West Coast District Health Board
Child Health Plan

Executive Summary

Children aged 0-14 years make up 22% of the entire West Coast population. With almost 50% of usually resident West Coast children residing in NZDep 8, 9 and 10 areas it is not surprising that the health of West Coast children could be improved.

Health service utilisation data for the West Coast identifies areas of particular concern, where there are poorer health outcomes when compared to the national outcomes. These areas are low birth weight babies, asthma admissions and readmissions, and population preventable hospitalisations. The leading causes of hospitalisation for West Coast babies is feeding difficulties, while 1-14 year old are admitted for injury, tooth decay, respiratory infections, gastroenteritis and viral infections the leading causes

Surveys of health, social service and education providers have identified the key child health issues for the West Coast District Health Board to address. These are

- Tooth decay,
- Nutrition,
- Primary mental health services,
- Immunisation coverage,
- Parenting support and education services
- Family violence.

With the exception of parenting education and support these priorities are consistent with the Ministry of Health's identified priorities. The Objectives of the West Coast District Health Board Child Health Plan therefore are to;

- Improve Oral Health
- Improve Nutrition
- Improve access to Primary Mental Health services for children
- Improve Immunisation Coverage
- Improve access to Parenting Support & Education Services
- Improve responsiveness to Family Violence, Child Abuse & Neglect

Purpose and Scope

The development of a West Coast Child Health Plan is an important step towards achieving the DHB vision of 'children are the future'. Through the identification of the key issues affecting West Coast children's health, the areas with the poor health outcomes, key indicators of child health, and the development and implementation of strategies that address these issues, we can improve the health of West Coast children and reduce inequalities in health outcomes.

The scope of this Child Health Plan is to make recommendations to the West Coast District Health Board in regard to addressing the health needs of the West Coast population aged 0-14 years and in reducing inequalities in health outcomes occurring in this population.

Background

The Ministry of Health has set a range of priorities for improving child health outcomes, through the development of the Child Health Strategy (1998), as well as setting priorities for specific populations in documents such as He Korowai Oranga (2002) and in the Draft Te tatuhu: Improving Mental Health 2005-1015 (2006).

The New Zealand Child Health Strategy set the vision of

'Our children/Tamariki: Seen heard and getting what they need'

The plan established tamariki Maori, pacific children, children with high health and disability support needs and children from families with multiple social and economic disadvantages as priority populations, with the greatest need for interventions to improve health outcomes.

Additionally the Child Health Strategy set the future direction for improving child health namely that there needs to be;

- A greater focus on health promotion, prevention and early intervention.
- Better Co-ordination of services
- Development of a National Child Information Strategy
- Child Health Workforce Development
- Improving child health evaluation and research
- Leadership in child health

Work towards achieving the vision of the Child Health Strategy, prioritising those with the highest need for health interventions and addressing the future directions to improve health outcomes requires a multi level and multi sector approach to improving Child Health. Developments such as the National Child Information Strategy is developed at a National level, while implementation and evaluation of this needs to occur at the Ministry of Health, DHB, PHO and the NGO sector.

Priority health areas in which to apply these future directions for improving child health outcomes have also been identified by the Ministry of Health. Namely the need to:

- Reduce Ambulatory Sensitive[1] Admissions
- Improve Access to Well Child Services
- Improve Oral Health
- Reduce family violence, child abuse and neglect
- Improve Immunisation Coverage
- Increase the range, quality and availability of mental health services for children
- Implement Healthy Eating Healthy Action Initiatives

Part of the WCDHB vision for 2015 is that "there *will be meaningful commitment to the idea of 'children are the future' with a range of co-ordinated services to keep children well and safe".*

The development of this plan an important step towards achieving this vision by ensuring that we are contributing to a community that is committed to the concept of 'children are the future'. By identifying the key issues impacting on children's health outcomes and developing and implementing strategies that address these issues, we can improve the health of West Coast children and reduce inequalities in health outcomes.

[1] Admissions preventable by Primary Care Treatment

Demographic Profile

At the 2001 census there were 6,816 residents aged 0 to 14 years, residing in the West Coast Region. This is 22% of the West Coast population. Of these 0-14 year olds, 44 % (n= 2994) reside in the Grey District, 33% (n=2163) in the Buller District and 24% (n=1659) in the Westland District.

Of the total West Coast population aged 0-14 years, 84% (n= 6234) identify as NZ European, and 15% (n=1032) as Maori. Compared with other areas of New Zealand the West Coast has a lower proportion of children who identify as Maori. However, 40% of the Maori population on the West Coast are aged 0-14 years.

Further, while pacific people make up less than 1% of the West Coast population, 36% (n=69) of the usually resident Pacific Island population in 2001 were aged 0-14. The 2004 population predictions for Pacific Island children on the West Coast were decreasing, however, MeNZB vaccination data, indicates that the number is increasing.

Compared to New Zealand the West Coast has a higher proportion of its population aged between 0-14 years, and a lower proportion of its population identifying as Maori. The overall West Coast population is predicted to decrease however; the number of usually resident Maori children is predicated to increase.

