



SYNERGIA

POPULATION HEALTH PROFILE: WELLINGTON REGION

HEALTH NEEDS, SERVICE PROVISION AND REPORTING SYSTEMS

Report for Ministry of Health and Wellington/Wairarapa DHBs

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INTRODUCTION

A five year public health strategic plan is under development for the Wellington Region Strategic Public Health Plan project. Synergia Ltd and Affordable Healthcare Ltd are working with the Ministry of Health, the three Wellington regional district health boards, the Wellington Regional Public Health Services, and local providers and community organisations to develop the strategy.

To support the development of the strategy, this report profiles population health issues in the Wellington region, in the context of the health structures that have developed to fund and provide public health services. The report provides analysis of population need and service structures, and complements parallel working being undertaken in the strategy to provide analysis of the relationships, issues and perspectives which impact on system performance.

The starting point in the report is the historical development of health structures over the past twenty years, and the shift from a hierarchical system centralised in the Department of Health, to a more diffuse and networked group of funding and service agencies. The report then moves to examine a range of population health needs, based on research evidence and the way in which health needs are reflected in the strategic planning of district health boards and regional public health services.

Subsequent sections examine the distribution of resources for public health services in the region, the constraints on funding budgets, and the suitability of current reporting systems for informing strategic planning and implementation.

1. DEVELOPMENT OF POPULATION HEALTH SERVICES IN WELLINGTON REGION

Public health services in the Wellington region are the domain of many organisations across the region:

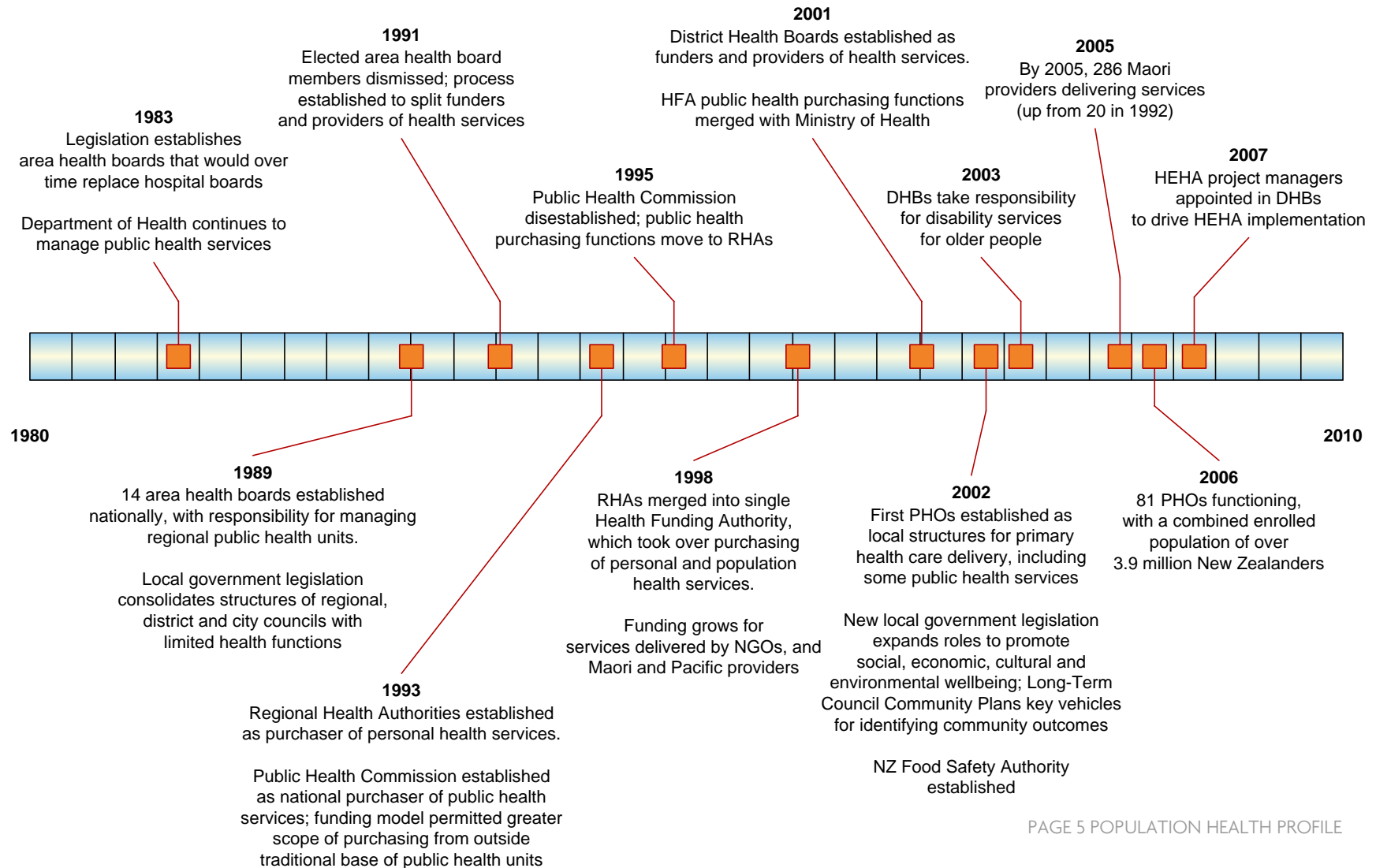
- Ministry of Health, principally as a funder of public health services, and also a regulator and planner
- Wellington Regional Public Health, as a provider of services
- District Health Boards, in both funding and provision
- Primary Health Organisations, mainly in the area of provision of primary health care services, but with some public health functions
- A significant array of private and non-government organisations, including Maori and Pacific providers
- Regional Sports Trusts
- Local and regional government

This plethora of funders and providers is the outcome of a process in which the health system, over the past two decades, has moved from a centralised and hierarchical structure based around the former Department of Health, to a more diversified network of planning and delivery.

In the early 1980s, regional public health services functioned as an arm of the Department of Health. Over the course of the next two decades, public health services became progressively more regionally-based and separate from central government, and more linked into district and regional structures, although they continue maintain a contractual relationship directly with the Ministry of Health. At the same time, the range of providers who deliver public health services and programmes has expanded considerably, to the extent that public health is not 'owned' by any one organisation, but is a shared undertaking across many agencies and sectors.

The timeline on the following page traces the development of the system of public health services funding and delivery over the past 20 years, and some significant milestones along the way that underline the diversified nature of the system.

From hierarchies to networks: Transitions in health structures 2003-2007



2. ROLES AND RESPONSIBILITIES OF AGENCIES

2.1 DISTRICT HEALTH BOARDS

District Health Boards (DHBs) were established in 2001 under the New Zealand Public Health and Disability Act 2000. The 21 DHBs are Crown entities, responsible to the Minister of Health, and are administered through the Ministry of Health.

DHBs plan, fund and ensure the provision of health and disability services to their populations. They are required to assess the health and disability support needs of the people in their regions, and to manage their resources appropriately in addressing those needs. Funding is allocated to DHBs using a weighted population-based funding formula. The priorities identified by the three Wellington DHBs (Capital Coast, Hutt and Wairarapa) are explored in subsequent sections.

