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Introduction: About this Paper

This paper provides a strategic overview of the New Zealand health and disability system. It outlines the effectiveness of the system, the rate and direction of its evolution, recent changes, current and future challenges, and opportunities for development.

It is accompanied by other key documents:

- **New Zealand health and disability system: organisation and responsibilities**, which describes the key organisations, legislation and funding that enables the system to function. It covers the scope of your responsibility as Minister of Health and has been designed as a ‘handbook’ for your ongoing reference.

- **Social Outcomes Briefing**, the briefing for social sector Ministers prepared by the Ministries of Social Development, Health, Education, and Justice.

- **Ministry of Health Statement of Intent 2008**

- **Budget 2008: Estimates of Appropriations for the Government of New Zealand for the Year Ending June 2009**

- **Health and Independence Report 2008**, providing information from across the health and disability system. It combines the Minister’s report on progress to implement the New Zealand Health Strategy, the Director-General’s annual report on the state of public health and the annual report on the quality improvement strategy.

- **Health Targets: Moving towards healthier futures (2007/08)**, which describes the set of 10 Health Targets designed to focus the whole system on priority areas where a significant impact can be made on health outcomes.

- **A Portrait of Health (2008)**, which summarises the key results from the 2006/07 New Zealand Health Survey.
In Brief: Executive Summary

The health and disability system is large and complex, and it touches every New Zealander at some point in their lives. It is a high profile Vote, the second largest area of public spending at $12bn, and generates strong opinions both positive and negative from a broad range of stakeholders. High level indicators show significant gains in outcomes over the last decade. On standard international benchmarks of efficiency, New Zealand rates well. For example, average cost per discharge is US$4900 compared to the OECD median of $6400.

New Zealand is one of a handful of countries in the OECD that have reduced health inequalities in recent years. Access to services has improved, particularly in primary care where the system is reaching people more effectively and identifying health and care needs earlier. A focus on preventive care, enabled by capitation funding, lower access fees, and targeted care programmes, encourages a clinical and individual focus on keeping people well. Gains have been made in mental health with significant increases in access to community care, and in disability services with greater flexibility in support for independent living and increased access to equipment and modifications. In public health the work on preparing for a future pandemic is an excellent example of what can be achieved when health leads whole of government action — New Zealand is now a recognised international leader in this area.

There has been a stronger focus on performance improvement, including the establishment of a District Health Board target regime and a primary care performance programme. A national health identifier for all New Zealanders, electronic prescribing, and telemedicine provide a platform to enable better and more effective communication and information sharing between clinicians as well as between clinicians and patients.

However, key challenges remain. New Zealand’s health and disability system needs to be well positioned to rise to these challenges, five of which are outlined below.

i. Improving productivity and value for money

The weakening outlook for growth and its impact on the Government’s finances will demand a stronger focus on value for money in the health and disability sector. Already two thirds of new funding is needed to maintain the quality and coverage of existing services, and the rate of cost increases will outstrip likely growth in available funding in the near future. Opportunities to further improve efficiencies include strengthening incentives to reduce variations between providers, particularly in high cost and high volume services. Advances in technology can lead to greater efficiencies in the health and disability system as well as improved outcomes, however, they can also generate increased demand for services. Evidence suggests more effective use of technology, such as e-mails and telemedicine, can improve productivity and quality and reduce errors.
ii. **Workforce**

The health workforce is in short supply internationally. Recruitment and retention issues are a significant challenge throughout the OECD. In New Zealand, the overall number of health professionals has increased over 30% since 2003. However, this workforce is ageing, in line with the general population, and will struggle to meet service demand. Furthermore, there are shortages in specific areas such as midwifery and oncology and in some parts of the country, particularly in rural areas. Securing an appropriately supplied and trained health and disability workforce will require more creative thinking around different ways of working and delivering services, and a mix of both short-term 'stop gap' measures and long-term planning.

iii. **Enabling national and regional planning**

The Ministry has begun developing a long-term strategic planning framework to improve national, regional, and local decision-making and planning. All four regions have embarked on regional service planning designed to improve frontline services, but not all regions are showing equal progress. Most effective use of capital is of particular importance. Demand for capital by District Health Boards (DHBs) is always high, and allocation needs to follow areas of highest population growth and corresponding infrastructure need. Much better coordination at both the national and regional levels is necessary to run a complex system efficiently.