West Coast DHB Population 0-14 year olds by ethnicity

	Buller			**Grey**			**Westland**			**Total**		
	0-4	5-9	10-14	0-4	5-9	10-14	0-4	5-9	10-14	0-4	5-9	10-14
NZ European	540	711	726	837	975	966	414	546	498	1794	2250	2190
Maori	87	111	114	135	144	138	93	123	87	315	381	336
Pacific	3	6	9	9	15	12	3	6	12	15	24	30
Asian	9	9	3	6	12	12	3	6	3 3	18	27	18
Other	0	3	3	0	3	3	0	0	0	3	6	6
Total[2]	**588**	**783**	**795**	**891**	**1,053**	**1,050**	**465**	**639**	**555**	**1,944**	**2,472**	**2,400**

(NZ Census 2001)

Determinants of Health

It is increasingly accepted that health status is primarily not determined by health services, but more by social, cultural, economic and environmental influences. Factors influencing our health reach beyond genetic or individual behavioural factors. Gender, age, ethnicity, education, rurality, isolation, housing and socioeconomic status amongst many others factors all impact on our health and wellbeing.

On the West Coast the determinants impacting on the health of our children includes low socio economic status, low individual and household income, high levels of isolation (low population density, rurality, access to telephones, access to transport), low levels of education, especially tertiary education, and increasing number of births to young mothers.

[2] NZ Census data allows for multiple ethnicities to be recorded so totals do not add up.

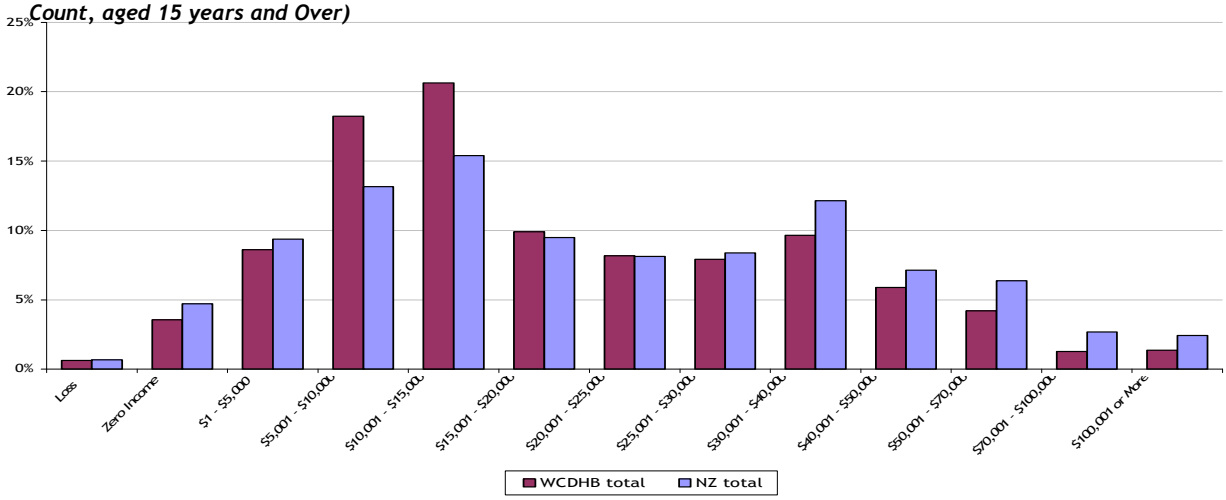
Socio economic factors

Socio economic factors are major determinants of health and well being. It is well established that those who are less well off financially have poorer health[3]. On the West Coast a higher proportion of both Maori and NZ European children live in NZDep 8, 9 and 10 than in New Zealand and 50% of hospital births in 2004 and 2005 were to women usually resident in NZDep 8, 9, 10 areas.

Overall the West Coast has low socio economic status and high levels of deprivation. In fact over 40% of children on the West Coast live in deprivation 8-10 areas. Furthermore, levels of socioeconomic status across the West Coast are low, with some families and individuals experiencing very high levels of social deprivation and some of the lowest income levels in the country[4].

The West Coast has a condensed distribution of personal income compared to New Zealand. Buller District has the lowest median income ($13,300) of all Territorial Authorities in the South Island and, along with the Grey District ($14,800), is significantly below the overall New Zealand level of $18,500. Westland District ($17,000) has a higher median income than the other two Territorial Authorities on the West Coast but is still below the remainder of the country (Source: Statistics New Zealand from Census 2001).

Figure 1. West Coast DHB vs. New Zealand Total Personal Income Distribution (2001 Census Usually Resident Population Count, aged 15 years and Over)



High level of isolation

There are several factors which are associated with high levels of isolation on the West Coast, including; low population density, rurality, access to telecommunications and transport.

Geographic Isolation

The West Coast is the 5th largest geographical region in New Zealand but has a very small and diffused resident population base – at 30,300, it is less than 1% of New Zealand's entire population and has the lowest population density of any DHB area in New Zealand.

Approximately 41% of the West Coast population lives rurally, which is considerably higher than the national average, of 15%. Additionally, nationally at least 90% of people are able to access

[3] Including; shorter life expectancy, higher mortality rates, higher hospitalisation rates and higher smoking rates.
[4] The average income on the West Coast is $14, 600 compared to $18,500 nationally.

health care and social support services within 30 minutes' travel time from their homes. On the West Coast only 64% of people live within 60 minutes drive of these services.

Compounding the isolation is the lack of public transport and the number of households without access to cars, or to telephones. With the exception of Greymouth[5] there are no public intra-regional bus services in any of the West Coast towns. Taxi services are available in Westport, Greymouth and Hokitika, outlying townships and population centers do not enjoy these luxuries.