2.2 PUBLIC HEALTH UNITS

Twelve public health units (PHUs) provide more than half the country's public health services. Wellington Regional Public Health Services are owned and operated from their base at Hutt DHB, although public health services delivered by the PHU are centrally funded by the Ministry. Outside of the PHUs, the remaining public health services are provided a range of non-governmental organisations (NGOs) across New Zealand. These services include environmental health, communicable disease control, tobacco control and health promotion programmes.

2.3 PRIMARY HEALTH CARE

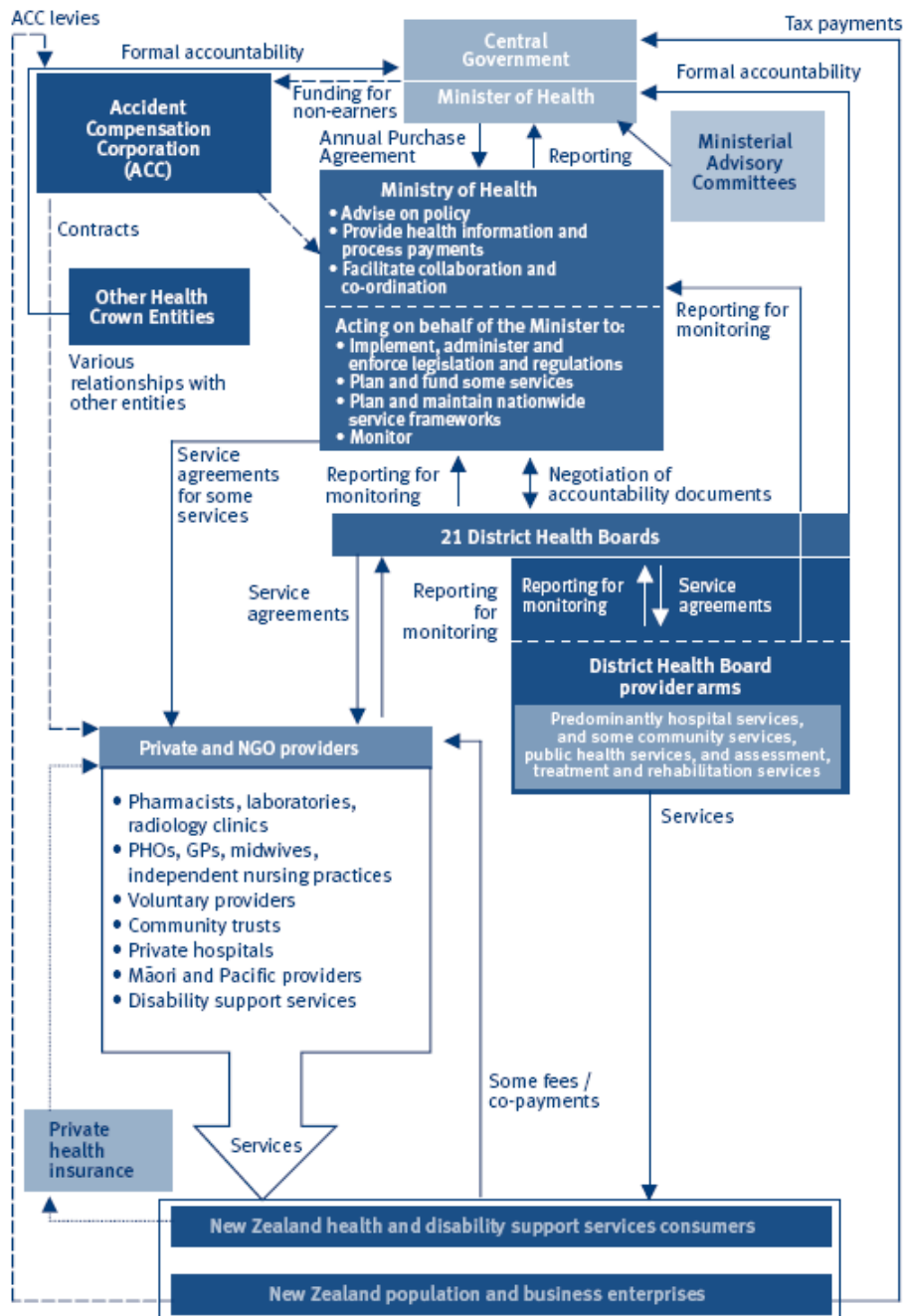
Primary health care includes a broad range of first-level services (although not all of these are government funded), including:

- health improvement and preventive services, such as screening
- general practice, mobile nursing, community health and pharmacy services
- first-level services for certain conditions such as maternity, family planning and sexual health services, or using particular therapies such as physiotherapy, chiropractic and osteopathy services.

PHOs are the local structures established under the Primary Health Care Strategy, and are funded through DHBs. PHOs provide and/or fund a set of essential primary health care services to a defined population, including at least first-level

general practice services, some health promotion services, services specifically to improve access for groups known to be in most need, and the management of prescribing and laboratory test use.

The structure of the health system is detailed in the diagram below (drawn from the Ministry of Health's Annual Report), and includes DHBs, PHOs, and the private and NGO sector.



2.4 OTHER SERVICE PROVIDERS

NGOs and voluntary organisations are an important part of the health and disability sector. More than 200 national organisations and local providers provide not-for-profit services in the health sector. This group of providers includes some large organisations such as the IHC, the Royal New Zealand Plunket Society, Family Planning Association New Zealand and the National Heart Foundation of New Zealand.

Community trusts and iwi-based bodies have also expanded in their number and scope of activities. Several communities, especially in rural areas, have established community trusts to develop health services for people in their area, and iwi-based organisations are providing an increasing range of health and social services (Ministry of Health Annual Report 2006).

3. KEY POPULATION HEALTH ISSUES AND PRIORITIES

3.1 POPULATION PROFILES AND PROJECTIONS

The 2007 projected populations of the three DHBs, by ethnicity and age group, are detailed in the table below. Wairarapa's population, at 39,000 people, is considerably smaller than that of Hutt and Capital Coast, which have populations of 139,000 and 281,000 respectively.

Maori are a relatively low proportion of the CCDHB population, at only 10%, compared to Hutt (17%) and Wairarapa (16%). Pacific people comprise 2% of the Wairarapa population, compared to 8% in both Hutt and CCDHB.

Of note is the young age profile of Maori and Pacific populations in all DHBs: approximately one in three are aged under 15 years, and half are aged under 24 years. Other population groups have an older profile, particularly in CCDHB, where one in five are aged 65 years and over.

Census data from 2001 suggests relatively lower extremes of deprivation in the three DHBs, compared to the national average: 15% of Hutt residents live in areas with high deprivation scores (9 or 10 in the New Zealand Index of Deprivation); 17% live in these areas in CCDHB; and 12% in Wairarapa. Maori and Pacific peoples are more likely to live in areas of high deprivation; in CCDHB for example, 62% of all Pacific people live in high deprivation areas.