iv. **Improving access and reducing inequalities**

Overall, access to health services, in particular primary care, is improving. Lower co-payments for general practitioner (GP) visits and prescription items have contributed to this and led to reductions in health inequalities. However, increasing access to health services by Māori, especially Māori women, remains a priority. Access to elective surgery is an area of ongoing public concern. There are variations in access across DHBs and the system overall is facing considerable challenges in speeding up delivery due to workforce constraints and a lack of a capacity in some areas.

v. **Long-term conditions**

Long-term conditions such as heart disease, cancer, diabetes, obesity, and tobacco-related conditions are the leading cause of ill health and early death in New Zealand. These conditions disproportionately affect low income earners, Māori, and Pacific Island peoples, and account for 80% of early deaths. Continuing improvements in health promotion and disease prevention, and early detection and management, are critical to improving health and preventing more expensive secondary care.
Improving people’s health and participation, and the performance of our health and disability system will contribute to achieving the Government’s goals in a range of areas. Health care contributes to improved population health, and healthier people require less health care. Investment in health can also stimulate economic growth, while good health enhances labour supply and productivity.

The Government has outlined a number of priority areas for this portfolio. This briefing paper provides a platform from which we can support you in delivering your priorities for improving New Zealand’s health and disability system.

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**Every day in New Zealand**

- 160 babies are born
- 55,000 people visit a GP
- 83,000 prescriptions are filled
- 125 children are immunised
- 275 elective operations are carried out
- 1,350 people are admitted to a public hospital
- 6,000 hospital outpatient visits occur
- 748 people call healthline
- 84 people call the well-child telephone advice service

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**Every year in New Zealand**

- 3.38 million people visit a GP at least once
- 493 outbreaks of communicable diseases are investigated
- 23 million laboratory tests are performed
- 92,244 people access specialist mental health services
- 437,584 cervical smears are taken
- 464,600 free influenza vaccinations are given
- 87,177 free annual checks for people with diabetes are undertaken
- 26,160 ‘green’ prescriptions are dispensed
Government’s Post-Election Plan

The Prime Minister has signalled in his Post-Election Plan six actions on Health that will be undertaken in the Government’s first 100 days in office:

- instruct the Ministry of Health and DHBs to halt the growth in health bureaucracy
- open the books on the true state of hospital waiting lists and the crisis in services
- fast-track funding for 24-hour Plunketline
- instruct that a full 12-month course of Herceptin be publicly available
- begin implementing National’s Tackling Waiting Lists plan
- establish a “voluntary bonding scheme” offering student loan debt write-off to graduate doctors, nurses, and midwives who agree to work in hard-to-staff communities or specialties.

The Ministry is providing advice for you on how each of these actions can be implemented and the options for their implementation.

More generally, the Government has signalled its intention to carry out line-by-line reviews of departmental spending and ensure savings are focused on the front line. In Vote Health, the Government has indicated that it will continue the growth in health spending set out in the 2008 Pre-Election Fiscal Update.

Over the longer term, the Government has highlighted a number of priority areas, which the Ministry will provide advice on as you require. The Ministry has identified several themes:

- reducing bureaucracy, through, for example, shared planning, monitoring and funding by DHBs
- improved value for money and productivity
- adopting new innovative ways to improve timeliness and care
- smarter use of the private sector
- use of clinical networks, and greater involvement of health professionals in planning and leadership
- increased investment in training, to ensure that New Zealand is self-sufficient in medical trainees
- achieving greater integration of health care
- increased inter-agency collaboration on disability issues
- significant outcomes in whānau ora.
Performance of the sector

New Zealand’s health and disability system performs well by international standards – both in terms of the health and participation outcomes achieved, and relative to the amount spent on health and disability services.

Across the OECD, there is a strong correlation between per capita GDP and health expenditure, and a weaker correlation with summary measures of population health such as life expectancy at birth. In New Zealand, health spending (public plus private) has been increasing faster than GDP over the past decade, and is now at almost exactly the level that would be expected given our (relatively modest) per capita GDP. Health outcomes are better than would be predicted by our level of spending.

New Zealand health spending is below the OECD average for both public and private spending.

**Figure 1:** Health expenditure per capita, public and private expenditure, OECD countries, 2006

Note: Data are expressed in US dollars adjusted for purchasing power parities (PPPs), which provide a means of comparing spending between countries on a common base. PPPs are the rates of currency conversion that equalise the cost of a given ‘basket’ of goods and services in different countries.
Outcome trends

New Zealanders’ life expectancy has been increasing steadily for the last century. The latest figures from Statistics New Zealand and the OECD show that our total population life expectancy of 80.1 years is currently above the OECD median by 0.5 years, and higher than would be predicted by the level of our per capita spending on health services.

