

The First 1000 Days

A South Island report for the Hauora Alliance

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We as New Zealanders undertake an unconditional duty to do all in our power to ensure that all our children are treasured, respected and enjoy a good life full of opportunity. To that end, we will be champions for our children and will act with integrity in our dealings with them and treat them fairly in all things to ensure that they receive justice. (1)

We will protect them from all forms of violence, abuse and neglect.

We will preserve and respect their sense of identity, in particular by strengthening the bonds with parents, family, whānau, hapu and iwi.

We will ensure they are at the centre when making decisions about them.

Our vision is that every child of our nation will be valued and have a sense of place, a place to stand and know their place.

We make this pledge to every child. (2)

‘He kai poutaka me kinikini atu, he kai poutaka me horehore atu, mā te tamaiti te iho’

Pinch off a bit of the potted bird, peel off a bit of the potted bird, but the inside is for the child – Save the best for the child (3)

Evidence tells us that a person’s life successes, health and emotional wellbeing have their roots in early childhood. We know that if we get it right in the early years, we can expect to see children thrive throughout school and their adult lives

What happens during the early years is of crucial importance for every child’s development.

It is a period of great opportunity, but also of vulnerability to negative influences.

Ensuring the healthy cognitive, social and emotional development of young children merits the highest priority of every responsible government, organization, community, family and individual for the sake of raising healthy children worldwide. (4)

1. Covenant: He Ōati mā ngā Taitamariki ō tō tātou Whenua (2016)

2. <https://teara.govt.nz/en/nga-tamariki-Māori-childhoods/page-1>

3. www.aedc.gov.au/parents/the-importance-of-early-childhood-development

4. www.unicef.org/earlychildhood/index_40748.html

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Executive Summary

The purpose of this report is to inform inter-sectoral planning, action, and monitoring to support the best start in life for every child in the South Island / Te Waipounamu. It has been prepared for the Hauora Alliance to inform planning by the Alliance and its member organisations.

Recent years have seen numerous calls to action on early childhood both in New Zealand and overseas (1-7). A growing body of evidence confirms that experiences during the first 1000 days, the period from conception until a child's second birthday, have a far-reaching impact on health, educational, and social outcomes, and on health equity.

New Zealand now ranks poorly compared to other high-income countries against several measures of child health and wellbeing, and our rate of public spending on young children is low, despite evidence that prevention and intervention strategies in early childhood are a good investment (2).

To support planning for action, our report has used a life-stage approach by grouping key determinants into those focused on pre-conception, pregnancy, and early years (0-2 years), with the final group, wider determinants, important across all three life stages.

There is evidence to support a range of initiatives targeting the first 1000 days, including:

- **In general:** income supplements, improved service integration
- **Before conception:** improving nutrition, immunisation, family violence prevention, treating depression, reducing alcohol consumption, family planning
- **During pregnancy:** addressing tobacco and other addictions, providing pregnancy and parenting education classes, addressing family violence
- **During infancy:** supporting breastfeeding, home visiting, developing parenting skills, improving attachment, treating depression, providing high quality early childhood education

There is also growing understanding of the need to address wider health determinants and to improve service context and integration, recently described by the World Health Organization as “enabling environments for nurturing care”.

In the South Island, most people report good family/whānau connections and support, but a substantial minority lack this support. There are gaps in access to adequate income, adequate housing, and health care services (including maternity, Well Child Tamariki Ora and general practice services). A substantial proportion of women becoming pregnant already have risk factors for adverse outcomes, such as high BMI or tobacco use. There are ethnic and socioeconomic inequalities in these risk factors, as well as in the number of teenage pregnancies. Most South Island children are protected by immunisation, but a worrying proportion miss out on the benefits of ongoing breastfeeding. These and other differences in access to the determinants of health and wellbeing are reflected in inequities by ethnicity and socioeconomic status in health status by age five, including avoidable hospitalisations, obesity, and tooth decay. There are important information gaps regarding many other aspects of the first 1000 days that we know to be important in achieving the best outcomes for our children.

A wide range of services are available in the South Island over the first 1000 days. Most focus on infancy. Some, particularly those with national funding such as maternity care, general practice and Well Child Tamariki Ora services, are provided on a universal basis. Data on engagement with these services are available and indicate some inequities. Many services, however, are provided on a local basis with limited data available about their reach or uptake. There is no agency taking responsibility for an overview of health and social services or for ensuring best practice, co-ordination or equitable provision of services across the first 1000 days. Many services operate in relative isolation, even within sectors such as health.

There is no simple technical solution to this complex and important set of issues; optimising early childhood development requires an integrated and holistic approach to policy, programmes and services (8). As an inter-sectoral alliance with a regional mandate, Hauora Alliance is well placed to take a strategic approach to supporting early childhood development across the South Island. Recent national policy developments, such as the Child Poverty Reduction Bill and development of a Child Wellbeing Strategy including a focus on the first 1000 days, provide a supportive context.

The Te Pae Mahutonga health promotion model (9) provides a useful framework for planning action to improve early childhood outcomes in the South Island. Points for Hauora Alliance and member agencies to consider include their role in:

Ngā Manukura (leadership)

- improving **integration of existing services** within and across sectors
- **advocacy** for increased spending on existing services and consideration of need for new services particularly in the evidence-based areas of **supporting improved parenting skills** and **targeted home visiting programmes**
- formalising organisational ownership for the first 1000 days, including improved **measurement and accountability** for outcomes for the first 1000 days

Te Mana Whakahaere (autonomy)

- improving **access** to family planning services, pregnancy and parenting education and information, parenting skills training, and support for all parents
- encouraging and supporting **community solutions** that assist young parents to engage with services and support, including identifying specific opportunities to increase **home visiting** and/or **parenting training and support** services

Waiora (physical environment)

- incorporating **support for improved housing conditions** for parents in any new or existing services targeting the first 1000 days
- supporting initiatives to **improve wider environmental conditions**, such as air and water quality, known to be suboptimal in some parts of the South Island and to have a disproportionate impact on very young children
- improving **data collection on key environmental factors** such as housing quality when parents engage with health and social services

Mauriora (cultural identity)

- **developing** services that are more culturally appropriate and inclusive
- **supporting existing services** to be more culturally appropriate and inclusive
- developing and supporting partnerships with iwi and cultural organisations to **build family/whānau support** and to **connect with and support pregnant women and young families**

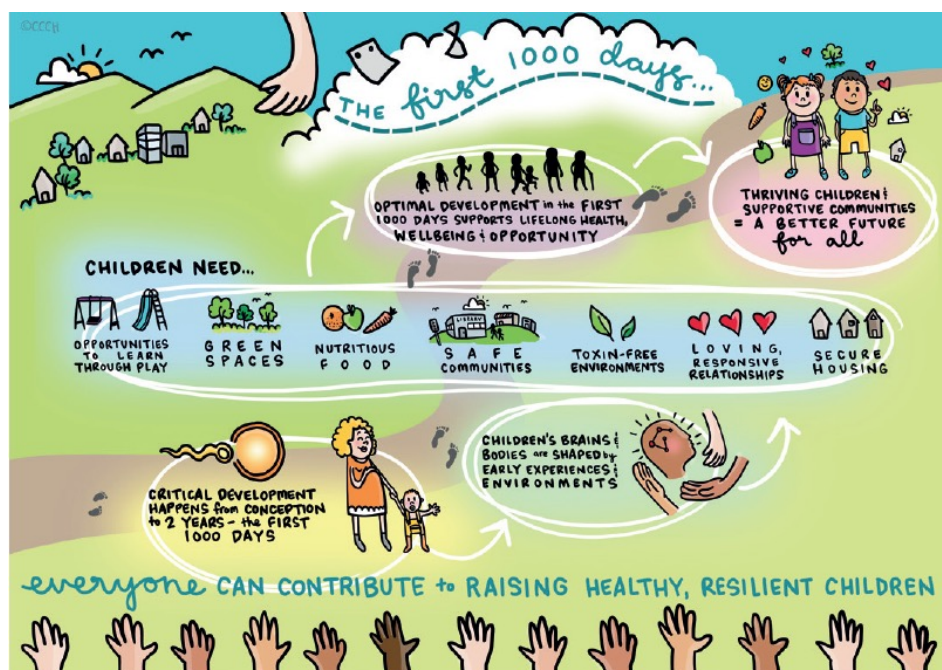
Te Oranga (participation in society)

- reducing the impact of poverty by **ensuring services engage with** to families with limited financial resources
- improving access to **culturally appropriate and inclusive** family planning, maternity care, primary care, and social services for all parents
- improving **service connections and continuity** across all stages of care

Toiora (healthy lifestyles)

- reducing **overall smoking rates**, particularly in adults of parenting age
- improving **smoking cessation** rates for pregnant women
- improving **breastfeeding** rates across all communities
- educating and supporting parents to help their children eat well and be active, through **pregnancy and parenting skills training** and **targeted home visiting** programmes
- promoting **environments** which support healthy food choices and physical activity

Background



Source: Centre for Community Child Health (8)

Hauora Alliance

The Hauora Alliance is a cross-sector partnership working to address South Island hauora from a population perspective.^V The Alliance formed in 2017, and has a vision of:

‘flourishing communities, whānau and individuals across the South Island’.

The dual goals of the Hauora Alliance are to:

1. develop joined up ways of working (system collaborative capacity: trust, knowledge and skills), and
2. focus collectively on key South Island hauora issues.

The Hauora Alliance has identified the first 1000 days of a child’s life as its initial priority area for action.

^V As of August 2018 Hauora Alliance included representatives from Ministry of Education, Ministry of Social Development, Oranga Tamariki, Social Equity and Wellbeing Network, South Island Public Health Partnership, and Te Pūtahitanga o Te Waipounamu.

South Island Public Health Partnership

The South Island Public Health Partnership, formed in 2011, is a member of the Hauora Alliance, and is a collaboration between the three South Island district health board public health units.^{vi} Public health is the part of our health system that works to keep our people well. The Partnership's strategies are based on the five interconnected core public health functions (10):

1. Information: sharing evidence about our people's health and wellbeing and how to improve it
2. Capacity-building: helping agencies to work together for health
3. Health promotion: working with communities to make healthy choices easier
4. Health protection: using the law to protect people's health
5. Supporting preventive care: supporting our health system to provide preventive care to everyone who needs it (e.g. immunisation, stopping smoking).

Community and Public Health has developed this report with the South Island Public Health Partnership as part of the Partnership's contribution to the Hauora Alliance.

Purpose

The purpose of this report is to inform inter-sectoral planning, action and monitoring to support the best start in life for every child in the South Island /Te Waipounamu.

Audience

This report has been prepared for the Hauora Alliance to inform planning by the Alliance and its member organisations.

