NORTHLAND DISTRICT HEALTH BOARD
Te Poari Hauora Ā Rohe O Te Tai Tokerau

Child and Youth Health Strategy

Adopted by the Board March 2007

Contents

Figures

Executive Summary

The purpose of this Strategy is to give funders and providers of services to children and youth in Northland information on child and youth health status; a recommended direction for services; and priority actions for the next 3-5 years. It forms the basis for the preparation of implementation plans, the first of which has been drafted to accompany the Strategy.

The Strategy has been prepared by the Northland Child and Youth Health Planning Group which reports to the General Manager Service Development and Funding in Northland DHB. The Strategy has been assembled in the context of national strategies and toolkits on child and youth health, as well as the Treaty of Waitangi, Whanau Ora and Northland DHB's focus on reducing inequalities.

The child and youth population in Northland is projected to decline over the coming years, but it remains a priority because healthy children make for healthy adults. Children in Northland are also more needy than adults; while 70% of adults live in areas classified into the lowest 5 deprivation deciles, for children the figure is 85%. This is largely because the more deprived Maori population comprises a higher proportion of children and youth than adults, a result of the higher Maori birth rate and lower life expectancy.

Preparation of the Strategy included a comprehensive needs assessment; the issues it identified are summarised below.

Category	Subcategories	
Determinants	social and economic factors employment	ethnic identity mobility and transience
Abuse and neglect	physical, sexual, emotional abuse and neglect	bullying
Behaviours (lifestyle)	expectant mothers' lifestyle breastfeeding excess weight, diet/nutrition physical activity smoking	alcohol cannabis methamphetamine ('P') sexually transmitted infections unintended pregnancy
Physical health	low birthweight sudden infant death syndrome injury transport-related injury communicable disease	hearing respiratory diseases oral health skin infections
Mental health	mental health disorders (excluding abuse-related)	suicide, intentional self-harm
Disability	permanent disability	

The needs assessment enabled the planning group to identify 6 goals and a series of objectives:

Goal 1 **Encourage and support a healthy population**

Create supportive social, physical and cultural environments for health.

Support and promote programmes for healthy lifestyles.

Provide appropriate support and monitoring for all pregnant women.

Promote and support breastfeeding to at least 6 months of age.

Encourage schools to take a whole school approach to wellness.

Increase preventive, wellness and screening programmes and initiatives.

Advocate for and promote parenting skills.

Gather information for planning and monitoring to support evidence based interventions.

Include the voice of youth in decisions about services that they access.

Goal 2 **Reduce unintentional injury**

Improve collection, content and monitoring of injury data.

Promote safe attitudes, behaviours and environments.

Develop Safe Communities.

Goal 3 **Reduce physical, sexual and emotional abuse and neglect**

Promote changes in attitude and behaviour relating to family violence and child abuse and neglect.

Lead the establishment of a multidisciplinary one-stop-shop for all agencies involved in child protection.

Goal 4 **Minimise the harmful effects of risky behaviour**

Advocate for community facilities and activities for youth that increase social participation and connectedness.

Improve youth access to appropriate health services.

Increase early identification of mental illness and alcohol and drug abuse.

Increase community awareness of the health consequences of risky environments in which our youth are growing up.

Goal 5 **Meet the health needs of children and youth with high health and disability support needs**

Provide comprehensive support for families with children and youth with high health and disability support needs.

Provide integrated services across mental health and child health for children with neurodevelopmental and disruptive behaviours.

Provide services throughout Northland for children and youth with excess weight.

Goal 6 **Support children and youth who are at risk from mental ill-health and alcohol and other drug problems**

Tailor intensive supports individually in a way that supports clients in a whanau environment.

Deliver intensive care and treatment (ICT) in the community to achieve earlier intervention and support care at home.

Provide respite care.

Support early intervention.

Improve rates of access to AOD and mental health services.

Gather information for planning and monitoring services.

Involve youth consumers in decisions about the services they access.

1 Introduction

1.1 Purpose

The purpose of this Strategy is to give funders and providers of services to children and youth in Northland information on child and youth health status; a recommended direction for services; and priority actions for the next 3-5 years.

1.2 How the Strategy was Prepared

Children and youth are one of the priority populations for the health of New Zealanders as a whole, for Maori health and specifically, for Northland.

In 2005 the Northland Child and Youth Health Planning Group (referred to throughout the Strategy as 'the Group'), was brought together with the purpose of developing a Northland Child and Youth Health Strategy for the next 3 to 5 years.

The Group was set up under the auspices of the Northland District Health Board's (NDHB) planning and funding responsibilities. The Group reported, via the Service Development and Funding team to the General Manager Service Development and Funding. This strategy will inform the NDHB's District Annual Plan, any future District Strategic Plans and associated health needs analyses. It has been prepared in the context of the Ministry of Health's Child Health Strategy (1998), Youth Health Guide to Action (2002) and The Child and Youth Health Toolkit (2004).

1.3 Who the Strategy is About

This Strategy covers all people up to the age of 24 years. It includes factors affecting the health of the unborn as it is increasingly recognised that the prenatal environment significantly influences childhood and adult disease. It does not include services relating to childbirth.

There are a number of definitions available regarding what is a child, adolescent, or youth. Biological changes, social changes such as undertaking employment, living independently, and developing lasting relationships all occur at different ages for different people. As such, we do not believe that it is helpful to set fixed age definitions for 'child' and 'youth'. Where we have wanted to define population groups we have used the school system as a convenient basis (pre-birth, preschool, primary school [including intermediate], secondary school and school leavers).

The Strategy has been written for children and youth as a whole. We recognise that while there are overlaps, children and youth also have issues unique to each group. Goal 4 concerning risky behaviours relates specifically to youth, while the other goals are applicable to both children and youth.

1.4 Identification of Services

The Strategy has deliberately not attempted to identify the services and organisations which contribute to child and youth health. Because the number and type of influencing factors are so broad, it is difficult to know where to stop in identifying which organisations are 'relevant' (unlike some other NDHB strategies which have more specific and disease-oriented subject

matter). Such information also dates quickly; some of it is bound to become inaccurate between the time it is gathered and when the Strategy is published.

Information on services and organisations will however be necessary to implement the Strategy. Those who will have responsibility for actioning the implementation plan must as a first step identify who should be involved in order to achieve progress.

2 Current Situation

The child and youth population in Northland is declining both in number and in its share of the total population. However child and youth must remain a priority because of their vulnerability. There are two reasons for this. First, quality of life and health status is often out of the control of children; thus they should remain a priority no matter what the demographic data says. Second, more Northland children than adults live in deprived circumstances (and adults' deprivation levels are some of the highest in the country); disparities in birth rates within the Northland population will only accentuate this characteristic over time.

2.1 Regional Description

Geographical Northland is a long, narrow peninsula at the northernmost end of New Zealand. The region is about 343km long (by road) and only 80km across at its widest point. Northland is bounded on the west by the Tasman Sea and on the north and east by the Pacific Ocean. The only boundary it shares is with Auckland, along its narrow southern neck.

Administrative The geographical area covered by NDHB matches that of the Northland Regional Council and the 3 District Councils (Far North, Kaipara and Whangarei). The 6 PHOs established in Northland cover the entire population with the exception of a small number in the eastern Kaipara District who belong to a Wellsford-based PHO.

Access and travelling times Though only a very small percentage of the population lives more than 60 or 90 minutes away from any hospital, access to services in Northland is difficult for many people. Barriers to physically accessing services result from a combination of several factors: long distances (5¼ hours north to south, up to 2 hours west to east); a deprived and scattered population; poor roads (58% of which are unsealed); minimal public transport (it exists only in urban Whangarei); often poor vehicle quality.

2.2 Population 2001

Total population Northland's total population in the 2006 Census was 148,470, 3.7% of the national total.

Child and youth population The population aged 0-24 in 2006 was 51,945. Its distribution across the 3 District Council areas closely matches that of the total population. The 0-24 population is not distributed evenly across its 5-year subgroups, with the greatest numbers in ages 5-9 and 10-14 (Figure 1). The lower numbers in ages 0-4 reflect a fall in the birth rate in recent years. There is an abrupt decline in numbers from age 17, as many youth leave Northland in search of more opportunities elsewhere (especially in larger metropolitan areas which have is an abrupt increase in numbers at this age).

Figure 1 Child and youth (0-24) population by 5-year age groups, Northland 2006

Age group	Population
0-4	10,272
5-9	11,562
10-14	12,951
15-19	10,560
20-24	6,600
Total 0-24	51,945
Total all ages	148,470

Ethnicity

In 2006, 43% of the child and youth population was Maori (while only 22% of the population over age 25 was Maori). The percentage Maori among children and youth is higher than the total population age group because of a higher birth rate; during 2004, 56% of all babies born in Northland were Maori. The percentage of young Maori is projected to increase slightly over time: 2001-base projections suggest that by 2016 Maori will increase to 41% of the child and youth population.

In 2001, Pacific people comprised 3% of the 0-24 age group and Asians 2% (2006 data for these ethnic groups is not available at the time of writing, but the percentages are expected to be similar).

2.3 Population Projections

Numbers dropping

(Available projection data is 2001-base only at time of writing.) The 0-24 population is projected to decrease by 8.3% between 2006 and 2016 (a numerical drop of 4,320). The projected reduction for 0-14 years (-11.7%, -4,050) is greater than for 15-24 years (1.5%, -270). These figures contrast with a projected growth over the same period for the total population of 4.6% and for the 65+ age group of 38.3%.

2.4 Deprivation

NZ and Northland

The NZDep study used Census data (latest is 2001) to define levels of deprivation within populations, dividing the population into 10 evenly sized groups ('deciles'). Nationally, the geographical areas grouped into the lowest 5 deciles contained 56% of the child and youth population; the comparable Northland figure is 85%.

Other ages in Northland

This figure for children and youth compares with 70% for the total Northland population. This is largely because the more deprived Maori population comprises a higher proportion of children and youth than adults, a result of the higher Maori birth rate.

