CHAPTER THREE OUR LEADING RISK FACTORS

Chapter Three reviews South Australia's leading disease risk factors, with reference to a combination of information from the Australian Institute of Health and Welfare (AIHW) Australian Burden of Disease Study (ABDS) 2022 and 2018 and other Australian Government and local data sources. The 2022 ABDS has been published, however, this did not include updated risks. Therefore, the 2018 ABDS risk factors and interactive data remain current⁸⁶.

This CPHO Report has focused on drawing Aboriginal data predominantly from grey literature in the form of government reports and epidemiological data repositories. It needs to be highlighted that the majority of national, state and bi-national data repositories in Australia were established prior to knowledge and understanding of the importance of Indigenous Data Governance for Indigenous data. As such these repositories do not conform to Indigenous Data Sovereignty principles or practices. This is a significant limitation in these repositories, as while they contain Indigenous data, they do not engage Indigenous Knowledges or recognise the sovereign rights of Aboriginal and Torres Strait Islander individuals and communities in their repositories or reporting.

INDICATORS AT A GLANCE 6.9% 26.4% 12.1% 70% 8.1% Adult smoking of South Australian of South Australian of South Australians of South Australian prevalence 2021 adults are overweight adults met experienced food adults report high or obese recommended daily insecurity blood pressure veg consumption (2017-18) (2020-22)(2020-22)12.4% in 2019 **9%** in 2018-19 9.7% in 2019-20 26% in 2018-19 15.4% 26.9% 25.8% 57.5% 95.53% of South Australian of 5 year old South of South Australian of South Australians of South Australian children met dailv children report meeting Australian children adults report drinking aged 15 to 29 years physical activity screen-based activity are immunised at levels at risk of have tried e-cigarettes recommendations disease or injury over within the last 12 months recommendations a lifetime (2020-22)(2 hours or less per (2021)(2022)(2021) weekday) 22% in 2018-19 95% in 2019 **11.5%** in 2020 29% in 2011

Disease risk factors are attributes, characteristics or exposures that increase the likelihood of a person developing a disease or health disorder. In many cases, individuals can modify risk factors such as smoking, sun exposure or physical activity. Biomedical risk factors, for example overweight, are bodily states that are often influenced by behavioural risk factors. Together, these risk factors are referred to as being either potentially avoidable or modifiable and they are distinct from other types of risk factors, such as genetic pre-dispositions, which are not generally modifiable⁸⁷.

Additional information (although not included as leading disease risk factors in national reporting) is reported in relation to sleep, sedentary behaviour, oral health, childhood immunisation, and cancer screening as each has a public health profile in South Australia and each contributes to one or more critical health outcomes. Tobacco use continued to be the greatest contributor of fatal burden and deaths in Australia, followed by overweight and obesity. Overweight and obesity contributed the most non-fatal burden in both males and females. The burden attributable to each of these risk factors was higher in men than in women, with the exception of child abuse and neglect.

While tobacco use remains the leading disease risk factor in Australia, overweight (including obesity) has almost caught up as contributing the most to the total burden of disease⁸⁸.

According to the 2018 ABDS, around 38% of Australia's total disease burden could have been prevented by reducing exposure to modifiable risk factors. This estimate considers the complex pathways and interactions between diseases and risk factors⁸⁹.



Figure 19: Proportion of total burden to the leading 10 risk factors in 2018

TOBACCO AND E-CIGARETTE USE

While tobacco use (smoking) prevalence can fluctuate on a year-to-year basis, since 2007 there has been a downward trend across all age groups in South Australia. Daily smoking prevalence overall and among those aged 15 to 29 years was lower in 2021 (9.8% and 9.7%) than in 2020 (10.6% and 10.9%).

While information on tobacco use indicates a downward trend, South Australian data indicates an upward trend in the prevalence of e-cigarette use, particularly among younger people.

E-cigarettes are often marketed as a safer alternative to traditional cigarettes, however, there is increasing evidence of the potential dangers associated with their use, particularly as it has now become clear that the vast majority of e-cigarettes sold in Australia contain nicotine, regardless of this being illegal.

In June 2022, the Chief Executive Officer of the Australian National Health and Medical Research Council, in a statement on the health impacts of e-cigarette use, based on in-depth evidence reviews and an extensive toxicology report, concluded that:

- > All e-cigarette users are exposed to chemicals and toxins that have the potential to cause harm. In addition to nicotine, more than 200 chemicals have been associated with e-liquids.
- E-cigarettes containing nicotine are addictive and people who have never smoked are more likely to take up tobacco smoking.
- E-cigarettes are not proven to be safe and effective smoking cessation aids. There are other proven safe and effective options to help smokers quit.