Longevity gains between 1995–97 and 2005–07 were 3.6 years for males and 2.5 for females, making New Zealand’s total population life expectancy 11th highest among the 30 OECD countries. Our total population life expectancy is above that of the United Kingdom and the United States but below Australia, which ranks fourth highest in the OECD.

New Zealand’s comparative life expectancy is particularly good for males where we rank 7th highest in the OECD. The gap between male and female life expectancy in 2005–07 of 4.1 years is smaller in New Zealand than in most OECD countries currently, down from the largest difference of 6.4 years in 1975–77.

Although Māori life expectancy has increased between 1995–97 and 2005–07 at a faster rate than for non-Māori, a significant differential remains. Not all of this difference can be attributed to socioeconomic status. Importantly, the gap between Māori and non-Māori has narrowed recently, after widening rapidly in the period 1985–87 and 1995–97. The average difference between Māori and non-Māori in 2005-07 is 8.3 years, down from the 9.1 years gap in 1995–97.

Source: Statistics New Zealand
Infant mortality is a key indicator of health status and, although it has improved over the last 10 years for both the total population and for Māori, a significant difference still remains.
Decrease in cardiovascular mortality

Key to the increase in life expectancy has been a continued reduction in deaths from cardiovascular disease (mainly coronary heart disease and stroke), the single biggest cause of death in New Zealand. Cardiovascular mortality declined by approximately 40% from 1990 to 2004, and by more than 60% in total since it peaked in 1970.

Approximately 80% of this decline is due to reductions in risk factors caused equally by lifestyle changes such as stopping smoking, and clinical interventions such as statins.

Figure 5: Cardiovascular disease mortality, all ages, age-standardised rate per 100,000, by sex, 1990–2004

Figure 6: Risk factor contribution to decline in death rate from coronary heart disease in males, 1978–2002


Decrease in smoking

A key driver of increased life expectancy and falling cardiovascular deaths over the last 40 years has been a reduction in smoking rates. New Zealand rates of smoking and decreases in smoking compare favourably with OECD countries.

The number of smokers has dropped by 5% in five years – this will reduce early deaths
New Zealand smoking rates declined steadily from the 1970s to the 1990s, then fell substantially. Since 2003 there has been a 5% fall in the total number of people who smoke every day, and a 9% fall in the number of adolescents. Public education, health promotion, regulation, and help with quitting have all assisted in this reduction in smoking.

Māori rates of smoking have also dropped significantly, in particular for Māori women. However, smoking remains the single biggest preventable cause of ill-health and early death.

**Figure 7:** Current daily smoking among adults, total, Māori and Pacific by gender 1996/97, 2002/03, and 2006/07 % age-standardised

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**Prevalence of obesity**

New Zealand is one of only a few developed countries where the rate of increase in obesity may have begun to slow, after rising for several decades. Obesity prevalence increased from one in 10 to one in four adults between 1977 and 2003. It has not increased nearly as rapidly since 2003, and this may mark the beginning of a positive trend.
Obesity is linked with a range of health risks including type 2 diabetes, coronary heart disease, stroke and several cancers. A reduction in the rate of increase in obesity should slow the predicted growth in long-term conditions, especially type 2 diabetes, with flow on effects in lower health care costs and higher labour productivity.

Not all population groups are equally affected by obesity. Pacific rates are three times that of European New Zealanders, and Māori rates are twice as high. This contributes to the higher diabetes prevalence for Māori and Pacific peoples.

**Figure 8:** Obesity for adults aged 15 years and over, by gender, 1997, 2002/03, and 2006/07 (age-standardised prevalence)

**Figure 9:** Obesity for adults aged 15 years and over, by ethnic group and gender, 2006/07 (age-standardised prevalence)

Note: Total response standard output for ethnic groups has been used.

### Service access and quality

#### Primary health services

Eighty percent of all New Zealanders have seen their regular GP in the last 12 months, providing a strong platform for preventive care and early intervention. Between 2002/2003 and 2006/2007, visits increased by more than 3 million. The number of adults who needed to see a GP but were unable to for any reason halved and cost was no longer the major reason for this unmet need. In 2006/07, only 0.8% of children and 1.7% of adults were unable to see a GP because of cost.

Visits by groups with previously poor access have increased significantly. However, unmet need for GP services remains
higher for Māori than for the total population, particularly for Māori women.

**Figure 10:** Unmet need for GP services (by gender and Māori/total population)

Fragmented, episodic care still dominates in many areas however, and it has proved challenging to integrate GPs with other health professionals working in primary care. Integration between primary and secondary services is also variable.

