



PART A

Contexts of nursing care



Children and young people of Australia and New Zealand

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LEARNING OBJECTIVES

In this chapter you will:

- Be introduced to some of the common measures used to monitor children and young people's health and wellbeing
- Gain an overview of the health and wellbeing of children and young people living in Australia and New Zealand
- Consider social and other determinants of optimal health and wellbeing for children and young people growing up in New Zealand and Australia
- Reflect on emerging health opportunities and challenges for children and young people and ways to work with children, young people and their families to promote their healthy future

Introduction

This introductory chapter examines the health and wellbeing of children and young people growing up in Australia and New Zealand. We will look at the population characteristics of future generations, facilitators and challenges to healthy growth and development, and emerging health and social trends. We invite you to consider the health and wellbeing of children and young people as situated within their individual developmental journey. Whether born in New Zealand or Australia, or arriving as a child or young person, growth will be nested within the social and cultural traditions of family during times of rapid social and environmental change.

As a health professional, accessing global, national and local reports on the health and wellbeing of children and young people enables you to gain an excellent overview of what it is like to grow up in New Zealand and Australia. In your role, you will be challenged to consider the social and other determinants contributing to the optimal health and wellbeing of the families with which you work. An important part of your role is to be informed about the ways in which you can work with children, young people and their families to promote their healthiest future.

We begin this chapter by reviewing some of the common demographic and statistical indicator measures used to monitor the health and wellbeing of children and young people across the world. Being aware of the many different ways that age and other measures are used to describe the health of children and young people can support our best use of the international evidence. We will then explore how these principles can be applied to key conditions and societal constructs relevant to the health and wellbeing of children and young people growing up in Australia and New Zealand.

Monitoring health and wellbeing

Government agencies in Australia and New Zealand routinely collect data on the health and wellbeing of their populations. The best known of these agencies are the Australian Bureau of Statistics (ABS) and Australian Institute of Health and Welfare (AIHW), Stats NZ (Tataurangi Aotearoa) and the New Zealand Ministry of Health (Manatu Hauora). In addition to conducting a national census of population and dwellings/housing every five years (since 1851 in New Zealand and 1911 in Australia), the ABS and Stats NZ collect a wide range of other demographic and statistical data to inform future planning.

Advances in data-capture technologies have enabled health agencies to significantly increase the accuracy and transparency of data recording. Accessibility to organised and standardised sets of health outcome measures, called health *indicators*, is now easier than ever. The use of common terminology and units of measurement enables consistent tracking of health indicators and the comparison of global data over time and between countries. However, it is important to be aware that the use of age and other descriptors to present data about children and young people is not entirely consistent. The ABS, for example, defines children as those aged under 15 years of age

and young people as being 15–24 years of age. Legal adulthood is established at 18 years of age in Australia and 20 years in New Zealand.

In this chapter, we refer to infants, children, adolescents and young people approaching adulthood as collectively constituting the group defined as Australia and New Zealand’s children and **young people**. We will use the age range 0–1 year to describe the period of **infancy**, 1–4 years as **early childhood**, 5–12 years as **childhood** and 13–18 years as **adolescence**.

Indicator measurement

The populations of New Zealand and Australia are fortunate to have full and free access to a range of excellent data on the past, current and future state of the health of children and young people. In addition to the routine collection of Australian and New Zealand health data, health indicators also enable us to compare the health and wellbeing of Australian and New Zealand children and young people with those of other children growing up in countries similar to ours.

For example, government health reports commonly compare statistics for Australia and New Zealand against those of countries who share membership of the **Organisation for Economic Cooperation and Development (OECD)**. Often, data for an individual country are compared against the combined or average indicator for all OECD countries.

As noted above, however, national indicator development is not perfect and is heavily influenced by the historical and societal contexts of governments and policy-makers. For example, the First Nations peoples of Australia and New Zealand hold broader definitions of health that refer to the community rather than the individual, and that include spiritual and cultural wellbeing (see Chapter 3). National indicators that do not reflect these broader definitions may therefore be contributing to an inequitable allocation of resources and increased disparities in health outcomes across groups.