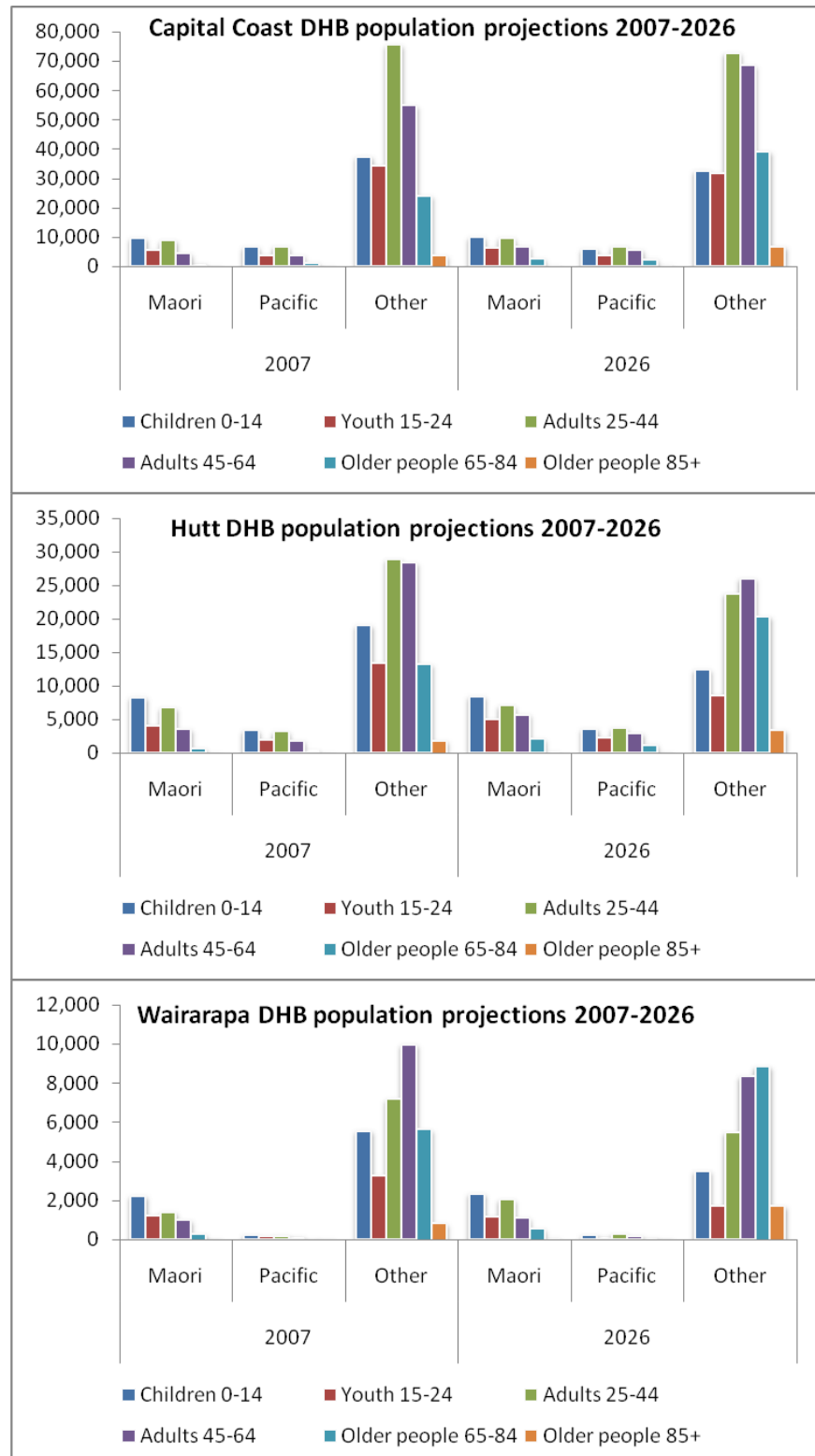
Projected 2007 populations of Hutt, Capital Coast and Wairarapa DHBs

Capital Coast DHB	Total	Maori	% Maori population	Pacific	% Pacific population	Other	% Other population
Children 0-14	53,640	9,600	33%	6,590	30%	37,450	16%
Youth 15-24	43,770	5,500	19%	3,870	18%	34,410	15%
Adults 25-44	91,080	8,800	30%	6,800	31%	75,480	33%
Adults 45-64	62,830	4,340	15%	3,720	17%	54,780	24%
Older people 65-84	25,980	890	3%	1,090	5%	24,000	10%
Older people 85+	3,740	30	0.1%	40	0.2%	3,680	2%
Total	281,040	29,160		22,110		229,800	
Hutt DHB	Total	Maori	% Maori population	Pacific	% Pacific population	Other	% Other population
Children 0-14	30,710	8,320	36%	3,360	31%	19,040	18%
Youth 15-24	19,380	4,090	18%	1,910	18%	13,380	13%
Adults 25-44	38,800	6,730	29%	3,190	30%	28,880	28%
Adults 45-64	33,750	3,540	15%	1,820	17%	28,380	27%
Older people 65-84	14,220	610	3%	400	4%	13,210	13%
Older people 85+	1,870	10	0.04%	10	0.1%	1,820	2%
Total	138,730	23,300		10,690		104,710	
Wairarapa DHB	Total	Maori	% Maori population	Pacific	% Pacific population	Other	% Other population
Children 0-14	8,010	2,230	36%	210	28%	5,560	17%
Youth 15-24	4,640	1,230	20%	160	22%	3,250	10%
Adults 25-44	8,780	1,400	23%	200	27%	7,170	22%
Adults 45-64	11,100	980	16%	135	18%	9,970	31%
Older people 65-84	5,950	280	5%	30	4%	5,630	17%
Older people 85+	830	10	0.2%	5	0.7%	820	3%
Total	39,310	6,130		740		32,400	

There are significant demographic trends underway, which when projected to 2026, will have major implications for health services in the region. The figures below show the population changes projected for each age and ethnic group (full data for each figure is detailed in Appendix 1). The figures show substantial growth in Maori and Pacific peoples aged 45 and over, and Other population groups aged 65 year and over. Furthermore, the population aged 85 years and over is projected to double across the region, and increase by factors of 5 or

more in Maori and Pacific populations. At the same time, the projections indicate a substantial decline is likely in the number of people aged under 25 years, particularly among Other ethnic groups.

Taking into account the relatively poor health status of Maori and Pacific populations in adult age groups, these changes could pose significant challenges to the ability of services to respond to major increases in these populations.



3.2 REGIONAL ANALYSIS OF HEALTH NEEDS BY PUBLIC HEALTH INTELLIGENCE

The Public Health Intelligence Unit (PHI) of the Ministry of Health undertook a health needs analysis for central region DHBs in 2005, to inform the strategic planning for each DHB. PHI's analysis identifies five major public health issues for the DHBs. The priorities, which are based mainly on analysis of NZHS and hospitalisation data for the priority areas of the New Zealand Health Strategy, are summarised in the table below.