The number of households on the West Coast with access to cars is lower than the national average (89.9%) and the Buller TA has a lower percentage with access to a motor vehicle (86.4%) than the Grey or Westland Regions. There are rural areas within this with even lower access to transport, with only 78.4% of households in Granity having access to a motor vehicle.

Additionally, inter-regional public transport on the West Coast is set up to service the more than 4000 visitors to the area each day, not around residents need for public transport.

Social Isolation

A lack of mobility can cause real hardship. As well as reducing employment and educational opportunities, a lack of transport can have an impact more widely on people's health and quality of life by reducing access to or excluding people from accessing health and social services and leisure activities.

Telecommunications are also important in accessing health services as well as an important means of social connection to others and are used to facilitate a range of other activities of daily life. Household access to telecommunications on the West Coast, and more specifically the Buller District, is lower than any other region in the South Island.

Social exclusion in rural areas tends to be much more dispersed than in urban areas and hence can be harder to target with area-wide solutions. Tackling social exclusion in rural areas demands a detailed understanding of the type of area and the problems to be addressed. People experiencing social exclusion can live dispersed amongst apparent affluence, rather than be concentrated in specific areas, as is often the case in urban areas.

Increasing number of births to young mothers

In New Zealand fertility rates have been lower than replacement levels for over 20 years, while overall there are fewer NZ women in their teens and 20s are having children, and births to those over 30 are increasing. The trend varies significantly for Maori women however, who continue to have higher fertility rates and younger maternal ages than women of European origin.

The West Coast differs from this national pattern with NZ European women having higher fertility rates and younger maternal age than national average. Combined with a similar fertility rate and younger maternal age for Maori, the rate of births to young women on the West Coast is higher than national rates.

Young Maternal age is a risk factor for low birth weight babies and the initiation of breastfeeding. Additionally young women have had less opportunity for educational attainment.

[5] Where a limited shuttle service runs between Cobden, Runanga and Greymouth twice a week.

Low levels of education, especially tertiary education

Parental education, especially levels of tertiary education impacts on children's future health outcomes. The West Coast has a proportion of the usually resident population without any qualifications that is 45% higher than the New Zealand average. Mäori have an even higher proportion with no qualifications than non-Mäori in the area, although they are only slightly above the rate for total Mäori in New Zealand.

West Coast Census Usually Resident Population Count Aged 15 Years and Over without Any Qualifications, 2001

	Male	Female	Total	Maori
West Coast	41.6%	38.2%	39.9%	45.6%
New Zealand	28.2%	27.1%	27.6%	43.6%

Source: Statistics New Zealand from Census 2001.

Furthermore, the proportion of the usually resident population in West Coast DHB with a university degree is less than half of the New Zealand average

West Coast Census Usually Resident Population Count Aged 15 Years and Over with University Degrees, 2001

	Male	Female	Total	Maori
West Coast	5.2%	5.3%	5.3%	2.3%
New Zealand	12.4%	11.2%	11.8%	4.8%

Source: Statistics New Zealand from Census 2001.

Child Health Statistics

Given the high proportion of West Coast children living in low socio economic areas and the impact that has on health it is not surprising that West Coast Children experience higher rates of some diseases than children living in other parts of New Zealand.

Low Birth Weight Babies

The most recent comparison of national child health data (October 2004 – September 30th 2005) identifies the West Coast as having the highest rate per 1000 of Low birth Weight babies of any DHB. During the12 month period there were 19 low birth weight babies born.

Breast Feeding Rates

Breast feeding has considerable benefits for child health with research concluding that children who are not exclusively breastfed for 6 months are more at risk being hospitalised for respiratory infections like asthma and pneumonia and more likely to experience diarrhoea and recurrent ear infections. As well as being more likely to develop type 1 diabetes, or become overweight or obese.

West Coast data show that just 20% of Plunket enrolled babies were exclusively or fully Breast feed at 6 months. These rates are also lower than the New Zealand average, although similar to the NZ targets for 2005.

Plunket enrolled Exclusive and Fully Breast Feed babies 2004/05

	WC Total 2004/05	**WC Maori 2004/05**	**NZ Targets 2005**	**NZ Targets 2010**
6-weeks	62%	37%	74%	90%
6-months	20%	21%	21%	27%

The lower rates of breastfeeding on the West Coast are consistent with what is known about the predictors of breastfeeding. Women who breastfeed are more likely to be educated and have a higher incomes, while West Coast women are more likely to have no formal qualifications and to earn less per annum than their NZ counterparts.

Immunisation Coverage

Immunisation coverage amongst West Coast children is considered to be low, and while data quality has always been poor the number of cases of vaccine preventable diseases, particularly cases of whooping cough, indicated that vaccination coverage was not optimal.

The implementation of the National Immunisation Register gives accurate vaccination coverage of children born since November 28th 2005. In January 2006 these babies started to became eligible for their 6 week vaccinations, and data for the first 3 months of the year indicates that vaccination coverage rates of West Coast children are indeed low.