**Mental health services**

Improvements to mental health services have been a priority since the mid 1990s. In the five years to 2007/08, access to secondary mental health services rose by 14% in total and by 12% for children and adolescents. Much of the increase has occurred among Māori and Pacific peoples who historically had low access to community services and higher hospitalisation rates as a result. Māori child and adolescent access has increased by 38% in the same period.

Investment in primary mental health has been increased. Early interventions in this area can go a long way to reducing the lifelong burden of disease associated with mental illness – with improved labour market participation.
**Elective surgery**

Access to elective surgical procedures is improving, but DHBs have been challenged in meeting their planned targets by workforce shortages, capacity constraints, and system performance issues.

**Figure 11:** Elective surgical discharge rates

Streamlined access to diagnostics and first specialist assessments are important, as is better information across the whole electives pathway. Understanding the levels of unmet need and their impacts, and prioritising investment to areas of high need and benefit, require good clinical engagement in both primary and secondary care.

The aim is to improve the allocation of services to those with the greatest need and ability to benefit, and to develop and implement new, more efficient service models.

**Access to disability supports**

Increased choice and quality control over support for people with disability allows more to live in their own homes, participate in their communities, and have increased control over their own lives. For example, the flexible Support for Independent Living service has grown from a limited service for very few people in 2000/01 to a popular service available around the country for nearly 2000 people in 2007/08. Access to equipment (such as hoists, wheelchairs, and hearing aids), communication devices (such as talking computers) and modifications to homes and vehicles is also increasing, with applications up 15% between 2006/07 and 2007/08.
Challenges and Opportunities

Although New Zealand achieves good health and disability outcomes for our level of spending, like other OECD countries we have both significant challenges and opportunities to improve the quality and range of services.

Global trends include higher service demands of ageing populations, rising burden of long-term conditions, scarcity of health care workers, growing cost of technological advances, and the increasing expectations from the public.

These challenges will require us to adopt new and innovative patterns of working. The global shortage of health specialists can be addressed through clinical networks that use generalist workers with specialist leadership. A better informed and engaged public has the capability to protect and promote its own health. Technology can be a strong driver of costs, but also offers health gain, efficiency, and improved quality. Service vulnerability and funding constraints will require us to develop more collaborative and integrated service models.

Changing health needs

Changes in the pattern of disease and in the population combine to impact significantly on the levels and the nature of demand for particular health and disability services.

Increase in long-term conditions

New Zealand, along with most advanced health systems, is experiencing a shift from acute and episodic illness as the dominant drivers of demand to long-term conditions such as diabetes, heart disease, stroke, Alzheimer’s disease and cancer. These conditions are the leading causes of illness and early death. They account for around 80% of early deaths, and 70% of health costs. Some examples of these conditions are:

- One in 20 adults has medically diagnosed diabetes.
- One in seven children and one in nine adults is being treated for asthma.
- One in seven adults is taking medicine for high blood pressure, and one in 12 for high cholesterol.
- One in 15 adults over 45 years of age has been told by a doctor that they have chronic obstructive pulmonary disease (emphysema or chronic bronchitis).
Projections are that long-term conditions overall will increase, even with improved health management, for example:

- cancer registrations will increase by 30% in the decade to 2011
- type 2 diabetes new cases will be up 45% by 2011 and overall prevalence up by 60% for European New Zealanders, 132% for Māori and 146% for Pacific people.

In response to this, services are changing to concentrate upon prevention and ongoing structured care programmes delivered through primary health care and supported through specialised services. These changes offer opportunities to make better use of the health and disability workforce, particularly in primary health care, and to improve the patient journey through the system so that patients experience a seamless continuum of care. There is also a need to further strengthen prevention programmes at the population level.

At present, the bulk of Vote Health funding goes into hospital and other secondary care services – around 4% is spent on public health services and 18% on primary health services.

This picture is gradually changing as investment in public health and primary health increases to prevent and allow early detection and treatment of long-term conditions, and, thus avoid expensive hospital care. Public health services include health promotion advice such as SunSmart, smoking reduction services, and prevention services such as the HPV vaccine programme.

**Population ageing**

The structural ageing of the New Zealand population reflects global trends of increasing life expectancy and reducing rates of mortality and fertility.

Longer life expectancy does not necessarily increase service demand for each individual because the extra years of life may be spent in good health. The evidence on whether healthy life expectancy will increase as well as life expectancy is uncertain.