	Capital & Coast DHB	Hutt Valley DHB	Wairarapa DHB
Five major public health issues	Smoking	Smoking	Smoking
	Obesity	Alcohol & drugs	Obesity
	Alcohol & drugs	Obesity	Alcohol & drugs
	Cardiovascular disease	Suicide ¹	Physical activity ²
	Nutrition	Cancer	Suicide

Points raised by PHI's analysis include:

- **Smoking:** In all three regional DHBs, Maori have markedly higher prevalence of smoking than non-Maori non-Pacific. Pacific people in CCDHB have higher prevalence of smoking than non-Maori non-Pacific.
- **Obesity:** Maori in the Hutt and Wairarapa DHBs, and Pacific people in CCDHB, have higher levels of obesity than non-Maori non-Pacific .

¹ Note that the inclusion of suicide as one of the five major public health issues for Hutt Valley appears anomalous; PHI's analysis indicated that suicide rates in Hutt Valley were lower than most other DHBs in the Central Region in 2000-01, which was the period cited in their report.

² Similarly, the inclusion of physical activity as a major public health issue for Wairarapa also appears anomalous; PHI's analysis did not indicate marked inequalities for physical activity, nor were physical activity levels out of step with other DHBs.

- **Fruit and vegetable intake:** Maori in all 3 DHBs, and Pacific people in CCDHB, have lower levels daily vegetable and fruit intake than non-Maori non-Pacific.
- **Suicide:** In 2001, people aged 20-24 years had the highest suicide rate, followed by those aged 25-29 years and 30-34 years. Nationally, Māori have significantly higher suicide mortality rates than non-Māori non-Pacific.
- **Alcohol:** Alcohol consumption among young people is of particular concern. In all central region DHBs and nationally, males have a higher prevalence of hazardous drinking than females. This difference is statistically significant for all ethnic groups in Capital & Coast, Hutt Valley and Wairarapa DHBs, and nationally.
- **Chronic illness:** The self-reported prevalence of a cancer or heart disease diagnosis increases with age, peaking in the 75+ years age group. In all central region DHBs and nationally, Maori and Pacific people have noticeably higher rates of all cancer mortality than non-Maori non-Pacific. In Capital & Coast DHB and nationally, Maori and Pacific people have significantly higher CVD mortality rates than non-Maori non-Pacific.
- The self-reported prevalence of diabetes increases with age, peaking in the 65-74 year age group, and then declining. Nationally, Maori have significantly higher prevalence of self-reported diabetes than non-Maori non-Pacific.

3.3 REGIONAL PRIORITIES FOR HEALTH

There was a shortage of trend data at a district level to allow indication of performance over time with most of the indicators presented by PHI. The strategic plans of each of the DHBs do however provide analysis that builds on the work undertaken by PHI to highlight key areas of activity for each DHB, and which are largely consistent with the priorities identified by PHI.

The District Strategic Plans bring together the local identified health needs identified by DHBs, and the strategic priorities established by central government in overarching health strategies, particularly the New Zealand Health Strategy and the New Zealand Disability Strategy, as well as the Minister of Health's Letter of Expectations to DHBs.

3.3.1 Capital Coast DHB

Capital Coast DHB's District Strategic Plan (DSP)³ notes that although the people of the district are healthier on average than those in other areas of New Zealand, there are the following health concerns:

- Heart disease;
- Lung cancer;
- Diabetes;
- The health of Pacific children;
- Gaining access to services, including mental health services.

The focus of the DSP is on children, youth, older people, Maori, Pacific peoples, refugees, new migrants and people on low incomes. The DSP sets the following health goals:

- Reducing disparities;
- Reducing illness and disease among populations with high health needs so there is less difference in the health of people across the district (such as Maori, Pacific peoples, refugees and new migrants, and people who live in areas that are considered to be deprived);
- Reducing the incidence and impact of chronic conditions;
- Reducing the number of people who develop an ongoing illness or disease;
- Reducing the impact of illness or disease on people's lives, particularly for populations with high health needs to maximise independence and maintain or improve the quality of life.

Achievement of these goals is through a range of strategies:

1. Developing our workforce.
2. Supporting and promoting healthy lifestyle.
3. Working with communities.
4. Focusing on people through integrated care.
5. Managing our money effectively.
6. Updating our hospitals

Performance measures and targets for the reducing disparities, and reducing the incidence and impact of chronic conditions, are detailed in Appendix 2.

³ Capital and Coast District Health Board. 2006. District Strategic Plan: 2006-2012. Wellington: CCDHB.

3.3.2 Hutt DHB

Hutt's District Annual Plan 2007/08⁴ notes that the key health issues for the Hutt Valley are broadly similar to those for the rest of New Zealand. The plan identifies the following as leading health conditions of concern:

- Cardiovascular disease (heart disease and strokes)
- Diabetes
- Cancer
- Depression
- Chronic Obstructive Respiratory Disease
- Asthma
- Suicide and self harm

In response to these health concerns, Hutt DHB's District Strategic Plan 2006-2001 sets six strategic goals:⁵

1. Improved health equity: Aiming to reduce health disparities by improving the health of high needs groups including many low income, Maori, Pacific and vulnerable people such as refugees and other migrants and those with disabilities or mental illness
2. Healthier communities: Promoting healthy choices in the community, workplaces and schools, and working with other agencies to improve other factors that also affect people's health, such as housing, transport, the city environment, and personal incomes.
3. A focus on prevention, early treatment and easy access: Easy to access health services, with good health promotion and early screening, identification and treatment of illness and disease, are key goals.
4. Effective, efficient and high quality services: Ensuring that Hutt Valley people get the best public health, community, hospital and disability support services that are possible within the available resources.
5. Seamless integration: Ensuring that providers are talking to each other, and that plans on how a person will be cared for involve all those providing care; this also includes a focus on case management.
6. An inclusive district: Promoting an environment where all groups in Hutt Valley feel they can freely discuss health issues and concerns they have, and that they are involved in health decision-making.

Eight strategies are highlighted to achieve these goals:

⁴ Hutt Valley District Health Board. 2007. District Annual Plan 2007/08. Wellington: HVDHB.

⁵ Hutt Valley District Health Board. 2006. Hutt Valley District Health Board's Five Year Strategic Plan from 2006. Wellington: HVDHB.

- Developing primary health care.
- Working with other agencies.
- Re-designing services and consolidating gains.
- Taking a whole person, whanau and lifespan approach.
- Working in harmony with Maori.
- Sharing information and measuring progress.
- Developing the workforce.
- Improving our hospital.

Performance measures and targets from the DSP are detailed in Appendix 2.

3.3.3 Wairarapa DHB

Wairarapa DHB's District Strategic Plan sets seven strategic priority areas:⁶

- Improve Maori health
- Improve health of people in low socioeconomic groups
- Improve health of older people
- Improve health of children and youth
- Reduce incidence and impacts of chronic conditions
- Reduce incidence and impacts of mental illness and addictions
- Reduce incidence and impacts of cancer

Details on outcomes sought for each these areas are detailed in Appendix 2.

Wairarapa's DSP also notes that common themes underlie all these priorities. These are the needs to:

- Increase connectedness between services – across the whole continuum
- Develop more holistic approaches in all services
- Address common risk factors: Diet, exercise, smoking, drug and alcohol abuse, road safety – a lifestyle approach
- Build community-wide collaborations, such as between health, education and local government to increase opportunities for physical activity.
- Continue to improve quality and safety of all services.

⁶ Wairarapa District Health Board. 2005. Strategic Plan 2005. Masterton: Wairarapa DHB.