Early childhood as a priority

Recent years have seen numerous calls to action on early childhood both in New Zealand and overseas (1-7). Early childhood has been described as “at the heart of the Sustainable Development Goals” (11). Current government initiatives recognise early childhood as a priority, with the Child Poverty Reduction Bill including a requirement for a Children's Strategy and an expectation of inter-sectoral accountability and measurement of outcomes,^{vii} and establishment of a Child Poverty Unit and a Child Wellbeing Unit within the Department of Prime Minister and Cabinet.^{viii}

In the South Island, both the Hauora Alliance and the South Island Alliance^{ix} have identified the first 1000 days as a priority and are seeking opportunities to improve outcomes for families and children through local and regional initiatives and collaboration.

VI *The three South Island Public Health Units are: Nelson-Marlborough Public Health Unit; Community and Public Health (a division of Canterbury District Health Board providing public health services to Canterbury, South Canterbury and West Coast districts); and Public Health South (Southern District Health Board).*

VII https://www.parliament.nz/en/pb/bills-and-laws/bills-proposed-laws/document/BILL_76267/child-poverty-reduction-bill

VIII <https://www.dpmc.govt.nz/>

IX *The South Island Alliance is an alliance of the region's five District Health Boards, working towards a vision of “a sustainable South Island health and disability system – best for people, best for system”.*

Scope

A growing body of evidence confirms that experiences during the first 1000 days, the period from conception until a child's second birthday, have a far-reaching impact on health, educational, and social outcomes. In spite of rapidly advancing scientific understanding, a child's first 1000 days is a time of complex development and interactions, surrounded by a complex interplay of actual and potential services and supports, and so there is still much to learn. Despite increasing recognition of early childhood's importance in New Zealand, there remains a lack of institutional "ownership" and of agreed frameworks and measures.

Our report starts with a discussion of the importance of early childhood and a description of key factors for a successful first 1000 days. We then provide a brief overview of areas where there is evidence that interventions in the first 1000 days can improve outcomes.

A traditional health profile uses a set of indicators to describe health status and determinants. Our report aims to highlight opportunities for improving outcomes for our youngest children, and so we have taken a broader approach, surveying a wide array of available early childhood measures, regarding both health and wellbeing and their determinants, and taking stock of existing initiatives in the South Island. Our intention has been to provide an exploration of measures and opportunities to inform action, rather than providing a definitive set of indicators. We have included only published data; time constraints have prevented us from approaching other agencies with additional data requests. Where possible we have included measures which reflect Māori conceptualisations of wellbeing and hauora Māori priorities, as well as including ethnicity data for all measures where feasible.

Every child deserves the best start in life, and existing inequities are one reason the first 1000 days are a priority for action. In developing our report we have prioritised identification of inequities and ways of reducing them.

Why are the first 1000 days important?

Children matter. Children are one of the most vulnerable groups in our society. Good health and developmental outcomes for children depend on how well families' basic needs are met, the strength of families' social and cultural connections, families' access to quality services and facilities, and families' economic security. Young children's family environments are so influential that they predict children's cognitive, social and emotional abilities and their subsequent success at school.

Children also matter because they are the adults of tomorrow. The early years are important because they shape a person's ability to engage in work, family and community life. Substantial international evidence shows that adult unemployment, welfare dependence, violence and ill health are largely the results of negative factors in the early years. (2)

Profound and lasting impacts

The first 1000 days can no longer be seen as the relatively passive period it has been viewed as in the past. The ways our very young brain and other body systems adapt to their physical, social and nutritional world help programme our future responses to those same influences. Research over the last few decades has highlighted the first 1000 days as the period of maximum developmental plasticity, during which a child's environment

has profound and lasting impacts (8). Early childhood has been recognised as critical to health equity, as children in families with limited economic resources often face multiple physical and psychosocial hardships in early childhood that can dramatically damage their health, often with lifelong consequences (12).

We're performing poorly

New Zealanders have historically viewed our country as a good place to raise children. Children are highly valued in traditional Māori society,^x and Te Rūnanga o Ngāi Tahu espouses the tribal philosophy: "Mō tātou, ā, mō kā uri ā muri ake nei – for us and our children after us",^{xi} emphasising both protection of the interests of future generations and our duty of care towards the children that we have amongst us already.

influences on our poor ranking include increasing pressures on families/whānau, widening socioeconomic disparities, comparatively low government investment in early childhood, uncoordinated services and a lack of information for policy decisions and service delivery (5)

X <https://teara.govt.nz/en/nga-tamariki-Māori-childhoods/print>

XI http://ngaitahu.iwi.nz/our_stories/oranga-tamariki/protecting-children/

However, New Zealand now ranks poorly compared to other high-income countries against several measures of child health and wellbeing, including neonatal mortality and youth suicide (2, 13-15). In addition, significant inequities exist in health outcomes between ethnic groups (16-18), and health inequities are closely linked to poverty and socioeconomic deprivation. The Public Health Advisory Committee argued in 2010 that influences on our poor ranking include increasing pressures on families/whānau,^{xii} widening socioeconomic disparities, comparatively low government investment in early childhood, uncoordinated services, and a lack of information for policy decisions and service delivery (2).

A good investment

Prevention and intervention strategies in early childhood have been identified as a good investment (4, 5, 19). The economic benefits of early years investments are greater than the costs of the interventions themselves, influence many aspects of life throughout the life course, and extend beyond the individual to the whānau, community and wider society (5, 20, 21). Our Māori population is young, with 12 percent of the Māori population living in Te Waipounamu under 4 years of age (22) making the early years a priority for Whānau Ora commissioning.

Compared to other OECD countries, New Zealand has one of the lowest rates of public investment in young children (23, 24). This low rate of investment generates significant economic costs from potentially avoidable expenditure on public health, welfare, remedial education, lower productivity, crime, and justice (23).

XII The PHAC report expands on each of these influences. They describe the “increasing pressures on families/whānau” as rising living costs, urbanisation, increased paid working hours, and increases in family breakups, all resulting in many young families living away from their extended family, more parents on their own when raising children, and weaker wider family support networks.

What are the key determinants of a successful first 1000 days?

The first 1000 days is the time from conception to a child's second birthday. It is a rapid and crucial period of brain and organ development that is heavily influenced by the environment through many different pathways. Optimising the first 1000 days for each New Zealand child means focusing on a healthy mother, a healthy pregnancy, and a healthy early childhood. Positive early childhood conditions, especially loving, responsive and secure relationships with parents/caregivers and whānau, lay the foundations for optimal development and lifelong health and wellbeing. (3)

Figure 1 Components of nurturing care

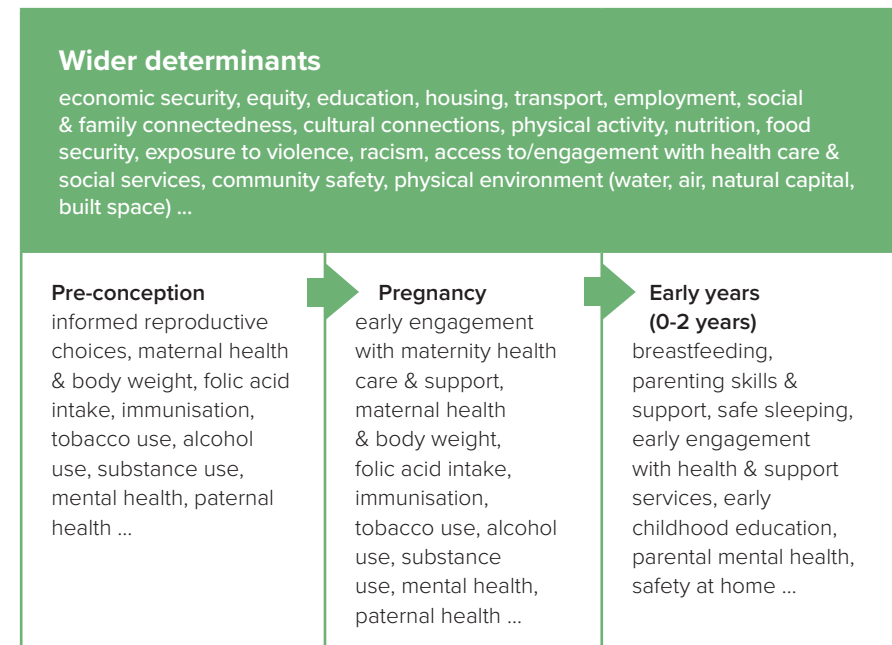


Source: World Health Organization (25)

The World Health Organization's "nurturing care" framework (25) describes five components of early childhood development: good health, adequate nutrition, responsive caregiving, security and safety, and opportunities for early learning (Figure 1).

In line with our report's focus on planning for action, we have framed the next two sections around four groups of key determinants of a successful first 1000 days. Three of these groups correspond to the specific life stages of preconception, pregnancy and early years (0-2 years), with the final group, wider determinants, important across all three life stages (Figure 2).

Figure 2 Key determinants of health in the first 1000 days



How can we improve outcomes for the first 1000 days?

Increased investment in the first 1000 days of life, and a stronger focus on population-based strategies to address the determinants of healthy development, have the potential to result in significant public health gains and reduced social and health inequities throughout the life-course (3).

The Māori child is not to be viewed in isolation, or even as part of nuclear family, but as a member of a wider kin group or hapū community that has traditionally exercised responsibility for the child's care and placement. The technique, in the Committee's opinion, must be to reaffirm the hapū bonds and capitalise on the traditional strengths of the wider group. If the programme is to get the support of the people then it must come back to the whānau base, and when I say that, it must come back with all accountability" (26)

Introduction

In this section we summarise our review of a selection of secondary literature (publications which review or summarise research) to identify areas where there is evidence of effectiveness of initiatives targeting the first 1000 days. We have included our review strategy and an overview of the review papers as Appendix 3.

However, while these reviews cover a substantial body of evidence, they provide only part of the picture, and most reviews identify research gaps in key areas of early childhood development. It is important to remember that a lack of evidence for the effectiveness of an intervention does not necessarily mean that it is ineffective. For example, research about specific interventions with direct and measurable outcomes tends to be rated most highly in evidence reviews, and there tends to be more research conducted on interventions targeting vulnerable or struggling children and families than on community-level interventions. Furthermore, it has been beyond the scope of our report to review evidence on community-level interventions to address wider determinants such as income, physical environment, and general social support, despite their importance.

Figure 3 Enabling environments for nurturing care



Source: World Health Organization (25)

Optimising early childhood development requires an integrated and holistic approach to policy, programmes and services (8). The World Health Organization describes this as “enabling environments for nurturing care” (Figure 3).