There also remain large gaps in indicator measurement – both due to a lack of data and from a data quality perspective. In both New Zealand and Australia, there is either limited or no information collected about children with disability, children’s cultural, racial and gender identities, or their interactions with the child health and justice systems (AIHW, 2020a; NZDPMC, 2019). These gaps contribute to biases in indicator measurement.

With these important limitations in mind, standardised internationally recognised indicators of health and wellbeing can:

- offer a snapshot of the health of a community or group at a single point in time
- enable long-term tracking of the health of specific populations or groups
- monitor upward and/or downward movements or trends over time
- measure the impact of specific health interventions such as health-promotion strategies
- use past information to predict (or model) what might happen in the future
- facilitate international comparisons (benchmarking).

While **rate**-based statistics are commonly used to describe population-level data, various *clinical indicators* are also used in Australian and New Zealand healthcare

Young people (or youth) – People aged 15–24 years.

Infancy – The period from birth to 1 year of age.

Early childhood – The period from 1 year to the fifth birthday.

Childhood – The period from 5 years to the 13th birthday.

Adolescence – The period from 13 to 18 years of age.

Organisation for Economic Cooperation and Development (OECD) – A group of member countries that for the past 50 years have shared the mission of improving the economic and social wellbeing of people around the world. Starting with developed countries in Europe, the United States and Canada, there are now 37 member countries spanning the globe, including Australia and New Zealand. Various common indicators are collected across the OECD countries.

Rates – Describe health trends over time – for example, a mortality (or death rate) is often presented as the number of deaths per 1000 population and is a ratio measure of the number of deaths from a particular cause (the numerator) presented as a proportion of all deaths from any cause (the denominator) over a defined period of time (usually one year).

settings to measure trends and variations in the quality and safety of healthcare (ACHS, 2019).

Table 1.1 defines some common key indicator measures (sometimes called *headline indicators*) for the health, development, wellbeing and welfare of children and young people around the world.

Table 1.1 Example of national health indicators for children and young people

Outcome	Indicator	How it is measured (per year)
Mortality	Infant mortality: Number of deaths of infants less than 1 year of age in a given year	Rate per 1000 live births
	Sudden Unexpected Death in Infancy (SUDI) including Sudden Infant Death Syndrome (SIDS)	Rate per 100 000 live births
	Death rate for children 1–14 years	Rate per 100 000 children
Morbidity	Proportion of all children (0–14 years) diagnosed with asthma	Percentage of all children with asthma 0–14 years
	New cases of type 1 diabetes among children 0–14 years	Rate per 100 000 children
	New cases of cancer among children 0–14 years	Rate per 100 000 children
Disability	Proportion of children aged 0–14 years with severe or profound core activity limitations	Percentage of all children 0–14 years
Injuries	Age-specific death rates from all injuries for children 0–14 years	Rate per 100 000 children
Overweight and obesity	Proportion of children whose BMI is above international cut-off point for ‘overweight’ or ‘obese’, adjusted for age and sex	Percentage of all children in population of interest

Source: Adapted from AIHW (2017) and Craig, Jackson & Han (2007).

Note that this table illustrates further examples of how different definitions and descriptors are used for reporting on health trends within age groups. Indicator reports will generally outline the following: a rationale for the choice of a unit of measurement (for example, average over one year); definitions of numerators and denominators for rate-based calculations; and reporting of centiles, summary statistics (mean and median) and measures of spread or variation (standard deviation) to facilitate comparison with other data.

It is also important to note that different health indicators are important at different stages of the lifespan. For example, infant mortality (see Table 1.1) is an internationally recognised indicator of health and wellbeing in infancy. This is because a child’s risk of death is greatest at the time of birth and during the first year of life (AIHW, 2020a) usually relates to outcomes from perinatal conditions and congenital anomalies. Similarly, birth weight, breastfeeding and immunisation rates are indicators of a healthy early childhood (0–4 years).

As children grow, injury and chronic diseases pose more serious risks, and as children enter adolescence (13–18 years), indicators of mental and physical health are likely to include overweight and obesity, sleep disorders and/or mental health problems (AIHW, 2020a; NZMoH, 2019a).