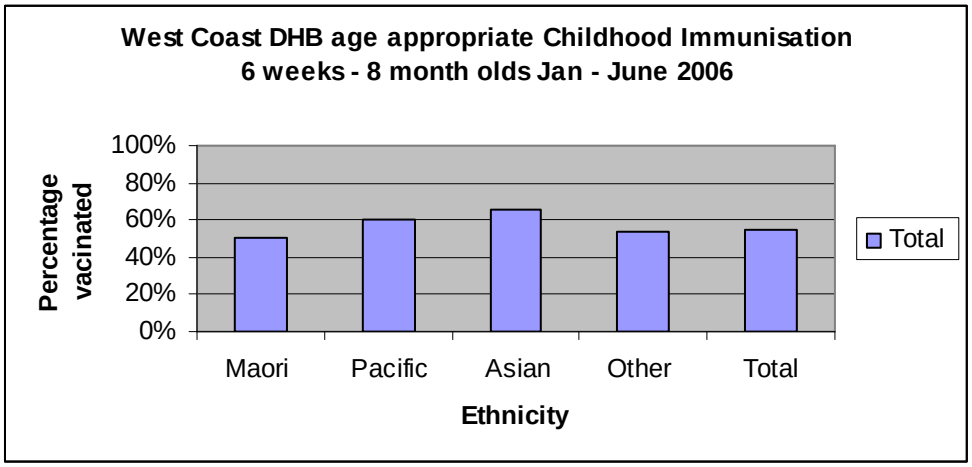
As of March 31st 2006 58% of eligible infants had recieved their 6 week vaccinations and 36% had received their three month vaccinations.

Regular childhood immunisation coverage, West Coast children born after 28th November 2005

Immunisation Event	**January 2006**		**February 2006**			**March 2006**		
	Number eligible	% vaccinated	Number eligible	% vaccinated	% Change	Number eligible	% vaccinated	% Change
6 Week	42	29%	78	55%	26%	97	58%	3%
3 Months	4	0%	36	33%	33%	61	36%	3%
5 Months	0	N/A	0	N/A	N/A	N/A	0	0

Further, no improvement in overall immunisation coverage rates of 6 week to - 8 month olds having completed the age appropriate vaccinations was evident by the end of June 2006. The rate of 55% remains well below the Ministry of Health target of 95%, even when our high rate of declines (over 10 %) is taken into account.

Maori have the lowest rate of age appropriate vaccination [6] and this lower than the coverage for the total population by 4%.



Data on the vaccination coverage rates of 11 year olds, against tetanus, diphtheria and polio[7] is not as readily available. However, from the experience of other DHB's and the Meningococcal B Vaccination campaign, we know that coverage in this age group increases when vaccinations are carried out in the school setting. This is particularly so for Maori children and for children residing in NZDep 9 and 10 areas.

Tooth Decay

With 47% of West Coast children living in NZDep 8, 9 and 10 areas, and socio-economically disadvantaged children being consistently more likely to experience poorer oral health outcomes, and 100% of West Coast children living in non fluoridated areas it is hardly surprising that comparisons with national data indicate that West Coast children have higher rates of tooth decay at age 5.

Percentage of West Coast 5 year olds seen by the School Dental caries free2004/05

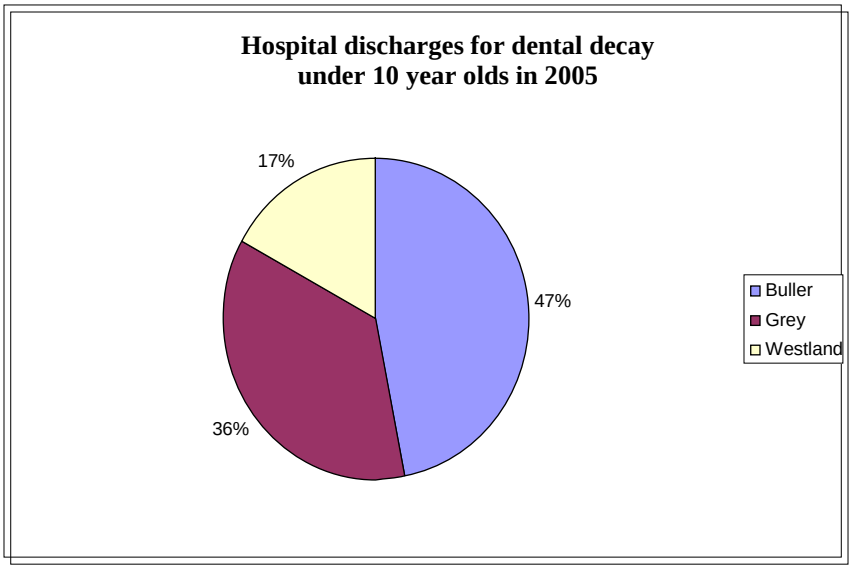
	Maori	**Pacific**	**Other**
Actual	34.55%	33.33%	43.67%
Target	40.00%	-	49.00%

Additionally, tooth decay is a leading cause of hospitalisations for West Coast children, and an area where there is considerable inequality in outcome for Maori children and children residing in NZDep 8, 9 and 10 areas.

In 2005 the burden of hospitalisation for tooth decay lay with those under 10 years, of age with 3-5 year old accounting for the majority of the hospitalisations for tooth decay. 65% of those hospitalised were of NZ European decent, however, Maori were disproportionately represented, accounting for 16% of the population but for 28% of hospitalisations for tooth decay.

[6] Small numbers of Asian and Pacific babies mean that this data should be interpreted with caution.
[7] If a fourth dose has not been received.

Further, children in the Buller region were disproportionately affected making up 47% of hospitalisations, but just 31% of the population, aged 0-10 years.



Hospital Admissions

National Comparison for the 12 months Oct 2004 - Sep 2005 shows that without exception the West Coast had lower rates of injury preventable and ambulatory sensitive hospital admissions admission for under 5 year olds and 5-14 year olds than the national average.