To support development of initiatives and research to fill current research gaps, the Center on the Developing Child at Harvard University describes five key characteristics of policies and programmes consistently associated with positive outcomes for young children and their families (27):

1. Help adults - parents, teachers, childcare staff - to strengthen their skills so they can support the healthy development of the children in their care
2. Tailor interventions to address sources of significant stress for families, such as homelessness, violence, children's special needs, or parental depression
3. Support the health and nutrition of children and mothers before, during, and after pregnancy
4. Improve the quality of the broader caregiving environment and increase economically disadvantaged families' access to higher-quality care
5. Establish clearly defined goals and implement a curriculum or intervention plan that is designed to achieve those goals

These five characteristics can guide continuous improvement in the quality of policies and programmes. For an area as complex as early childhood, the broader context surrounding any individual initiative also plays a key role. The Public Health Advisory Committee suggests four broad areas that will contribute significantly to improving child health (2):

1. Leadership to champion child health and wellbeing
2. An effective whole-of-government approach for children

3. An integrated approach to service delivery for children
4. Monitoring of child health and wellbeing

Recent government initiatives (see page 8) provide some leadership on each of these areas. The Committee's report also provides an overview of evidence for a set of cross-agency policies. The Marmot Review (28) suggests that evidence is strongest for:

1. Increasing the proportion of overall expenditure allocated to the early years
2. Giving priority to pre- and postnatal interventions, such as home visiting programmes, known to reduce adverse outcomes
3. Providing paid parental leave in the first year of life
4. Providing routine support to families through parenting programmes, children's centres and key workers

The following sections consider summary evidence for specific interventions relevant to the wider determinants and by life stage.

Wider determinants of health

- **Income:** Provision of paid parental leave can lower rates of infant mortality and low birth weight, improve parental wellbeing, and facilitate attachment (2, 29, 30). In addition, parental income supplements for families living in poverty can enhance children's achievement (2).

- **Service delivery:** Strategies for delivering better health and social services include using a range of services and approaches, and targeting high-risk communities rather than individual families. Families benefit from cross-sectoral working, such as professionals and paraprofessionals working together. Engaging families pre-birth can improve their postnatal engagement with services, as can incentives such as meals or transport (31).

Preconception

- **Nutrition:** The effectiveness of preconception nutrition and health behaviour interventions is uncertain due to limited robust evidence, however epidemiological data suggest that improving men's and women's nutritional status preconception (such as through supplementation or fortification with folic acid and iodine) improves long-term outcomes for mothers and babies (32-34). Nutrition monitoring, counselling, and community-based prevention interventions can contribute to decreasing overweight, obesity and diabetes among men and women (33).
- **Immunisation:** Morbidity and mortality due to certain causes can be prevented through immunisation, for example, rubella and tetanus/diphtheria (33).
- **Intimate partner violence:** Effective interventions for the prevention and identification of intimate partner violence include the provision of sexuality and reproduction education, economic empowerment programmes, psychosocial support, and regular assessment in health care settings (33).

- **Mental health:** Counselling and medication (under medical supervision) have been shown to be effective in the treatment of mental health issues, such as depression (33).
- **Alcohol use:** Identification of risky alcohol consumption patterns in health care settings, and provision of timely treatment options, can decrease potentially harmful drinking behaviours (33).
- **Early/unwanted/rapid succession pregnancy:** Family planning interventions such as the provision of sexuality and reproduction education (e.g. in schools), and increased access to contraception and reproductive health care, can contribute to fewer early/unwanted/rapid succession pregnancies (33).

Pregnancy

- **Tobacco use:** Psychosocial interventions for pregnant women who smoke, in particular counselling, and the provision of feedback and/or incentives, are effective at increasing smoking cessation and reducing low birthweight among infants (2, 31, 35, 36). Successful smoking cessation programmes focus on behaviour change, aiming to change beliefs about smoking, and address stress management (31). In addition, the introduction of smoke-free legislation (such as in workplaces, hospitality venues and public places) is associated with increased cessation and decreased rates of pre-term birth (2, 37).

- **Addiction:** Effective treatment for drug addiction in pregnancy includes psychosocial support in addition to standard care (31).
- **Pregnancy and parenting classes:** There is limited evidence that participating in pregnancy and parenting classes can enhance men's support for their partners during pregnancy, childbirth and beyond (31).
- **Intimate partner violence:** Screening and identifying women experiencing intimate partner violence is effective through the use of simple questions, which are as effective as complex assessment tools (31). There is limited evidence of the effectiveness of interventions to prevent or treat domestic abuse (31).

Early years (0-2 years)

- **Nutrition:** Breastfeeding promotion improves outcomes such as initiation and continuation by using support such as trained peers or professionals, pregnancy and parenting group interaction, scheduled visits, face-to-face contact, and/or tailored individual education, in addition to unrestricted feeding, skin-to-skin care, and treating mastitis (31, 38). Childhood obesity interventions that work at system level, rather than individual level, and that are based on relevant conceptual frameworks, are likely to have more potential for improving obesity in the first 1000 days (39).
- **Home visiting:** Many community-based home-visiting programmes aimed at caregivers with young children have been shown to have small-to-moderate positive impacts on children's health, development and behavioural outcomes, and caregivers' behaviours and attitudes (31, 40, 41). The value of home-visiting programmes depends on the nature of

the service, with those starting straight from birth, providing more than 12 visits, and delivered by professionals being the most successful (31).

- **Parenting skills:** Findings from studies of evidence-based parenting programmes for parents of young children have found small-to-moderate positive effects on child health and development, and parenting behaviours (29, 31, 41, 42). Younger, and first-time parents are more likely to benefit from parenting programmes (42). Kaupapa Māori and culturally adapted parenting programmes have also been shown to have a positive effect on participants' parenting skills and confidence (43). Limited evidence indicates that parenting interventions for drug-dependent mothers may improve maternal adjustment (31).
- **Mental health:** Effective treatment for postnatal depression includes cognitive behavioural therapy (CBT), interpersonal psychotherapy (IPT), psychodynamic psychotherapy and non-directive counselling. Exercise may also be beneficial for improving postnatal depression (31).
- **Early childhood education:** Attendance at high-quality early childhood education provides social and cognitive benefits to children and can reduce disadvantage due to social and environmental factors (12, 29, 31, 41, 44).
- **Attachment:** Skin-to-skin care interventions between mothers and healthy, full-term infants are associated with improved mother–infant interaction, attachment, infant behaviours, and infant physical symptoms (31). Using soft infant carriers is also associated with secure infant attachment (31).

What do we know about the first 1000 days in the South Island?

Introduction

In the context of Aotearoa New Zealand, indigenous frameworks are part of our richer interpretation of wellbeing. Kara and colleagues (45) point out that: *“The complexity of whānau ora lies in the delicate balance between the overall wellbeing of whānau members and their connection to each other, their wider communities, ancestors and the land, and the physical, emotional, spiritual and social health of the individual who has specific health and illness issues”*. A whole-of-whānau support approach ensures that the wellbeing of children is considered within a safe and thriving environment that strengthens their connection to their families, whānau, hapū and iwi, or other culturally appropriate recognised family.

Durie described four key principles that underpin his frameworks for measuring Māori wellbeing: indigeneity, integrated development, multiple indicators, and commonalities (46). Indigeneity reflects the important linkages most indigenous peoples have with land and their natural environment. Measuring these positive aspects of what it means to be Māori, alongside the more negative consequences of colonisation, discrimination and marginalisation, provides a fuller, more culturally responsive articulation of Māori wellbeing (47).

Appendix 1 lists sources of data available on the first 1000 days in the South Island and considers measures by a number of characteristics including source, frequency, geographical boundary, and possible ethnicity breakdowns. We have focused on published data (either in reports and / or online) specific to the first 1000 days. While some data sources on wider health determinants are included, these sources have mostly been beyond the scope of our report. In addition time constraints have prevented us from requesting additional or tailored data, and from describing trends over time.

In this section we provide key findings from those data sources. We have selected findings on the basis of the following criteria:

- Data relating to an important evidence-based aspect of the first 1000 days, that will inform action
- Obvious anomalies, outliers, or inequities
- Most recent data
- Comprehensive data that include comparison by region, ethnicity, and New Zealand deprivation index decile where possible
- Comparison with national targets where possible

There are a number of areas relevant to the first 1000 days for which no suitable measure currently exists. This may be due to the complexity of measuring a particular aspect (determinant or outcome) either in general (such as early childhood education workers' level of qualification) or in relation to the first 1000 days in particular (such as environmental measures). For some focus areas, a measure may be at least theoretically feasible and so present a data development opportunity (e.g. if a suitable datastream is established either in routinely collected or survey data). Other aspects, while important, may remain unmeasured.

Some important data sources, such as the General Social Survey and Te Kupenga, do not have sufficient sample size to provide regionally representative data for the majority of South Island regions (Canterbury being the exception for both), and even Canterbury data has limited precision due to small numbers. We note the potential for generating more specific or granular data with specific requests to agencies, and the potential for large data-matching projects to provide more detailed information in future. Unless specified, statistical significance between groups has not been determined. Where possible, graphs include bars indicating 95% confidence intervals. While every endeavour has been made to use accurate data, between-agency differences in the reporting of data may result in some variations in the information presented in this section.

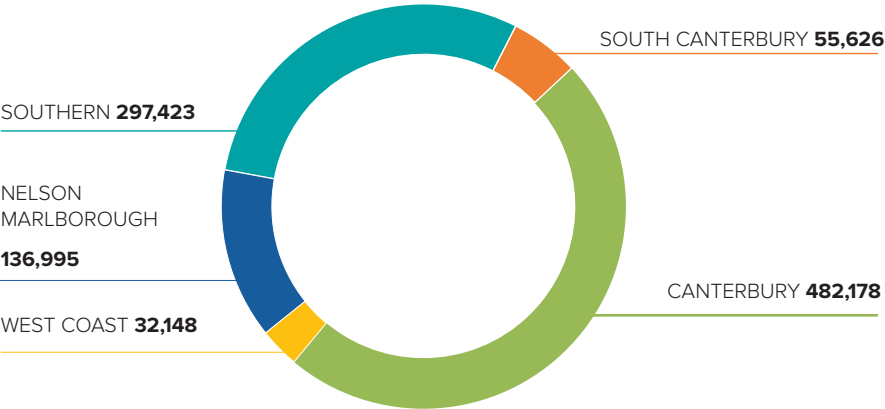
Demographics

Population

The 2013 New Zealand Census indicated that the South Island comprised almost a quarter of the population of New Zealand. Almost half the population in the South Island live in the Canterbury District Health Board (DHB) region.

In 2013, the proportion of the population aged 0-4 years was similar across all South Island DHBs, at about 6%. Population statistics by DHB are not readily available for 0-2 year olds.

