



HEALTHIER, LONGER,
BETTER LIVES

KIDS' HEALTH AND WELLBEING IN AUSTRALIA

October 2022



Introduction

Childhood is an important time for healthy development and learning, and for establishing the foundation blocks of future wellbeing.¹

Exposure to many disease risk factors starts during childhood and accumulates throughout a person's life.² The choices and behaviours that impact health can become entrenched from a young age, and as someone ages, unhealthy habits can become harder to break.

Five chronic diseases are responsible for more than 90 per cent of deaths in Australia – cancer, diabetes, respiratory disease, heart disease and mental health conditions and disorders.³ While most chronic disease manifests in adults, when it occurs during childhood, it can interrupt a child's normal development, and can be psychologically, socially and economically taxing for families.⁴

The most common chronic diseases among children aged 0–14 in 2017-18 were:⁵

- asthma (10% of children)
- hayfever and allergic rhinitis (10%)
- anxiety disorders (5.7%)
- problems of psychological development (5.7%)
- food allergy (5.5%).

The good news is that some of these conditions are in part preventable or their risk can be reduced. Current evidence suggests that while asthma is caused by complex interactions of genetic and environmental factors, in high-risk children (who have parents with a history of atopic

conditions for instance), steps can be taken to prevent severe flares in asthma.⁶ Many mental health conditions such as anxiety disorders are similarly influenced by both genetic and environmental factors, with prevention and/or early intervention possible in some instances.⁷

AIA Australia's research⁸ shows that there are five modifiable behaviours that are responsible for the most common chronic diseases and associated deaths in Australia.

These behaviours are smoking, unhealthy diet, physical inactivity, excessive alcohol intake and interactions with the environment. For children, we have an opportunity to create healthy habits from an early age, as well as create healthy environments for children to grow up in, which will support them in having good health.

This paper looks at the factors that we can seek to influence in children to help them live healthier, longer, better lives, across four pillars:

- Eat well (nutrition)
- Move well (physical activity)
- Think well (mental health and wellbeing)
- Live well (interactions with the environment)

¹ Australian Institute of Health and Welfare, 2022

² World Health Organization, 2013

³ AIA Australia, 2021

⁴ Australian Institute of Health and Welfare, 2022

⁵ Australian Institute of Health and Welfare, 2022

⁶ von Mutius & Smits, 2020

⁷ World Health Organization, 2022

⁸ AIA Australia, 2021



Eat well

Good nutrition during childhood is essential for normal growth and development.⁹ Given dietary habits established during childhood can persist into adulthood,¹⁰ the establishment of healthy dietary habits during childhood is critical.

While children do not have a high degree of control over their food choices, particularly in their early years, their behaviours can be influenced by their environment. Factors such as the availability and accessibility of healthy and unhealthy food at home and at food outlets as well as food prices have been associated with children's dietary intake. Some aspects of the food environment differ across Australia – the percentage of residential dwellings within 1km of a supermarket, for example, averaged 44 per cent in Adelaide suburbs compared with only 13 per cent in Darwin suburbs, according to one study.¹¹

In an audit of Australian secondary school canteens, half offered a menu with at least 50 per cent healthy options; nearly all, however, also offered at least one option of low nutritional quality, contradicting national canteen guidelines.¹²

Food marketing is also associated with children's dietary intake, choice, preference and purchase requests.¹⁴ Recent research indicates that Australian children are exposed to 17.4 food and drink promotions during each hour they spend on the internet, the majority of which are for unhealthy foods and drinks.¹⁵

Among children, higher intakes of fruit and vegetables are associated with lower risks of wheezing and asthma,¹⁶ as well as lower levels of inflammatory markers that have been associated with the development of cardiovascular disease, type 2 diabetes and obesity.¹⁷ In 2017-18, around three in four Australian children aged 2-17 met the Australian Dietary Guidelines recommendations for fruit intake.¹⁸ However, only 6.3 per cent of 2-17-year-olds met the Australian Dietary Guidelines recommendations for vegetable intake.¹⁹

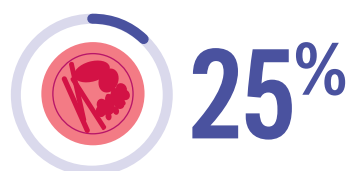
HEALTHIER OPTIONS WERE MORE EXPENSIVE THAN LESS HEALTHY OPTIONS IN BOTH PRIMARY AND SECONDARY SCHOOL CANTEENS.¹³



“When looking to implement healthy eating behaviours in children, two of the most important aspects are modelled behaviour and exposure. Children learn their habits through observing their parents’ behaviours and by repetitive exposure to foods. We can assist with kids’ health by modelling healthy and balanced habits and providing repeated exposure to a variety of healthy foods, without forcing them to eat.”