What is clear is that the change in the age structure means more people will be in the final stages of life, which require the most intensive and costly care and support. By 2028 almost 50% of...
Health expenditure will be on people aged 65 and over. This is because of the growth in the number of people in this age bracket. At the same time, spending outside Health will face pressures because of the rising numbers of older people, while the workers whose taxes fund these programmes will form a smaller share of the population.

**Population redistribution**

Internal migration around New Zealand means population changes impact more strongly in some locations than others. High demand pressure is created on services in some locations whilst reducing the viability (critical mass) of others. This requires a regional and national approach to the planning of services.

**Figure 13:** Projected population growth 2008–26, total and 65+ population, by DHB

The three Auckland DHBs will grow fastest in both total and 65+ population, driving demand for all services but also allowing for economies of scale. Many smaller rural or provincial populations will remain static or decline while still increasing in age. ‘Hub and spoke’ models may be needed to ensure people in smaller population centres can access specialised services. Such models also make best use of scarce clinical resources – for example, across the six central region DHBs, 35 clinical departments have two or fewer full-time specialists. Regional planning and the establishment of clinical networks are needed to progress these new models of care.

**Improving quality**

New Zealand and other OECD countries continually strive to improve the quality of services provided. There are challenges to
this which result from the population pressures described previously, the fragmentation of services, and workforce pressures.

Achieving a seamless patient journey

Service fragmentation across districts, regions, nationally, and between professions and organisations, is a barrier to an effective continuum of care. Health service delivery has become increasingly specialised with a dividing up of functions, professions, services, and locations. As a result, a patient may receive services in a variety of settings from many different providers, particularly over the course of a long-term condition and hospital treatment. To ensure high quality services to patients and clients, the health and disability system needs to function together effectively.

There is strong momentum in the system for improving quality. A range of programmes overseen by the Quality Improvement Committee (QIC) are integrating best practice improvements, sharing learning, developing leadership, and giving greater profile to consumer views on quality.

Variation between DHBs

Variation in service levels across DHBs is both an indicator and a generator of system pressure. Consistency of services is an element of quality, and in a tax-funded health and disability system it contributes to trust and confidence in Government. Variation between DHBs in access to a range of services and in health outcomes can be even more pronounced when data are examined by ethnicity or socioeconomic status.

Transparent published health targets have highlighted the levels of variation across DHBs and have become benchmarks for DHBs. Mechanisms such as clinical networks are already being used to spread best practice innovations, improve system performance and reduce undue variation.

Workforce shortages and costs

Over 130,000 people work in the health system, with approximately 50,000 employed by DHBs. Workforce costs make up some 68% of expenditure.

The number of workers in key health professions has increased in recent years, as is the case with other OECD countries. Despite these increases, the health workforce is struggling to keep pace with the increasing demand for services. It is ageing, heavily
reliant on overseas trained health workers, and under-representative of Māori and Pacific peoples. Shortages exist in specific fields (such as midwifery, oncology) and locations (such as rural and some smaller urban centres). Recent projections are for a deficit of between 7000 and 10,000 health professionals by 2011, and between 18,000 and 28,000 by 2021.

Working to train and retain greater numbers of specialised workers is vital but not sufficient. Addressing rising long-term conditions will require different workforce models with better use of generalist practitioners and support roles.

The care and support workforce in particular, needs to increase stability, status, and quality to enable older people to live in their own homes and communities, and to support people with disabilities to lead an ordinary life.

Inequalities in health and service access

Significant inequalities, both in outcomes and service access, remain for specific population groups, in particular Māori, Pacific peoples, and low socioeconomic groups. Some inequalities have improved in recent years, but a persistent gap remains. Life expectancy is significantly lower for Māori and Pacific peoples and for those in lower socioeconomic groups – but socioeconomic factors do not fully explain the differences between ethnic groups.

Figure 14: Non-Māori–Māori difference in life expectancy at birth, 1951–2006 (years)

The causes of inequalities are complex. They include wider social and economic conditions as well as differences in access to
services, in interactions with health practitioners, and in risk factors.

**Improved access to elective surgery for Māori in Counties Manukau**

- In the past the Māori rate for elective surgery has been low despite Māori having higher rates of acute surgery. With increased investment and a strategy to improve access, a new booking system for electives was implemented. It improved clarity in priority access scoring for elective surgery to ensure that those most in need were prioritised.

- Case-weighted elective procedure rates for Māori have increased by almost 50% since 1999/2000, and by 2005/06, for the first time, the Māori rate of elective operations equalled the ‘Other’ rate. The gap between Pacific peoples and ‘Other’ rates has also reduced. While improved access to primary care may have had an impact, it appears likely the new system has improved equity.