2.5 Health Needs

The group carried out an assessment of the health needs of children and youth in Northland[1]; this assessment allowed the group to identify the goals and objectives that form the core of this strategy. The following health needs were identified:

Category	Subcategories	
Social and economic factors	social and economic factors employment	ethnic identity mobility and transience
Abuse	physical, sexual, emotional abuse and neglect	bullying
Behaviours (lifestyle)	expectant mothers' lifestyle breastfeeding excess weight, diet/nutrition physical activity smoking	alcohol cannabis sexually transmitted infections unintended pregnancy
Physical health	low birthweight sudden infant death syndrome injury transport-related injury communicable disease	hearing respiratory diseases oral health skin infections
Mental health	mental health disorders (excluding abuse-related)	suicide, intentional self-harm
Disability	permanent disability	

[1] *The full assessment is shown in Appendix 1. It lists types of needs, explains their importance and impact, provides key data, and describes the sources from which the information is taken.*

3 Approaches for Action

This section covers factors identified by the group as critical to the planning and delivery of services for children and youth. They include:

1 principles

2 the Treaty of Waitangi

3 Whanau Ora

4 reducing inequalities

5 working in partnership and collaboration both within the health services and with other government and non-government agencies

6 gathering information for planning and monitoring

7 planning for workforce recruitment, retention, training and development.

3.1 Principles

Children and youth should have their needs treated as paramount. Child health and disability services should:

- be focussed on the child/youth and their family and whanau
- be available as close to home as possible, within the bounds of quality and safety
- work together with each other and with staff from other sectors to benefit the child
- be provided to achieve equity
- be based on international best practice, research and education
- be regularly monitored and evaluated
- be culturally safe, culturally acceptable and value diversity
- take into account the available resources.

3.2 Treaty of Waitangi

The Treaty of Waitangi is considered the founding document of this nation and establishes the unique and special relationship between Maori and the Crown. Northland DHB participates in relationships with Maori that recognise and respect the Treaty of Waitangi principles of partnership, participation and active protection of Maori health interests, in order to improve health outcomes and reduce inequalities for Maori.

For Northland DHB, this means enabling Maori participation in funding, planning and decision making through active partnership with Maori at all levels of the health sector – in governance, operational management and workforce development, in supporting Maori health provider development, including Kaupapa Maori models of service delivery, and in acting to improve the health and wellbeing of Maori while safeguarding Maori cultural concepts and values.

3.3 Whanau Ora

To incorporate the four He Korowai Oranga (Maori Health Strategy) pathways[2] in to service planning and resource allocation decision-making, analysis of service proposals includes an assessment of their contribution to Whanau Ora. Therefore they must

- reduce inequalities in health status for Maori
- increase Maori participation in the delivery and utilisation of health and disability support services
- improve the health status of Maori
- improve independence for Maori with disabilities
- improve opportunities for Maori to participate in wider society as well te ao Maori (the Maori world)
- take in to account tikanga Maori
- increase the level of Maori participation in service planning, implementation and delivery.

3.4 Reducing Inequalities

Reducing inequalities is one of the key strategic issues that permeate all Northland DHB's planning and funding processes and decisions. It is one of the main thrusts of our prioritisation policy to ensure that funding decisions are consistently driven by the need to reduce inequalities among population groups.

The most common inequalities relate to measures of health and health service usage by Maori. Pacific people also experience inequalities. Other inequalities that may be relevant to particular situations exist between rural and urban, deprived and wealthier populations, age groups, and male and female.

To ensure inequalities are being reduced Northland DHB uses the Health Equity Assessment Tool (HEAT). This incorporates within it the Reducing Inequalities Framework and the principles of the Treaty of Waitangi. Both of these are described in Appendix 4.

3.5 Working in Partnership

Health status is affected or determined by many social and economic influences outside the direct control of health service providers. Working with other agencies enables the health sector to better address needs that affect and underlie health status. It can also be a way of reaching the most deprived populations, particularly as they form the client base for agencies such as MSD and Housing NZ.

To influence the determinants that impact on the health of children and youth, the health and disability sector should work collaboratively with education, housing, transport, welfare, Child, Youth and Family Services, employment, justice and local government. In the national context, specific areas of activity were identified in the report *Opportunity for all New Zealanders*. This report put priority on five critical social issues for interagency action over the next 3 to 5 years:

- improving educational achievement among low socio-economic groups
- increasing opportunities for people to participate in sustainable employment

[2] The 4 pathways are: development of whanau, hapu, iwi and Maori communities; Maori participation in the health and disability sector; effective health and disability services; and working across sectors.

- promoting healthy eating and healthy activity
- reducing tobacco, alcohol and other drug use
- minimising family violence, and abuse and neglect of children and older persons

This strategy identifies a number of areas where Northland providers need to work more closely together in order to make a difference for children and youth.

3.6 Information

Information is vital to identify needs, determine patterns across population groups, monitor needs over time and assess how well health services are performing. We cannot reduce inequalities unless we first have knowledge of their nature, effects and magnitude. Information to identify and compare various needs is also a necessary part of the prioritisation process. Throughout the preparation of this strategy the group has taken an evidence-based approach; wherever possible, we have not considered a new or altered intervention or service unless it has been proven to work. In implementing this strategy, it will be essential to continue to take an evidence-based approach.

There is plenty of data on the use of secondary (hospital) services by children and youth. Primary care services generate large amounts of useful information, but much of this is not yet readily accessible. Availability of measures of lifestyle and wellness (physical activity, nutrition, weight, smoking, alcohol and drug use, etc) is uneven and sporadic, often relying on one-off surveys and studies.

Poor information flows between health providers are a frequently mentioned source of frustration because inadequate information handicaps the ability of providers to provide quality care.

An information strategy is required to support the implementation of this strategy; information objectives have been included in section 4.

3.7 Workforce Planning and Development

The aim is to ensure a workforce that is skilled and competent in working with children and youth and that is adequate to meet the needs of programme and service delivery.

Workforce development is a key issue for all parts of the health sector and as such will not be dealt with in any detail in this strategy, although specific objectives relating to workforce recruitment, retention, training and development are included in section 4.

Here are some key points for consideration in workforce planning and delivery of training for those working with children and youth:

- the impression made about health services in our childhood and youth will stay with us forever and affect how we access services in the future, so all clinical and non-clinical staff dealing with young clients need to be trained in the appropriate skills
- youth have particular characteristics that require careful, non-judgemental and sensitive communication and tailored services
- youth are often reluctant to access health services, so it is important that providers learn to undertake opportunistic screening and intervention wherever possible

- when we consider patient centred approaches or the 'patient expert' we need to remember that children and youth have a right to speak for themselves; adults do not always have the answers.

Many of the health outcomes identified in this strategy are currently difficult to monitor. It is important to resource providers to capture information so that we can measure outcomes.

4 Goals and objectives

This section of the strategic plan sets out the goals and objectives (recommended actions) that will enable the ***promotion, enhancement and maintenance of child and youth wellbeing and the provision of appropriate services to those who need them***.

The objectives are not intended to be exhaustive nor to preclude innovation; their purpose is to identify the priorities for actions which will contribute towards the achievement of the goals.

The goals are to:

1 encourage and support a healthy population
2 reduce unintentional injury
3 reduce physical, sexual and emotional abuse and neglect
4 minimise the harmful effects of risky behaviour
5 meet the health needs of children and youth with high health and disability support needs
6 support children and youth who are at risk from mental ill health and alcohol and other drug problems.

Goal 1 **Encourage and support a healthy population**

Description

The focus of this goal is to encourage and support healthy growth and development through health promotion, prevention and early intervention. Given that the determinants of health include general socioeconomic, cultural and environmental conditions, individual lifestyle factors, social and community influences, and living and working conditions, initiatives must involve many agencies and sectors.

There are significant inequalities for Maori children and youth, so health promotion, prevention and early intervention programmes must be effective for Maori.

Issues

Cigarette smoking during pregnancy, which has been proven to have profound and multiple effects on the fetus, is still common.

Lower levels of breastfeeding among Maori than the NZ breastfeeding targets.

Poor nutrition, lack of physical activity and obesity result in health problems including diabetes, cardiovascular disease, cancer and mental health issues.

Inappropriate nutrition antenatally and in infancy, childhood and adolescence is linked to adult onset of cardiovascular disease, diabetes, overweight and significant and ongoing physical and psychosocial morbidity. The prevalence of obesity in children and youth is increasing.

Maori and Pacific children are more likely to be overweight or obese than other ethnicities.

Environments for children and youth are of critical importance in establishing healthy adult emotional, physical and cognitive wellbeing. Initiatives to support this have to be intersectoral.

Oral health is one of the DHB's identified priorities and a major cause for concern in Northland due to high levels of oral health disease in all age groups and a lack of fluoridated water. It is covered in a separate Northland DHB oral health strategy.

Objectives

1.1 Create supportive social, physical and cultural environments for health.

1.2 Support and promote programmes for healthy lifestyles.

1.3 Provide appropriate support and monitoring for all pregnant women.

1.4 Promote and support breastfeeding to at least 6 months of age.

1.5 Encourage schools to take a whole school approach to wellness.

1.6 Increase preventive, wellness and screening programmes and initiatives.

1.7 Advocate for and promote parenting skills.

1.8 Gather information for planning and monitoring to support evidence based interventions.

1.9 Include the voice of youth in decisions about services that they access.

Goal 2 **Reduce unintentional injury**

Description

Most accidents are preventable. Injury prevention focuses on changing unsafe environments; changing unsafe behaviours; and changing unsafe attitudes.

Some injuries to children are inflicted and often unrecognised as such.

The WHO Safe Communities model aims to work with the community to address injury issues across all ages and causes, often with a major focus on child safety. The Whangarei District Council is accredited.

Issues

Although injuries are largely preventable, data on hospital admissions and death suggests injury is:

- in first year of life, the second largest cause of death
- for ages 1-14, the leading cause of death, and most frequent reason for acute admission
- for 15-24 year olds, the leading cause of both admissions and death

Also, most accidents to children occur in the home and most accidents to youth occur on the road.

Objectives

2.1 Improve collection, content and monitoring of injury data.

2.2 Promote safe attitudes, behaviours and environments.

2.3 Develop Safe Communities.

Goal 3 **Reduce physical, sexual and emotional abuse and neglect**

Description

Abuse may be physical, sexual, emotional, or any combination of these.

Issues

Any form of abuse may have profound, long-term effects on physical, cognitive, emotional, behavioural and social development.

A person who is abused during childhood and youth is more likely to become an abuser as an adult.

Partner abuse is a strong indicator of child abuse.

Much, probably most, abuse is either not identified or not reported. This is especially an issue within the health sector where staff may be in a prime position to detect potential abuse.

Abuse has been shown to increase the risk of suicidal thoughts and actions, mental health disorders (including in children), behavioural problems, eating disorders, self-esteem issues, harmful risk taking behaviours, and adult criminal activity.