CASE STUDY 1.1 INJURY PREVENTION: THE VALUE OF MONITORING AND SURVEILLANCE

Childhood injury is a leading cause of death and hospitalisation across the globe. In Australia and New Zealand, injury prevention has been a key public health priority since the 1980s, with successful prevention campaigns that include mass marketing – such as Red Nose Day for Sudden Unexpected Deaths in Infancy (SUDI) – product regulations – such as product safety standards (e.g. household cots; children’s toys) – and motor vehicle legislation regulating the use of seatbelts, car restraints and blood alcohol concentration. Despite this, child injury death rates in both Australia and New Zealand rank poorly when compared with other wealthy nations.

Successful injury prevention is grounded in rigorous monitoring and surveillance. Our lack of understanding of injury mechanisms and burden is inhibiting progress on reducing morbidity and mortality. For example, injury prevention and safety initiatives in Victoria, Australia are largely informed by detailed emergency presentation data in the Victorian Emergency Minimum Dataset. However, this dataset includes only children who are treated for injury at hospitals in larger metropolitan centres. This results in a surveillance deficit of up to 35 per cent in this cohort (Peck, Terry & Kloot, 2020).

The impact of research

In 2018, the first comprehensive longitudinal examination of child injury and survival in Australia was published. This nationwide data-linkage study found an age-standardised injury hospitalisation rate of 1489 per 100 000 population (95 per cent confidence interval 1485.3 to 1492.4), with no significant decreases over time. Hospital-related costs per annum totalled approximately A\$212 million, or A\$3119 per child. Fall-related and transport-related injuries were the most costly, and mortality risk was highest for younger children, children living in regional/remote Australia and those with a thorax or head injury (Mitchell, Curtis & Foster, 2018).

This seminal work led to the first National Strategy for Injury Prevention since 2014, and strengthened the case for the establishment of a national injury surveillance network. Evidence-informed national strategies drive consistent and collaborative approaches to public health and health promotion among and between state health departments, facilitate data linkage for monitoring and surveillance, and also facilitate prioritisation of research funding to reducing child injury.

Our children and young people

Following European colonisation, the previously thriving Indigenous populations of Australia and New Zealand declined significantly due to the impacts of racism, dispossession from lands and cultures, the Australian government policy of the Stolen Generations, and profound social and economic disadvantage and exclusion

(Duthie et al., 2019). The estimated New Zealand Māori population of 90 000 at the time of European contact in 1769 had fallen to 42 000 by the 1890s (Moewaka Barnes & McCreanor, 2019). In Australia, the estimated pre-colonisation population of 320 000 Aboriginal and Torres Strait Islander people had decreased to approximately 80 000 by the 1930s (AIHW, 2015).

Despite an increase in the overall number of children born in Australia and New Zealand after World War II, as well as high levels of migration of young couples with children, the proportion of children living in Australia decreased from 36 per cent of the total population in 1925 to 22 per cent in 1990. Another small increase in fertility was observed between the mid-1980s and mid-1990s, when the Baby Boomer generation reached child-bearing age. Since then, fertility rates have generally been below the level required to replace the Australian and New Zealand populations. As in many developed countries, recent population trends show the proportion of people aged 65 years and over to be increasing, with the proportion of Australian and New Zealand children projected to decline. We are yet to fully realise the impact of the recent global COVID-19 pandemic on population trends, but the effects of reduced migration are immediately apparent.

In 2018, 4.7 million children under 15 years of age lived in Australia, comprising 19 per cent of the total population (AIHW, 2020a). The total population of Aboriginal and Torres Strait Islander people was 798 400 (ABS, 2018), with Aboriginal and Torres Strait Islander children comprising 5.9 per cent of all Australian children (AIHW, 2020a).

In 2017, the 920 461 children under 15 years living in New Zealand made up a similar proportion of the total population, at 20 per cent (Duncanson et al., 2019a). Today, more than 740 000 Māori live in New Zealand (Stats NZ, 2018), and Māori children make up almost 30 per cent of all New Zealand children (Duncanson et al., 2019a). While the overall number of children and young people living in New Zealand is projected to stay relatively stable, a doubling of the number of people over 65 years of age, combined with fewer children being born, is expected to reduce the number of children as a proportion of the entire population (NZDPMC, 2019).