Population preventable admissions however, were higher, with admission for Maori for 5-14 year olds more than double the national average.

West Coast Population preventable Hospital discharges rates per 1000 Oct 2004 – Sept30th 2005

	Maori		**Other**		**Total**	
	Under 5	5-14	Under 5	5-14	Under 5	5-14
West Coast	-	7.2	8.8	2.6	5.0	3.3
New Zealand	7.5	3.1	6.8	2.2	5.9	2.5

The leading causes of hospitalisations for West Coast Children aged 1-14 years are injury, tooth decay, respiratory infections, gastroenteritis, & viral infections. With feeding difficulties the leading cause, excluding birth, for under 1 year olds.

Exposure to Cigarette Smoke

Smoking has a significant impact on child health, contributing to increased rates of sudden infant death syndrome (SIDS), respiratory conditions, glue ear, and subsequent hearing loss.

Exposure to cigarette smoke from parental smoking is a major issue for West Coast children. Smoking prevalence is significantly higher amongst adults in NZDep 9 and 10 areas, where a considerable % of West Coast children reside. More significantly however, just 53% of West Coast year 10 students (aged 14 -15) indicted in the 2005 ASH survey that they live in smoke free homes.

Family Violence

Family violence has a major impact on child health, with children being victims of direct violence and neglect as well as witnesses to the violence perpetrated against others. Between 4% and 10 % of New Zealand children experience physical abuse and approximately 18% of all children experience sexual abuse.

In addition to this evidence suggests that partner violence often begins or worsens during pregnancy. Studies have shown that partner violence affects almost 20% of pregnant women; exposure to violence during pregnancy increases the likelihood of miscarriages and abortions, leads to low birth weight, low weight gain, anaemia, infections and higher rates of still births, premature labour, and poor attendance at antenatal care.

Services for children who have witnessed or experienced family violence are provided by West Coast by Women's Refuge, and individual counselling services provided by Relationship Services These programs are however only funded for protected persons, and children who are not named on a protection order are not funded.

Mental Health

There is no health with without mental health, and good mental health in childhood has long term benefits for health outcomes in adulthood. Mental Health Services for children with a moderate to severe mental illness are provided through the WCDHB Child & Adolescent Mental Health Service (CAMHS), working out of services in Greymouth, Westport and Hokitika.

Child access to Secondary Mental health Services West Coast 2001-2003

	Total Population	**2001**		**2002**		**2003**	
0-9 years	4416	90	2.0%	96	2.1%	67	1.5%
10-14 years	2400	161	6.7%	175	7.2%	162	6.7%
Total	6016	251	4.1%	271	4.5%	229	3.8%

Primary mental health services, for those with a mild to moderate mental illness are however, not as readily available. There is a service gap existing around family counselling services, and individual counselling services for children, currently provided in Greymouth by Relationship Services, but not available in Westport or Hokitika.

Nutrition, Physical Activity and Obesity

Nutrition, physical activity and obesity have immediate benefit to children's health and long term benefits in preventing diseases including diabetes, heart disease, and cancer.

The national children's nutrition survey shows that younger children have better food and nutrient intake than older children and are less likely to be overweight or obese. However, just 43 % of New Zealand children ate fruit at least twice a day. Improving the consumption of fruit and vegetables would contribute to lowering the risk of chronic diseases and the increasing obesity risk.

Rates of obesity for West Coast children are about 2% lower the national average with 19% of west coast children being overweight or obese.

Children's perspectives on Health

> *"I think good health is, getting out and getting fit, staying a sensible weight, playing lots of sport, keeping up your hygiene, keeping you house tidy/clean, eating lots of fruit and veges [which means only eat a little bit of ice cream] avoid watching tv and go outside and get active."*
>
> (Room 1 student at Kokatahi Kowhitirangi School).

Children's perspectives on 'what is health' in the form of art, letters and teacher lead discussion of children aged 4-8, predominantly focused on healthy eating (eating lot's of fruit and vegetables) and physical activity. Examples of physical activity identified included;

- Take the dog for a walk
- Bouncing on the trampoline
- Walk in the rain
- Playing soccer
- Flying a kite
- Playing on the swings
- Running in the park with your friends
- Play at the park

Concepts of health such as social connectedness, 'playing with friends', and the importance of family were also discussed and illustrated, including 'eating meals with your family' and having 'warm loving relationships'. Emotional/mental wellbeing concepts were evident through the description and illustration of enjoyable activities such as 'playing with my train set' and 'writing and drawing'.

The prevention of harm and disease also emerged 'cleaning our teeth' and protecting our health by 'wearing earmuffs' or 'wearing a hat' identified.