Data from the National Aboriginal and Torres Strait Islander Health Survey (NATSIHS),⁹⁰ the South Australian Pregnancy Outcome Unit from Wellbeing SA, Australian secondary school students' alcohol and drug survey (ASSAD)⁹¹ and South Australian Health and Medical Research Institute (SAHMRI)⁹² supplement the South Australian picture of population smoking rates and behaviours. The NATSIHS and ASSAD studies have not been conducted since the previous Chief Public Health Officer Report July 2018 to June 2020, therefore some of the statistics below remain the most current.

- In the 2018-19 reporting period, 40.4% of Aboriginal people aged 18 years and over (age-standardised) in South Australia were current daily smokers (41% across Australia)⁹³.
- In 2019, 41.3% of Aboriginal women reported that they smoked at their first antenatal visit. While a 2.6% decrease from 2018, the 2019 rate for Aboriginal women was considerably higher than that for non-Aboriginal women over the same period (5.9%).
- In 2021, South Australians aged 15 years and over first started smoking daily at 18.2 years on average, which was similar to 2020 (17.8 years).
- In 2021, 88.3% of the South Australian population reported that they had heard of e-cigarettes, which was an increase from 2020 (85.5%).
- In 2021, 2% of South Australians were current e-cigarette users, similar to 2020 (2.6%) and 5.2% had tried e-cigarettes in the past 12 months (but were not current users), similar to 2020 (5.1%).
- In 2021, among those aged 15 to 29 years, 86.9% reported that they had heard of e-cigarettes, which was a significant increase from 2020 (81.6%).
- In 2021, 5.0% of those aged 15 to 29 years were current e-cigarette users, similar to 2020 (2.9%) and 15.4% had tried e-cigarettes in the past 12 months (but were not current users), which was a significant increase from 2020 (11.5%).
- In 2021, 67.7% of the South Australian population reported that they had been exposed to someone else's cigarette smoke in the past two weeks, which was similar to 2020 (65.5%).

- In 2021, the majority of South Australian smokers had made a previous quit attempt (84.0%), which was a significant increase from 2020 (73.2%); 42.5% had tried to quit in the past year, and 66.2% intended to try to quit in the next six months, both of which were similar to 2020 (38.9% and 61.8%, respectively).
- In 2017, 2.5% (2.9% of males and 2% of females) of school students aged 12 to 17 were current smokers (i.e. had smoked in the past week).
- In 2017, 8.9% (11.2% of males and 6.3% of females) of school students aged 12 to 17 reported that they had ever used an e-cigarette. Among those students who had ever used an e-cigarette in 2017, 27.3% had used it in the past month.

Figure 20: Proportion of daily, weekly or less than weekly smoking among South Australians aged 15 years and over – 2007-2021



Data source: Health Omnibus Survey [HOS] (2007-17) Population Health Survey Module System [PHSMS] (2018-21), data produced by the South Australian Health and Medical Research Institute.

Notes: Data for SA overall and those aged 15-29 years old are age-standardised to the 2016 population. Red line indicates changeover of data source from the Health Omnibus Survey (a face-to-face survey) to the Population Health Survey Module System (a phone survey) from 2018. Estimates of smoking prevalence from phone surveys are approximately 3% lower than smoking prevalence data derived from face-to-face surveys, and this should be considered when interpreting results.

Figure 21: Proportion of current e-cigarette use^a and those who tried e-cigarettes within the last 12 months^b among South Australians aged 15 years and over – 2014-2021



Data source: Health Omnibus Survey (2007-17) Population Health Survey Module System (2018-21), data produced by the South Australian Health and Medical Research Institute.

^a Current e-cigarette use is defined as daily, weekly or less than weekly use

^b Tried within last 12 months but not current user (as defined at note a)

Notes: Red line indicates changeover of data source from the Health Omnibus Survey (a face-to-face survey) to the Population Health Survey Module System (a phone survey) from 2018.

CHILD AND ADULT OVERWEIGHT AND OBESITY

Overweight and obesity refers to being above a healthy weight. Being above a healthy weight is a risk factor for other conditions and is therefore a significant public health issue. Increased risk of heart disease, stroke, type 2 diabetes, musculoskeletal conditions and certain cancers is associated with obesity. In 2018 (the most current risk factor data available), 8.4% of Australia's disability adjusted life year (DALY) burden of disease was attributed to overweight and obesity. It also accounted for 10.3% of deaths in Australia⁹⁴.