Marika Day
registered dietician and AIA Vitality Ambassador

Social media and diet culture also play a role in young people's eating behaviours. Many eating problems develop in adolescence, and once established can be difficult to shift and can be a chronic problem affecting health and quality of life across the life span. Therefore, intervening early, by promoting positive and balanced eating and nutrition when problematic eating behaviours start to arise is crucial for long-term health outcomes.²⁰



Around a quarter of girls and 12 per cent of boys reported engaging in some sort of dieting behaviour at age 14-15, such as leaving food at mealtimes, deliberately taking small helpings, and skipping meals.

In a longitudinal study published in 2017,²¹ 54 per cent of girls aged 14-15 and 19 per cent of boys said that they had been afraid of gaining weight in the last four weeks, and 43 per cent of girls and 20 per cent of boys said that, in the last four weeks, they had felt that they had lost control of their eating or felt they had eaten too much.

Studies have found that dieting and problematic eating behaviours in young people can have longer-term impacts, including higher adult BMIs, obesity and the development of eating disorders.²²

⁹ National Health and Medical Research Council, 2013

¹⁰ Craigie, Lake, Kelly, Adamson, & Mathers, 2011

¹¹ Arundel et al., 2017

¹² Haynes et al., 2021

¹³ Billich et al., 2018

¹⁴ Boyland et al., 2022

¹⁵ Kelly, Bosward, & Freeman, 2021

¹⁶ Seyedrezazadeh et al., 2014

¹⁷ Bujtor et al., 2021

¹⁸ Australian Bureau of Statistics, 2018

¹⁹ Australian Bureau of Statistics, 2018

²⁰ O'Connor, Warren & Daraganova, 2018

²¹ O'Connor, Warren & Daraganova, 2018

²² Neumark-Sztainer et al., 2006 and Enriquez, Duncan & Schur, 2013

Move well

Much as with what we eat, physical activity habits established during childhood can persist into adulthood,²³ so the establishment of healthy physical activity habits during childhood is critical.

Australia's physical activity guidelines were recently replaced with "movement" guidelines, which reinforce the importance of the relationships between physical activity, sedentary behaviour and sleep for health.²⁴ Meeting guidelines related to all three behaviours is associated with better health outcomes than meeting any two, while meeting any two guidelines is better than meeting only one.²⁵

The guidelines recommend that a healthy 24 hours includes:²⁶

- accumulating 60 minutes or more of moderate to vigorous physical activity per day involving mainly aerobic activities
- several hours of a variety of light physical activities
- limiting sedentary recreational screen time to no more than 2 hours per day
- breaking up long periods of sitting as often as possible
- an uninterrupted 9 to 11 hours of sleep per night for those aged 5-13 years and 8 to 10 hours per night for those aged 14-17 years
- consistent bed and wake-up times.

The guidelines also recommend that activities that are vigorous, as well as those that strengthen muscle and bone, should be incorporated at least 3 days per week and that, for greater health benefits, children should replace sedentary time with additional moderate to vigorous physical activity, while preserving sufficient sleep.²⁷

The most recent data available on physical activity in children comes from the ABS National Nutrition and Physical Activity Survey 2011–12. In 2011-12, only 26 per cent of Australian 5-12-year-olds and 8 per cent of 13-17-year-olds accumulated at least 60 minutes of moderate to vigorous physical activity per day on each of the 7 days before they were surveyed.²⁸



of Australian children aged 5-12 and 1.9 per cent of young people aged 13–17 met both the physical activity and sedentary screen-based behaviour guidelines.²⁹

Active travel to school is an opportunity for children to make a substantial contribution to meeting recommended daily movement guidelines. However, a 2016 report for the South Australian Government found only around 20 per cent of primary school children walked to school, with most being driven by car or bus. This has fallen dramatically in the past few decades.³⁰



²³ Craigie et al., 2011

²⁴ Department of Health, 2019

²⁵ Department of Health, 2019

²⁶ Department of Health, 2019

²⁷ Department of Health, 2019

²⁸ Australian Institute of Health and Welfare, 2018

²⁹ Australian Institute of Health & Welfare, 2018

³⁰ Garrad, 2016.

Think well

Good mental health and wellbeing is important to enable children to thrive through their early years and into adolescence and young adulthood. Investing in prevention and early intervention gives children the best opportunity for achieving this.³¹

Mental wellbeing is a spectrum that can shift over the course of one's life. Children can be provided with tools to help them understand and improve their mental fitness, to assist with resilience and provide the ability to handle difficult situations.