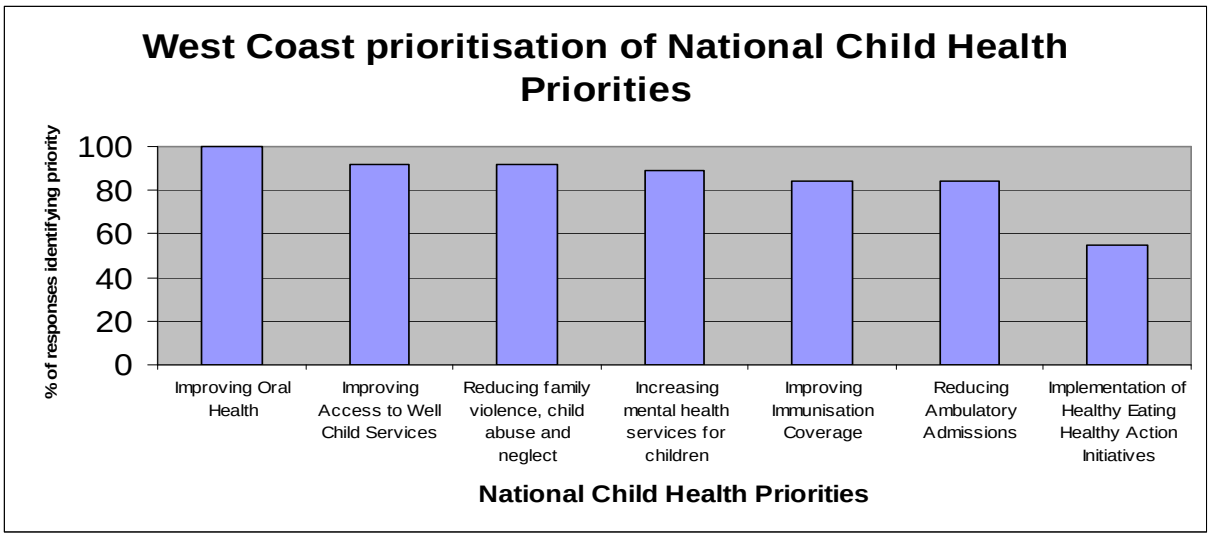
Children's understanding of some of the complex aspects of health, and knowledge of the benefit of physical activity, good nutrition, and carrying out tasks that have long term preventative benefit, needs to be nurtured.

Recommendations and activities need to be implemented in a way that provides opportunity for children to develop and take ownership of activities, particularly when these are being implemented in schools children spend much of their time.

Community priorities

Responses to the survey of health, education and social service providers has given rise to a vast amount of information about priorities for improving Child Health Outcomes on the West Coast.

Nationally identified health priorities were rated by the respondents (n=38) to form a West Coast priority list with all respondents identifying improving oral health as an important priority for improving West Coast Children's Health. Improving access to well child services and reducing family violence, child abuse and neglect were rated by 92% as West Coast priorities.



The key issues impacting on West Coast Children's' Health were identified as;

- Health services (access to services, lack of doctors, lack of services/ choice of provider)
- Oral health,
- Nutrition and
- Parenting support and education

In contrast with these key issues identified, with the exception of primary Mental Health services, access, availability or choice of providers did not emerge as a priority that the West Coast DHB should be addressing.

Oral health, and parenting support & education were identified as priority areas by health, education and social community service providers. Immunisation coverage, family violence, healthy eating and mental health services were identified by two sets of providers as priorities. With Vision and Hearing identified by education providers.

Top 5 Child Health Priority areas for the WCDHB to address		
Health Providers	**Education Providers**	**Social/Community Service Provider**
Oral Health	Parenting Support & Education	Oral Health
Immunisation Coverage	Mental Health	Family Violence
Healthy Eating	Oral Health	Parenting Support & Education
Family Violence	Healthy Eating	Immunisation Coverage
Parenting Support & Education	Hearing & Vision	Mental Health

When combining these priorities with the prioritisation ranking for the National health priorities for child health, the following priority ranking occurs;

- Oral Health
- Nutrition
- Mental Health services for children
- Immunisation Coverage
- Parenting Support & Education Services
- Family Violence, Child Abuse & Neglect

Initiatives and Strategies to address identified priorities

An analysis of data, and community consultation processes, including key informant interviews identified the issues around these priorities, and the inequalities in outcomes / service delivery that exist in each area.

It is from this analysis that the solutions to address each of the 6 priority child health area have been identified.

Oral Health

1. Provide training and education for practice nurses, pharmacists, well child providers, parents and early childhood educators around oral health, regular brushing, nutrition, and the benefits of fluoride on developing teeth.

2. Establish a high fluoride varnish service free to preschoolers ideally Coast wide, otherwise targeting those of highest need, ensuring the service is accessible for tamariki Maori.

3. Investigate the possibility of supplying toothbrushes and toothpaste for distribution by Well Child providers at 2 year checks, and for children upon admission to hospital.

4. Establish a range of fixed and /or mobile child and adolescent oral health facilities to ensure accessibility for all children living on the West Coast.

Nutrition

5. Implement the BREAST feeding initiative for Tai Poutini, to increase community support and develop peer support for breast feeding and improve access to Lactation Consultation (with a focus on increasing rates among women living in NZDep 8,9 and 10 areas, young women and Maori women).

6. Renew the push on Health Promoting Schools, with a particular focus on decile 1-4 schools, increasing the number of schools achieving, or working towards achieving health promoting schools status.

7. Expand the implementation of HEHA through the continuation of the school challenge within the Spring into Action programme, with a focus on increasing the number schools and number of children involved in the activity.

8. Implement Fruit in Schools programme (dependent on securing funding) with a focus on schools with a decile rating of 1-3 or those in NZDep, 9 and 10 areas.

Mental health services for children

9. Review the availability of Family and Individual Counselling Services available to children, with a view to increasing availability and accessibility of these services where needed.

10. Increase awareness of the support agencies, and telephone support services available to children and their parents.

Immunisation Coverage

11. Implement an Outreach Immunisation Service that targets populations with low coverage (currently Maori children, and children residing in NZDEP 7-8), and includes active recall, community vaccination clinics & home based vaccinations.