Other groups experience health outcomes that are notably poorer than the wider community. Targeted measures to address issues of access and communication would contribute to improving health opportunities and outcomes for people with disabilities, those living with mental illness, and refugee migrants.

**New technologies and rising public expectations**

Advances in health diagnostics, treatments and supports, and in information and communication technologies, drive rising public expectations for services and increased health spending.

New health technologies often increase productivity by reducing unit costs and making assessment and treatment quicker, cheaper, more effective and more routine – but savings tend to be offset by increased uptake. Information technology can facilitate better co-ordinated care, better public information, and greater involvement in and control over personal health and care decisions, but it can also give inaccurate and overly optimistic impressions about interventions not yet proven effective or safe.

The stream of emerging technologies and treatments poses an increasing challenge for decision-makers. Which new interventions to invest in, and which other interventions and services, no longer proven effective, to disinvest from are often complex questions with incomplete information. Evidence-based decision-making and prioritisation will increasingly require co-operation across national boundaries as well as engagement of local communities.
Delivering Value for Money

With the outlook for economic growth weakening, the focus on improving efficiency and productivity in the health system has become more urgent. New performance management mechanisms, designed to hold the system to its delivery goals, have been put in place. Health targets and other public information on hospital indicators are providing benchmarks, and performance management programmes have been established.

Variation in DHB performance on key indicators suggests there is more room for efficiency improvements.

Figure 15: Actual average length of stay (days)

The recent organisational changes within the Ministry of Health have strengthened focus on improving system performance. The Director General’s review in 2006 has clarified the Ministry’s role in system leadership and strengthened its capacity to support the DHBs. The system requires greater leadership from the centre so that DHBs work together in a national direction. Better networked service structures and processes will enable the system to function as an integrated whole.

Continued refocus of services towards the front-end, in prevention and early intervention, is needed to address the growth of long-term conditions. The continuum of care should be centred on people, not organisations. Consistency and transparency of funding and access decisions across New Zealand remain key elements in the perception of fairness.
Health’s likely funding path will require a greater focus on value for money

The size and nature of the risks associated with the health system has led to a set of funding arrangements for Vote Health designed to manage the risks. These arrangements allow the Minister to manage pressures within the Vote without recourse to the central risk contingency.

Key to the funding arrangements is an agreed allocation for increases to Vote Health that is set indicatively two or three years in advance. The first call on the allocation is increases to manage inflation and demographic pressures. These increases, based on a formula agreed with the sector, provide a credible funding path which encourages a culture of living within our means. The remaining additional funding is used to manage system risks and advance new initiatives.

Since 2002/03 new initiatives and future funding track and demographic adjuster increases to DHB baselines have added $3.04 billion to Vote Health. The share of the additional allocation required to cover inflation and population increases and to strengthen the system has been increasing, to almost two-thirds in the current year. The remainder was allocated to priority areas such as mental health and elective surgery, and to new initiatives at the front-line of health services such as better primary health access, immunisation, screening, and cancer control.
The rate of growth in new funding has already slowed and, as the fiscal environment becomes increasingly constrained, provision for inflation and demographic pressures is likely to outstrip new funding. It is clear that maintaining service coverage and investing in new high-value areas will require greater efficiency, savings, and reprioritisation across the system.

**Better integration and planning across the system**

Much better regional and national decision-making is needed to run a complex system efficiently in constrained financial times. This kind of planning and coordination is beginning, but not all regions are showing equal progress. The system lacks the decision making settings to achieve this co-ordination easily. The Ministry is developing a long-term strategic planning framework to address these issues. The framework is designed to deliver value for money, improve quality, and ensure service sustainability.

**National collaboration**

A key question is clarifying where and by whom decisions around service planning, configuration, and new investments are made. Driving greater sustainability and efficiency will require a robust decision making system. More complex and specialised services will need to be coordinated and planned at a national level.

More effective use of capital is of particular importance. Demand for capital by DHBs is always high, and allocation needs to follow areas of highest population growth and corresponding...
infrastructure need. Private capital may well provide opportunities for infrastructure development in the fastest growing areas and where new delivery models require upfront investment.

**Tertiary specialist services for children**

- Tertiary paediatric oncology is a model for a networked nationwide service. A steering group has led the development of a child cancer register, improved data collection and management, a supportive clinical network, a quality framework, training and accreditation, and a standard approach to shared care. Planning is underway to improve and develop tertiary specialist services for children around the country and to ensure safe, effective, and sustainable services into the future.