Figure 4 South Island/Te Waipounamu total population (all ages), by DHB (2013)



Source: 2013 Census District Health Board tables

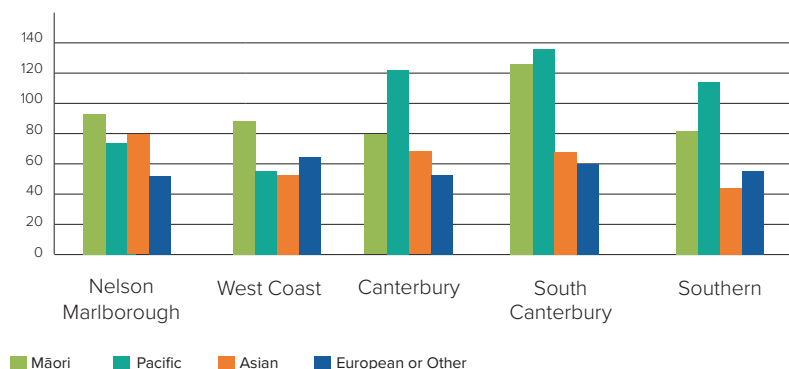
Births

In 2015, the DHB with the largest total number of births was Canterbury (6204), followed by Southern (3413), Nelson Marlborough (1417), South Canterbury (659) and West Coast (359).

Birth rates

In 2015, Maternity Collection data indicated that birth rates were similar across most South Island DHBs (60-69 per 1000 women of reproductive age), although slightly lower in Southern DHB (54 per 1000 women of reproductive age). Birth rates were higher for Māori (92-127 per 1000 women of reproductive age) and for Pacific people (55-133 per 1000 women of reproductive age), particularly in South Canterbury.

Figure 5 Birth rates per 1000 females of reproductive age (2015)

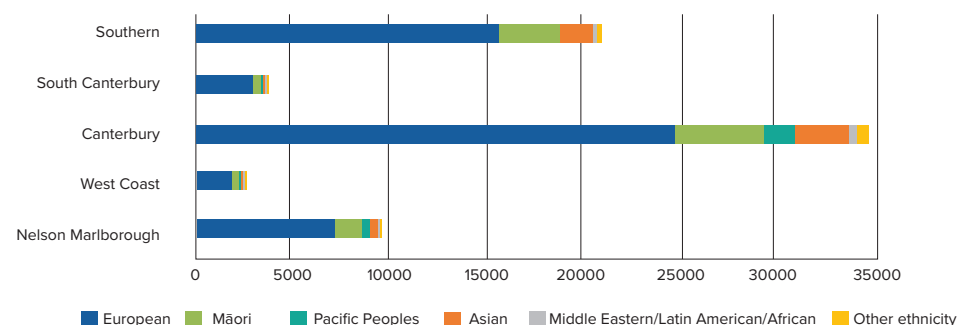


Source: Maternity Collection

Ethnicity

The proportion of people of Māori, Pacific, Asian and Middle Eastern/ Latin American/African ethnicities is greater in the 0-4 year old population than in the total population. In 2013, 6% of European people in the South Island were aged 0-4 years, compared to 12% of Māori, 13% of Pacific people, 8% of Asian people, and 10% of Middle Eastern/ Latin American/African people. There is some variation in the ethnic make-up of the 0-4 year old population across DHBs (Figure 6).

Figure 6 Number of children aged 0-4 years (2013)



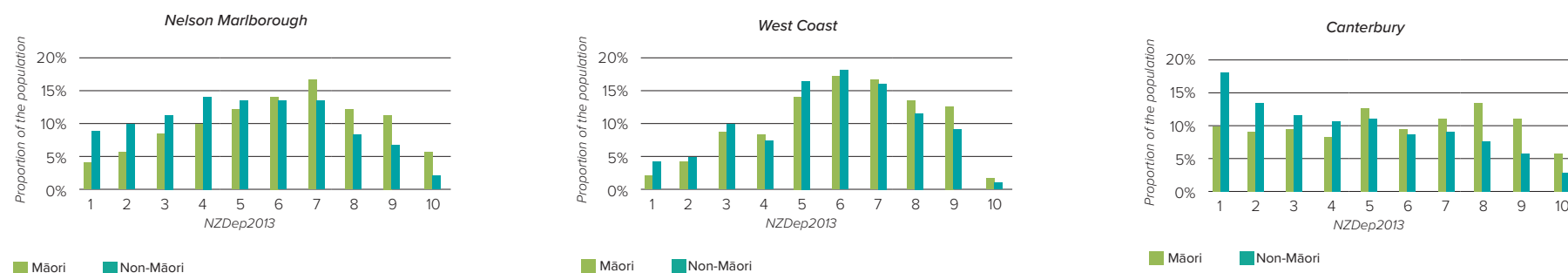
Source: 2013 Census District Health Board tables

Deprivation

New Zealand deprivation index data derived from the 2013 Census (NZDep2013), groups deprivation scores based on income, home ownership, employment, qualifications, housing, family structure, access to transport and communications into deciles. It estimates the relative socioeconomic deprivation of an area rather than for an individual.^{xiii} Decile 1 represents the areas with the least deprived scores, and Decile 10 the most deprived.

Canterbury DHB and Southern DHB had the greatest differences in distribution across the deprivation deciles for Māori and non-Māori deprivation, with more Māori living in the more deprived areas and more non-Māori in the least deprived areas in both regions. West Coast DHB shows greater overall deprivation.

Figure 7 Proportion of the population by NZDep2013 decile for South Island DHBs



Source: New Zealand Census 2013

XIII <https://www.health.govt.nz/publication/nzdep2013-index-deprivation>

Wider determinants of health

Whānau wellbeing and support

In the 2013 Te Kupenga^{xiv} survey of Māori wellbeing, 87% of respondents in Canterbury and 81% of respondents in the rest of the South Island reported their whānau was doing well or extremely well.

In Te Kupenga 2013, 82% of respondents in Canterbury and 76% of respondents in the rest of the South Island reported that getting whānau support^{xv} was easy or very easy.

Figure 8 Self-reported whānau wellbeing for Māori in Canterbury (2013)

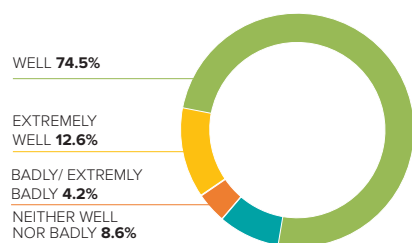


Figure 9 Self-reported whānau wellbeing for Māori in the South Island, excluding Canterbury (2013)

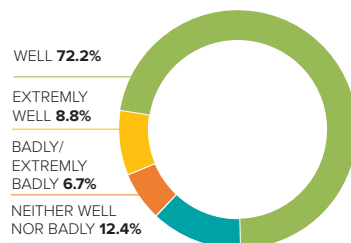


Figure 10 Self-reported whānau support for Māori in Canterbury (2013)

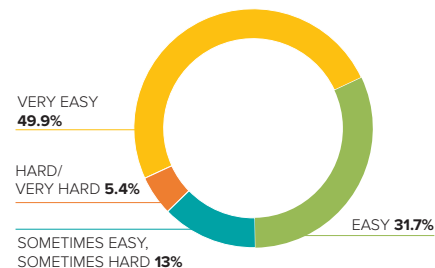
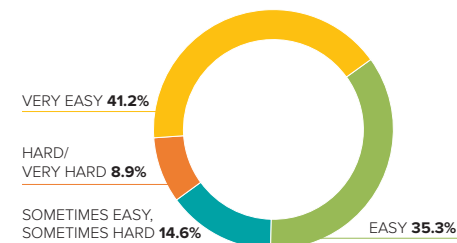


Figure 11 Self-reported whānau support for Māori in the South Island, excluding Canterbury (2013)



Source: Te Kupenga 2013

xiv See Appendix 1 Data tables or Appendix 4 Indicator-based reports and products http://archive.stats.govt.nz/browse_for_stats/people_and_communities/Māori/te-kupenga.aspx

xv Getting support for things like moving or lifting objects, picking up or dropping off children, looking after pets from someone living in another household.

Adult and family wellbeing

In the 2016 General Social Survey^{xvi} 83% of respondents in the South Island and 84% of respondents in Canterbury reported that their family was doing well (scoring 7-10 out of 10). Analysis by ethnicity and age was not available at South Island level, but across New Zealand family wellbeing was somewhat lower for Māori (77%) than for European (82%), Pacific (86%), or Asian (86%) people. Responses were similar across age groups in New Zealand, but the proportion reporting that their family was doing well was slightly higher for people over 65 years (87%).

Figure 12 Self-reported family wellbeing in Canterbury (2016)

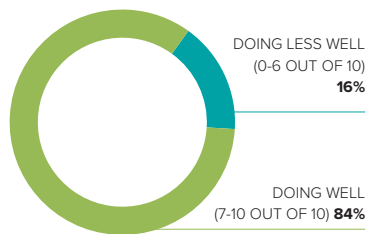


Figure 13 Self-reported family wellbeing in the South Island, excluding Canterbury (2016)

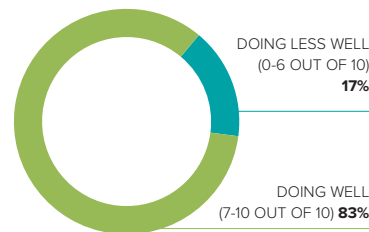


Figure 14 Self-reported family wellbeing in New Zealand, by ethnicity (2016)

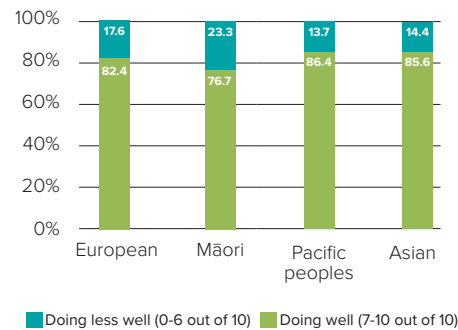
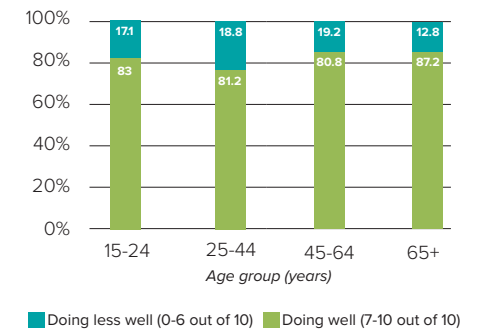


Figure 15 Self-reported family wellbeing in New Zealand by age (2016)



Source: Stats NZ General Social Survey 2016

^{xvi} See Appendix 1 or http://archive.stats.govt.nz/browse_for_stats/people_and_communities/well-being/nzgss-info-releases.aspx

Economic security

In 2016, 27% of New Zealand 0–17 year olds lived in households with income after housing costs below 60% of the national median^{xvii} according to the New Zealand Household Economic Survey (NZHES). Relatively small sample sizes for this survey limit opportunity for analysis of economic security by ethnicity or region.

In the 2013 Census median household income was similar across South Island DHBs, ranging from \$53,000 in South Canterbury to \$66,700 in Canterbury. Median personal income was similar across South Island DHBs, ranging from \$26,900 in South Canterbury to \$30,500 in Canterbury. Across New Zealand, people from European (\$30,900) and Other (\$37,100) ethnicities had the highest median personal incomes compared to Māori, Asian, Middle Eastern/Latin American/African and Pacific people (median personal income ranging from \$22,500-19,700).