12. Provide catch up vaccinations in schools and community clinics to 5 year olds who have missed their 4 year old vaccinations,

13. Provide catch up vaccinations in schools and community clinics for 11 year old vaccinations.

14. Implement lunch time training session and vaccination updates for primary care providers.

Parenting Support & Education Services

15. Support the Implementation of Family Start Services in the Buller and Grey Districts, and establish referral processes to the service upon its implementation.

16. Continue to support the development of parent education services in the Buller District.

Family Violence, Child Abuse & Neglect

17. Implement a hospital response to Family Violence including screening and referral (to police, child youth and family, women's refuge, family start, or other community agency as appropriate) for family violence, child abuse and neglect.

18. Actively participate in the development and coordination of strategies to raise awareness of and respond to family violence, child abuse and neglect through the West Coast Te Rito Group.

General Recommendations

19. Identify key indicators of West Coast Child Health Status and monitor these areas to identify inequalities and improvements in outcomes.

20. Establish an intersectoral network, including PHO, NGO and DHB providers to review the provision of child health, and parent education and support services and work to fill identified gaps.

21. Plan for the ongoing input of a generalist paediatrician into clinical care and community liaison on the West Coast.

Appendix 1: Health, Education and Social Service Providers Surveyed

Organisation	Organisation	Organisation
Access Home Health	Whataroa Rural Nurse Specialist	Reefton Area School
ADD/ADHD Support Group	Whataroa School	Reefton Catholic Church
All Saints Anglican Church	Harihari Rural Nurse Specialist	Reefton Medical Centre
Apostolic Church	Healthy Inangahua Project	Reefton Play Group
Arthritis Society	High Street Medical	Reefton Public Health Nurse
Autism West Coast	Hokitika Association Of Anglican Women	Reefton Sports Centre
Awahono School	Hokitika Baptist Church	Reefton Who Cares
Baha'i Faith	Hokitika Bible Society	Relationship Services
Barnardos Early Learning Centre	Hokitika Church Of Christ	Ross Anglican Church - Ross
Barrie Wood Dentist	Hokitika District Nurse	Ross Catholic Church
Barrytown Play Group	Hokitika Jehovah's Witnesses Church	Ross Elim Youth Group
Barrytown School	Hokitika Multicultural Trust	Ross Play Group
Blackball Community Centre	Hokitika Neighbourhood Nurses	Ross School
Blaketown School	Hokitika Physiotherapist	Rotomanu Play Group
Buller High School	Hokitika Primary School	Runanga School
Buller Learning and Behaviour Unit	Hokitika Scenicland Preschool	Sacred Heart School
Buller Pharmacy	Holy Trinity Anglican Church	Sara Roberts Physiotherapy
Buller Physiotherapy	Holy Trinity Assn Of Anglican Women	Sisters of Mercy
Buller REAP	Home Builders	South Westland Anglican Church
Buller Westland Play Centre Association	Home To Home	South Westland Area School
Cancer Society	Homebuilders West Coast	Special Education Services
Catherine Van Passen Optometrists	Housing New Zealand	Speech Language Therapist
CCS	Ikamatua Play Group	Sport Buller
Child And Adolescent Mental Health Services	Inangahua Junction	Sport West Coast
Child Caner Foundation	Inangahua Play Group	St Andrews United Church
Child Development Coordinator (WCDHB)	Integrity Christian Counselling	St Canices School
Child Youth And Family	Inter School Christian Fellowship	St James Church – Franz Joseph
Coast Birth Midwifery	J West Optometrist	St Mary's School
Coastal Podiatry	Jacobs River School	St Patrick's Catholic Church

Cobden Gospel Hall	JB's Dental Services	St Patrick's School
Cobden Scenicland Preschool	John Paul Ii High School	Stillborn & New Born Death Support
Cobden School	Kaniere Play Centre	Strengthening Families
Community And Public Health	Kaniere Playgroup	Supporting Families (Sf) West Coast
Cot Death Group	Kaniere School	Tainui Trust
CPH Smoking Cessation Co-Ordinatior	Karamea Area School	Te Oho Ake Whanau Trust
Disability Information Services	Karamea Medical Centre	Te Rama Arahi O Kawatiri
Dobson Heath Clinic	Karamea Rural Nurse Specialists	Te Runanga O Makawhio
Dr Weston	Karoro Kids First Kindergarten	Teenage Mums Support Group
Family Dental Centre	Karoro School	Unichem Apothecary
Family Focus Services	Kati Waewae Runaka	Waimangaroa School
Family Medical Centre	Kawatiri Midwives	WCDHB Social Work Department
Fox Glacier Catholic Church Committee	Kawatiri Maori Women's Welfare League	WCDHB CAMHS Music Therapist
Fox Glacier Play Group	Kids First Greymouth	WCDHB GP Liaison
Fox Glacier Rural Nurse Specialists	Kids First Hokitika	WCDHB Gynaecology & Obstetrics
Fox Glacier School	Kids First Karoro	WCDHB Hearing Therapist
Franz Josef Glacier School	Kokatahi-Kowhitirangi School	WCDHB Immunisation Coordinator
Gary Rae Dentist	Kumara School	WCDHB Maternity Ward
Gloriavale Christian Community	Lake Brunner School	WCDHB Paediatric Ward
Granity School	Life Links	WCDHB Paediatric Occupational Therapist
Greymouth Association Of Anglican Women	Maruia School	WCDHB Paediatrician
Greymouth Anglican Church – Greymouth	Masons Healthcare Reefton	WCDHB Smoking Cessation Coordinator
Greymouth Baptist Church	Masons Pharmacy Greymouth	WCDHB Vision Hearing Tester
Greymouth Catholic Church	Mercy Trust – Cobden	Well Women's Centre
Greymouth Catholic Women's League	Moana Rural Nurse Specialists	West Coast Home Birth Assn
Greymouth Church Of Jesus Christ Of Latter Day Saints	Multiple Sclerosis West Coast	West Coast Women's Refuge
Greymouth Dental Centre	Musculoskeletal Clinic	West REAP
Greymouth District Council Of Churches	Ngahere Catholic Church	Westland High School
Greymouth Elim Church	Ngakawau Rural Nurse Specialists	Westland Medical Centre
Greymouth High School	Olsen's Pharmacy	Westmount School
Greymouth Jehovah's Witnesses Church	Pact West Coast	Westport Anglican Church – Westport
Greymouth Kids First Kindergarten	Paparoa Range	Westport Catholic Church