Being above a healthy weight in childhood tracks into higher health risks as an adult, including an increased risk of overweight and obesity in adulthood⁹⁵. Even during childhood, children who are in the obese weight range can develop type 2 diabetes, liver disease, hypertension and musculoskeletal impairment. In addition, being overweight can hamper the ability to control or manage chronic conditions like asthma. Most importantly, the stigma our society attaches to overweight and obesity impacts children's mental health and feelings of self-esteem and self-worth.

The 2017-18 National Health Survey is the primary source for data on child and adult overweight and obesity. The next survey is due to be published in December 2023. The most current data available for South Australia is reported in the Chief Public Health Officer Report 2018-20⁹⁶.

OTHER DIETARY RISKS

Inadequate nutrition

Good nutrition, including breastfeeding, is fundamental to health and wellbeing. Healthy eating helps to maintain a healthy weight and reduces the risk of dietary risk factors for chronic conditions (including type 2 diabetes, high blood pressure and cholesterol), cardiovascular disease and some cancers. Good nutrition also ensures a well-functioning immune system, bone health, eye health and reduces the risk of many cancers (for example bowel and breast cancer). However, many South Australians are not getting sufficient nutrients for a healthy diet.

In 2020-22:

- > 41.8% of adults reported meeting the recommended daily fruit consumption guidelines, with a median of one serve of fruit consumed per day.
- > Women were more likely than men to meet the recommended daily fruit consumption guidelines.
- > The proportion of people meeting the daily fruit consumption guideline increased with age and was higher in those living in higher socioeconomic areas.
- > 68.4% of children reported meeting the recommended daily fruit consumption guidelines, with a median of two serves of fruit consumed per day.
- > People living in metropolitan areas were more likely to meet the recommended daily fruit consumption guidelines compared to those living in rural areas.
- > The proportion of children meeting the daily fruit consumption guideline decreased with age.
- > Only 8.1% of adults reported meeting the recommended daily vegetable consumption guidelines, with a median of two serves of vegetables consumed per day.
- > Women were more likely than men to meet the recommended daily vegetable consumption guidelines.
- > The proportion of adults meeting the daily vegetable consumption guideline increased with age.
- > Only 13.9% of children reported meeting the recommended daily vegetable consumption guidelines, with a median of two serves of vegetables consumed per day.
- > The proportion of children meeting the guideline decreased with age.

Breastfeeding is a key protective factor for child nutrition and development, and maternal health. The proportion of South Australian mothers reporting breastfeeding in 2021 was 85%. Breastfeeding rates were lower in rural areas compared to metropolitan areas, and lower for mothers in the 25 to 34 age group.

Discretionary food and drinks

Discretionary ('sometimes') foods and drinks are high in kilojoules, added sugars, saturated fat, salt or alcohol and are not an essential part of a healthy diet. Australian children are growing up in an environment where discretionary food and drinks are easily available, heavily promoted, and compared to healthy alternatives can be purchased at relatively low cost.

Fast food consumption

In 2020-22:

- > 42.5% of adults reported consuming fast food at least once a week, with a median of 0.5 times per week.
- > The proportion of adults consuming fast food at least once a week has increased each financial year since 2018-19. It increased from 40.1% in 2018-19 to 43% in 2021-22.
- Men and those living in metropolitan areas were more likely to consume fast food at least once per week compared to women and those living in rural areas.
- > Consumption of fast foods tended to decrease with age and in the high to higher socioeconomic status.
- > 59.7% of children reported consuming fast food at least once a week, with a median of one serve per week.

- > The proportion of children consuming fast food at least once a week has increased by a total of 8.9% during the last two financial years since 2019-20.
- > Consumption increased with age and was higher in those living in lower socioeconomic areas.

Soft drink, sports drink or energy drink consumption

- > 14.2% of adults reported consuming soft drink, sports drink or energy drink on an average day, with a median of 250mL consumed per day (July 2020 to June 2022).
- Men were more likely than women to consume soft drink, sports drink or energy drink on an average day.
- > Consumption of soft drink, sports drink or energy drink decreased with age and was lower in those living in higher socioeconomic areas.
- > 13.1% of children reported consuming soft drink, sports drink or energy drink on an average day, with a median of 250mL consumed per day.
- > Boys were more likely than girls to consume soft drink, sports drink or energy drink on an average day.
- > Children's consumption of soft drinks increased with age and was higher in those living in less advantaged socioeconomic areas.