Health and wellbeing

Since the early 2000s, New Zealand and Australia have conducted detailed longitudinal cohort studies of their children and young people as they grow. These are respectively called *Growing Up in New Zealand* (University of Auckland, n.d.) and *Growing Up in Australia* (ADSS, n.d.). Such studies are extremely important for health and social policy setting, and for identifying opportunities for early intervention and health promotion. While Australian and New Zealand children are generally healthy and well, health indicators continue to demonstrate large variations between children living in remote and metropolitan areas, between Indigenous and non-Indigenous children, and between regions classified by social and economic advantage and those experiencing disadvantage.

Many other sources of indicator data are available. For example, the AIHW *Australia's Children* report (AIHW, 2020a) describes results for 12 indicators of health and wellbeing for children aged 0–12 years. The AIHW and the New Zealand Child

and Youth Epidemiology Service (Te Ratonga Matai Tahumaero Taitamariki o Aotearoa) also offer dynamic online tools for viewing headline indicators by demographic characteristics such as age, cultural background and family type. The New Zealand Child and Youth Epidemiology Service report *Health and Wellbeing of Under-15 Year Olds in Aotearoa 2018* also summarises routinely collected national indicators of health and wellbeing for children and young people living in New Zealand (Duncanson et al., 2019a). However, as we have previously cautioned, it is important to look at the characteristics of groups included in each data set before attempting to compare indicator results across groups, and to regularly review government reports that are continuously updated. For example, ‘children’ have variously been defined as those aged 0–20 years (AIHW, 2008); 0–14 years (AIHW, 2012); and 0–5 years of age (Duncanson et al., 2019b).

Chronic conditions

Australian and New Zealand governments identify a range of health conditions and priorities that are of specific relevance to their populations because of the **burden** these conditions place on the daily lives of families and communities, and their potential impact on the economic sustainability of the country (NZ Government, 2016; Parliament of Australia, 2000). In particular, chronic ill-health in childhood has the potential to interrupt expected growth and development, and to generate immediate and possible long-term effects on physical, emotional and social wellbeing. The consequences of chronic illness and the effects of treatment are frequently overlooked in children and young people.

Considering that 43 per cent of Australia’s and New Zealand’s children and young people (0–15 years of age) were experiencing at least one long-term (non-communicable) condition as they approached adult life during the last decade, you can see why the management of **chronic conditions** of childhood is an important determinant of a healthy adult future (AIHW, 2020a; NZMoH, 2020).

The *Australia’s Children* report (AIHW, 2020a) identified that up to 14 years of age, the four leading chronic conditions burdening the lives of children in Australia are asthma, hay fever/allergy, anxiety-related conditions and problems with psychological development. Mental health and asthma are two of the nine National Health Priority Areas for Australia – the others being cancer control, cardiovascular health, injury prevention and control, diabetes, arthritis and musculoskeletal conditions, obesity and dementia (AIHW, 2018a).

Interestingly, the fifth most commonly reported condition of Australian children, as measured by a 350 per cent increase in hospital admissions between 1994 and 2005, was food allergy or food-related immune disorders (AIHW, 2020a). Hospitalisation rates (or **hospital separation rates**) are often used to indicate the burden of illness experienced by children and young people with a chronic condition.

The leading causes of health loss from chronic conditions in New Zealand children are similar. The *Longer, Healthier Lives* report (NZMoH, 2020) identifies the main contributor to health loss in infancy as neonatal conditions and birth defects. Up to 15 years of age, the four leading chronic conditions impacting young people’s lives in New Zealand are asthma, dermatitis, injury (mostly from falls) and anxiety disorders.

Burden – The impact of disease, illness or injury on a population. Measured by estimating years of life lost due to living with chronic ill-health and injury or dying prematurely.

Chronic condition – Any ongoing physical or mental impairment that causes a functional limitation (or health burden) or necessitates the use of a service or care beyond that which is regarded as routine. A chronic condition is usually defined as one that has lasted, or will last, for six months or more. Chronic conditions are also described as non-communicable diseases – to differentiate them from short-term communicable conditions such as infections.

Hospital separation rate – An episode of care in a hospital – usually the period from admission to discharge (by transfer or death).

The longer-term consequences of neonatal conditions on health and wellbeing are also among the leading causes of burden (NZMoH, 2020). In both countries, the burden of illness is higher for males than for females.