Greymouth Main School	Parents As First Teachers	Westport Church Of Latter Day Saints
Greymouth Medical Centre	Parents Centre - Grey	Westport Dental Clinic
Greymouth Public Health Nurse	Paroa School	Westport Early Learning Centre
Greymouth Public Health Nurses	Plunket	Westport North School
Greymouth Salvation Army	Potikohua Trust	Westport Pharmacy
Greymouth Scenicland Preschool	Presbyterian Church	Westport Public Health Nurse
Greymouth Uniting Church	Psychiatric Needs Assessor	Westport Salvation Army
Haast Play Group	Rape Crisis And Sexual Abuse Support	Westport South School
Haast Rural Nurse Specialists	Rata Maori Women's Welfare League	Whataroa Catholic Women's Group
Haast School	Rata Tamariki Ora Worker	Whataroa Rural Clinic
Harihari Anglican Women's Guild	Rata Te Awhina Trust	Whataroa Play Group
Harihari Catholic Women's Group	Reefton Anglican Church – Reefton	

Appendix 2: Early Childhood Centres and Primary Schools participating Consultation

School	Ages	Number
Granity School	5-7 year olds	13
Karoro Kids first	4 year olds	27
Westport North School	7 year olds	7
Cobden Scenicland Preschool and Nursery	4 year olds	6
Kokatahi Kowhitirangi School	5-8 year olds	

Appendix 3: What 'Health' Means to 4-8 year old West Coast children

Physical Activity	Healthy Eating	Prevention	Relationships	Things we like
Physical Activity (6)	Healthy Food (39)	Cleaning teeth	Playing with friends (2)	Flowers (2)
Take the dog for a walk	Eating sweets & ice-cream/ junk food sometimes (3)	Protecting ears with ear muffs in dads helicopter	Parents	Writing/drawing
Bouncing on the trampoline		Staying a sensible Weight	Running in the park with your friends	Playing in the sandpit
Playing on the swings (2)		Wearing a hat to protect from sun	Family Meals together	Playing with my train set
Walk in the rain				
Playing soccer				
Flying a kite				

Appendix 4: Consultation Interviews undertaken and area consulted on.

Person	Position	Organisation	Consulted on
Anne-Marie Douglas	PAFT Educator	PAFT	Parenting Education & Support
Betty Gilsenan	Immunisation Co-ordinator & Public Health Nurse	West Coast DHB	Immunisation Coverage Parenting Education & Support
Cecile Lee	Family Violence Response Co-ordinator	Work & Income	Family Violence
Clair Newcombe	Family Violence Response Coordinator, WCDHB	West Coast DHB	Family Violence Parenting Education & Support
David Rumble	SI Regional Dental Officer	SISSAL	Oral Health
Desma Ready	Child Development Officer	West Coast DHB	Family Violence Parenting Education & Support Primary Mental Health
Heather Salter	Manager	West Coast Women's Refuge	Family Violence Parenting Education & Support
Ian Newcombe	Manager	Family Focus	Family Violence Parenting Education & Support
Karen Davidson	Reefton Whanau Nurse	West Coast DHB	Parenting Education & Support Nutrition/Physical Activity Oral Health
Lerey Aitkens	Manager	Potikohua Trust	Family Violence Parenting Education & Support
Lyn Stovie	PAFT Educator	PAFT	Parenting Education & Support
Martin Lee	Principal Dental Officer, CDHB	CDHB	Oral Health
Maureen Kilner	Family Court Coordinator	Family Court	Family Violence Primary Mental Health
Nikki Sill	Relationship Services	Relationship Services	Family Violence Parenting Education & Support Primary Mental Health
Raewyn McLeod	Greymouth Dental Therapist,	West Coast DHB	Oral Health Nutrition
Richard Wallace		Rata Te Awhina Trust	Family Violence

Shane Stevenson	Child Psychologist	CAMHS	Family Violence Mental Health Parenting Education & Support
Shar Ransom	Clinical Leader	Plunket	Family Violence Mental Health Parenting Education & Support Nutrition Immunisation Oral Health
Sharon Marsh	Mother & Pepi Worker,	Rata Te Awhina Trust	Nutrition Primary Mental Health
Silvia James	Manager	Buller REAP	Parenting Education & Support Primary Mental Health
Trish Hunt	Parent Education Program Facilitator	Nurturing the Future Trust	Family Violence Parenting Education & Support