Food insecurity

Food security and insecurity describe whether an individual can access food in the quantity and of the quality they need to live an active and healthy life⁹⁷.

In 2020-22:

- > The proportion of South Australians reporting food insecurity was about 7%. Food insecurity figures have decreased each financial year since 2018-19.
- > Those aged 18 to 29 and 30 to 49 years were more likely to report food insecurity than children and older adults and was higher in those living in lower socioeconomic areas.
- > Aboriginal South Australians were more likely to report food insecurity.

One factor that may have contributed to declining reports of food insecurity could be the South Australian Government-led initiative through the 'Public Health Partner Authority' agreement between the Department of Human Services and Department for Health and Wellbeing, implemented just prior to the COVID-19 pandemic. The initiative brought together stakeholders from the food relief sector, South Australian Government, universities, and community organisations to establish a shared vision and charter to improve individual and household food security, health and wellbeing of South Australians⁹⁸. It remains to be seen whether this trend continues given the post-pandemic world-wide economic recession.



Figure 22: Proportion of South Australians (all ages) reporting food insecurity, South Australian Population Health Survey – July 2018 to June 2022

HIGH BLOOD PRESSURE (HYPERTENSION)

Often symptom-less, high blood pressure is considered both a medical problem and a risk factor for other serious health conditions, such as heart disease, stroke and kidney disease. High blood pressure is a global public health issue. Hypertension is more likely with increasing age and can be caused by a range of medical conditions. There is also a strong genetic tendency to having a higher blood pressure. But modifiable lifestyle risk factors including diet (particularly high salt intake), obesity, excessive alcohol consumption, insufficient physical activity and insufficient sleep are also important. Addressing these lifestyle factors is central to ensuring good blood pressure control, along with medication in some instances.

- > The proportion of South Australian adults reporting high blood pressure was 26.4%.
- > Those living in rural areas were more likely to report high blood pressure than those living in metropolitan areas.
- > The proportion of individuals reporting high blood pressure increased with age.



HIGH BLOOD PLASMA GLUCOSE (INCLUDING DIABETES)

High blood plasma glucose (hyperglycemia) is a defining characteristic of diabetes. In 2020, an estimated one in 20 (almost 1.3 million) Australians were living with diabetes. The prevalence is likely to be higher⁹⁹. While there is a strong genetic component involved with the development of diabetes, risk is also increased by lifestyle factors including diet, physical inactivity and obesity.

In 2020-22:

> 12.2% of adults reported having been diagnosed with diabetes, with 8.8% having type 2.

- > Men and those living in rural areas were more likely to report diabetes compared to women and those in metropolitan areas.
- > The proportion of people reporting diabetes increased with age and was higher in those living in lower socioeconomic areas.
- > 1.3% of adult women reported ever having gestational diabetes.
- The highest rate of gestational diabetes was in the 30 to 49 years age group.
- Aboriginal women were more likely to report ever having gestational diabetes.



ALCOHOL USE

Alcohol use is embedded in Australian social norms and cultural activities. Harmful levels of use are a major health issue, associated with increased risk of chronic disease (including cancer), injury and premature death. Ongoing research in this area has shown that lower levels of alcohol use is associated with a positive health impact over time resulting in revision of the Australian Alcohol Guidelines in 2020.

The National Health and Medical Research Council revisions now recommend drinking no more than 10 standard drinks per week (previously 14 standard drinks) and no more than four standard drinks on any one day. It also recommends anyone under 18 should not drink alcohol. This revision changed the way risky drinking is now reported and is only based on people aged 18 years and over.

- In 2021, 24% of South Australians aged 18 years and over reported drinking at levels that put them at risk of injury on a single occasion at least monthly, which was not significantly different from 2020 (22%).
- In 2021, 27% of South Australians aged 18 years and over reported drinking at levels that put them at risk of disease or injury over a lifetime, which was not significantly different from 2020 (24%).
- > There was no significant change between 2011 and 2021 in the proportion of men (40.7% to 38.6%) or women (17.9% to 16.1%) who reported drinking at levels that put them at risk of disease or injury over a lifetime.



Figure 23: Proportion of South Australians aged 18 years and over who drank at levels that put them at risk of disease or injury over a lifetime by sex – 2011-2021

Data source: South Australian Health Omnibus Survey (2011-17) and South Australian Population Health Survey Module System (2018-21), Drugs and Alcohol Services South Australia.