Whereas Australia has specified the prevention of certain diseases and conditions through national health priorities, New Zealand’s health and disability strategy (NZ Government, 2016) takes a very different approach. This focuses on five interconnected priority areas for person-centred, smarter and more efficient systems that enable integrated care for health service delivery closer to home. While every health priority is relevant to the current and future lives of children and young people, increasing physical activity, improving nutrition and oral health, reducing violence in families and communities and ensuring access to appropriate child health services are of direct and immediate importance as determinants of a healthy future.

REFLECTION POINTS 1.1

- While many internationally accepted indicators are used to measure health and wellbeing in infants, children and young people, many indicators remain non-evidence based, non-standardised and inherently biased. What effects do you think international and national variances in indicator measurement and reporting might produce and how might these be improved?
- Thirty per cent of Australians and 27 per cent of New Zealanders are born overseas. What was your experience like growing up in Australia or New Zealand? What was your experience if you moved to Australia or New Zealand as a child? What are some of the benefits of working as a paediatric nurse in a culturally and linguistically diverse country?
- The monitoring of hospitalisation rates determines future health service planning needs such as projecting training numbers for specialists in nursing, allied health, medicine and surgery; estimating demand for hospital, operating and intensive care beds; and growth for primary health, virtual health and home care. Where do you see digital and virtual solutions being of most value in planning healthcare and services for children and young people?

Healthy development

The economic and social circumstances of the families and communities in which children and young people grow up are important determinants of their future health. Access to clean water, healthy food, education, an inclusive social environment and family financial and housing security are important determinants of successful physical and mental growth and healthy development. Childhood safety and security (including protection from injury, child abuse and neglect, and children as victims of violence and crime) sit alongside education as equally important determinants. Access to early childhood education, literacy and numeracy rates, and youth participation in university education or work are indicators of wellbeing for children and young people.

Children's mental and physical growth and development are constantly challenged by transitions that occur both within their family and community, and through increasingly broader engagement with their social world through school, sport and social activities – including social media. Indeed, challenge and change are important for transcending many of the normal developmental stages of personhood.

Within this section we will look at some of the common health opportunities and challenges presented to children and young people as they grow, and some emerging priorities for their health and wellbeing into the future. We continue to emphasise the importance of accessing the most relevant and recent national data sets, supported by evidence from systematic reviews and primary research. These sources offer health professionals the tools they need to deliver holistic person- and-family-centred care. However, as we have highlighted previously, it is important to remain aware that, currently, health indicator measures and other data presented in these reports are often not standardised.

Homes and families

New Zealand and Australia use slightly different definitions of 'family' and 'household' within their national censuses; however, both broadly determine that a family is a group of two or more persons living in the same household. As discussed above, it is important to consider how the indicator is measured. For example, some definitions of family exclude parents and children who live in different households, and there is also a distinction between dependant and non-dependant children. The ABS (2016) defines a child within a family as being less than 15 years of age, whereas Stats NZ specifies that a child living in a family can be of any age (Stats NZ, 2020).

A recent report on the family structure and wellbeing of *tamariki Māori* (Māori children and youth) reinforces the strong evidence for families as important determinants of children's health and wellbeing, and the role of families in reducing the transmission of intergenerational trauma and inequities (NZMoSD, 2020a). A range of publications from the Longitudinal Study of Australian Children: Growing Up in Australia project also confirm the important role of family in supporting warm and consistent parenting and a safe home environment for the social and emotional development and wellbeing of children and young people (ADSS, n.d.; Rioseco, Warren & Daraganova, 2020).

You can search more recent data from the 2018 NZ Census of Population and Dwelling; however, the 2013 census shows that the proportion of couple-families and one-parent families had remained relatively stable since the previous New Zealand census in 2006. In 2013, 78.4 per cent of families included at least one dependant child (under the age of 18 years and not employed full time). The average household size of 2.7 people had also not changed since 2006 (Stats NZ, 2014a).

The Australian Institute of Family Studies' *Families Then and Now* series (AIFS, 2020a) has been reporting demographic changes in Australian families since 1980. In 2016, 37 per cent of couple-families had children living at home (AIFS, 2020b). Some of the more significant trends in Australia have been an increase in multicultural households, a decline in couple-families with children and an increase in one-parent families – contributing to an overall reduction in family size over time (the average family was 4.5 people in 1911 and 2.6 in 2016). The majority of Australians are highly