A wide variety of factors impact mental health. At the individual level, factors such as good physical health and physical activity promote mental health, while a diet high in processed foods, obesity and sleep disturbances can undermine it.³²

In an Australian longitudinal study published in 2018, older children were less likely than younger children to sleep for at least the minimum amount recommended; on school nights, about a quarter of 12-15-year-olds and half of 16-17-year-olds slept for less than the minimum amount recommended.³³

Factors that can enhance mental health include green space and a quality natural environment.³⁴ On the other hand, violence and bullying as well as the climate crisis, pollution and environmental degradation are among the risk factors for poor mental health.³⁵

In 2019, almost half of Australian year 4 students and more than a third of Australian year 8 students reported experiencing bullying at least monthly in the preceding year.³⁶



of young people said that they felt stress either all of the time or most of the time in 2020, with females twice as likely as males to feel this way³⁷

Based on a nationally representative survey of parents conducted in 2020, the COVID-19 pandemic was reported to have had a negative impact on the mental health of more than one-third of children.³⁸

³¹ Australian Institute of Health and Welfare, 2022

³² World Health Organization, 2022

³³ Daraganova & Joss, 2018

³⁴ World Health Organization, 2022

³⁵ World Health Organization, 2022

³⁶ Thomson et al., 2021

³⁷ Australian Institute of Health & Welfare, 2021c

³⁸ Rhodes, 2020



There are some simple measures that can have a positive impact when it comes to children and their mental health. Aspects like getting enough good quality sleep, being physically active and eating a diet high in fruit and vegetables are critical. Sleep is a big factor when it comes to mental health and for children, regardless of their age, getting enough good quality sleep can be difficult sometimes. Working on things like winding the body down before bed, avoiding all screens one hour before sleep and ensuring plenty of physical movement in sunlight during the day helps children (and adults!) get a better sleep at night.

Dr Preeya Alexander
GP and AIA Vitality Ambassador

Live well

The possible impacts of climate change on children's health are wide-reaching.³⁹ From a chronic disease perspective, changes to temperature and precipitation can lengthen pollen seasons and lead to more severe asthma and allergic rhinitis, while more frequent extreme weather events have been suggested to increase children's susceptibility to mental health disorders, such as anxiety, depression and post-traumatic stress disorder.⁴⁰

Climate change may also impact children's ability to achieve and maintain healthy behaviours. The number of days that physical and sporting activities would have been suspended due to extreme heat risk in Australia in 2019, for example, was more than twice that of the five-year average from 2001-2005.⁴¹

Air quality is also critical to children's health. Air pollution increases the risk of developing (and exacerbates) asthma among children, as well as increasing the risk of childhood leukaemia and a variety of other health outcomes.⁴² Pollution generated by human activity – such as emissions from transport, energy and resource use and wood smoke from domestic wood heaters – threaten air quality in Australia, as do more frequent bushfires and dust storms as a result of climate change.⁴³

Aspects of the built environment can impact children's behaviours and health both positively and negatively.

Greater walkability (measured as a combination of street connectivity, land-use mix and residential density measures), for example, is associated with increased physical activity and lower body mass index among children, while lower walkability is associated with greater sedentary time.⁴⁴ In general, the inner and middle-level suburbs of Australian capital cities have greater walkability than outer-suburban areas.⁴⁵

Among children, greater exposure to green space (e.g., parks, grasslands and sports and playing fields) is similarly associated with increased physical activity,⁴⁶ as well as lower risks of hyperactivity and inattention problems.⁴⁷ Across Australia, however, access to green space varies. According to one study, 29 per cent of the area of Canberra suburbs⁴⁸ was parkland, on average, compared with just 10 per cent of the area of Adelaide suburbs, while in another study green space availability was lower in low-income areas.⁴⁹

³⁹ Helldén et al., 2021

⁴⁰ Helldén et al., 2021

⁴¹ Beggs et al., 2021

⁴² World Health Organization, 2018

⁴³ Keywood et al., 2017

⁴⁴ Ortegón-Sánchez et al., 2021

⁴⁵ Arundel et al., 2017

⁴⁶ Islam, Johnston, & Sly, 2020

⁴⁷ Vanaken & Danckaerts, 2018

⁴⁸ Arundel et al., 2017

⁴⁹ Astell-Burt, Feng, Mavoa, Badland, & Giles-Corti, 2014

AIA Healthiest Schools Program

In recognition of the current landscape and importance of healthy behaviours in children, life, health and wellbeing insurer AIA Australia is launching the AIA Healthiest Schools Program in Term One 2023.