HIGH CHOLESTEROL

High blood cholesterol is one of the risks for heart disease, stroke and other forms of vascular (blood vessel) disease. A variety of factors can affect cholesterol and lipid levels including a family history of high cholesterol, saturated fat intake, being over a healthy weight, and physical inactivity.

- > The proportion of people reporting high cholesterol was 23.5% (figures range from 24% to 23.7% since 2018-19).
- > Those living in rural areas were more likely to report high cholesterol than those living in metropolitan areas.
- > The proportion of people reporting high cholesterol increased with age.
- > Aboriginal people were less likely to report high cholesterol.



ILLICIT DRUG CONSUMPTION

Illicit drugs are prohibited from manufacture, supply, sale or possession in Australia. In 2018, 3% of the total disease burden in Australia was due to illicit drug use, including the burden from opioids, amphetamines, cocaine, cannabis and other illicit drug use, as well as unsafe injecting practices¹⁰⁰. Information previously reported in the 2018-20 Chief Public Health Officer's Report remains current.

Since 2011, Drug and Alcohol Services South Australia has funded the University of South Australia to collect wastewater samples for analysis of drug metabolites. The Wastewater Analysis Project began bi-monthly sampling in December 2011 at four Adelaide metropolitan wastewater treatment plants.

The wastewater sample analysis showed:

> Cannabis was the highest illicit drug used in South Australia over the 2020-22 period. Average consumption levels increased from 2017 to 2021, with levels in 2021 and 2022 to date recording the highest consumption since wastewater recording began.

- Methamphetamine was the predominant illicit stimulant consumed in metropolitan Adelaide, and consumption levels have increased from 2012 to 2022. However, consumption levels decreased between June 2021 and June 2022, with levels in the first half of 2022 similar to those in 2019.
- > Other stimulants are consumed at lower levels. Of these:
 - Cocaine consumption levels have increased since 2015. There has been a decrease in consumption since October 2021.
 - Ecstasy (MDMA) consumption levels have decreased since 2020.
- Heroin consumption levels have decreased since 2013 and remain low.



Figure 24: Cannabis consumption levels by wastewater analysis – 2012 to 2022

Average consumption (dose/week/1000 people) of THC for 2012-2020. Weekly consumption (dose/week/1000 people) bi-monthly from February 2021 onwards. Dose=125mg.



Figure 25: Stimulant consumption levels by wastewater analysis – 2012 to 2022

Average consumption (dose/week/1000 people) 2012-2020. Weekly consumption (dose/week/1000 people) of cocaine (100mg dose), MDMA (100mg dose) and methamphetamine (30mg dose) bi-monthly from February 2021 onwards.



PHYSICAL INACTIVITY

Physical inactivity is associated with increased risk of chronic disease and some cancers. In South Australia, physical inactivity is measured by reference to levels of physical activity, cycling and walking data¹⁰¹.

- > 63.3% of South Australian adults 18 to 64 years reported 150 minutes or more of moderate intensity physical activity per week.
- > The proportion of adults 18 to 64 years reporting 150 minutes or more of moderate intensity physical activity per week has decreased from 67.1% in the 2018-19 financial year to 60.5% in 2021-22.
- > Men were more likely than women to meet the physical activity guideline.
- > The proportion meeting the guideline decreased with age and was lower in those living in lower socioeconomic areas¹⁰².
- Aboriginal people were less likely to report undertaking 150 minutes or more of moderate intensity physical activity per week.

- > 48.9% of South Australian adults aged 65 years and older undertook at least 30 minutes of moderate physical activity for five or more days per week, and 35.7% for seven days.
- > A higher proportion of those living in rural areas undertook at least 30 minutes of moderate physical activity for five or more days and seven per week than those living in metropolitan areas.
- > 44.8% of South Australian children aged five to 17 years undertook at least 60 minutes of moderate to vigorous physical activity for five or more days per week, and 25.8% for seven days.
- > A higher proportion of boys undertook 60 minutes or more of physical activity for both five or more days and seven days compared with girls.
- The proportion of South Australian children participating in 60 minutes of physical activity for more than five days increased from 41.1% in 2018/19 to 48.4% in 2020-21 and decreased to 38.9% in 2021-22. This pattern was the same for seven days of 60 minutes of physical activity (21.4% 2018-19, 28.5% 2020-21, 21.4% in 2021-22).