In 2016, 8.4% of Canterbury respondents to the General Social Survey reported that they did not have enough money to meet everyday needs, which was similar to the proportion for the rest of the South Island (8.9%). Across New Zealand, this proportion was 8.5% for European respondents, 20.9% for Māori respondents, 24.2% for Pacific respondents and 11.3% for Asian respondents.

Housing

In 2013, household ownership (total households in dwellings owned or partly owned, or held in a family trust) was around 70% for all South Island DHBs (22). The Housing Affordability Measure^{xviii} indicated that in 2017 housing was more affordable for renters and potential first home buyers in Canterbury compared to other South Island regions.

In the 2013 Census, a higher proportion of South Islanders of European ethnicity (58%) or those indicating Other ethnicity (60%) owned or partly owned their usual residence compared to those of Māori (32%), Pacific (20%), Asian (30%), and Middle Eastern/Latin American/African (20%) ethnicity in the South Island.

In 2016, the percentage of respondents to the General Social Survey who reported their house was always or often colder than they would like it to be was 15.7% in Canterbury and 19% in the rest of the South Island. This percentage was 18.1% for European respondents, 33.3% for Māori respondents, 40.2% for Pacific respondents and 22.5% for Asian respondents. A greater proportion of people who lived in rental houses (34.9%) reported their house was always or often colder than they would like to be compared to those that owned their house (13.7%).

The 2013 Census analysis of housing data (48) and the Child Poverty Monitor (49) illustrate that children are over-represented in crowded households. People of European ethnicity are less likely to live in a crowded household (4%) compared to those of Pacific (38%), Māori (20%), and Asian (18%) ethnicity.

^{xvii} See appendix 1 or <http://nzchildren.co.nz/>. The NZHES and the Child Poverty Monitor provide detailed measures of income poverty and deprivation for New Zealand over time recommended by the Expert Advisory Group on Solutions to Child Poverty. The contemporary median (moving line) poverty threshold is defined as an income below 60% of the contemporary median income.

^{xviii} <http://www.mbie.govt.nz/info-services/housing-property/sector-information-and-statistics/housing-affordability-measure/latest-results>

Unmet need for primary care

In the 2014-2017 regional data from the New Zealand Health Survey, unmet need for primary health care^{xix} reported over the past 12 months for children aged 0-14 years was highest in the West Coast DHB region (23% in total, 31.4% for Māori), followed by Nelson Marlborough (19.8% in total, 22.6% for Māori), Southern (19.2% in total 26.2% for Māori), South Canterbury (18.2% in total 26.4% for Māori) and Canterbury (18.2% in total 22.7% for Māori). The difference between the percentage of unmet need for primary care for Māori and the total population in each DHB region is not statistically significant, likely due to survey sample size.

Preconception

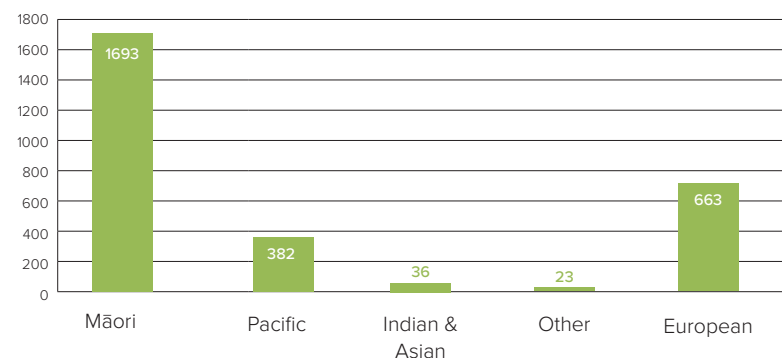
Women giving birth under 20 years old

National Maternity Collection data from 2015 shows that across New Zealand, 1693 Māori women gave birth under the age of 20 years, compared to 663 European women, 382 Pacific women, 36 Indian or Asian women and 23 from the other ethnic group category. There is a gradient across deprivation quintiles with more women from the most deprived quintile giving birth under the age of 20 years. Note that these data are presented at national level, and as counts rather than rates do not take into account different population sizes.

xix See Appendix 1 or https://minhealthnz.shinyapps.io/nz-health-survey-2014-17-regional-update/_w_f9b9d1f1/#/compare-regions

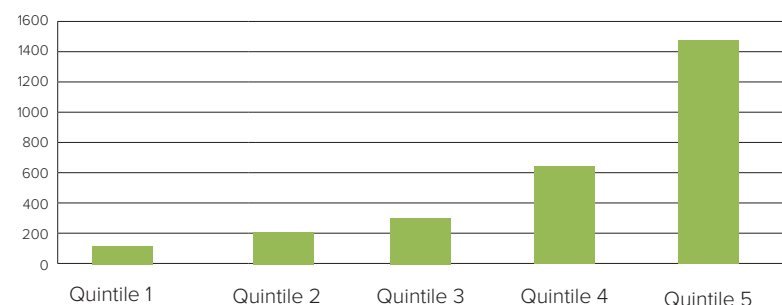
Unmet need for primary health care is defined for children (aged 0–14 years) as having experienced one or more types of unmet need for a GP, nurse or other health care worker in the past 12 months at their usual medical centre or after-hours services because of cost, transport, or being unable to arrange childcare for other children.

Figure 16 Total number of New Zealand women giving birth under the age of 20 years, by ethnicity (2015)



Source: National Maternity Collection (MAT)

Figure 17 Total number of New Zealand women giving birth under the age of 20 years, by deprivation quintile (2015)



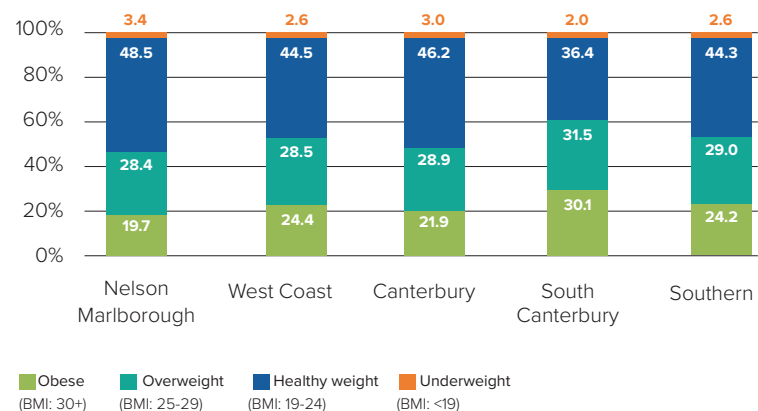
Source: National Maternity Collection (MAT)

Pregnancy

Pregnancy weight (Body Mass Index, BMI)

National Maternity Collection data from 2015 indicate that the percentage of women giving birth who had a Body Mass Index (BMI) over 30 when they first registered with a Lead Maternity Carer (LMC) ranged from 19.7% in Nelson Marlborough to 30.1% in South Canterbury. Obesity during pregnancy is defined as a BMI of 30 kg/m² or more calculated using the height and weight measured at the first antenatal consultation and is associated with increased risks of adverse pregnancy outcomes (50). The extent to which late registration with an LMC or differences in body composition due to ethnicity affect BMI in pregnancy is not well established.^{xx}

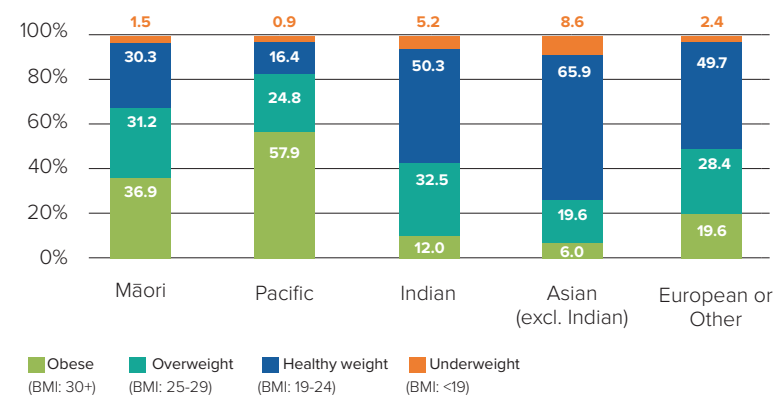
Figure 18 Weight status (BMI) of women giving birth in the South Island at the time of registration with an LMC, by DHB (2015)



Source: National Maternity Collection (MAT)

Across New Zealand in 2015, the ethnic group with the highest percentage of women with a BMI over 30 when they first registered with an LMC was Pacific (57.9%), followed by Māori (36.9%), European/Other (19.6%), Indian (12.0%), and Asian (6.0%).

Figure 19 Weight status of women giving birth in New Zealand at the time of registration with an LMC, by ethnicity (2015)



Source: National Maternity Collection (MAT)

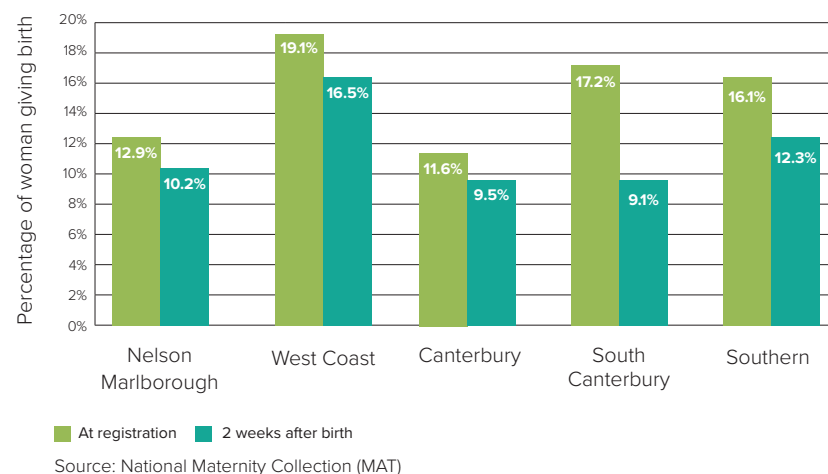
Across New Zealand in 2015, women in areas classified as deprivation quintile 5 had the highest percentage (37.9%) with a BMI over 30 when they registered with an LMC (data not shown).

