Taken together, all 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 to be the core of hospital-based services. Increasingly, those physicians will likely manage across surgical wards as well as pushing out into community services.

Capacity for sub-regional surgical activity, focusing on electives

There is a substantial cost to acute theatres, which typically run best at around 70% capacity, compared to elective theatres ideally running at 85% 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 focused 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 (for instance, one pipeline for orthopaedic patients).

Decision-making must keep happening

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

We have successfully implemented a sub-regional integrated laboratory. That service offers better turnaround times at lower cost. We set out on the next page a vision for radiology services as articulated by the service itself.

Our 10-year vision for an integrated and responsive radiology service

We will provide an integrated sub-regional imaging service that ensures full equity of access to imaging services for all patients in the Greater Wellington area. The services will be provided from 8am to 8pm, seven days a week, with regional or outsourced provision for after-hours coverage. Community access will be a priority, with services being provided in the community as well aas the hospital. This decentralised service will provide increasingly mobile services for imaging. There will be a sub-regional procurement and replacement plan for all Capex items and a renegotiation of funding levels to reflect increases in the utilitisation of radiology services.

Our business model will encourage proactive engagement of AI and symbiotic technologies with an adjustment in delivery and staffing models accordingly. There will be facilitation around the changing roles of medical imaging technologists, sonographers and radiologists. Our resources will increase for interventional procedures and there will be a much greater confluence of technology with resultant involvement in non-invasive and targeted treatment models. We will have a high degree of direct interaction with the people we provide services for and smart reporting tools that will include patient perceptions and staff wellness indicators.

We aim to put the people using the service at the centre by developing and using smart tools that will integrate community and hospital workflows. Data, information technology and advanced business intelligence with high efficiency in forecasting and production planning will be at the forefront. We will have responsive systems with real-time feedback and visibility of activity and expected caseloads. Our turnaround times will be guaranteed for acute and elective reports and we will actively monitor the performance of the system.

Workforce

We will have sub-regional staffing with equity of salaries and contractual conditions.

Medical imaging technologists: the staffing pool will be robust and have the flexibility to cover all sites, especially in vulnerable areas like ultrasound and MRI. There will be enhanced local training and career advancement opportunities.

Radiologists: they will form a single pool and will work across all sites. They will have the opportunity to sub-specialise and to join a sub-regional fellowship programme. The role of the radiologists will change to a more consultative position, functioning as integrator, interventionist, patient advocate and high-level interdisciplinary advisor. A significant part of the work day will be spent doing hands-on procedures and communicating with patients and other clinicians. There will be much closer collaboration with other fields (e.g. genetics, pharmacotherapy and oncology). Automated reporting and intelligent voice recognition will be fully implemented, and merging of diagnostic and therapeutic functionality will be enabled by IT, AI and virtual reality.

Support staff: they will form a single, geographically dispersed administration pool working across sites. The work environment will evolve, with many functions being modified by robotics and AI.

Infrastructure

We will have a multicentre dispersed department with new technology that will make services cheaper and more mobile. The physical layout of the hospital side of the department will change, with numerous small conference rooms for consultations with people and other disciplines.

Enablers

What needs to happen to support those capabilities

A number of enablers are needed to support the desired service capabilities set out in the sections.

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 current workforce as well as the introduction of new roles.

All workforces will manage people with increasingly complex needs. All personnel will be working to the top of their scope of practice and will perform tasks that have traditionally belonged to 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 multidisciplinary team focused on collaborating and sharing skills to meet our populations' needs.

The Calderdale Framework[31] 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.[32]

Improving health literacy and cultural competencies

It is not just the health literacy of our patients we need to focus on. We have a responsibility to provide information that is culturally appropriate. Unfortunately, we don't always make information easy for everyone to access and we often don't spend enough time giving patients and their whānau time to process it. We need to make sure we develop the health literacy and cultural competencies of our workforce and embed person- and whānau-centred practice.

Better information and communication technology

Our Information and communication technology 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.

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

32 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.

We need ICT that enables –

- Individuals and their whānau /families to have access to information and tools to maintain their health and wellbeing, and to know that information relevant to their care is safely and seamless shared across their health team.
- Health care professionals to have anywhere, anytime access to information and tools, so as to release time for providing 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 target the following areas to support the goals of this plan:

- Digitising patient interaction: ICT that enables access to personal health information, greater involvement in wellness and care planning, convenience of access to services (including care closer to or in the home), easier navigation through the system and proactive, individualised care.
- Digitising end-to-end processes: ICT across the continuum of care that enables optimal workflow within and across services, shared care and service coordination within and across services, and better alignment of resources to demand.
- Digitally enabled and data-enabled decisions: improving safety and individual/population health outcomes and reducing inequality through the use of data for better insights; supporting 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 and reporting.
- Mobility, communications, collaboration: ICT that enables greater levels of mobility, communication, coordination and teamwork amongst staff and external service providers and enables new models of care.
- Information governance and management: ensuring quality and trustworthiness of information; enabling timely and appropriate access to knowledge and information.
- Stable, secure, responsive systems and sustainable ICT services: ensuring the integrity, continuity and performance of clinical and non-clinical systems; investing to be able to respond quickly to the changing needs of our health system; maximising the time spent by ICT on value-added activities.
- Regional systems: supporting regional sharing of information, optimal use of scarce clinical resources and new models and processes for care.