3.4 LOCAL GOVERNMENT PRIORITIES FOR HEALTH

It is clear that the priorities identified by PHI and by each DHB relate strongly to the determinants of health, requiring collaborative action across health and other sectors. At local and district levels, alliances between health services, social services and local government are potentially pivotal to achieve the health gains sought by DHBs. It is therefore important to briefly consider the role that local government has in health, and the relevant priorities that city and district councils in the region have identified through community outcomes planning.

The formal roles of local government in health are many and varied. The most obvious health-related role is environmental protection and regulation, a role that dates back to Chadwick's public health reforms in the nineteenth century in Britain. Key statutory roles of local government include provision of sewage and stormwater infrastructure, rubbish collection, control of noxious pests and plants, civil defence, building permits, food inspection, dog control and regulation of alcohol licenses.

The second health-related role of local government is the delivery of funding and services on behalf of national agencies, which can improve population health outcomes or create healthier local environments. Notable examples are funding through SPARC for Active Communities programmes, and the Safer Cities initiative funded through the Ministry of Justice.

Community development provides a third area of local government responsibility that can impact on health and wellbeing. Local government legislation enacted in 2002 greatly broadened the scope of local government activity in this area by establishing a new purpose of local government, 'to promote the social, economic, environmental, and cultural well-being of communities, in the present and in the future'.

Under the Local Government Act 2002, councils are required, at least every six years, to undertake a process of identifying community outcomes to inform and guide planning and priority-setting for districts or regions, with public input into their identification. These subsequently inform the development of Long-Term Council Community Plans. The table on the following pages lists some of the key priorities which relate to health, identified by the Greater Wellington regional council, and city and district councils in the region. Together, they signal a strong foundation of common areas of interest in key determinants of health.

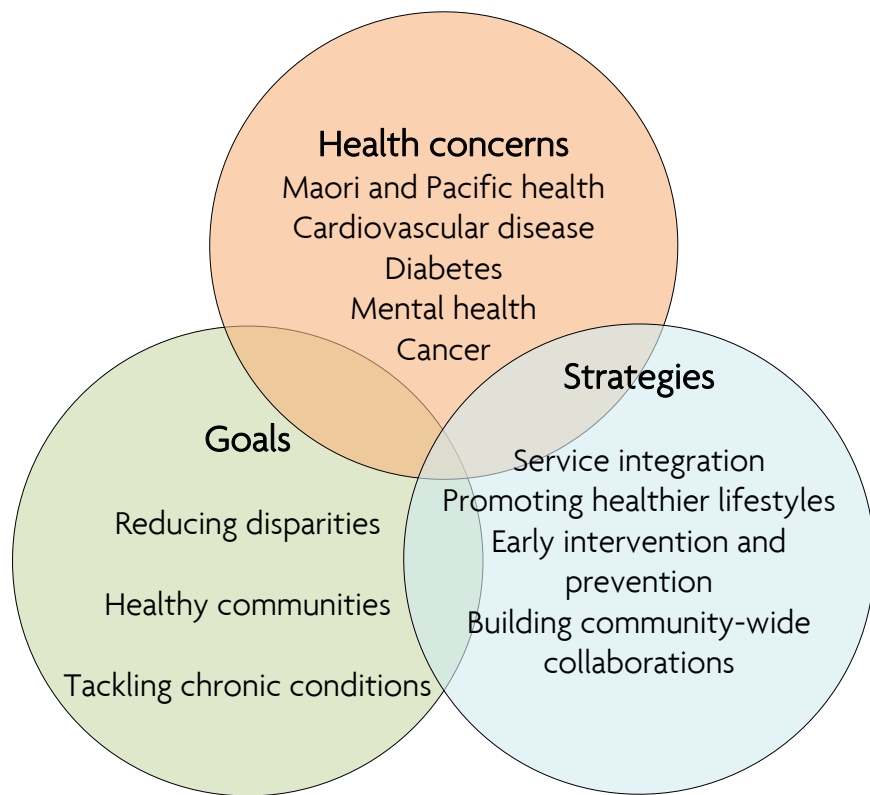
Selected regional, city and district community outcomes/objectives with relevance to health

<p>Greater Wellington Regional Council</p>	<ul style="list-style-type: none"> • Healthy Environment – The region will offer a beautiful ecologically sustainable natural environment. That environment will offer numerous opportunities for recreation and healthy living . • Connected – The region will be connected locally and globally... That includes high capacity communication networks, top quality air and sea ports, well-functioning highways and local links and excellent public transport services • Lifestyle – The region will have an exceptional quality of life where living is easy, safe and fun, and there is a wide range of affordable healthy lifestyle options underpinning a strong community spirit. • Regional foundations – People and businesses will have high quality, secure essential services for their everyday living. • Strong and tolerant communities – We will have inclusive, caring, friendly and participative communities ... The relationship with tangata whenua and ethnic communities will be important to the vibrancy of the community tapestry •
<p>Carterton District Council</p>	<ul style="list-style-type: none"> • Access to transport and communications systems which best meet the diverse needs of the district • Clean land, water and air for present and future generations • A buoyant local economy • A safe, healthy and educated community
<p>Kapiti District Council</p>	<ul style="list-style-type: none"> • There are healthy natural systems which people can enjoy • Local character is retained within a cohesive district • The nature and rate of population growth is appropriate to community goals • The District's resources are used wisely • There is increased choice to work locally • The District is a place that works for young people • The District has a strong healthy and involved community
<p>Hutt City Council</p>	<ul style="list-style-type: none"> • Efficient public transport that provides a viable alternative to roading • A local cycleway network that stimulates growth in recreational cycle use. • Ensure the quality of air, water and soil is kept within acceptable levels in the district. • Diversity and sustainability of the natural environment. • A safe place for residents, businesses and visitors. • Increased awareness of and participation in arts, cultural and recreational activities in the city. • Improved access to a safe and enjoyable natural environment. • A healthy urban environment • A range of housing and provider options within Hutt City • High quality of new and renovated housing. • A built environment considered to be attractive, healthy and safe. • A place where people feel a sense of belonging • Increased community awareness and involvement in health issues.
<p>Masterton District Council</p>	<ul style="list-style-type: none"> • Sustainable Use of Environment: Sustainable management and use of natural resources and infrastructure, now and for the future • Equitable Society: Diversity of the community appreciated, respected, celebrated and encouraged. • Vibrant, Strong and Healthy Communities: Healthy, caring and creative people who feel connected to others and to the District, creating a positive community where people are involved and contribute • Safe and Efficient Transport: A transport system that is safe, sustainable, integrated and responsive, enabling safe and efficient passage for people and