^{xx} <https://www.health.govt.nz/our-work/populations/Māori-health/tatau-kahukura-Māori-health-statistics/nga-tauwehe-tupono-me-te-marumaru-risk-and-protective-factors/body-size>

Smoking in pregnancy

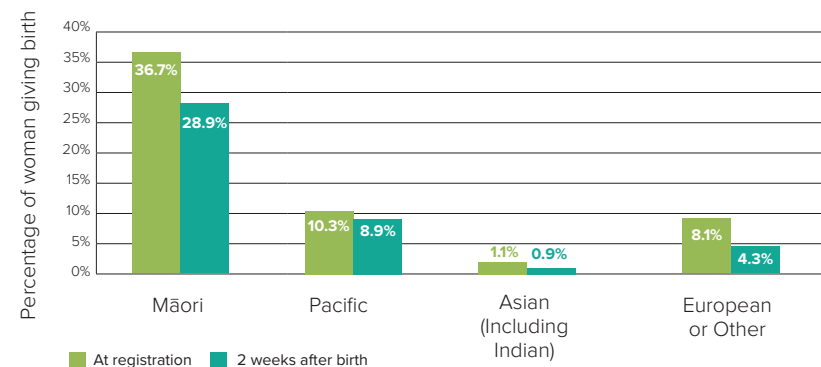
The percentage of women identified as smokers at first registration with their LMC in 2015 was highest in the West Coast DHB region (19.1%) and lowest in the Canterbury DHB region (11.6%). South Canterbury DHB had the greatest reduction in smoking from first registration to two weeks after birth (a 47% reduction, from 17.2% to 9.1%).

Figure 20 Percentage of women identified as smokers at registration with their LMC and percentage who were still smoking at two weeks after birth (2015)



For all regions, younger age groups, Māori, and those living in more deprived areas had higher percentages of women identified as smokers at first registration with their LMC in 2015, and the relative percentage reduction was greater for European women than for non-European women.

Figure 21 Percentage of women identified as smokers at registration with their LMC and percentage who were still smoking at two weeks after birth, by ethnicity (2015)

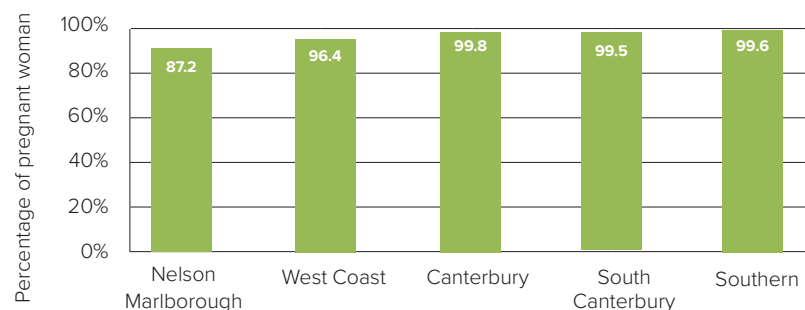


Source: National Maternity Collection (MAT)

Registration with a Lead Maternity Carer

In 2015,^{xxi} Nelson Marlborough DHB had a lower percentage (87.2%) of women registered with an LMC at any stage during their pregnancy compared to the other South Island DHBs (96.4%-99.8%).

Figure 22 Percentage of pregnant women registered with an LMC (2015)



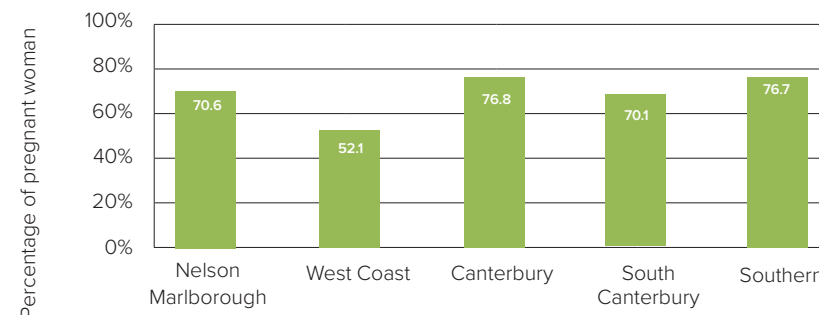
Source: National Maternity Collection (MAT)

Timeliness of registration with a Lead Maternity Carer

The West Coast DHB had the lowest percentage of women registered with an LMC in the first trimester (52.1%) compared to other South Island DHBs (70.1-76.8%).

^{xxi} South Island Alliance staff report that in 2016 12.7% of women from the NMDHB district had their maternity care was provided by the DHB team, and so an LMC registration form was not completed (not required) (personal communication, September 2018).

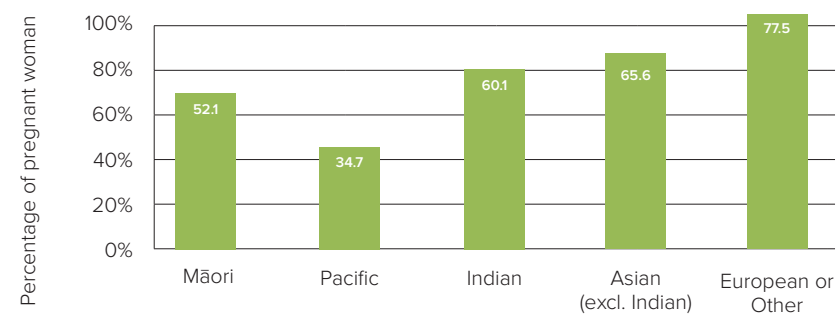
Figure 23 Percentage of pregnant women registered with an LMC in the first trimester (2015)



Source: National Maternity Collection (MAT)

In 2015, the population groups with the lowest percentage of women registered with an LMC in the first trimester across New Zealand were under 20 year olds (46.8%), those of non-European ethnicity (34.7%-65.6%), and those living in areas with the highest deprivation scores (quintile 5, most deprived, 49.9%).

Figure 24 Percentage of women registered with an LMC in the first trimester, by ethnicity (2015)



Source: National Maternity Collection (MAT)

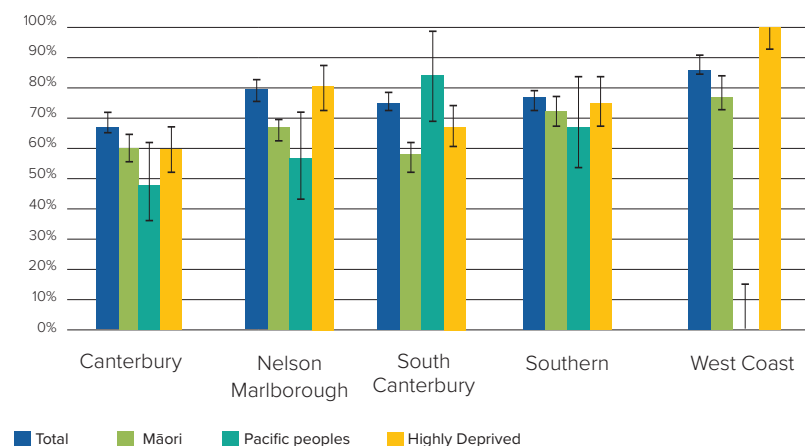
Early years (0-2 years)

Access to Well Child Tamariki Ora services

Between January 2016 and December 2017 88% of children in West Coast DHB received all Well Child Tamariki Ora core contacts by one year of age, followed by Nelson Marlborough, Southern, South Canterbury and Canterbury DHBs, with 79%, 76%, 75% and 68% respectively.

This percentage was significantly lower for Māori and Pacific children in Canterbury and Nelson Marlborough DHBs and for Māori children in South Canterbury and West Coast DHBs.

Figure 25 Percentage of children who received all Well Child Tamariki Ora core contacts in their first year of life (January 2016 to December 2017)

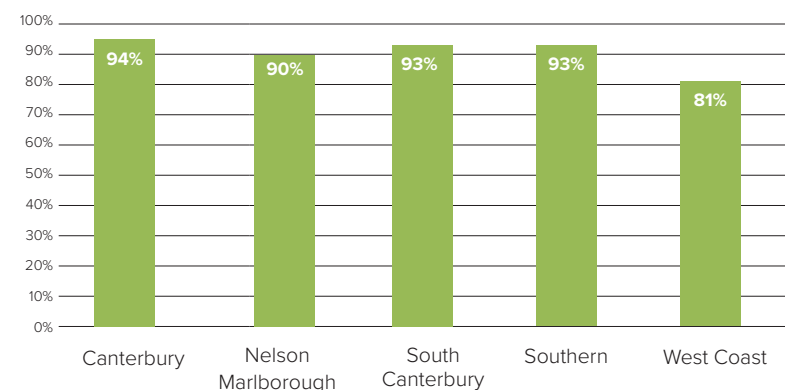


Source: Well Child Tamariki Ora (indicator 3)

Immunisation coverage

Immunisation coverage refers to the percentage of children who have completed their age appropriate immunisations by the time they turned the milestone age and is recorded by the National Immunisation Register. Between 1 April 2017 and 31 March 2018, immunisation coverage was high for all South Island DHBs (90-94%), with the exception of West Coast DHB (81%). Immunisation coverage was similar across deprivation quintiles, except the West Coast DHB where the immunisation coverage for those living in deprivation quintile 5 was lower (48.9% fully immunised at 24 months and 53% fully immunised at 8 months). This percentage is well below other South Island DHBs as well as the Ministry of Health target – “95% of infants aged eight months will have completed their primary course of immunisation on time”. This is likely to be largely due to a specific community in the West Coast DHB that declines immunisation. There was little variation in immunisation coverage by ethnicity.

Figure 26 Percentage of children who have completed their age appropriate immunisations by the time they turned 24 months, by DHB

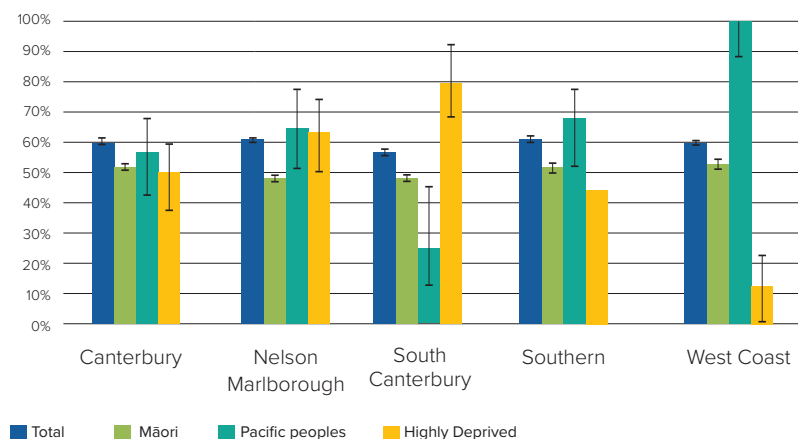


Source: National Immunisation Register

Full/exclusive breastfeeding at 3 months

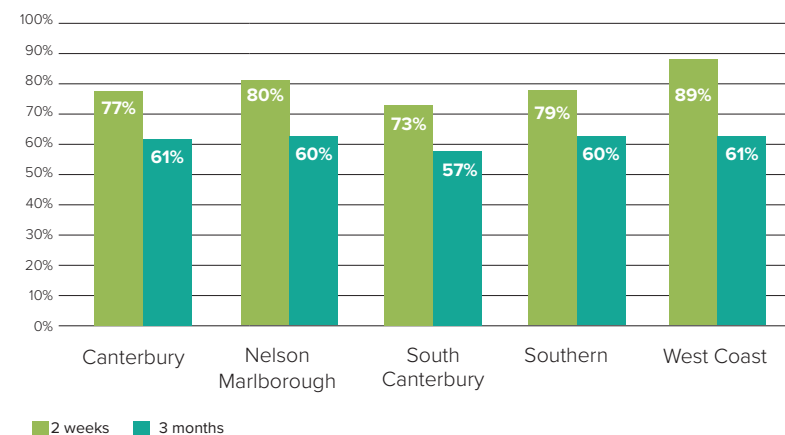
In 2017, exclusive/full breastfeeding rates were relatively high at 2 weeks of age (73%-89% across the South Island DHBs), but by 3 months of age had reduced in all DHBs to close to 60% (57-61%) for the overall population and 47%-54% for Māori. Due to smaller numbers, the confidence interval is wide for breastfeeding rates for Pacific people and similarly for those living in highly deprived areas. Note that a key limitation of breastfeeding data is that they only include children who are in contact with Well Child Tamariki Ora services.