What does this mean?

- 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 be able to share details of their interactions with the patient. The patient portal will allow patients to view and contribute to their health information, and provide options for booking appointments and virtual interaction with their health care team.
- Greater use of tele-health will improve access to specialist services, particularly for those living at a distance from main health facilities. This will include video-conferencing and sharing of static images. If patients 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.
- People 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 on the hospital. We need fit-for-purpose primary care and hospital facilities. We will make best use of all existing spaces and look for opportunities in new models of care to make use of non-specific assets.

The Hutt Hospital campus has a mix of newer facilities, such as the ICU and theatre block, but we also have departments operating out of buildings and clinical areas that are not suited to modern care delivery. Maternity and gynaecology facilities are particularly run down. We may need to address priority areas such as these, within a wider building and maintenance programme that is 'just enough' while we focus on improving service delivery outside and around the hospital. We will undertake a master site-planning exercise.

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 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.[33]

Rebuilding hospital management systems

This plan requires us to understand and manage our service flows and resources better. We are well short of good practice in our core hospital management systems and activities. We have an out-of-date payroll 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 plan requires us to be active managers of resourcing, shifting the balance to primary and community care. 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. Implementing this plan needs an authentic and structured shift from a 'fortress mentality' – where we in the health system secure our own individual interests and future – to establish systems of care in which we collaborate with other organisations and services to improve the health of the populations we serve.

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,

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

justice, police, social development, Oranga Tamariki and councils) will be needed 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, a Clinical Council and an Iwi Relationship 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 must go further with the development of our co-design methodologies and strategies so the community voice is heard in all parts of our system.

Priority actions

We have identified a number of headline actions to advance the priorities of this CSP over the next few years. As with most high-level plans, considerable thought must be applied to the design, resourcing and implementation of these headline actions. In line with the principles of our strategy *Our Vision for Change 2017–2027* and our obligations under Te Tiriti o Waitangi, we will work closely with our key partners through the implementation stage set out in the table below.

Domain	Headline action	Start in 2018/19	Start in 2019/20	Start in 2020/21
Place-based planning	Determine priority communities and undertake a needs analysis	●		
	Form an alliance arrangement for guiding place-based planning, service design and procurement		●	
	Investigate option to address funding complexities, explore and agree a commissioning framework		●	
	Develop community hubs to provide services in the community, with strong link to Health Care Homes		●	
	Roll out place-based planning approaches to other locations			●
The first 1,000 days	Establish a system to identify those whānau with unmet and complex needs		●	
	Establish whānau-based case management and coordination function		●	
	Re-orient paediatrics into a community-facing service working with primary and community services	●	●	
	Consider options for developing a sub-regional child development service		●	
	Establish a central coordination function for monitoring need across the DHB		●	
Build strong primary and community care	Establish tranche 2 & 3 Health Care Homes	●	●	
	Further develop care pathways and extend POAC activities	●	●	
	Re-orient adult specialist clinical services – starting with general medicine, cardiology and respiratory	●	●	
	Establish MDT meetings for each general practice's most fragile elderly patients		●	

Domain	Headline action	Start in 2018/19	Start in 2019/20	Start in 2020/21
Proactive care to maintain the wellbeing of older people	Develop a screening and assessment approach, including, tools, referral criteria and processes.		●	
	Develop a dementia model of care aligned to the national framework for dementia care.		●	
	Establish community-based teams and case managers			●
	Establish rapid response, multidisciplinary teams to avoid hospitalisation where possible		●	
	Continue to work with our aged residential care providers to ensure high-quality residential care	●		
	Continue to work on our palliative care strategy	●		
Managing acute flows through the hospital	Implement direct referrals by GPs to services	●		
	Extend ambulance services to treat on site		●	
	Further develop rapid discharge and hospital avoidance programmes		●	
	Improve pharmaceutical management	●		
	Continue to improve general medicine model of care	●		
	Improve Short Stay Planning Unit		●	
A networked hospital	Explore a range of services which could be strengthened across a network of hospitals with CCDHB to improve capacity and capability, including (but not limited to) • Cardiology • Paediatrics • Gynaecology • Surgical acute/elective splits • Radiology	●	●	●
Enablers	Develop a robust asset management plan	●		
	Develop an ICT Plan that addresses the key strategic direction of the CSP	●	●	●
	Improve health literacy of DHB staff and their cultural competencies		●	●
	Further develop the DHB's business intelligence capacity and capability		●	
	Rebuild our hospital management systems, including our payroll and costing systems		●	

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