CHILD ABUSE AND NEGLECT

Child protection system contact data are important indicators of child abuse and neglect prevalence. The data are based only on those cases notified to the Department for Child Protection (DCP) and are likely to understate prevalence. Four conditions contributing to overall disease burden are directly linked to child abuse and neglect: anxiety disorders, depressive disorders, suicide and self-inflicted injuries. As contact with the child protection system increases, so does the prevalence of developmental vulnerability on one or more domains at age five¹⁰³.

- > The total number of child notifications reported to the South Australian Government was 20,015¹⁰⁴.
- > The rate of substantiations of notifications was 6 per 1,000 children, lower than the national average of eight per 1,000¹⁰⁵.
- > The rate per 1,000 children aged 0 to 17 years of substantiations of notification in 2021-22 was 44.9 for Aboriginal children and 3.9 for non-Aboriginal children¹⁰⁶.



OTHER MODIFIABLE RISK FACTORS

SLEEP

Sleep is critical for body and brain rest and recovery. It is crucial for childhood growth and general health. In the short-term, reduction of sleep can lead to fatigue, irritability and exhaustion, lack of energy, daytime drowsiness and impaired memory and concentration. Regular insufficient or poor sleep contributes to long-term health problems, including obesity, type 2 diabetes, cardiovascular disease and poor mental health.

- > 61.2% of adults reported meeting the sleep duration guideline.
- > The proportion meeting the guideline decreased with age and was lower in those living in lower socioeconomic areas.
- > Aboriginal people were less likely to meet the sleep guidelines.
- > 70.4% of children reported meeting the sleep duration guideline.
- > Children aged five to nine years were the most likely to meet the sleep guideline.



ORAL HEALTH

Oral health is a key indicator of overall health and is important for general wellbeing and quality of life. Poor oral health interferes with daily function, impacts on social interactions and work productivity, and is a medical problem as well as risk factor for other conditions. Reducing the rates of potentially preventable hospitalisations due to dental conditions is one of the key performance indicators of the National Oral Health Plan 2015-24¹⁰⁷. Dental problems are also a risk factor for chronic diseases including stroke and heart disease, and for adverse pregnancy outcomes¹⁰⁸.

The number of decayed, missing or filled permanent teeth (DMFT) is a measure of tooth decay experience, and 12-year-old DMFT rates are an international measure of child oral health. South Australian DMFT data for children enrolled in the School Dental Service have been collected since 1977. The 12-year-old DMFT of South Australian children currently enrolled in the School Dental Service during 2021-20 has increased to 0.78 from 0.71 in 2019-20.

In 2020-22, fewer children were seen in the School Dental Service, with COVID-19 considered a likely contributor to this reduced activity. With decreased activity, the number of children overdue for a recall visit in the service increased, and children with a higher oral health risk status were prioritised for recall. It is therefore unclear if the slight increase in DMFT since 2020 is a true increase, or if it is reflective of a biased sample due to a higher proportion of children with high-risk status being seen.

The proportion of adults eligible for public dental services who access public dental care over a two-year period is a measure of adult oral health in South Australia. Coverage of eligible adults, predominantly holders of concession cards, through SA Dental for 2022 was 15%.

In 2020, the number of adults eligible for public dental care rose sharply, reflective of increased eligibility for Centrelink payments by a number of Australians. This number has now returned to be consistent with pre-pandemic levels.

Water fluoridation reduces tooth decay from 26% to 44% in children and adolescents, and by 27% in adults. Access to fluoridated water from an early age is associated with less tooth decay in adults. Around 89% of Australians have access to fluoridated drinking water, and fluoridation coverage in South Australia is 92%¹⁰⁹.



Figure 26: 12-year-old mean decay-missing-filled teeth (DMFT) of children attending SA School Dental Service, 2001-2022

CHILDHOOD IMMUNISATION

Immunisation, particularly childhood immunisation, is one of the most cost-effective disease prevention interventions.

In 2020-22:

- > The percentage of South Australian children aged 60 months to less than 63 months old in 2022 who were fully immunised was 95.53%, exceeding the national rate of 94.27%¹¹⁰. The 2022 South Australian rate was slightly lower than the 2021 rate (96.11%), but remains above the national aspirational target of 95%.
- > The percentage of South Australian Aboriginal children aged 60 months to less than 63 months in 2021 who were fully immunised was 97.3%¹¹¹ which also exceeds the national average for all children (Aboriginal and non-Aboriginal). This represents a slight increase from 97% in 2020, which continues the upwards trend for this cohort over the past few years.