Figure 27 Exclusive/fully breastfed at 3 months of age (July to December 2017)



Source: Well Child Tamariki Ora (indicator 6)

Figure 28 Exclusive/fully breastfed at 2 weeks and 3 months of age



Source: Well Child Tamariki Ora (indicators 4 and 6)

Dental health outcomes for children

Dental caries-free at 5 years

For 2016/17 the percentage of children caries-free at five years of age was similar across South Island DHBs, ranging from 60% in Nelson Marlborough to 70% in Southern DHB. Percentages were considerably lower for Māori for all South Island DHBs: 31% in South Canterbury, 37% in Nelson Marlborough, 38% in West Coast, 46% in Canterbury and 59% in Southern DHB. Percentages were also lower for Pacific peoples (32.5%-47%). Southern DHB is the only DHB with a significant proportion of its population on fluoridated community water supplies and also has the smallest differences in dental health outcomes by ethnicity.

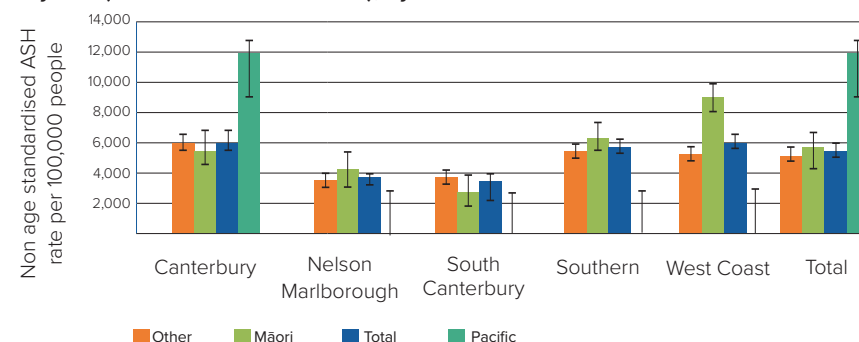
Child body weight

Well Child Tamariki Ora report the percentage of children with a BMI between the 2nd and 91st percentile at their Before School Check, noting that children of a healthy weight are less likely to have weight issues as an adult. Between July and December 2017, this percentage was similar across South Island DHBs, ranging from 88% in South Canterbury and the West Coast DHB to 94% in Nelson Marlborough DHB. This percentage was similar for Māori across South Island DHBs, ranging from 88% in the South Canterbury DHB to 93% in the Nelson Marlborough DHB, and slightly lower for Pacific people ranging from 70% in South Canterbury DHB to 86% in Southern DHB.

Ambulatory sensitive hospitalisations (ASH) for children aged 0-4 years

In the year from March 2017 to March 2018, ambulatory sensitive hospitalisation (ASH)^{xxii} rates were highest in Canterbury and West Coast DHBs (6,033 and 6,031 admissions per 100,000 population, respectively) followed by Southern DHB (5,756 admissions per 100,000 population). In the Canterbury DHB, ASH rates were statistically significantly higher for Pacific people (11,790 admissions per 100,000 population). In the West Coast DHB, ASH rates were statistically significantly higher for Māori (9,070 admissions per 100,000 population). Rates for Pacific are not calculated for some DHBs due to small population sizes (see Figure 29).

Figure 29 Non-standardised combined ASH rates for children aged 29 days to 4 years (March 2017-March 2018), by DHB



Source: Nationwide Service Framework Library

In the Canterbury, South Canterbury and Southern DHBs upper respiratory tract infections and ENT (Ear Nose and Throat) conditions are the most common conditions contributing to ASH rates. In the West Coast and Nelson Marlborough DHBs, dental conditions (i.e. admission for general anaesthetic for dental extraction) are the most common conditions contributing to ASH rates.

^{xxii} ASH conditions are a subset of all health conditions that are believed to be relatively amenable to out-of-hospital management. ASH rates for 0-4 year olds have not been adjusted to reflect the age structure of the population. See Appendix 1 for more information.

What is being done to support the first 1000 days in the South Island?

In order to promote early childhood health and development, and prevent negative short- and long-term outcomes, a number of initiatives provide services, resources, and support in the community to families/whānau with young children. Some examples of community-based initiatives to support young children (up to at least 2 years of age) and their whānau in the South Island are summarised in Figure 30, and are described in more detail in Appendix 2.

Health promoting interventions in the first 1000 days can be universal (available to all caregivers and families/whānau with young children) or targeted (for selected groups, such as families/whānau experiencing difficulties, or young caregivers). Universal programmes are less likely to stigmatise participants as they are available to everyone, and they also provide an opportunity to identify families/whānau who may need additional services or support (43, 51). For families/whānau with more complex needs, some targeted initiatives are also in place. It is well established that to give every child the best start in life, and to level the social gradient in health outcomes, high-quality universal services are required for the whole of society, with additional support (proportionate to need) provided for those who require more assistance (28, 52-54).

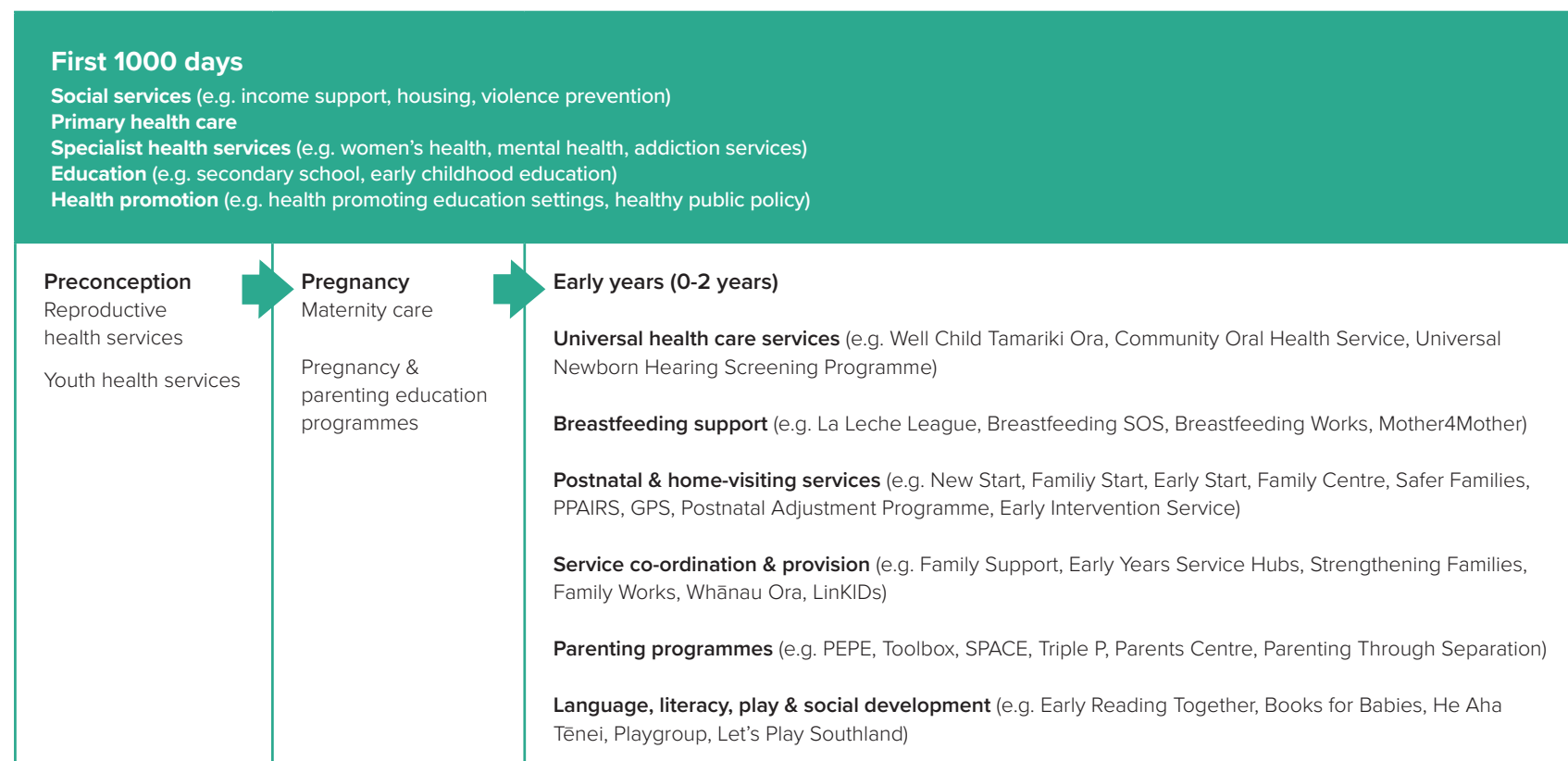
Initiatives which address wider health care operate across the first 1000 days and include universal primary health care and addiction services. In the preconception period, universal youth- and family planning-specific health services are also available. During pregnancy, universal maternity health care is provided by an LMC (and up until 6 weeks postpartum), and pregnancy and parenting education classes, aimed primarily at first-time parents, are available nationwide from various providers.

The majority of initiatives for the first 1000 days are focused on the early years of a child's life. These include a number of national-level universal health care services (such as Well Child Tamariki Ora and the Universal Newborn Hearing Screening Programme), as well as targeted initiatives focusing on service coordination and postnatal home-visiting services (such as Strengthening Families and Family Start) for vulnerable families. Breastfeeding support is provided by multiple national and local providers as well as through structured peer-to-peer networks. Education, skills-based learning, and support for parents are offered through a variety of universal, targeted, national and local programmes. Initiatives to support language, literacy and social development (such as Playgroups) operate at a local level in many areas of New Zealand.