	goods around and through the district
Porirua City Council	<ul style="list-style-type: none"> • People are healthy and live in good quality housing • The diverse educational and training goals of our communities are met • Young people are innovative, optimistic and energetic participants • The natural and physical environment is valued, clean, safe, attractive and sustainable • Businesses flourish and sustainable employment opportunities are created • A safe integrated transport system for the movement of people and goods • A welcoming and creative City, that fosters a sense of safety, belonging and inclusion
South Wairarapa District Council	<ul style="list-style-type: none"> • Healthy and Economically Secure People: Working towards healthy and well housed people who are economically secure, active and involved in their community • Educated and Knowledgeable People: Educated and knowledgeable people who feel confident that they can achieve their aspirations. • Vibrant and Strong Communities: A place where people feel safe, are proud to live and have a sense of belonging. • A Place That's Accessible and Easy to Get Around: Access for all is achieved through a range of transport options, local and regional services and via telecommunications. • Sustainable South Wairarapa: A sustainably managed District where economic development and responsible environmental management go hand in hand.
Upper Hutt City Council	<ul style="list-style-type: none"> • Upper Hutt is the city of choice for people from all walks of life • Upper Hutt has a vibrant city heart • The economy is robust, innovative and growing • Upper Hutt offers a 'green' and attractive living environment • The community is safe, healthy and strong • Leisure opportunities are outstanding • Upper Hutt is connected with the world
Wellington City Council	<ul style="list-style-type: none"> • Wellington's long-term environmental health will be protected by well-planned and well-maintained infrastructure • Social services, especially public health and housing, will be affordable, available and accessible to all Wellingtonians • Opportunities for active and passive recreation in Wellington will be diverse, safe, affordable, accessible and attractive • Wellington's public transport system will be accessible and affordable for all • Wellington will preserve and improve its parks, trees and open spaces • Wellingtonians will protect and have access to public green open spaces and the coast • Wellingtonians will be actively involved in their communities, and work with others to make things happen

4. AREAS OF STRATEGIC ALIGNMENT

From across the many strategies and priorities established by the different district-level strategies, there are some key areas of convergence. These are detailed in the diagram below. When combined with the interest of local authorities in many determinants of health (whether or not they are conceptualised in that manner), there is clearly a strong foundation of strategic alignment in many areas.



An important issue raised by the diagram is what is *not* there; that is to say, what are the important population health issues facing the region on which broad-based consensus has not yet been obtained, or which are looming on the horizon and will require a regional response?

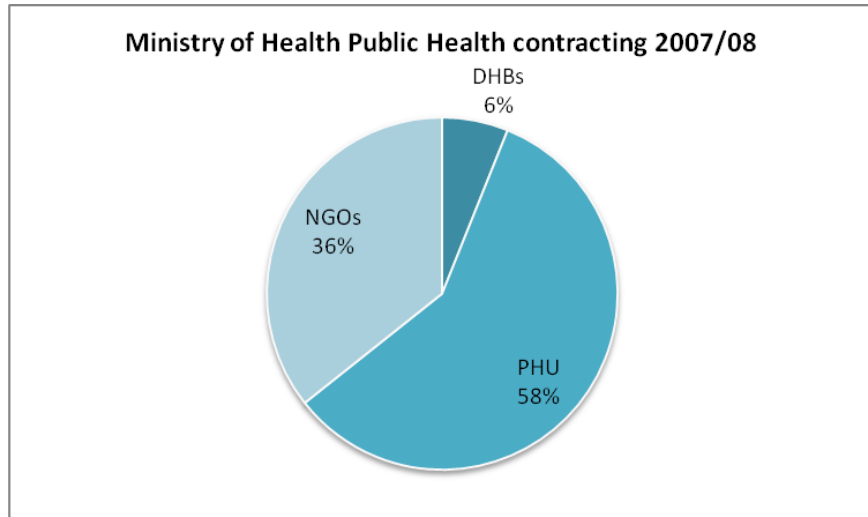
5. DISTRIBUTION OF RESOURCES

5.1 PUBLIC HEALTH FUNDING IN THE WELLINGTON REGION

Approximately \$12.5 million has been allocated to public health contracts that the Ministry of Health is committed to funding in the Wellington region in 2007/08.

- More than half of this will be invested in Regional Public Health (approximately \$7 million) for such services as alcohol and drug programmes, communicable disease control, fruit in schools programmes, injury prevention, mental health promotion, nutrition and physical activity, physical environment, public health infrastructure, sexual health services, social environments, tobacco control and smoking cessation, and well child promotion
- Around one-third (\$4.5 million) is identified for NGO providers for a similar range of services
- A small amount (approximately \$750,000) is allocated to DHBs for public health initiatives in their individual districts.

The distribution of funding is detailed in the diagram below. Note that this does not include all public health funding. For example, expenditure on screening programmes, and health promotion funding directly allocated by DHBs and PHOs, are excluded.



5.2 DHB FINANCIAL PERFORMANCE

All DHBs are required to fund and deliver services, making the best possible use of the resources available. The extent to which new funding is available for the

further development of population health strategies is a critical issue to contend with, the outcome of which will determine if there is a re-prioritisation of existing resources, new funding injections for new programmes, or a mixture of the two.

With a relatively static population, and with deprivation levels being relatively lower in than in other regions, Wellington's DHBs are likely to face funding constraints in coming years. The table below shows the overall financial performance of the three Wellington DHBs in 2006/07.

What is evident is that the DHBs are grappling with the need to manage within existing budgets, and there is little surplus funding available. This is already evident in the financial performance of Capital Coast DHB, where a \$13 million deficit was recorded in 2006/07, the reverse of a planned surplus of the same amount.

Financial Performance Wellington DHBs 2006/07 (\$000)

DHB	Funder Arm	Governance Arm	Provider Arm	Total surplus (deficit)	2006/07 Plan	Variance from 2006/07 plan
Capital & Coast	1,029	(460)	(13,515)	(12,946)	13,040	(25,986)
Hutt	4,039	100	(4,132)	7	0	7
Wairarapa	135	42	(88)	89	4	85

The challenge for public health providers in the region is to make convincing evidence-based cases for why new investment in health promotion and disease prevention is required. To do so requires more than an articulation of good intentions and collaboration with other sectors; rather, it requires a clear demonstration of the downstream impact of public health investment, backed up by the strongest evidence available.

6. REPORTING SYSTEMS

The population information presented in this report focuses largely on long-term health outcomes; this is typical for reports of this type and highlights a range of

areas where we are seeking to identify the key areas where health interventions should be targeted. Typically, these sorts of data include:

- Hospitalisations
- Mortality data
- Health outcome/behaviour survey data collected on three-to five year basis (or longer), such as through the New Zealand Health Survey, on such variables as obesity, nutrition and physical activity, smoking, or diagnosis with chronic illnesses.