An emerging issue in Northland is the home-based manufacture and use of methamphetamines and the risk to children and youth of living in such an environment.

Objectives

3.1 Promote changes in attitude and behaviour relating to family violence and child abuse and neglect.

3.2 Lead the establishment of a multidisciplinary one-stop-shop for all agencies involved in child protection.

Goal 4 **Minimise the harmful effects of risky behaviour**

Description

The transition from childhood to adulthood involves testing the boundaries and some risk-taking behaviour. This goal addresses ways of minimising the harmful effects of such behaviour.

Risky behaviours in youth include those with short term effects, such as from motor vehicle crashes, drug overdose, binge drinking, underage and unsafe sex, violent behaviour, self-inflicted harm etc and those with long term effects from behaviours such as AOD use, dietary choice and physical inactivity. Behaviours with long-term effects are also addressed in Goal 1.

There are strong associations between risky behaviours and they tend to cluster in individuals. The regular young tobacco user is more likely to be a problem drinker as well as using marijuana regularly and experimenting with other illicit drugs and indulging in unsafe sex. Similarly, mental health problems are associated with deliberate self-harm, substance abuse, physical inactivity and sexual risk taking. Antisocial behaviour has strong associations with accidental injury, substance abuse and deliberate self-harm.

Issues

Smoking is a cause of or risk factor for a legion of diseases and conditions; Northland has a higher percentage of smokers that the rest of NZ, particularly young Maori women.

Alcohol use is associated with poor decision-making and inappropriate behaviours, especially in relation to driving, violence and sexual activity (with links to unintended pregnancy, STIs, sexual abuse).

Cannabis can cause respiratory problems, affect learning and memory; its use may also lead to psychotic conditions.

Untreated STIs are associated variously with pelvic inflammatory disease, ectopic pregnancy, infertility, a range of infections and risks to newborns.

Transport related injuries are the largest cause of admission to hospital and death in 15-24 year olds. They had a greater number of loss-of-control crashes than any other age group during 1999-2003.

Objectives

4.1 Advocate for community facilities and activities for youth that increase social participation and connectedness.

4.2 Improve youth access to appropriate health services.

4.3 Increase early identification of mental illness and alcohol and drug abuse.

4.4 Increase community awareness of the health consequences of risky environments in which our youth are growing up.

Goal 5 **Meet the health needs of children and youth with high health and disability support needs**

Description

This section refers to children and youth with chronic diseases and disabilities.

These youth and their families may require complex, extended services from both the health sector and other agencies.

Currently children with intellectual and/or physical disabilities who are not eligible for ACC support, for example children with cerebral palsy, are significantly under serviced compared to those who can command ACC resources. This is hugely inequitable.

Issues

Chronic diseases, such as diabetes and the consequences of obesity.

Shortage of quality respite care.

Inadequate information. There is a qualitative as well as quantitative problem with data for planning

Workforce – recruitment and retention problems due to competition for staff with specialist skills eg the Ministry of Education employs Speech Language Therapists, or lack of staff with the appropriate skills to fill vacancies. The issues here are a) world-wide shortage of appropriate professionals; b) inability of the health sector to be competitive in terms of remuneration even within the NZ public sector eg SLTs employed in education and in health; psychologists employed in many sectors; c) the challenge of recruiting to the mid and far north.

Objectives

5.1 Provide comprehensive support for families with children and youth with high health and disability support needs.

5.2 Provide integrated services across mental health and child health for children with neurodevelopmental and disruptive behaviours.

5.3 Provide services throughout Northland for children and youth with excess weight.

Goal 6 **Support children and youth who are at risk from mental ill-health and alcohol and other drug problems**

Description

The most common disorders are anxiety disorders, depression, conduct disorders, and alcohol and other drug (AOD) abuse.

Planning for mental health and AOD services is undertaken at a northern regional level, so Northland is covered in 2 documents: *Northern Region Mental Health and Addictions Services Strategic Direction 2005-10* and *Alcohol and Other Drug Service Needs Analysis in the Northern Region, Recommendations Report*, Nov. 2004. Northland specific planning is underway to be completed during 2006/07.

Issues

Northland youth have a higher weekly use of alcohol and cannabis than NZ average; hospital admissions for intentional self-harm are also higher than the national average. The Northland youth suicide rate is greater than the national rate. Mental health admissions are most commonly for schizophrenia, and alcohol and drug effects.

There is a lack of respite care for youth with mental illness and AOD problems and their families.

Workforce issues include recruitment and retention problems due to competition for staff with specialist skills eg psychologists employed in many sectors; the challenge of recruiting to the mid and far north; and health practitioner competency requirements.

The need for intersectoral and service co-ordination and collaboration.

Stigma associated with mental illness.

Inadequate information. There is a problem with qualitative as well as quantitative data for planning.

Late presentation to services, in particular to AOD services, and late presentation of tamariki and rangatahi.

Objectives

6.1 Tailor intensive supports individually in a way that supports clients in a whanau environment.

6.2 Deliver intensive care and treatment (ICT) in the community to achieve earlier intervention and support care at home.

6.3 Provide respite care.

6.4 Support early intervention.

6.5 Improve rates of access to AOD and mental health services.

6.6 Gather information for planning and monitoring services.

6.7 Involve youth consumers in decisions about the services they access.

5 Indicators of Progress

A set of key indicators will be used to measure the impact of implementing the strategy[3] over time. These indicators will compare Northland with the rest of NZ and be comparative within the district. To measure progress on reducing inequalities, particularly between Maori and non-Maori, ethnicity will be used in all measures (though data on ethnicity was not routinely available at the time of writing). Suggested measures and format:

Indicator				Northland			New Zealand		
Description	**Measure**	**Source**	**Date**	**Maori**	**Non-Maori**	**Total**	**Maori**	**Non-Maori**	**Total**
Infant mortality	Rate per 1,000 live births	INZH	2001/02			6.3			5.6
Perinatal mortality	Rate per 1,000 live births	INZH	2000/01			11.4			9.5
Breastfeeding at 6 months	Percent	INZH	2004			19			24
Drowning mortality ages 0-4	Rate per 100,000	INZH	2001/02			...			3.9
Burns hospitalisations ages 0-4	Rate per 100,000	INZH	2003/04			126.9			125.9
Falls and poisonings hospitalisations ages 0-4	Rate per 100,000	INZH	2003/04			964.5			793.5
Tobacco smoking ages 14-15	Percent	INZH	2002			23.4			20.9
Caries-free teeth year 8 (non-fluoridated)	Percent	INZH	2003	30.4	44.8	39			40
Mean no. decayed, missing, filled (DMF) teeth year 8 (non-fluoridated)	Number	INZH	2003	2.47	1.39	1.8			1.8
Overweight or obese ages 5-14	Percent	NCNS	2002	n/a	n/a	n/a	41%	n/a	31%
Live births, teens	Rate/100,000								
TOPs, teens	Rate/100,000								
Self-harm hospitalisations	Rate/100,000	I	2003/04			96.2			86.5
Suicide mortality	Rate/100,000	I	2001/02			12.6			12.2
Access to mental health services as ages ??-??	Percent								

Data sources:

INZH An Indication of New Zealand's Health, Ministry of Health.

NCNS National Child Nutrition Survey, Ministry of Health.

[3] The Implementation Plans for the strategy will contain short-term measures to gauge success in implementing actions during a 2-3 year period.

Glossary

Terms *in italics* have their own entry.

Term	Explanation
ACC	Accident Compensation Corporation.
acute	Used to describe an illness or injury, either mild or severe, which lasts for a short time. (See also *chronic*).
Baby Friendly Hospital Initiative	A World Health Organisation-sponsored programme which aims to actively promote breastfeeding through education of health care workers in maternity and neonatal services.
cardiovascular disease (CVD)	Related to the heart (cardio) and circulatory (vascular) system. The term includes both coronary heart disease and stroke.
chronic	Used to describe an illness, disease or disability of long duration, and which has developed slowly. Chronic conditions are usually permanent or incurable, so that management to minimise discomfort and cost of services is important. (See also *acute*).
CYF	Child Youth and Family, now part of MSD.
DC	District council.
deprivation, deprived	Describing those with high, often multiple, needs (often used loosely to mean 'poor', though income is only one of the factors considered). The most widely quoted source of data on deprivation is the NZ Deprivation (NZDep) scale which analyses 5-yearly Census data to describe deprived populations. Once 'deprivation index' scores are calculated across the whole of New Zealand, the data is divided into deciles, 10 population groups of equal number. (These deciles are calculated differently, and use a different scale, to the school deciles used by the education system.)
DHB	District Health Board.
diabetes	A complex condition in which the body is unable to control the amount of glucose (sugar) in the blood, either because there is not enough of the hormone insulin or it does not work effectively. Uncontrolled diabetes can lead to metabolic disturbances that increase the risk of long term complications and affect a number of the body's systems. 90% of diabetes is type 2, acquired as a consequence of unhealthy lifestyle, and is usually related to excess weight gain; onset is gradual. About 10% of diabetes is type 1, a result of the pancreas malfunctioning whose cause lies in viral infection and a breakdown in the body's autoimmune systems (not lifestyle); onset is usually rapid and can be life-threatening.
District Annual Plan (DAP)	Northland DHB's statement of its intentions for the coming year. (See also *District Strategic Plan*.)
District Strategic Plan (DSP)	Northland DHB's statement of its intentions, based on the needs identified in the Health Needs Analysis, over the coming 5 or 10 years. Prepared once every 3 years. (See also *District Annual*

Term	Explanation
	Plan.)
ethnicity	A measure of cultural affiliation defined by Statistics New Zealand as a social group whose members share a common origin, claim a common sense of distinctive history and destiny, possess one or more dimensions of collective individuality and feel a sense of unique collective solidarity.
Food in Schools	Often-used term for the National Heart Foundation's School Food Programme.
Fruit in Schools	A Ministry of Health-driven programme to promote health and wellbeing in high need primary schools. It involves a *Health Promoting Schools* / whole-school-community approach to promoting 4 priority areas (healthy eating, physical activity, sun protection and smokefree), as well as the provision of fresh fruit for children in eligible primary schools in high-need areas.
Health Promoting Schools (HPS)	A Ministry of Health-driven programme in which schools sign up for a whole-of-school approach to promoting health and wellbeing (that is, it links all aspects of school life into a health promoting framework). They are assisted in this process by HPS advisors in the local DHB.
Healthy Eating, Healthy Action (HEHA)	A Ministry of Health-driven strategy which aims to identify, promote, and coordinate programmes for healthy nutrition and appropriate physical activity at national, regional, community and iwi levels.
He Korowai Oranga (HKO)	The national Maori health strategy published by the Ministry of Health.
Hospitalisation	The process of attending hospital as a patient. It includes 3 main types: inpatient, a patient who stays at least one night in hospital outpatient, a person who is seen in a non-inpatient setting, or 'clinic', by a specialist after referral from a GP daypatient, a patient who undergoes an operation or other procedure in hospital and able to return home without staying overnight. The term 'hospitalisation' is often used loosely to mean one or any combination of the 3 types.
incidence	The number of new instances of a disease or illness in a defined group of people over a particular period of time (compare with *prevalence*).
intersectoral	Used to describe relationships between health and other sectors, often other government organisations, *TA*s.
Lifestyle Clinic	A programme run by NDHB's Child Health Centre for children who are obese. As well as slowing down the child's weight gain, the whole family is encouraged to make changes and become more physically active.
LMC	Lead maternity carer.