**Local and regional integration**

At the local and regional levels also, significant change is occurring in planning mechanisms and processes, and in some frontline services.

Clinical networks comprised of clinicians, managers, and other staff from different DHBs within a region are being established, but progress is uneven. Often they are prompted by crises in particular services, caused, for example, by workforce shortages, rather than been planned in a coordinated manner. The best developed networks have been established in cancer and regional mental health.

Regional collaboration is increasing across DHBs. All four regions have embarked on regional service planning. The Central Region DHBs have made the most progress on a joint clinical services plan with a vision of ‘connected communities’. Otago and Southland DHBs have moved the furtherest towards effective joining-up of back-office functions.

**Regional collaboration and integration in Otago and Southland**

- At the subregional level, Southland and Otago DHBs have merged a considerable range of management functions, and established shared clinical service arrangements to gain economies of scale and service sustainability. The Southern Alliance concentrated initially on administrative and financial services and developing opportunities to work together. In its second year, it began developing regional clinical services.

- Joining the administrative and financial teams has reduced duplication, saved in purchasing, and increased the DHBs analytical capability. A common patient management information system was implemented, and joint tendering and funding of community and hospital laboratory services has occurred. A single oncology and haematology service led to significant reductions in waiting times in Southland without any increase in Otago waiting lists.
New models of care are being developed and used in primary care settings. These include more multidisciplinary teamwork, better use of nurses, more family and community participation in primary health care, and more services that were formerly provided in hospitals being delivered in community settings. Progress needs to be faster in this area, and the Ministry is examining how funding models could change to incentivise this.

**Ophthalmology diagnosis and referrals in primary care**

- An alternative to a clinic assessment was developed to address difficulties West Coast DHB had in finding consultant, cover for its visiting ophthalmology service. Local GPs and optometrists received consultation and training and worked with a visiting ophthalmologist. A local referral tool for direct access to cataract surgery, based on the national scoring tool, was developed and its use explained. Now, a GP refers patients who may require cataract surgery to an optometrist, who then assesses the patient using the national scoring tool and makes a referral to the visiting ophthalmologist. Cataract surgery referrals now wait on average 118 days from referral to procedure compared with 400 days in previous years.

**A system-wide workforce response**

The New Zealand health workforce operates in a highly competitive global market. We face a real challenge in recruiting and developing the workforce we need to meet the scale of future demands on the system. Workforce shortages are having a detrimental impact on service delivery in some key areas.

We need measures to meet relatively short-term ‘stop-gap’ needs, while also planning to meet our longer-term needs. All approaches rely on work with DHBs, professional organisations and colleges, and the education sector.
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<th>Immediate</th>
<th>Short term</th>
<th>Medium term</th>
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<td>• Overseas recruitment to meet short-term needs.</td>
<td>• Incentive-based retention payments, debt relief and regional placements for junior doctors.</td>
<td>• New approaches to training.</td>
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<td>• Increasing entry (training numbers).</td>
<td>• Incentives to improve junior doctors’ retention.</td>
<td>• Service models such as clinical networks to better use the existing workforce.</td>
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<td>• Increasing retention.</td>
<td>• More GP registrar places.</td>
<td>• Aged residential care workforce development.</td>
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<td>• Promoting health as a career.</td>
<td>• Multidisciplinary primary health demonstration sites.</td>
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<td>• Implementing a bonding scheme.</td>
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**Better use of information technology**

Information technology, including broadband connectivity, is a key enabler for lifting the performance of our health system. The current fragmented and provider-centric approach will not adequately address the growing pressures on our health system. The nature of chronic conditions requires the engagement and participation of individuals in their own care and in reducing risk factors. In addition, workforce constraints, service sustainability issues, and people’s changing expectations are also driving the need for change in the dynamics and models of care, with resultant changes in how we design and implement information technology systems in health.

Patient-centred care requires the ability to seamlessly share information and plan and manage the delivery of care for individuals across various settings. This, in turn, requires changes in how we govern, design, implement, and operate the information systems used to manage health information and care processes within the sector. These changes are categorised as ‘eHealth’.  
eHealth promises substantial improvements in how we integrate care processes and information around each person, family/ whānau and community.
Achieving more through preventive and primary health

As the first and most frequent contact point with the health and disability system, and the entry point for further services, primary health care is an important vehicle for change in the whole health and disability system. Lifestyle-related illness requires interventions that aim to change the choices people make which put their health at risk. Primary health care can deliver proactive patient-centred care to improve prevention and management of long-term conditions to complement prevention efforts at the community and population level.