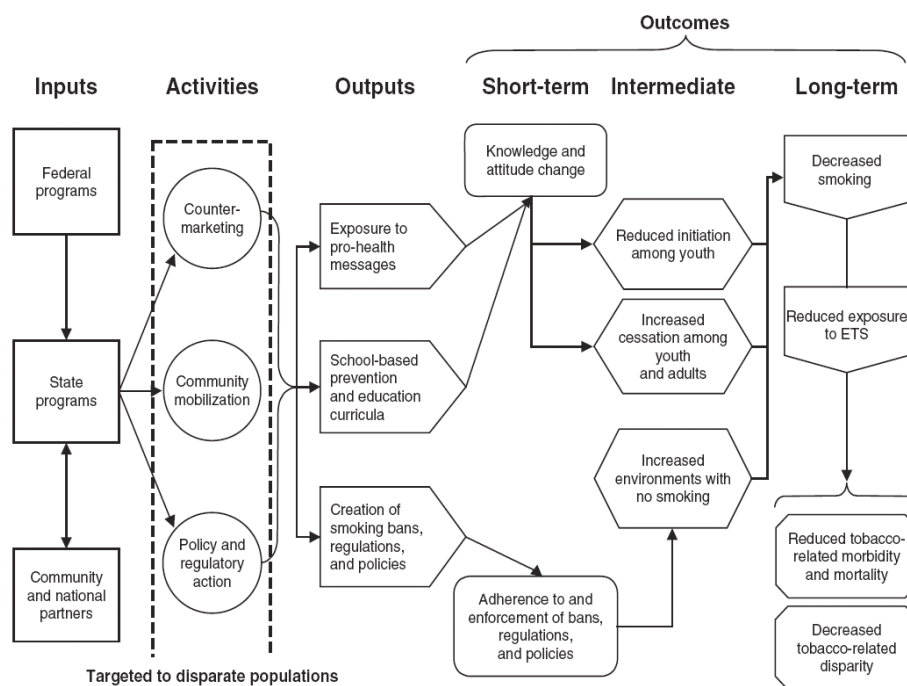
Whilst over a five-year period these can provide the clearest indication of progress towards overarching goals, their infrequent collection undermines the need to review progress on an annual basis.

At the opposite, short-term end of the timeframe, information is collected through funder-provider contracting, which to varying degrees gives information on the inputs (usually funding, and occasionally workforce) and outputs (services purchased). Reporting on these contracting arrangements gives some accountability for the number of services delivered. However, all they are generally able to tell is “how much are we spending” and “how many are we delivering.”

A common gap in our understanding is in short-term or intermediate outcomes, which provide the link from inputs and outputs to the long-term outcomes. Information on intermediate outcomes will provide progress measures, over the two to five year timeframe, towards achieving the strategic goals.

This is more than simply disaggregating the long-term outcomes into smaller component parts and reporting on them; it is about identifying the critical intervention points where influence can be most effectively wielded on long-term outcomes, and finding appropriate measures for these intervention points.

A way of conceptualising inputs, outputs and outcomes is presented on the following page, using tobacco as an example. The model, developed through the US Department of Health and Human Services as part of their ‘Prevention Strategies that Work’ programme, is underpinned by a ‘logic model’ that links inputs, activities, outputs and a range of outcomes.



Source: US Department of Health and Human Services 2003

This approach provides a way of conceptualising the linkages between national level funding and guidance, regional and local level activity, and the measurable outcomes that such activities could be linked to.

Populating a framework such as the one detailed above requires a broad array of data and knowledge that current reporting systems can only partially fill. There are ongoing gaps in our knowledge of the public health workforce, the capabilities and potential linkages across provider groups, and the availability of indicators that signal key leverage points for influencing long-term population health outcomes.

There are however a range of data available that may be less robust than the long-term outcome data, but which are more regularly available and help present a richer picture of progress towards outcomes. These sorts of data include:

- Process-oriented indicators, such as provider accreditation, collaborative arrangements, meetings held, uptake of environmental programmes (e.g. smokefree, physical activity) by schools or workplaces
- Data collected by NGOs from health promotion/monitoring activities, such as ASH, Plunket and National Heart Foundation
- Preventable hospital admissions data
- Child health data, such as immunisation rates, dental caries and hearing loss
- Referral rates to primary health care services, such as primary mental health care/counselling
- Primary care monitoring data extracting and analysed for PHOs by Management Services Organisations

- Food sale, purchasing and behaviours monitoring data, collected by Nielsen Media Research (available for purchase only)
- SPARC regional data on physical activity
- Green Prescriptions

Note however that the selection of appropriate monitoring data needs to be accompanied by a strong understanding of the pathways through which programmes can have an impact on population health. It is from this basis that indicators can be identified, rather than simply picking indicators on the basis of their availability.

APPENDIX 1: POPULATION PROJECTIONS 2007 TO 2026

Capital Coast DHB	2007			2026					
	Maori	Pacific	Other	Maori	% change Maori	Pacific	% change Pacific	Other	% change Other
Children 0-14	9,600	6,590	37,450	9,880	3%	5,970	-9%	32,670	-13%
Youth 15-24	5,500	3,870	34,410	6,300	15%	3,870	0%	31,690	-8%
Adults 25-44	8,800	6,800	75,480	9,760	11%	6,820	0%	72,790	-4%
Adults 45-64	4,340	3,720	54,780	6,850	58%	5,670	52%	68,430	25%
Older people 65-84	890	1,090	24,000	2,620	194%	2,470	127%	39,170	63%
Older people 85+	30	40	3,680	210	600%	240	500%	6,740	83%
Hutt DHB	2007			2026					
	Maori	Pacific	Other	Maori	% change Maori	Pacific	% change Pacific	Other	% change Other
Children 0-14	8,320	3,360	19,040	8,440	1%	3,570	6%	12,430	-35%
Youth 15-24	4,090	1,910	13,380	5,020	23%	2,280	19%	8,640	-35%
Adults 25-44	6,730	3,190	28,880	7,050	5%	3,680	15%	23,790	-18%
Adults 45-64	3,540	1,820	28,380	5,740	62%	2,930	61%	26,050	-8%
Older people 65-84	610	400	13,210	2,100	244%	1,240	210%	20,340	54%
Older people 85+	10	10	1,820	100	900%	80	700%	3,400	87%
Wairarapa DHB	2007			2026					
	Maori	Pacific	Other	Maori	% change Maori	Pacific	% change Pacific	Other	% change Other
Children 0-14	2,230	210	5,560	2,350	5%	215	2%	3,510	-37%
Youth 15-24	1,230	160	3,250	1,190	-3%	135	-16%	1,710	-47%
Adults 25-44	1,400	200	7,170	2,040	46%	275	38%	5,490	-23%
Adults 45-64	980	135	9,970	1,100	12%	175	30%	8,340	-16%
Older people 65-84	280	30	5,630	570	104%	95	217%	8,850	57%
Older people 85+	10	5	820	50	400%	10	100%	1,710	109%

APPENDIX 2: DHB PRIORITIES AND TARGETS

CAPITAL COAST DHB

Reducing disparities

Performance measure	Current Status	Target for 2012
Increase percentage of Maori enrolled in PHOs	71% (at 30 June 2005)	95%
Reduce childhood (under 5 years) avoidable admission ⁷ rate (e.g. asthma and skin infections)	Maori 6% Pacific 8% Other 5%	Maori 4% Pacific 6% Other 4%
Improve percentage of children passing school entry hearing tests	Maori 93% Pacific 87% Other 95%	Maori 95% Pacific 92% Other 95%
Number of people accessing community support services through care coordination centre	Service will start during 2005	100%
Reduce the number of people who do not attend out-patient appointments	9% (at 30 June 2005)	5%
Number of people receiving specialist assessment within six months	92% (at 30 June 2005)	100%
Number of people receiving treatment within six months	93% (at 30 June 2005)	100%

Reducing the incidence and impact of chronic disease

Performance measure	Current Status	Target for 2012
Reduce avoidable admission rates ⁷ for older people (65 to 74 years)	Total 4.77%	Total 3%
Increase percentage of people with diabetes who have good blood glucose level (HBA1c <8)	73% (at 31 December 2004)	90%
Increase percentage of people at risk of heart disease that is recorded and	Data collection will start during 2005/06	75%

⁷ Ambulatory sensitive hospitalisations

managed to meet practice guidelines		
Increase percentage of people with care plans for heart disease and stroke with individual specific goals	Data collection will start during 2005/06.	85%
Increase percentage of people attending rehabilitation after heart disease	Data collection will start in 2005/06	85%
Reduce readmission rate ⁸ for stroke for people who are aged 55 and above	7.3% (for the twelve months ending 30 April 2005).	4%
Reduce mental health readmission rate ⁸ in acute mental health unit	19% of all admissions.	12% of all admissions.
Improve the number of people accessing mental health services	1% of population.	3% of population.