Term	Explanation
LTCCP	Long Tem Council Community Plan. District Councils are now required by legislation to prepare what is in effect a strategic plan based around 'community outcomes', and health is part of these.
LTNZ	Land Transport New Zealand.
MoE	Ministry of Education.
MoH	Ministry of Health.
MSD	Ministry of Social Development.
NDHB	Northland District Health Board, which has 2 parts: NDHB Funder: that part of NDHB that has been legislated to carry out the funding function for health services in Northland. The funder assesses needs, sets priorities for services, allocates funds, lets contracts to providers, and monitors performance. NDHB Provider: that part of NDHB that provides health services (as distinct from the *NDHB Funder*). The majority of the Provider Service's funding goes on *Secondary care services*. In the strategy documents, 'NDHB' refers to the whole organisation with involvement as relevant in each case from the funder or from the provider arm.
NGO	Non-government organisation, any organisation which is not part of the public sector. In the health sector it usually refers to health service providers, though it applies more widely than that. It ecompasses the private and voluntary sectors, therefore including many organisations which are funded wholly or partly from the public purse but are not part of a formal government structure. Major NGOs include PHOs and Maori providers.
NIF	Northland Intersectoral Forum, which comprises representatives from councils and government organisations throughout Northland. NZDep
NZDep	See *deprivation*.
obese, overweight	Degrees of excess weight, as defined by the *Body Mass Index (BMI)*. Overweight = BMI 25-29 for Europeans, 26-31 for Maori and Pacific. Obese = BMI 30+ for Europeans, 32+ for Maori and Pacific. (Acceptable figures differ across ethnic groups because of variations in bodily composition and how this relates to risk of developing health problems such as heart disease and diabetes).
opportunistic screening	Taking advantage of opportunities as they arise, such as during a GP visit, to assess individuals for health problems (as distinct from a formal population-based programme of screening, such as the Cervical Screening Programme). People may not realise that they have signs or symptoms already developing, so this is an important way of catching problems (especially chronic diseases) early, when they are more likely to be preventable or are easier to treat.
outcome	The result of an action. As distinct from an output, which is a

Term	Explanation
	measure of an activity rather than the result it has. An operation to mend a broken leg is an output, while the return to full function of the leg is the outcome. In a bigger picture sense, a focus on outcomes aims to analyse how effectively health services are provided and how well they work together.
patient management system	A system for managing data about all the people to whom an organisation provides services.
primary health care	Health services provided in the community which people can access themselves. The most well known are those provided by general practitioners, though they also include pharmacy services, private physiotherapists and, increasingly, nurse practitioners. (See also *secondary services*).
Primary Health Organisation (PHO)	A group of providers of *primary health care* services whose responsibility is to look after the people who enrol with them (those who are 'on the register'). PHOs include GPs as well as a whole range of primary health care providers and practitioners (Maori and community health service providers, nurses, pharmacists, dietitians, community workers, and many others). As well as providing traditional primary health care services, PHOs must improve access to services for those with higher needs (such as Maori or those with chronic health conditions), have a focus on preventing ill health (rather than waiting till they are visited by sick people) and improve the way services work together.
prevalence	The total number of instances of a disease or illness in a defined group of people at any one time (compare with *incidence*).
PTE	Private training establishment.
reducing inequalities	Inequalities in the health status of populations exist by *socioeconomic status*, *ethnicity*, gender, age and geographical areas. The reducing inequalities approach is about recognising these and proactively planning, funding and delivering services to reduce these differentials.
risk factor	A factor, which may be biological (such as a genetic predisposition) or associated with behaviour (such as smoking), that increases the likelihood of a disease developing.
secondary services, secondary care	Hospital services which people can access only through a referral from a primary health care worker. (See also *primary health care*).
SIDS	Sudden Infant Death Syndrome, death of an apparently healthy infant before one year of age that is of unknown cause and occurs especially during sleep. See also *SUDI*.
socioeconomic status (SES)	Social position along a scale (which runs, in everyday terms, from 'rich to 'poor'), as measured by criteria such as income level, occupational class or educational attainment.
SPARC	Sport and Recreation NZ, a government-funded organisation which counts among its aims getting Kiwis active and carrying out

Term	Explanation
	surveys on physical activity. Sport Northland has close links with SPARC.
specialist	A physician or surgeon, usually based in a hospital, who has undertaken extra training on top of the normal medical degree to specialise in a particular type of service or disease. Also called a consultant.
SUDI	Sudden Unexplained Death of an Infant. Death of an infant for which, after all investigations have been made, its causes remain unexplained. See also *SIDS*.
TA	A territorial authority, which includes Northland Regional, Whangarei District, Kaipara District and Far North District Councils.
Te Roopu Kimiora	Northland DHB's child and youth mental health service.
type 1 diabetes, type 2 diabetes	See *diabetes*.
well-child services	Primary care and community services provided by nurses and doctors that monitor and assess children to achieve their best possible health and detect any existing or potential health needs. They are provided according to a Ministry of Health schedule which describes, at various stages from birth to age 5, the services to be provided, topics to be addressed and support all children and their families are entitled to.
Whanau Ora	A Ministry of Health-driven process aimed at supporting healthy Maori families which emanates from He Korowai Oranga. It aims to identify and extend whanau strengths and build them into initiatives throughout the health sector.

Appendix 1 Information on health needs

Information on the pattern of disease and injury in children and youth is limited. There is plentiful information on mortality and the use of secondary (hospital) services, but this is a partial picture at best because it includes only the sickest children and youth. Most contact with health services occurs at the primary care level, but PHOs and general practices have not yet developed regular reporting mechanisms. Data on lifestyle among children and youth is patchy and dependent on one-off surveys and studies; the 3-yearly Ministry of Health-run NZ Health Survey, due to be carried out again in late 2006 and early 2007, will include those aged under 15 years for the first time.

The table on the following pages shows the group's assessment of health needs for children and youth. It lists the types of need, describes their nature and importance, and provides data where possible (the shorthand labels in the information sources column are explained more fully after the table). This needs assessment allowed the group to identify the goals and objectives that form the core of this strategy.

The table immediately below shows the categories and subcategories into which the information is divided, and also provides hyperlinks to locations in the detailed table.

Category	Subcategories	
Determinants	social and economic factors employment	ethnic identity mobility and transience
Abuse and neglect	physical, sexual, emotional abuse and neglect	bullying
Behaviours (lifestyle)	expectant mothers' lifestyle breastfeeding excess weight diet/nutrition physical activity smoking	alcohol cannabis methamphetamine ('P') sexually transmitted infections unintended pregnancy
Physical health	low birthweight sudden infant death syndrome injury transport-related injury communicable disease	hearing respiratory diseases oral health skin infections
Mental health	mental health disorders (excluding abuse-related)	suicide, intentional self-harm
Disability	permanent disability	

Health need	Importance / impact	Available info	Info source
DETERMINANTS			
Social, economic factors	Socially and economically deprived populations have higher rates of ill health across a wide range of measures. Also higher prevalence of non-health risk factors (education, crime, housing etc) that adversely affect health status, lifestyle and involvement with health services.	Nationally, the geographical areas grouped into the lowest 5 deciles contained 56% of the child and youth population; comparable Northland figure is 85%. This figure for children and youth compares with 70% for Northland total population.	NZ Dep / Paed. Soc.
		Socioeconomic differences exist across most broad areas of child health. Similar causes of inequality (eg poverty) play out through a myriad of causes.	Shaw et al
		Deprived children in NZ miss out on many basics. Some examples: wet weather clothing ('not obtained' for 31% of children in 'restricted' living standards, but for 0% of those in 'good' living standards), childcare services (28%, 1%), having friends for a birthday party (14%, 0%), school outings (51%, 1%), books for home (58%, 3%), visit to doctor (31%, 0%), eyeglasses (9%, 0%), sports activities (54%, 1%), limited space for study and play (45%, 5%).	ACBO
Employment	Critical for youth to establish a place in society, quite apart from being a means to earn a living and establish their independence. An important component of mental and emotional wellbeing.	Unemployment rates for youth are consistently about triple those of other age groups. Unemployed in 2004 were 9.3% of ages 15-24, 3.2% of ages 25-44, and 2.3% of ages 45-64.	Social Report
Ethnic identity	A vital part of the identity of all people. For their cultural identity, children and youth are highly dependent on their parents, though many parents, especially among Maori, have lost touch with their cultural roots.		Group
Mobility and transience	High mobility of some families means contact with multiple health providers over time. Sometimes avoiding accumulated debt is a factor in high mobility, and is a significant barrier to accessing timely primary health care services. Mobility means patient records often don't flow from one provider to another, creating info gaps which negatively affects consistent and coordinated family health care.	None available.	
ABUSE AND NEGLECT			