In addition, health promotion activities at a national and local level focusing on areas impacting (but not necessarily specific to) the first 1000 days include healthy public policy, infection control, health promoting environments, and health promotion within education settings.

Broad national initiatives that focus on the wider determinants of health include income and housing support, education, and family violence prevention.

Figure 30 Types of community-based initiatives to support young children and their whānau in the South Island



Discussion and next steps

The first 1000 days of life are a time of rapid and complex development and interactions. The far-reaching impacts of young children's early environments on their health, educational, and social outcomes are increasingly recognised in international and national policy, and deserve corresponding attention in our regional and local planning.

Our data tell us

In the South Island, most people report good family/whānau connections and support, but a substantial minority lack this support. There are gaps in access to adequate income, adequate housing, and health care services (including maternity, Well Child Tamariki Ora and general practice services). A significant proportion of women becoming pregnant already have risk factors for adverse outcomes, such as high BMI or smoking. There are ethnic and socioeconomic inequalities in these risk factors, and also in the number of teenage pregnancies. Most South Island children are protected by immunisation, but a worrying proportion miss out on the benefits of ongoing breastfeeding. These and other differences in access to the determinants of health and wellbeing are reflected in inequities by ethnicity and socioeconomic status in health outcomes such as avoidable hospitalisations, obesity, and tooth decay, by age five.

There are important information gaps regarding many other aspects of the first 1000 days that we know to be important in achieving the best outcomes for our children.

The evidence tells us

There is evidence to support a range of initiatives targeting the first 1000 days, including:

- In general: income supplements, improved service integration
- Before conception: improving nutrition, immunisation, family violence prevention, treating depression and addiction, reducing alcohol consumption, family planning
- During pregnancy: addressing tobacco and other addictions, providing pregnancy and parenting classes, addressing family violence
- During infancy: supporting breastfeeding, home visiting, developing parenting skills, improving attachment, treating depression, providing high quality early childhood education

There is also growing understanding of the need to address wider health determinants and to improve service context and integration.

What we are already doing:

A wide range of services are available in the South Island over the first 1000 days. Some, particularly those with national funding, such as maternity care, general practice, and Well Child Tamariki Ora services, are provided on a universal basis. Data on engagement with these services are available and indicate some inequities. Many services, however, are provided on a local basis with little data available about their reach or uptake. There is no agency taking responsibility for an overview of health and social services or for ensuring best practice, co-ordination, or equitable provision of services across the first 1000 days. Many services operate in relative isolation, even within sectors such as health.

From evidence to action

There is no simple technical solution to this complex and important set of issues. Many reports from both New Zealand and overseas have highlighted the importance of the first 1000 days and made recommendations for improving outcomes. We have chosen to highlight three complementary sets of recommendations.

The Public Health Advisory Committee suggest four broad areas that will contribute significantly to improving child health (2):

1. Leadership to champion child health and wellbeing
2. An effective whole-of-government approach for children
3. An integrated approach to service delivery for children, and
4. Monitoring of child health and wellbeing

The Center on the Developing Child at Harvard University (27) describes five key characteristics of policies and programmes consistently associated with positive outcomes:

1. Help adults - parents, teachers, child care staff - to strengthen their skills
2. Tailor interventions to address sources of significant stress for families
3. Support the health and nutrition of children and mothers before, during, and after pregnancy
4. Improve the quality of the broader caregiving environment and increase economically disadvantaged families' access to higher-quality care
5. Establish clearly defined goals and a plan to achieve them

The Marmot Review (28) suggested that evidence is strongest for:

1. Increasing the proportion of overall public expenditure allocated to the early years
2. Giving priority to pre- and postnatal interventions, such as home visiting programmes, known to reduce adverse outcomes
3. Providing paid parental leave in the first year of life
4. Providing routine support to families through parenting programmes, children's centres and key workers

The following section is intended to help Hauora Alliance turn these recommendations into initiatives which improve outcomes for children in the South Island.

Opportunities for the Hauora Alliance

As an intersectoral alliance with a regional mandate, Hauora Alliance is well-placed to take a strategic approach to supporting early childhood development across the South Island. There is evidence that some specific interventions can improve outcomes. However, there is strong agreement that policies targeting the first 1000 days need to take a broad approach. Similarly, while available data highlight some gaps in supports and service engagement for parents and families in the South Island, data are lacking for many key factors. Action planning needs to consider both evidence and data and the broader context for those evidence and data. Optimising early childhood development requires an integrated and holistic approach to policy, programmes and services (8). Recent national policy developments, such as the Child Poverty Reduction Bill and development of a Child Wellbeing Strategy including a focus on the first 1000 days, provide a supportive context.

Opportunities we have identified include:

- Addressing the gaps in leadership and in monitoring and accountability for services and outcomes with regions and across the South Island
- Addressing gaps in access to or engagement with current services
- Improving co-ordination and integration of current services
- Addressing other gaps and inequities identified in our report

The Te Pae Māhutonga health promotion model (9) provides a useful framework for considering and planning action to improve early childhood outcomes in the South Island.

Ngā Manukura (leadership)

Our limited South Island stocktake has shown that although there are multiple services targeting the first 1000 days, many are neither co-ordinated nor generally available across the South Island, and there is no one agency taking responsibility for first 1000 days initiatives or their co-ordination or outcomes.

Points for the Hauora Alliance and member agencies to consider include their leadership role in:

- improving integration of existing services within and across sectors
- advocacy for increased spending on existing services and consideration of need for new services, particularly in the evidence-based areas of supporting improved parenting skills and targeted home visiting programmes
- formalising organisational ownership for the first 1000 days, including improved measurement and accountability for outcomes for the first 1000 days



Te Mana Whakahaere (autonomy)

Children's environments during the first 1000 days are mostly provided not by agencies but by families and the communities they live in.

Our evidence review shows that a wide range of interventions, from family planning services and pregnancy and parenting education classes to individual therapy (for example, for addiction or postnatal depression) and intensive home visiting, can enhance parents' ability to provide the best environment for their children. Our South Island data suggest that although many of these services are available across the island, there is often less effective or less timely engagement with some population groups.

Points for the Hauora Alliance and member agencies to consider include their role in:

- improving access to family planning services, pregnancy and parenting education, and information, parenting skills training, and support for all parents
- encouraging and supporting community solutions that assist young parents to engage with services and support, including identifying specific opportunities to increase home visiting and/or parenting training and support services

Waiora (physical environment)

Although there is extensive general information about physical environments in the South Island, ranging from air and water quality to housing and work settings, there is, for reasons of practicality, little environmental data specific to the first 1000 days.

Points for the Hauora Alliance and member agencies to consider include:

- incorporating support for improved housing conditions for parents in any new or existing services targeting the first 1000 days
- supporting initiatives to improve wider environmental conditions, such as air and water quality, known to be suboptimal in some parts of the South Island and to have a disproportionate impact on very young children
- improving data collection on key environmental factors such as housing quality when parents engage with health and social services.

Mauriora (cultural identity)

Cultural identity is central to a Māori view of health and wellbeing, and a key component of wellbeing and community connectedness for parents of any ethnicity. Te Kupenga data show that while the great majority of South Island Māori self-rate highly for whānau wellbeing and access to whānau support, there remains a substantial minority with lower ratings. With inequities apparent in pregnancy and early childhood service engagement, it is essential that health and social services continue to develop and provide services that are culturally appropriate and inclusive.

Points for the Hauora Alliance and member agencies to consider include:

- developing services that are more culturally appropriate and inclusive
- supporting existing services to be more culturally appropriate and inclusive

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- developing and supporting partnerships with iwi and cultural organisations to build family/whānau support and to connect with and support pregnant women and young families

Te Oranga (participation in society)

Parents' participation in society includes their engagement with family/whānau and the broader community, and with health and social services which support their parenting. Our South Island data show that there are inequities in access across the spectrum of care, from preconception through to general practice and Well Child Tamariki Ora services.

Points for the Hauora Alliance and member agencies to consider include their role in:

- reducing the impact of poverty by ensuring services engage with families with limited financial resources
- improving access to culturally appropriate and inclusive family planning, maternity and primary care, and social services for all parents
- improving service connections and continuity across all stages of care

Toiora (healthy lifestyles)

Evidence of the long-lasting impact of nutrition, particularly breastfeeding, and exposure to tobacco and alcohol during the first 1000 days continues to grow. Our South Island data show inequities and/or room for overall improvement in a range of areas, including maternal weight, smoking, breastfeeding, and oral health and weight at age five.

Points for the Hauora Alliance and member agencies to consider include their role in:

- reducing overall smoking rates, particularly in adults of parenting age
- improving smoking cessation rates for pregnant women
- improving breastfeeding rates across all communities
- educating and supporting parents to help their children eat well and be active, through pregnancy and parenting skills training and targeted home visiting programmes
- promoting environments which support healthy food choices and physical activity

Opportunities for Hauora Alliance: action points

Points for Hauora Alliance and member agencies to consider include their role in:



Ngā Manukura (leadership)

- improving **integration of existing services** within and across sectors
- **advocacy** for increased spending on existing services and consideration of need for new services particularly in the evidence-based areas of **supporting improved parenting skills and targeted home visiting programmes**
- formalising organisational ownership for the first 1000 days, including
- improved **measurement and accountability** for outcomes for the first 1000 days



Te Mana Whakahaere (autonomy)

- improving **access** to family planning services, pregnancy and parenting education, and information, parenting skills training, and support for all parents
- encouraging and supporting **community solutions** that assist young parents to engage with services and support, including identifying specific opportunities to increase **home visiting** and/or **parenting training and support** services



Waiora (physical environment)

- incorporating **support for improved housing conditions** for parents in any new or existing services targeting the first 1000 days
- supporting initiatives to **improve wider environmental conditions**, such as air and water quality, known to be suboptimal in some parts of the South Island and to have a disproportionate impact on very young children
- improving **data collection on key environmental factors** such as housing quality when parents engage with health and social services



Mauriora (cultural identity)

- **developing services** that are more culturally appropriate and inclusive
- **supporting existing services** to be more culturally appropriate and inclusive
- developing and supporting partnerships with iwi and cultural organisations to **build family/whānau support and to connect with and support pregnant women and young families**



Te Oranga (participation in society)

- reducing the impact of poverty by **ensuring services reach out** to families with limited financial resources
- improving access to **culturally appropriate and inclusive** family planning, maternity care, primary care and social services for all parents
- improving **service connections and continuity** across all stages of care



Toiora (healthy lifestyles)

- reducing **overall smoking rates**, particularly in adults of parenting age
- improving **smoking cessation** rates for pregnant women
- improving **breastfeeding** rates across all communities
- educating and supporting parents to help their children eat well and be active, through pregnancy and **parenting skills training and targeted home visiting** programmes
- promoting **environments** which support healthy food choices and physical activity

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