AIA Healthiest Schools has been designed to help young Australians better understand the behaviours that will help them live a healthier, longer, better life.

The program provides teachers with tools to educate and inspire their students in four areas – healthy eating (eat well), active lifestyles (move well), mental wellbeing (think well) and environmental sustainability (live well).

The lessons have been developed in line with the Australian national curriculum and include educational videos featuring well-known Australians to bring the teachings to life.

More information about AIA Healthiest Schools, including free educational resources, can be found at ahs.aia.com/au.



“At AIA Australia, we have a dream to champion Australia to be the healthiest and best protected nation in the world. However, we are seeing some concerning trends in the health and wellbeing of our youngest Australians, which is why we want to get more involved in health education.

We believe it's crucial that we focus on health promotion and prevention to change the narrative. We're excited to launch AIA Healthiest Schools so we can inspire young Aussies to eat well, move well, think well and live well so they can develop lasting positive lifestyle habits that will help them lead healthier, longer, better lives.”

Damien Mu
CEO and Managing Director of AIA Australia

References

- AIA Australia. (2021). 5590+. The new health insight helping Australians lead healthier, longer, better lives. Retrieved from <https://www.aia.com.au/en/business/group-insurance/group-insights/5590-the-new-insight.html>
- Arundel, J., Lowe, M., Hooper, P., Roberts, R., Rozek, J., Higgs, C., & Giles-Corti, B. (2017). Creating liveable cities in Australia: mapping urban policy implementation and evidence-based national liveability indicators. Retrieved from <https://cur.org.au/project/national-liveability-report/>
- Astell-Burt, T., Feng, X., Mavoa, S., Badland, H. M., & Giles-Corti, B. (2014). Do low-income neighbourhoods have the least green space? A cross-sectional study of Australia's most populous cities. *BMC Public Health*, 14(1), 292. doi:10.1186/1471-2458-14-292
- Australian Bureau of Statistics. (2018). National Health Survey: first results. Retrieved from <https://www.abs.gov.au/statistics/health/health-conditions-and-risks/national-health-survey-first-results/latest-release>
- Australian Institute of Health and Welfare. (2018). Physical activity across the life stages. Retrieved from <https://www.aihw.gov.au/reports/physical-activity/physical-activity-across-the-life-stages>
- Australian Institute of Health & Welfare (2021c) Australia's Youth in Brief. Retrieved from <https://www.aihw.gov.au/reports/children-youth/australias-youth-in-brief/contents/summary>
- Australian Institute of Health and Welfare. (2022). Australia's children. Retrieved from <https://www.aihw.gov.au/reports/children-youth/australias-children>
- Beggs, P. J., Zhang, Y., McGushin, A., Trueck, S., Linnenluecke, M. K., Bambrick, H., ...Capon, A. G. (2021). The 2021 report of the MJA–Lancet Countdown on health and climate change: Australia increasingly out on a limb. *Medical Journal of Australia*, 215(9), 390-392.e322. doi: 10.5694/mja2.51302
- Beyond Blue, referencing Kessler, RD et al. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62: p. 593-602. Retrieved from <https://www.beyondblue.org.au/media/statistics>
- Billich, N., Adderley, M., Ford, L., Keeton, I., Palermo, C., Peeters, A., ...Backholer, K. (2018). The relative price of healthy and less healthy foods available in Australian school canteens. *Health Promotion International*, 34(4), 677-686. doi:10.1093/heapro/day025
- Boylard, E., McGale, L., Maden, M., Hounsoume, J., Boland, A., Angus, K., & Jones, A. (2022). Association of food and nonalcoholic beverage marketing with children and adolescents' eating behaviors and health: a systematic review and meta-analysis. *JAMA Pediatrics*, e221037-e221037. doi:10.1001/jamapediatrics.2022.1037
- Bujtor, M., Turner, A. I., Torres, S. J., Esteban-Gonzalo, L., Pariante, C. M., & Borsini, A. (2021). Associations of dietary intake on biological markers of inflammation in children and adolescents: a systematic review. *Nutrients*, 13(2), 356. doi:10.3390/nu13020356
- Craigie, A. M., Lake, A. A., Kelly, S. A., Adamson, A. J., & Mathers, J. C. (2011). Tracking of obesity-related behaviours from childhood to adulthood: a systematic review. *Maturitas*, 70(3), 266-284. doi:<https://doi.org/10.1016/j.maturitas.2011.08.005>