Health need	Importance / impact	Available info	Info source
Abuse and neglect	May be physical, sexual, emotional, or any combination of these. Any form of abuse may have profound, long-term effects on physical, cognitive, emotional, behavioural and social development. A person who is abused during childhood and youth is more likely to become an abuser as an adult. Partner abuse is a strong indicator of child abuse. Much, probably most, abuse is either not identified or not reported. Especially an issue within the health sector where staff are often in a prime position to detect potential abuse.	CYFS Northland 2004: out of 2,245 referrals with 'findings', 799 (36%) had some sort of abuse and/or neglect (behavioural 14%, neglect 9%, emotional 6%, physical 4%, sexual 3%).	CYFS Northland
		Physical abuse: 4%-10% of children. Sexual abuse: up to 18% (possibly up to 30% among females).	CAPA
		Northland rates of hospital admission and death ≈ NZ's, which are third highest among western countries. Admission rate for abuse has been static since mid 1990s. Admission rate for abuse ↑ with level of deprivation: risk of admission for dep 9-10 is 3.7 times that of dep 1-2. Admission rate ↑ for Maori and Pacific (2.6 and 2.2 times European rate respectively). Under-reporting from health workers; of all referrals nationally to CYF in 2004/05, only 10% came from health professionals (of these, 0.7% from GPs, 0.2% from specialist doctors).	Paed. Soc.
		Between 30% and 60% of instances of partner abuse involve child abuse.	NZMA
Bullying	Growing acknowledgement of bullying as a problem. Includes physical bullying as well as more subtle forms such as text bullying. Can be deeply affecting at any age, but possibly most impact felt during years around puberty and early teens, which are crucial to formation of identity, values, attitudes. Links to mental health problems and possibly suicide rates. Breakdown of family structures and inadequate male role models may be a significant contributor to poor behaviour among children and youth.	Little data, but one study suggested 10% of Form 1 and 2 children are bullied at least weekly, and up to 75% are bullied. The children said the only thing worse than bullying was the death of someone close to them.	Nobully
BEHAVIOURS (LIFESTYLE)			
Expectant mothers' lifestyle	Maternal smoking results in babies who are smaller and thus more vulnerable to infection and other health problems, have more respiratory infections, higher rates of cot death. Nicotine can affect brain development, resulting in developmental delays, poor learning and behavioural problems. Absorption of tobacco products can continue through breast milk and inhalation of second-hand smoke.	No national data on smoking among pregnant women has been available since a 1995/96 Plunket study. However rates of smoking among women, and especially among young women and Maori women, remain of concern (see smoking section below).	NZMJ (1) Brainwave

Health need	Importance / impact	Available info	Info source
	Alcohol is especially associated with foetal alcohol spectrum disorder (FASD). This involves facial abnormalities, low birthweight, neurological disorders, intellectual and developmental delay.	About 1 in 4 mothers continue to drink during pregnancy. Consumption may be higher among the better educated and lower among the socioeconomically deprived.	NZMJ (2) Brainwave
	Illegal drugs. Cannabis use may be related to smaller babies who have poor verbal skills, memory impairment and behavioural problems. Cocaine use increases the risk of miscarriage, premature birth and cot death, and can also disrupt brain development and function. Children exposed to cocaine in the womb may have numerous physical irregularities as well as behavioural and emotional difficulties and impaired motor skills. Methamphetamine causes poor foetal growth, high blood pressure in the foetus, premature birth, placental bleeding and birth defects. Risks for children also arise from potentially violent adults and from the materials used in the manufacture of methamphetamine.	No data exists on rates of use of illegal drugs in pregnant women in NZ.	Brainwave AADAC Gilbert
	A balanced diet is essential for the health of foetus and baby; eg folate supplements, adequate levels of vitamins such as vitamin D, and of micronutrients such as iodine.	No reliable data exists on diet in pregnancy in NZ.	
Breastfeeding	Has important protective and nutritive properties for infants (as well as physiological, emotional and practical benefits for mothers).	Good news: Northland figures at least as good as NZ, especially in the early months of infancy. Significant ↑ possible though, with proportion of babies in 2005 exclusively or fully breastfed at 6 weeks (European 70%, Maori 61%) dropping by one-half to two-thirds by 6 months (European 33%, Maori 20%). Maori % breastfed < European at both 6 weeks and 6 months. Pacific % breastfed higher than European (72% at 6 weeks, 54% at 6 months).	Plunket Northland
	Lessens the likelihood of lifestyle-related conditions developing in adulthood, especially obesity, cardiovascular disease, diabetes, cancer and poor oral health.		PHA
Excess weight	A known risk factor for many causes of ill health. Excess weight has become more prevalent among children over	NZ children overweight or obese 2002 (average of males and female figures): all ethnicities 31%, Maori 41%, Pacific 62%, others 24%.	NCNS

Health need	Importance / impact	Available info	Info source
	recent years, fuelling fears of an epidemic of obesity-related diseases (cardiovascular disease and diabetes especially) later in life.	Increasing numbers of children attending child health services who have type 2 diabetes.	Group
Diet / nutrition	Both the amount and type of food consumed are important because of their association with healthy weight gain and healthy growth and development.	2 out of 5 children ate ≥ 2 servings of fruit per day. 3 out of 5 children ate ≥ 3 servings of vegetables per day. Food choices and physical activity during younger years generally okay, but deteriorate as children grow older.	NCNS
		90% of school tuck shops sell biscuits, cakes, chocolate or doughnuts. 85% sell pies, hot dogs or sausage rolls. 30% sell fruit.	Green Party
		Proportion of children aged 3½ who do not eat the following each day: ≥2 servings of fruit = 27% ≥2 servings of veges = 54% ≥4 servings of bread and cereals = 93%	Theodore
	Insufficient iron may affect brain development, weight gain, feeding and digestion, cause children to feel tired and make them prone to infection.	27% of 142 Auckland infants aged 6 to 23 months were deficient in iron.	NZDA
		Iron deficiency is endemic among Northland's infants.	Group
Physical activity	Physical activity can improve quality of life and life expectancy. Inadequate physical activity has been implicated in many diseases of adulthood. Children ↑ sedentary in recent years, which has been associated with ↑ levels of excess weight. Youth are often involved with sporting activities while they are at school but other recreational and social activities are not readily available, especially in rural areas. Sports club registration and gymnasium fees are sometimes a barrier to accessing organised physical activities.	Northlanders aged 5-17 who are 'inactive' (< 2.5 hours activity over 7 days) in 2001: 33%. Inactivity higher among girls (42%) than boys (24%). Inactivity increases between age 9 (28%) and age 17 (42%).	SPARC (1)
		% of ages 5-17 who are sedentary has increased 1997-2001: boys 6.1% → 11.6%; girls 9.8% → 14.1%.	SPARC (2)
Smoking	A cause of or risk factor for a legion of diseases and conditions. Passive smoking a danger to	At least weekly smoking, ages 12-18: 14% males, 30% females. Both figures higher than NZ (13% males, 19% females).	Youth 2000.

Health need	Importance / impact	Available info	Info source
	children, especially at home. Financial impact on poorer families especially.	Smoking among youth is declining. Northland Year 10s who smoke daily: 1999 17%, 2005 13%. Northland Year 10s who smoke at least monthly: 1999 29%, 2005 20%. Northland figures higher than NZ 2005 (daily 9%, at least monthly 17%). Smoking among Year 10 Maori females (NZ data only) is also declining. Daily smokers: 1999 36%, 2005 27%. At least monthly smokers: 1999 51%, 2005 41%.	ASH.
Alcohol	Alcohol use in children and teenagers can adversely affect the the brain and other developing organs. It is also associated with poor decision making and inappropriate behaviours, especially in relation to driving, violence and sexual activity (with links to unintended pregnancy, STIs, sexual abuse). Financial impact on poorer families especially.	At least weekly use of alcohol, ages 12-18: males 23%, females 20%. Both figures higher than NZ (males 15%, females 15%). At least one episode of binge drinking in last 4 weeks: males 49%, females 51%.	Youth 2000
Cannabis	Can cause respiratory problems, affect learning and memory. Probable links to psychotic conditions, though mechanism and factors involved are as yet unclear.	Use of marijuana at least once a week, ages 12-18: males 13%, females 17%. Both figures higher than NZ (males 8%, females 6%).	Youth 2000
Methamphet-amine ('P')	Children growing up in houses where P is being manufactured can suffer a range of physical health ill-effects from the toxic chemicals being used. Children are also at risk of abuse and neglect from parents who take P.	Anecdotal evidence only.	Group
Sexually transmitted infections	Untreated STIs are associated variously with pelvic inflammatory disease, ectopic pregnancy, infertility, a range of infections and risks to newborns. Most common STIs: chlamydia, gonorrhea, genital herpes, genital warts. 3 successive infections from chlamydia → 70% chance of infertility in females.	Northland data not comprehensive. Data that is available only measures cases that are diagnosed and notified (thus does not measure prevalence). National data suggests rates of chlamydia and gonorrhea ↑.	Paed. Soc.
		In 2003/04, 820 cases of chlamydia were diagnosed in Northland (585/100,000 total pop.). 83% of cases aged 15-30. "...no rate data able to be extrapolated from Sexual Health and Family Planning Clinic data, ... surveillance suggests that chlamydia, gonorrhea, genital warts and genital herpes were all relatively common infections among Northland youth during 2001-2004".	CDPHS

Health need	Importance / impact	Available info	Info source
		59% of males and 53% of females aged 12-18 always used contraception to prevent pregnancy. 65% of males and 51% of females aged 12-18 used condoms as protection against sexually transmitted infections the last time they had sex.	Youth 2000
Unintended pregnancy	Young maternal age ↑ risks of preterm birth, small-for-gestational-age babies, abuse / neglect and low educational attainment by children.	Teenage birth rate per 1,000 15-19 year olds: NZ ↓ from about 35 in 1990 to less than 30 in 2003. However abortion rate ↑ (NZ from about 60/1,000 in 1990 to nearly 70/1,000 in 2003) indicating that teen pregnancies ↑. Northland rates > NZ. Rate/1,000 15-19 year olds 2000-2004: Northland about 50, NZ about 30. Marked difference between Maori and European teen birth rates in Northland. Rate/1,000 15-19 year olds 2000-2004: European about 20, Maori about 100. During 2002-04, 38% of all hospital admissions (for both sexes) in ages 15-24 were for reasons associated with pregnancy.	Paed. Soc.
PHYSICAL HEALTH			
Low birthweight	Includes both preterm births and babies who are small for gestational age (SGA). Both conditions carry higher risk of neonatal morbidity and mortality. SGA babies may also be at higher risk of developing heart disease and diabetes in adulthood.	65% of Northland babies born in NZDep deciles 8-10 (NZ only 39%). SGA babies as % of live births 1990-2004: Northland slightly > NZ, though both figures ↓ over time. Preterm babies as % of live births 1990-2004: Northland slightly < NZ, though ↑ along with NZ trend.	Paed. Soc.
Sudden Infant Death Syndrome (SIDS)	Once a major cause of infant death, now largely preventable as risk factors and preventive behaviours have become common knowledge. NZ a world leader in reducing SIDS rates.	↓ in number and rate for both Northland and NZ since late 1980s. Deaths Northland 1998-2002: 3 neonatal (0-28 days), 22 post-neonatal (29-364 days). 47% of all post-neonatal deaths are classified as SIDS. Risk of death ↑ with ↑ deprivation: NZ 1998-2002, 6.6 times more likely in deciles 9-10 than deciles 1-2.	Paed. Soc.
	Debate currently being held on how many SIDS are due to truly unexplainable causes (a sudden and unexpected death of an infant, or SUDI). In studies where further investigation was carried out into SIDS deaths, many have been reclassified, because either specific causes	During 1994-2000, Ireland had 256 cases of SIDS (0.71/1,000 live births). When cases in which there was additional pathology available were reclassified as 'unascertained', the SIDS rate dropped to 0.55. The sequential inclusion of additional variables (co-sleeping, AOD use, infant illness in last 24 hours etc) dropped the rate down to a low of 0.08.	Sheehan