Immunisation is a safe and highly effective way of protecting children and adults from harmful diseases before they encounter them. It is one of the best ways to protect our community at a population level. The World Health Organization estimates that vaccinations save up to three to three and a half million lives worldwide each year. Immunisation programs are run by a range of providers including general practices, pharmacies, local health networks and local councils, supported under the National Immunisation Program (NIP). The NIP provides free vaccines for children, adolescents and adults who hold or are eligible for a Medicare card. It consists of a number of programs, including:

- Childhood and School Immunisation Programs and catchup schedules
- > The annual Influenza Program
- > The national Shingles Vaccination Program
- > New Arrival Refugee Immunisation Program.

The South Australian Government also funds a High Risk Hepatitis B Immunisation Program, Meningococcal B Immunisation Program and Influenza Immunisation for People Experiencing Homelessness.



Figure 27: Percentage of children fully immunised in South Australia aged 1 to 5 years

BREAST, CERVICAL, BOWEL CANCER AND SCREENING TRENDS

Cancer screening programs aim to detect cancers earlier and at a less advanced stage, so that treatment options are greater, the treatment itself is more effective and survival rates improve. South Australia has among the highest rates of breast, cervical, and bowel screening in the country.

- > The number of women aged 25 to 74 years who participated in the National Cervical Screening Program in 2018-21 was 305,557, accounting for 65.3% (age adjusted) of the eligible population¹¹².
- > The number of people aged 50 to 74 who participated in the National Bowel Cancer Screening Program remained steady in 2018-19 and 2019-20 at approximately half of the eligible population¹¹³.
- > The proportion of South Australian women aged 50 to 74 who participated in the BreastScreen Australia Screening Program has decreased from 58.4% in 2018-19 to 51.1 in 2020-21, in line with similar decreases seen Australia wide in the same timeframe and likely due to the COVID-19 pandemic¹¹⁴.

HEALTH INEQUITY

Health inequity is the existence of systematic, avoidable and unfair differences in health. Advantage and disadvantage impact upon access to basic requirements of a healthy life (safe water, sanitation, nutrition, housing and education), conditions of work, freedom from poverty and the chance for individuals and communities to flourish^{115, 116}.

Socioeconomic disadvantage puts people at greater risk of poor health over a lifetime, is associated with higher rates of chronic illness and disability and creates barriers to health services and programs¹¹⁷. Health inequities and poorer health outcomes are also associated with racism, discrimination and gender inequality¹¹⁸. ¹¹⁹.

Aboriginal people, and people from culturally and linguistically diverse backgrounds, people with disability and their families and carers also have poorer health outcomes relative to the whole population¹²⁰. Lesbian, gay, bisexual, transgender and/or intersex, queer, asexual and other sexually or gender diverse¹²¹ communities can also experience significant health and wellbeing inequities, including disproportionate rates of mental health diagnoses and suicide¹²², elevated rates of drug and alcohol use¹²³, higher rates of HIV and sexually transmissible diseases¹²⁴ and a significantly higher burden of certain cancers¹²⁵.





Figure 28: Proportion of South Australian adults aged >18 years reporting chronic conditions by Socioeconomic Index for Areas – July 2020-June 2022

Chronic illness and variation in health status relative to socioeconomic advantage and disadvantage is measured and monitored via the socioeconomic Indexes for Areas (SEIFA). It is measured across five quintiles (groups), from the highest (most advantaged) to lowest (most disadvantaged) quintile. The social gradient in health is the difference (or gap) between these quintiles – the steeper the gradient, the greater the inequality¹²⁶. There is a clear correlation between social position and health outcomes¹²⁷. Rising up the socioeconomic ladder is paralleled by measurable improvements in health, and social disadvantage is linked to measurably worse health outcomes. In South Australia, the social gradient in health is visible in differing rates for many health risk factors, and in the unequal distribution of prevalence for many chronic diseases and conditions across quintiles.

SAPHS data further indicate:

- > People living in lower SEIFA areas report higher rates of chronic conditions such as arthritis, asthma, diabetes, cardiovascular disease (CVD), chronic obstructive pulmonary disease (COPD), osteoporosis, and mental health conditions.
- > A higher proportion of people from lower SEIFA quintiles reported having psychological distress.
- > The highest SEIFA quintile had the lowest proportion of people that reported having a mental health problem.

The data demonstrate the impact of inequity on risk factors and health outcomes in South Australia. As highlighted in the 2018-2020 Chief Public Health Officer Report, it remains of concern that the social gradient continues to steepen over the past decades¹²⁸.