- Daraganova, G., & Joss, N. (2018). Growing Up In Australia – The Longitudinal Study of Australian Children, annual statistical report 2018. Retrieved from <https://growingupinaustralia.gov.au/research-findings/annual-statistical-reports-2018>
- Department of Health. (2019). Australian 24-Hour Movement Guidelines for Children and Young People (5 to 17 years): an integration of physical activity, sedentary behaviour, and sleep. Retrieved from <https://www.health.gov.au/resources/publications/australian-24-hour-movement-guidelines-for-children-5-to-12-years-and-young-people-13-to-17-years-an-integration-of-physical-activity-sedentary-behaviour-and-sleep>
- Enriquez, E., Duncan, G., & Schur, E. (2013). Age at dieting onset, body mass index, and dieting practices: A twin study. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3913472/>
- Garrad, J. (2016). Walking, riding or driving to school: what influences parents' decision making? Retrieved from https://dit.sa.gov.au/_data/assets/pdf_file/0003/513507/Walking_riding_or_driving_to_school_what_influences_parents_decision_making_Literature_review_summary_of_key_findings.pdf
- Haynes, A., Morley, B., Dixon, H., Scully, M., McAleese, A., Gascoyne, C., ...Wakefield, M. (2021). Secondary school canteens in Australia: analysis of canteen menus from a repeated cross-sectional national survey. *Public Health Nutrition*, 24(4), 696-705. doi:10.1017/S1368980020003535
- Helldén, D., Andersson, C., Nilsson, M., Ebi, K. L., Friberg, P., & Alfvén, T. (2021). Climate change and child health: a scoping review and an expanded conceptual framework. *The Lancet Planetary Health*, 5(3), e164-e175. doi:10.1016/S2542-5196(20)30274-6
- Islam, M. Z., Johnston, J., & Sly, P. D. (2020). Green space and early childhood development: a systematic review. *Reviews on Environmental Health*, 35(2), 189-200. doi:10.1515/reveh-2019-0046
- Kelly, B., Bosward, R., & Freeman, B. (2021). Australian children's exposure to, and engagement with, web-based marketing of food and drink brands: cross-sectional observational study. *Journal of Medical Internet Research*, 23(7), e28144. doi:10.2196/28144
- Keyword, M., Hibberd, M., & Emmerson, K. (2017). Australia state of the environment 2016: atmosphere. Retrieved from <https://soe.environment.gov.au/download/reports>
- National Health and Medical Research Council. (2013). Australian Dietary Guidelines. Retrieved from <https://www.eatforhealth.gov.au/guidelines>
- Neumark-Sztainer, D., Wall, M., Guo, J., Story, M., Haines, J., & Eisenberg, M. (2006). Obesity, Disordered Eating, and Eating Disorders in a Longitudinal Study of Adolescents: How Do Dieters Fare 5 Years Later? Retrieved from <https://www.sciencedirect.com/science/article/pii/S0002822306000046>
- O'Connor, M., Warren, D., & Daraganova, G. (2018). Eating problems in mid adolescence. Chapter 11 of Growing Up In Australia – The Longitudinal Study of Australian Children, annual statistical report 2017. Retrieved from <https://growingupinaustralia.gov.au/research-findings/annual-statistical-report-2017>
- Ortegon-Sanchez, A., McEachan, R. R. C., Albert, A., Cartwright, C., Christie, N., Dhanani, A., ...Vaughan, L. (2021). Measuring the built environment in studies of child health—a meta-narrative review of associations. *International Journal of Environmental Research and Public Health*, 18(20), 10741. doi:10.3390/ijerph182010741
- Rhodes, A. (2020). COVID-19 pandemic: effects on the lives of Australian children and families. Retrieved from <https://www.rchpoll.org.au/polls/covid-19-pandemic-effects-on-the-lives-of-australian-children-and-families/>
- Seyedrezazadeh, E., Pour Moghaddam, M., Ansarin, K., Reza Vafa, M., Sharma, S., & Kolahdooz, F. (2014). Fruit and vegetable intake and risk of wheezing and asthma: a systematic review and meta-analysis. *Nutrition Reviews*, 72(7), 411-428. doi:10.1111/nure.12121
- Thomson, S., Wernert, N., Buckley, S., Rodrigues, S., O'Grady, E., & Schmid, M. (2021). TIMSS 2019 Australia. Volume II: school and classroom contexts for learning. Retrieved from https://research.acer.edu.au/timss_2019/4/
- Vanaken, G.-J., & Danckaerts, M. (2018). Impact of green space exposure on children's and adolescents' mental health: a systematic review. *International Journal of Environmental Research and Public Health*, 15(12), 2668. doi:10.3390/ijerph15122668

AIA Australia

509 St Kilda Road
Melbourne VIC 3004
aia.com.au