Health need	Importance / impact	Available info	Info source
	could be found, or enough doubts were cast for cause of death to be labelled 'unascertained'. This suggests: some SI1d partly an artefact of changes in approaches to classifying cause of death	UK study as part of the Confidential Enquiry into Stillbirths and Deaths in Infancy: of 456 infant deaths originally classified as SIDS, 21 (5%) were thought caused by non-accidental injury, and a further 22 (5%) due to maltreatment. Cause of death for a further 11% of infants could not be ascertained.	Fleming
Injury	Largely preventable, yet data on hospital admissions and death suggests injury is: in first year of life, the second largest cause of death for ages 1-14, the leading cause of death, and most frequent reason for acute admission for 15-24 year olds, the leading cause of both admissions and death Most accidents to children occur in the home. Most accidents to youth occur on the road (see next row).	Ages 0-14: Hospital admissions 2002-04: Northland 2,032 total admissions. Rate/100,000 population: Northland 1,947 > NZ 1,485. Type of injury: 45% falls, 24% mechanical force (struck, crushed or injured by object, implement or person). Deaths 2000-02: Northland 19 total deaths. Type of injury: transport 37%, electricity, fire, burns 37%. Injury as % of all deaths: 13% for first year of life, 70% for ages 1-14. Ages 15-24: Hospital admissions 2002-04: Northland total 1,334. Rate/100,000 per year: Northland 2,956, NZ 1,814. Deaths 2000-02: Northland total 47. Rate/100,000 per year: Northland 102, NZ 54.	Paed. Soc.
Transport-related injury	The largest cause of both admission to hospital and death in 15-24 year olds.	Hospital admissions ages 15-24 2002-04: Northland total 441. Rate/100,000 per year: Northland 977, NZ 427. 33% of all injury-related admissions in Northland. Deaths ages 15-24 2000-02: Northland total 47. Rate/100,000 per year: Northland 47, NZ 56. 55% of all injury-related deaths in Northland.	Paed. Soc.
		Drivers aged 15-24 had a greater number of loss-of-control crashes than any other age group during 1999-2003. Males in this age group had more than twice as many crashes (nearly 70 in ages 20-24) as females (less than 30).	LTNZ

Health need	Importance / impact	Available info	Info source
		Ages 12-18. Don't always wear a seatbelt: males 36%, females 41%. Ridden in car with potentially drunk driver in last 4 weeks: males 36%, females 41%. Ridden in car with dangerous driver in last 4 weeks: males 47%, females 48%.	Youth 2000
Communicable diseases	High rates indicate inadequate immunisation coverage and/or poor living conditions associated with poverty such as overcrowding.	Immunisation rate data currently incomplete. Recent birth cohort data is unavailable due to problems with National Immunisation Register's functioning. Immunisation data on older children is being collected, but is not able to be reported in a coordinated fashion. *Meningococcal disease.* Rates of both deaths and admissions for ages 0-24 peaked during 1996-2004. Only 6 notifications in Northland in 2005 (compared with 1996-2004 annual average of 31). *Rheumatic fever.* 9 notifications in Northland in 2005 (6.3/100,000 total pop., compared with NZ 2.1/ 100,000). Hospital costs estimated to be $0.5m/year. Almost all cases are Maori. *Tuberculosis.* 18 cases in Northland in 2005 (12.6/100,000 total pop.). 3 of these aged under 1, indicative of recent transmission (as opposed to reactivated infection in older people). Trends hard to decipher in Northland data 1990-2004 because small numbers → volatility. NZ rates seem to be ↑.	Paed. Soc.
Hearing	Essential for development of speech / language and learning. Hearing screening of newborns is to be reintroduced over the next year or two.	Northland hearing failure rates at 5 years (new entrant tests) 2004: all ethnicities 12.8%, Maori 12.9%, Pacific 11.8% European 12.8%. NZ rates are better overall (8.1%) and for Europeans (5.6%), but on a par for Maori (12.6%). Note no inequalities across ethnicities (previous to 2004, Maori had consistently higher failure rates than European).	CDPHS

Health need	Importance / impact	Available info	Info source
Respiratory diseases	Covers a range of conditions, but key ones for children are bronchiolitis (esp. under age 1), asthma, bronchiectasis. Risk ↑ with deprivation, maternal smoking, overcrowding, lack of breastfeeding. Bronchiectasis is related to untreated pneumonia, whose prevalence has not increased. Thus uncertain whether apparent ↑ is real or due to other factors such as increased recognition and more accurate coding.	Asthma: NZ prevalence: up to 25% of 6-7 year olds and 30% 13-14 year olds (one of highest in world). Symptom severity ↑ in Maori, Pacific. Northland hospital admissions rate/1000 ages 0-14: 1990 (nearly 10) ↓ by half in 2004 (about 5). Same pattern as NZ, rate only slightly higher. Maori admissions about twice European. Bronchiolitis, Northland hospital admissions, rate/1000 age <1: 1990 about 30, by 2004 ↑ to about 120. 2004 Maori rate (about 240) > European (about 40). Northland rate > NZ, esp. since 2000. Bronchiectasis: Northland hospital admissions ages 0-24, 1990-2004: 1990 about 10, ↑ to about 35 by 2004. Northland ≈ NZ. NZ prevalence: Pacific 12x, Maori 3x European. Pneumonia: 1990-2004 hospital admissions for ages 0-14 in Northland (about 5/1000) > NZ (about 4/1000). Northland 1996-2004 ages 0-24, Maori rate (about 7/1000) > European rate (about 3/1000).	Paed. Soc.
Oral health	Statistics describe the state of health for teeth and gums, but oral health has wider implications. It affects what foods can be eaten, so is important for nutrition and general physical health. It can also affect quality of sleep, personal confidence and ease of interaction with other people. People with rheumatic heart disease are susceptible to bacterial endocarditis which can result from poor oral health.	No water supply fluoridation yet exists in Northland. 5-year-olds who are caries-free: Northland about 40% 1990-2000, dropping to about 30% since 2000. NZ consistently ≈ 50% over all years. DMF (decayed, missing and filled) teeth at school year 12: Northland similar to or > NZ 1990-2004, mostly varying between 1.5 and 2.0 teeth per person.	Paed Soc. (from MoH school dental data)
		In a project to reach children and youth who lacked adequate access to dental services, 88% of patients treated were Maori. From the report: "The high incidence of tooth decay in Northland is well documented ...[but]... to personally experience the extent of the tooth decay and its complications has been a revelation".	Bridging the Gap

Health need	Importance / impact	Available info	Info source
Skin infections	Common types: cellulitis, a diffuse infection of skin and subcutaneous tissue furuncles and carbuncles (abscesses and boils), purulent infections of the hair follicles post-streptococcal glomerulo-nephritis, a third world disease caused by strep skin infections which is common in Northland. A common reason for illness, time off school, hospitalisation. Indicator of poverty, overcrowding, poor personal and household hygiene and poor access to and uptake of primary medical care.	Northland hospital admissions: age 0-14 ↑ from 2.5/1000 in 1990 to 4/1000 in 2004; age 15-24↑ from <3/1000 in 1990 to >6/1000 in 2004. Maori rate age 0-24 at least double non-Maori. NZ rates have risen by similar proportions, though Northland rates for all age groups and ethnicities are approximately half as high again as NZ rates.	Paed. Soc.
MENTAL HEALTH			
Mental health disorders (excluding abuse-related)	Growing public concern and awareness of youth mental health issues.	Some international evidence to indicate that mental illness among youth, including conduct problems, depression, substance abuse and suicide, has been increasing over the last 50 years. Mental illness more common with older ages, affecting ≈ a quarter in early adolescence and ≈ a third in late adolescence (≈18% at age 11, ≤24% at age 15, ≤37% at age 18). Most common disorders: anxiety disorders, depression, conduct disorders, AOD abuse. Schizophrenia ↑ 5- to 10-fold from mid adolescence to early adulthood. Anorexia occurs in ≈1% of young women, though disordered eating patterns are more common.	Youth Health Status
		Possible links to breakdown of structured family life.	Group
		Calls to Youth Help Line by Northlanders ≈ Northland proportion of NZ population. Hospital admissions, ages 15-24, 2000-04: Northland total 571. Rate/100,000 per year, Northland (750) > NZ (583) (though direct comparison of figures is difficult). Most common in Northland: schizophrenia 22%, alcohol and drug effects 18%. Relative risk. Deprivation ↑ risk of admission for schizophrenia, bipolar (though not depression). Maori ↑ risk for schizophrenia, bipolar (though not depression, where European highest).	Paed. Soc.