Primary health care funding has been redesigned to increase incentives for patient-centred care. Capitation funding for an enrolled population has replaced fee-for-service funding for individual consultations. Access has improved, and a wide range of health promotion and early intervention initiatives have commenced through primary health organisations and through programmes such as Care-Plus and Cancer Control. Many of these initiatives are intersectoral and community-based.

Further gains in system performance can be achieved through:

- better integration of primary health with public health and secondary care, and with allied health practitioners and social services. DHBs can achieve better integration by working more closely with PHOs
- greater use of new models of care, including multi-disciplinary health teams offering a wider range of services such as physiotherapy, counselling, community nursing, and social work
- strengthening the emphasis on prevention across the system
- a performance management system spanning DHBs, PHOs and providers, to build greater consistency, with DHBs held accountable for performance.

Intravenous cellulitis treatment in primary care

- General practice teams in the Waikato are providing intravenous treatment for cellulitis that was previously only available through secondary care emergency departments. Waikato Hospital pharmacy provides the medication needed, and the GP teams and district nursing service administer it. The result was 29.6% less GP referred cellulitis presentations to emergency departments than predicted, and savings from avoided emergency department attendance compared well with the total cost of the programme. In addition, a significant group of practice nurses was upskilled to deliver intravenous therapy.
Cost pressures in the primary health care system have potential to undermine the value of public funding. Maintaining low-cost access to primary health care services is essential for maintaining the gains that have been made. Targeting initiatives for populations with high health needs offers additional opportunities for better health outcomes and reduced pressure on downstream services.

Where poor health and low social and economic status combine

Communities with the poorest health status have poor economic and social outcomes as well. Children in the most disadvantaged families and communities are at greater risk of illness and injury, and can be socialised early into patterns that markedly decrease their life chances across a broad range of outcomes. Integrated action with communities and across government is a significant opportunity for health, social, and economic gain.

Healthy housing: work across agencies to improve outcomes in the poorest communities

- An initiative by Housing NZ Corporation in partnership with the Counties Manukau, Auckland and Northland DHBs has reduced the risk of infectious disease (e.g., group B meningococcal disease, TB and rheumatic fever) due to overcrowding amongst social housing tenants, and it has improved access to health services. Both the health and housing agencies recognised that they benefited from the initiative. Overcrowding was reduced and housing stock improved, and there was a 37% reduction in housing-related avoidable hospitalisations, compared with the control group (a cost-benefit analysis suggested a positive benefit to cost ratio of 1.15 for HNZC).

Leading whole community and whole of government action for health

Good health enables greater participation and independence, trust in the quality and accessibility of government services, and reduced inequalities. These in turn can help achieve broader outcomes for social well being, trust in government, equality of opportunity, economic growth and productivity, and participation in society.

Conversely, achievement in many areas of government impacts on health and, downstream, on the costs of future health care, as well as the social and economic life of the community. Income, employment, education, transport, housing, working conditions, environment, and urban design all affect health. Addressing the wider impacts of government activity will enhance New Zealanders’ ability to protect and promote their own health.
Evidence suggests that appropriate government action can:

- promote health, making it easier, for example, for people to have regular exercise, a diet high in fruit and vegetables, and to give up smoking
- reduce the harm to health that occurs through family dysfunction, abuse, discrimination, tobacco, harmful drinking and drug use, and emerging health threats

Exercise and good nutrition have been eroded by changing lifestyles and patterns of employment, transport, food distribution and living conditions. Drinking to excess has become the norm in some social situations, and the level of harm that results is a significant impact on social and economic success. Addressing these behaviours is challenging and requires action across sectors.
Conclusion

There is a growing momentum for change in the health and disability system but the pace and extent of the change needed are not widely realised. Financial constraints are much tighter than before, with health labour market inflation continuing to chase global trends and drive costs upwards. Service enhancements are not affordable for much longer without reprioritising within baselines and the vulnerability of services and workforce constraints will have to be addressed through new delivery models.

Work on a long-term system framework to better plan, co-ordinate and facilitate this change has raised the drivers of change in peoples’ minds. Different possible approaches for the future are being discussed in a wide variety of settings. Engagement of system leaders, workers, communities and businesses in discussing forward planning for more effective and efficient health delivery and disability will mean the hard questions can be aired in constructive ways.

The health and disability system is alert to the new Government’s priorities. The Ministry looks forward to working with you to implement these priorities.