HUTT DHB

Hutt DHB performance measures and targets

Indicator and measure	Baseline data	Desired
Immunisation: Percentage of children fully immunised by age two for different ethnic groups.	Information available via immunisation audits indicates that around 88% of Hutt valley children are fully immunised by age two. Awaiting National Immunisation register data for complete baseline data, including ethnic breakdowns.	Want to see increasing percentages of children fully immunised by age two.
Oral Health: Average number of decayed/missing/filled teeth (DMFT) at year 8 for different ethnic groups	POP-06 Oral Health – Mean DMFT score at Year 8 Hutt Valley DHB Actuals 2004 Total=0.9, Maori=1.3, Pacific=1.2, Other=0.8	Want to see reductions in average DMFT scores.
Primary Health: Ratio of age-standardised rate of GP consultations per high need person (decile 9 or 10 or Maori/Pacific) compared to non-high need person	SER-01 Accessible and appropriate services in Primary Health Organisations. Baseline data at January 2006 indicates a ratio of 0.99	Want to see increasing ratios of high need to non-high need consultations.

⁸ Unplanned readmissions

<p>Diabetes: A. Uptake of annual diabetes checks, bi-annual retinal screening and diabetes management for different ethnic groups.</p>	<p>POP-01 Diabetes detection and follow-up rate, the number of unique individuals diabetes on a diabetes register, with the date of their free annual check during the reporting period compared with the expected number of unique individuals to have diabetes. Hutt Valley DHB Actuals 2004Total=73%, Maori=40%, Pacific=78%, Other=83%</p>	<p>Want to see increasing percentages of estimated numbers of diabetics receiving free annual checks.</p>
<p>B. Diabetes management, the number of people with diabetes on a diabetes register that have HBA1c levels of equal to or less than 8% compared to the number of diabetics receiving an free annual check during the reporting period.</p>	<p>Hutt Valley DHB Actuals 2004Total=72, Maori=58%, Pacific=49%, Other=78%</p>	<p>Want to see increasing percentages of diagnosed diabetics managing their HBA1C levels.</p>
<p>C. Diabetic retinopathy screening, the number of people with diabetes on a diabetes register that have had retinal screening or an ophthalmologist examination in the last two years compared to the number of diabetics receiving an free annual check during the reporting period.</p>	<p>Hutt Valley DHB Actuals 2004Total=73%, Maori=73%, Pacific=73%, Other=74%</p>	<p>Want to see increasing percentages of diabetics receiving retinopathy screening.</p>
<p>Screening: Breast and cervical screening coverage rates for different ethnic groups.</p>	<p>Breast screening Hutt Valley coverage rates May 2005.45-49 Years=3%, 50-64 Years=68%65-69 Years=49% Breast screen Central coverage rates 2003Maori=43%, Pacific=33% Cervical screening Hutt Valley coverage rates 20-69 Years - Total=63%, Other=68%</p>	<p>Want to see increasing screening coverage rates for eligible populations</p>
<p>Mental Health Services: Percentage of population accessing mental health services for different ethnic groups and by age group.</p>	<p>POP-08 Improving the health status of people with severe mental illness, the average number of people domiciled in the DHB region, seen each month for the three months being reported to MHINC. Hutt Valley DHB Actuals Jan-Mar</p>	<p>Want to see increasing percentages of the population accessing mental health services and having these</p>

	2005 Children/Youth 0-19 Maori=0.45%, non-Maori=0.5% , Total=0.5% Adults 20-64 Maori=0.45%, non-Maori=1.0%, Total=1.0% Older Persons 65+ Maori=0.2%, non-Maori=0.4%, Total=0.4%	reported to MHINC.
Information: Percentage of primary care referrals and hospital discharges done electronically for different services.	Hutt Valley DHB Actuals...	Want to see increasing percentages of primary care referrals and hospital discharges done electronically.
Workforce: Ratio of full-time equivalent General Practitioners and Nurse Practitioners to the population.	As at August 2005 there were 108 General Practitioners working approximately the equivalent of 75 FTEs (including regular locums but excluding registrars). This equates to around one GP to 1,840 residents. There are around 73 Practice Nurses working within the Hutt Valley working approximately the equivalent of 50 FTEs (this excludes outreach, Maori and Pacific nurses working within the community). This equates to around one practice nurse to 2,760 residents.	Want to see practitioner and nurse coverage for the population to be increased or at least maintained at current levels.
Physical Activity: Proportion of population using active modes of transport (walking or cycling) for trips shorter than 2 kilometres.	In the 2004 annual transport survey for the Greater Wellington Regional Council 19% of trips shorter than 2km were made by active modes.	Want to see an increase in walking and cycling for short trips.
Hospital Performance: Proportion of day case discharges.	During 2004/05 the proportion of day case discharges was 36%.	Want to see increasing proportions of day cases.

WAIRARAPA DHB

Priority / Long term outcome	Medium term outcomes
Improve Maori health	<p>Maori provider development and whanau ora</p> <p>Maori participation increased</p> <p>Services more effective for Maori</p> <p>Healthier environments for Maori</p>
Improve health of people in low socioeconomic groups	<p>Reduced barriers to primary care</p> <p>Fewer avoidable admissions to hospital</p> <p>Healthier environments</p>
Improve health of older people	<p>Reduced barriers to access to primary care</p> <p>More opportunities for 'Aging in place'</p> <p>Improved management of hip and cataract elective surgery</p> <p>Increased support for carers</p>
Improve health of children and youth	<p>Improved oral health</p> <p>Increased use of primary care</p> <p>Improved youth mental health</p> <p>Reductions in risk behaviours</p>
Reduce incidence and impacts of chronic conditions	<p>Healthier lifestyles</p> <p>Increased access to primary care</p> <p>Increased early identification and intervention</p> <p>Improved disease management</p>
Reduce incidence and impacts of mental illness and addictions	<p>Healthier lifestyles</p> <p>Increased access to primary mental health services</p> <p>Increased access to specialist mental health services</p> <p>Increased effectiveness of mental health services</p>
Reduce incidence and impacts of cancer	<p>Healthier lifestyles</p> <p>Increased access to screening programmes</p> <p>Increased access to multi-disciplinary continuum of care</p> <p>Increased access to palliative care</p>