Health need	Importance / impact	Available info	Info source
Suicide, intentional self harm	4 factors characterise youth at higher risk of suicide: educationally and socially disadvantaged background disturbed, unhappy childhood, family background pre-existing recognisable mental health problems suicide attempt precipitated by severe stress or life crisis Causes of high prevalence of suicide still uncertain. Factors are likely to include ↑ mental health problems (depression which is probably significantly under-diagnosed in youth), AOD abuse, cultural alienation, ↑ child and sexual abuse and many other causes.	NZ's youth suicide rate one of the highest in the world. Second highest cause of death for youth after transport-related accidents. Youth suicide in NZ may be ↓. In 1996 it was 27% of all suicide deaths (144/541), in 2000 21% (96/458) and in 2003 18% (95/515). Death rate higher for male youths than female youths (in 2003, 28/100,000 and 11/100,000 respectively). Far more suicide attempts than successful suicides.	In Our Hands (1996 data) Suicide Facts 2003.
		Hospital admissions for intentional self harm 2002-04: Northland total 71. Rate/100,000 per year: Northland 157 > NZ 141. 5% of all injury-related admissions in Northland. Suicides 2000-02: Northland total 12. Rate/100,000 per year: Northland 26 > NZ 20. 36% of all injury-related deaths in Northland. Relative risk, rate per 100,000/year. Males 32 > females 11. Maori 35 > Pacific 23 and European 20. Deciles 9-10 (23) > deciles 1-2 (17).	Paed. Soc.
DISABILITY			
Permanent disability	Disability derived from injury (eg from car crashes) attracts plentiful resources through ACC, but services for children with congenital disabilities (such as cerebral palsy) and their families struggle to address needs.	11% of ages 0-14 self-reported some form of disability. Prevalence highest among Maori (14%). ('Disability' in this survey covers anything from minor to major.)	Living With Disability
		As at July 2006, Child Health Centre at NDHB has a total of 262 children with non-accident related disability as their caseload, 184 ages 0-5, 78 ages 6-16.	CHC
		Data as at May 2005 from NorthAble (Northland disabilities resource centre, which deals only with ages 0-64): total clients 1,548 (10.4/1,000 total Northland population) 301 (40%) aged 0-14, 183 (24%) aged 15-24. 32.9% of Maori clients were aged 0-24 (21.7% age 0-14, 11.2% age 15-24); 30.2% of non-Maori clients aged 0-24 (17.9% aged 0-14, 12.3% aged 15-24).	NorthAble

Information sources

More details about the shorthand references in the last column of the above table.

Reference in 'Info source' column	Details
AADAC	Alberta Alcohol and Drug Abuse Commission, a publicly funded Canadian organisation which can be found at http://corp.aadac.com.
ACBO	*Achieving Better Social Outcomes for all New Zealanders, our Families and our Communities*, a Ministry of Social Development briefing to their incoming minister, Setember 2005. Available at http://www.msd.govt.nz/publications/briefing-papers.html.
ASH	Action on Smoking and Health. 1999 data is from ASH's fourth form survey. 2005 data is from their 15/05/06 media release concerning their 2005 national survey, which can be found at http://www.ash.org.nz/news.php?id=Con979. .
Brainwave	A trust run by health and other professionals which has been set up to raise public awareness about the brain. See www.brainwave.org.nz.
Bridging the Gap	Information is taken from a Northland DHB report on Bridging the Gap. This was a 6-month project designed to reach children and youth who lacked adequate access to dental services. Primarily these were children in remoter areas and most of the patients were aged 10-12.
CAPA	*Child and Partner Abuse*, published by MoH in 2002[4].
CDPHS	Data from Community, Dental and Public Health Services, part of Northland DHB, based at Dairy House in Whangarei. Hearing data is from the Manager of Well Child, Youth and Clinical Services. Communicable disease data is from the Medical Officer of Health.
CHC	Data from Child Health Centre, Northland DHB.
CYFS Northland	Data from the Northland office of Child, Youth and Family Services.
Fleming	Fleming P J et al. Investigating suddent unexpected deaths in infancy and childhood and caring for bereaved parents: an integrated multiagency approach. BMJ 2004: 328: 331-334.
Gilbert	From a presentation by Dr Joyce Gilbert to the Second Annual Drug Endangered Children Conference (DEC) in September 2004. DEC is a programme sponsored by the USA's Drug Enforcement Administration.
Green Party	2006 survey of school tuckshops by the Green Party, reported in the *NZ Herald* 17 May 2006.
Group	Derived from knowledge and experience of members of the planning group.
In Our Hands	*In Our Hands: NZ Youth Suicide Prevention Strategy*, published jointly (in 1998?) by Ministry of Youth Affairs, MoH and Te Puni Kokiri[5].
Living With Disability	*Living With Disability*, published by MoH in April 2004[6].
LTNZ	Land Transport New Zealand. 2003 Road Trauma for Northland State Highways (hard copy pamphlet).
MoH	Ministry of Health documents can be accessed through the MoH website (www.moh.govt.nz), from: Home page>Publications and resources>View A-Z of health topics, and look under the relevant heading.
NCNS	2002 National Children's Nutrition Survey, carried out by MoH[7].
Nobully	Website of NoBully NZ, at www.nobully.org.nz. Quotes research by Dr Gabrielle Maxwell and

[4] To find to this document, see note under MoH heading in this table.
[5] Ibid.
[6] Ibid.
[7] Ibid.

Reference in 'Info source' column	Details
	Janis Carroll-Lind on 259 Form 1 and 2 students at 8 schools in 'a provincial NZ city area' and 'a major urban area'.
NorthAble	Unpublished data supplied by NorthAble, the Northland disabilities resource centre.
NZDA	NZ Dietary Association. 1999 Auckland University study headed by Dr Clare Wall, quoted on their website at http://www.dietitians.org.nz/mainsite/HighLevelsofIronDeficiencyinInfants.html.
NZMA	F Goodyear-Smith. Recognising and responding to partner abuse: challenging the key facts. NZMJ 117:1202. (This quotes the MoH publication *Recognising and responding to partner abuse: a resource for general practice* which is unavailable on the MoH website. Data quoted are from numerous American studies.)
NZMJ	(1) Wilson N et al, 2003. Supporting smoking cessation in pregnancy – action is urgently needed. NZMJ v116 no. 1173. (2) McLeod D et al, 2002. Factors influencing alcohol consumption during pregnancy and after giving birth. NZMJ vol 115 no. 1157.
NZ Dep	Results of the 2001 NZ Deprivation Study, performed by Victoria University (Crampton et al) on variables from the 2001 Census.
Paed. Soc.	*The Health Status of Children and Young People in Northland*, a report by the Paediatric Society of NZ for Northland DHB. Most of its information consists of mortality and secondary (hospital) services data.
PHA	Public Health Association policy on breastfeeding which can be found at http://www.pha.org.nz/docs/Advocacy/current%20policies/Breastfeeding/breastfeeding02FINAL.rtf
Plunket Northland	Data supplied by Plunket Northland.
Shaw et al	Shaw C, Blakely T, Crampton P, Atkinson J, 2005. The contribution of causes of death to socioeconomic inequalities in child mortality: NZ 1981-1999. NZMJ 118:1227.
Sheehan	Sheehan K M et al. How reliable are SIDS rates? Arch Dis Child 2005; 90: 1082-1083.
Social Report	Social Report 2005. Ministry of Social Development, July 2005.
SPARC	Sport and Recreation NZ. (1) Sport and Physical Activity Survey 2003. (2) Trends in participation in sport and physical activity 1997-2001.
Suicide Facts 2003	*Suicide Facts 2003*, published by MoH in 2006[8].
Theodore	Theodore R et al, 2006. Dietary patterns of NZ European preschool children. NZMJ vol. 119, no. 1235.
Youth 2000	Youth 2000 study, University of Auckland. Survey involved 9,699 students aged 12-18 from throughout the country and studied a range of health related issues.
Youth Health Status	*NZ Youth Health Status Report*, published by MoH in November 2002. Mental health content is from chapter 3, page 38 ff[9].

[8] Ibid.
[9] Ibid.

Appendix 2 MSD Social Report, Northland summary

A summary of data from the Ministry of Social Development's *Social Report 2005*, comparing Northland with New Zealand. Not all of this data relates directly to children, but all of it affects parents (and potentially therefore their children) in some way. Data can be found on http://www.msd.govt.nz/work-areas/cross-sectoral-work/indicators-for-low-incomes-and-inequality.html; this site also contains information at District Council level.

Indicator		NZ	Northland	
			Data	Rank/16 [10]
Life expectancy (years)	Male	77.0	74.0	15.0
	Female	81.3	80.1	12.0
Prevalence of cigarette smoking		25.8%	33.3%	15.0
Participation in early childhood education		94.0%	89.2%	16.0
School leavers with higher qualifications		67.1%	59.2%	13.0
Educational attainment of the adult population		79.4%	72.2%	14.0
Unemployment		3.9%	4.5%	13.3
Employment		73.5%	69.2%	16.0
Median hourly earnings		$15.34	$14.65	8.0
Workplace injury claims		146	202	14.5
Population with low incomes		19.0%	27.9%	15.0
Household crowding, % requiring:	1 extra bedroom	6.8%	7.9%	14.0
	2 extra bedrooms	3.2%	3.7%	14.0
Maori language speakers		25.0%	29.6%	3.0
Participation in sport and active leisure	Ages 5 - 17	66.5%	67.0%	12.8
	Ages 17+	69.8%	69.0%	6.4
Road casualties	Injury rate	340.1	503.8	14.0
	Death rate	10.7	23.6	16.0
Telephone access in the home		97.3%	93.3%	15.0
Internet access in the home		40.6%	32.1%	14.0
Contact between young people and parents	Male	63.0%	60.7%	12.0
	Female	61.0%	56.7%	13.3

[10] The original rankings were based on 10, 12, 14 or 16 regions, depending on the availability of the data being compared. The rankings in this table have been converted mathematically where necessar,y as if they were all out of 16 regions. 1 is best, 16 is worst.

Appendix 3 Consultation feedback

The planning group distributed questionnaires through its existing networks seeking opinions on key issues in child and youth health. The feedback received from the replies is summarised in this appendix.

Key themes overall

A need to focus on prevention, promotion and early intervention.

Strategic planning and integration of services is necessary, using a collective, long-term approach with short-term indicators.

Basic parenting programmes and practical support such as respite care are needed for families with high-need children.

Community consultation and the youth voice is missing from national and local planning. Northland DHB needs to show leadership on this.

Youth-focused services are inadequate, especially within the areas of alcohol and drug, Child Health Centre, child protection and intellectual disability.

A widespread lack of knowledge and understanding about the variety of services available restricts access. A multidisciplinary or 'one-stop shop' service is one solution.

Services need to be flexible in both timing and location to reduce barriers for youth.

There is a lack of communication between providers and the transition between services can be problematic. Where collaboration exists it is considered to be very positive.

The outreach and liaison services are widely appreciated.

User key themes

13 respondents.

The outreach and liaison services are widely appreciated.

Access is prevented by lack of knowledge regarding available services and waiting times.

Services need to be flexible and accessible for youth.

Provider key themes

17 respondents.

A need to focus on prevention, promotion and early intervention.

Strategic planning and integration of services is necessary, using a collective, long-term approach with short-term indicators.

Basic parenting programmes and practical support for families needed.

The youth voice is missing from national and local planning.

Respite care is needed for whanau with high-needs children.

Training, retention and upskilling of staff.

Childrens' services in the health system and the community generally are better resourced than adolescent services.

Interagency key themes

2 respondents.

Collaboration and an intersectoral approach is necessary.

Address prevention and early intervention as well as treatment.

Need long term vision and committed leadership.

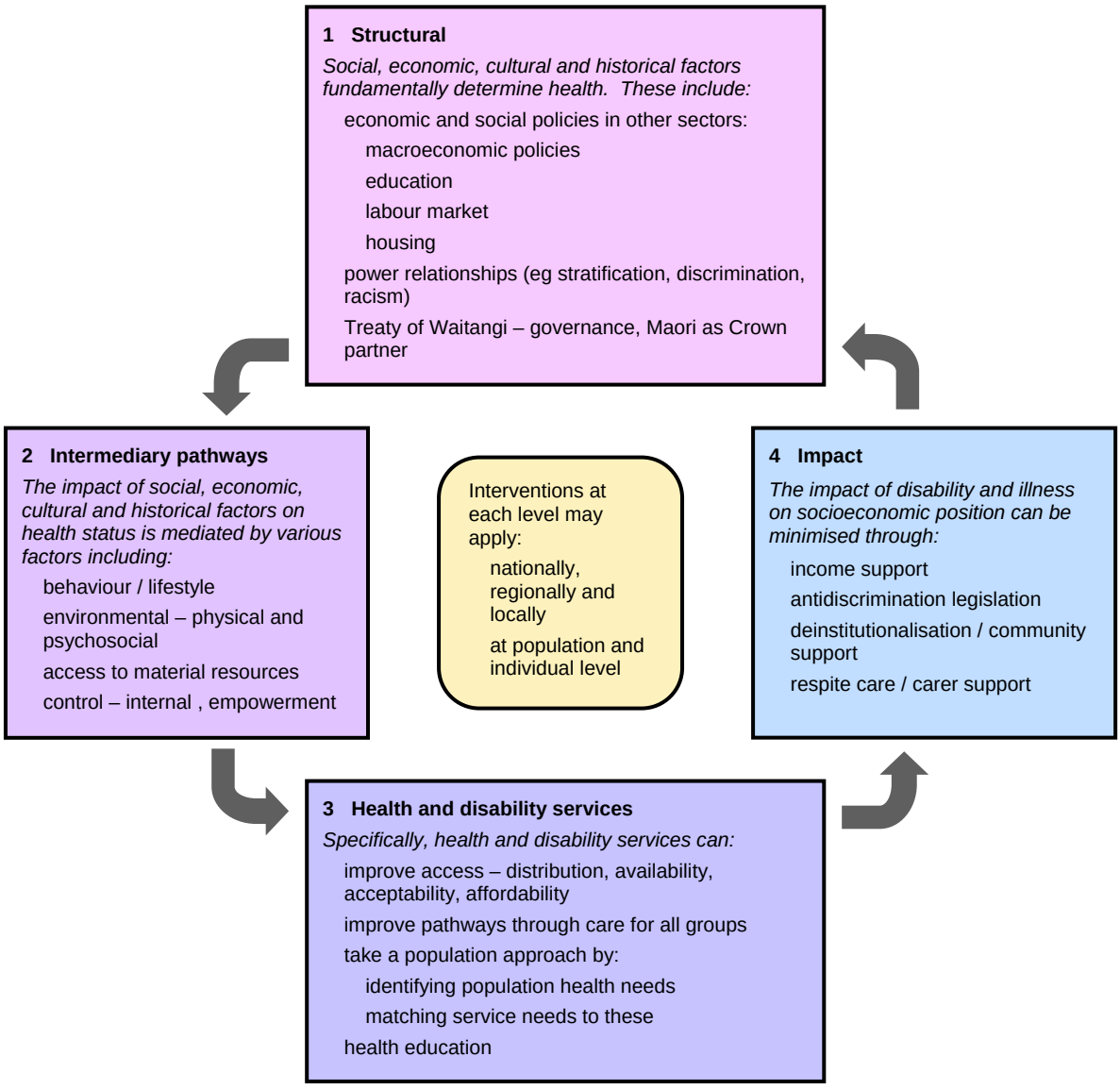
Appendix 4 Health Equity Assessment Tool and Reducing Inequalities Framework

Figure 2 Health Equity Assessment Tool

The following set of questions has been developed to help in considering how particular inequalities in health have come about, and where the effective intervention points are to tackle them.

1 What health issue is the policy / programme trying to address?
2 What inequalities exist in this health area?
3 Who is advantaged most and how?
4 How did the inequality occur? What are the mechanisms by which it was created, and is it being maintained or increased?
5 What are the determinants of the inequality?
6 How will the programme address the principles of the Treaty of Waitangi (specifically partnership, participation and protection)?
7 Where / how will the programme intervene to tackle this issue? (Use the MoH Intervention Framework and the ToW to guide thinking.)
8 How could this intervention affect health inequalities?
9 Who will benefit most?
10 What might the unintended consequences be?
11 How will the programme reduce or eliminate inequalities?
12 How will reduction in inequalities be measured?

Figure 3 Reducing Inequalities Framework



Appendix 5 Membership of the Planning Group

Eruera Maxted (Te Tai Tokerau MAPO)

Lisa Melissa (Health Planner, SD&F team, NDHB)

Nick Chamberlain (GP Liaison, NDHB)

Roger Tuck (Community Paediatrician, NDHB)

Di Lawson (RNZ Plunket Society, Operations Manager)

Sharon Snell (Clinical Manager, Kia ora Ngatiwai)

Dallas Hibbs (The Pulse)

Mary Carthew (Nursing Integration Leader, Manaia PHO)

Julie Palmer (Nursing Integration Leader, Kaipara PHO)

Catherine Turner (General Manager, Tihewa Mauriora PHO)

Jeanette Anderson (Manager Child Health Services NDHB)

Kath Bowmar (Manager, Well Child, Youth and Clinical Services, NDHB)

Agnes Daniels (Manager, Te Roopu Kimiora, NDHB)

Jeanette Wedding (General Manager, Child, Youth, Maternal, Public and Dental Health Services, NDHB)

Stephen Jackson (Health Planner SD& F Team, NDHB)

Cayti Whitton (Population Health Strategist, NDHB)

Paul Baines (Portfolio Manager Primary Care, NDHB)

Marion Weaver, (Manager, Public Health Unit (Promotion), NDHB)

The planning group is very grateful to the peer reviewers who provided feedback on the draft:

Jim Green, CEO, Tairawhiti DHB

Dr Peter Watson, Clinical Leader and Specialist Youth Health Physician, Centre for Youth Health

Dr Mavis Duncanson, Principal Advisor, Research and Policy, Office of the Children's Commissioner

Esther Blomfield, Programme Manager – Maori Health, Counties Manukau DHB

References

Reference title	Source, date	Internet link if available
National health sector strategies and documents		
New Zealand Health Strategy	Ministry of Health Dec 2000	http://www.moh.govt.nz/moh.nsf/ea6005dc347e7bd44c2566a40079ae6f/fb62475d5d911e88cc256d42007bd67e?OpenDocument
New Zealand Disability Strategy	Ministry of Health, Apr 2001	http://www.moh.govt.nz/moh.nsf/ea6005dc347e7bd44c2566a40079ae6f/c532352cd48932d6cc256dc0000c983a?OpenDocument
Primary Health Care Strategy	Ministry of Health, Feb 2001	http://www.moh.govt.nz/moh.nsf/ea6005dc347e7bd44c2566a40079ae6f/7bafad2531e04d92cc2569e600013d04?OpenDocument
He Korowai Oranga (Maori Health Strategy)	Ministry of Health, Nov 2002	http://www.moh.govt.nz/moh.nsf/f872666357c511eb4c25666d000c8888/b701e54fa6e0e2a3cc256d4300743d8c?OpenDocument
The Best Use of Available Resources	Ministry of Health, Mar 2005	http://www.moh.govt.nz/moh.nsf/by+unid/68AA2F8C455F19BECC2571310007E137?Open
Child Health Strategy	Ministry of Health, July 1998	http://www.moh.govt.nz/moh.nsf/ea6005dc347e7bd44c2566a40079ae6f/0a35b17c8df465144c25666d007871d8?OpenDocument
Child and Youth Health Toolkit	Ministry of Health, Nov 2004	http://www.newhealth.govt.nz/toolkits/childandyouthhealth.htm
Youth Health: A guide to Action	Ministry of Health, Sep 2002	http://www.moh.govt.nz/moh.nsf/by+unid/4356EC32544A506CCC256C670013B59C?Open
Healthy Eating, Healthy Action: Implementation Plan 2004-2010	Ministry of Health, Jun 2004	http://www.moh.govt.nz/moh.nsf/by+unid/CD182E2C03925C09CC256EBD0016CF4B?Open
Northland health sector strategies and documents		
District Strategic Plan 2005-2010	Northland DHB, 2006	N/a at time of writing.
District Annual Plan 2006/07	Northland DHB, 2006	N/a at time of writing.
The Health Status of Children and Young People in Northland	Paediatric Society (for NDHB), Feb 2006	N/a at time of writing.
National non-health sector strategies and documents		
Opportunity for all New Zealanders	Ministry of Social Development, 2004	http://www.msd.govt.nz/work-areas/cross-sectoral-work/opportunity-for-all.html
Reconnecting Young People: a Review of the Risks, Remedies and Consequences of Youth Inactivity	Ministry of Social Development, 2003	http://www.msd.govt.nz/documents/publications/strategic-social-policy/youth-transitions-reconnecting-young-people.doc
Young Males: Strengths-based and Male-focused Approaches	Ministry of Youth Development, 2004	http://www.myd.govt.nz/Publications/education/youngmalesstrengthsbasedandmalefoc.aspx
Youth Development Strategy Aotearoa	Ministry of Youth Development, 2002	http://www.myd.govt.nz/Publications/YouthDevelopment/youthdevelopmentstrategyaotearoa.aspx