SOCIAL DETERMINANTS OF HEALTH

Health inequities can be reduced through action upon the social determinants of health. These include the factors shaping power and wealth distribution, and access to other necessary resources for health and wellbeing¹²⁹. Determinants of health influence how likely we are to develop and maintain good health or, conversely, how likely we are to be exposed to risk factors, become sick or suffer injury. These influences are complex and typically take effect over a long period of time¹³⁰. According to the World Health Organization, the conditions in which people are born, live, learn, and work, are the most important determinants of good and ill health – the 'causes of the causes'.

INDICATORS AT A GLANCE

23.8% of South Australian children were developmentally vulnerable on one or more domain (2021)	Reading – 94.8 [%] Writing – 95.3 [%] Numeracy – 94.7 [%] of South Australian chidren in year 3 above national minimum standard (2021)	43.2% of South Australians non-school qualification, compared with 32.4 [*] of all Australians 2019	4.3% Unemployment rate for South Australia, compared with 3.5% for Australia (June 2022)	In 2019-20 \$1,038 p/wk The mean equivalised disposable income of South Australians
21.4% of South Australia's low income households spent more than 30% of their gross income on housing costs (2019-20)	17% of South Australians volunteer (2020)	88.6% of South Australians thought their neighbourhoods were a safe place to live (2020) 90.4% in 2019	20.2% of South Australians reported being socially isolated (2020) 15.2% in 2019	At the 2016 census, there were approximately 6,220 homeless people living in South Australia



DEVELOPMENTAL VULNERABILITY

The Australian Early Development Census (AEDC) is a population measure of children's development as they enter the first year of full-time school¹³¹. It is considered a measure of how well children and families are supported from conception through to school age. In the 2021 data collection, AEDC information was collected on 305,000 children in Australia representing over 95% of children in their first year of full-time school. The AEDC is conducted every three years and the next census will be held in 2024. In South Australia, the figures were slightly higher than Australian national level as shown in figure 29¹³².

CHILD LITERACY AND NUMERACY

In 2021:

- > 5.2% of South Australian Year 3 children did not meet the national minimum reading literacy standard (national 4.1%).
- > 4.7% of South Australian Year 3 children did not meet the national minimum writing literacy standard (national 3.3%).
- > 5.3% of South Australian Year 3 children did not meet the national minimum numeracy standard (national 4.6%)¹³³.



Figure 29: Percentage of children developmentally vulnerable in 2021, South Australia

ADULT HEALTH LITERACY

Health literacy relates to how people access, understand and use health information in ways that benefit their health. People with low health literacy are at higher risk of worse health outcomes and poorer health behaviours¹³⁴.

Data for adult health literacy remains as reported in the 2018-20 Chief Public Health Officer's Report. That is, the health literacy scores in nine domains for South Australians ranged from 2.89 for Domain Five (appraisal of health information) to 4.24 for Domain Nine (understanding health information well enough to know what to do), and these figures are similar to the national average levels¹³⁵.

EDUCATION AND EMPLOYMENT

- In May 2022, 60.6% of South Australians aged 15 to 74 had a non-school qualification. This was lower than the national average of 63%¹³⁶.
- The seasonally adjusted unemployment rate per calendar year in South Australia ranged from 5.5% to 8.7% in 2020, 3.9% to 6.8% in 2021 and 3.9% to 4.9% in 2022¹³⁷.
- The unemployment rate for South Australians aged 15 to 24 years old fluctuated during the period 2020 to 2022 and reached a peak of 19.3% in January 2021 and a low of 7.3% in December 2021¹³⁸.

HOUSING, FINANCIAL STRESS

- > Before the COVID-19 pandemic, more than 26.7% of Australians said that they were finding it difficult on their present income. This declined to 17.3% by November 2020 during the first year of the pandemic, likely due to government subsidies for businesses and individuals to support quarantine and isolation requirements. By October 2022, however 25.1% of Australians were again finding it difficult on their current income¹³⁹.
- In 2019-20, 21.4% of low-income households in South Australia reported paying 30% or more of their income on housing costs (12.7% of homeowners and 39% of home renters)¹⁴⁰. This is a decrease from the figures reported in 2017-18 (32.4%), 2015-16 (36.9%), and 2007-08 (22.2%)¹⁴¹.
- In 2021, about 18.6% of South Australians aged 18 years and older reported experiencing financial stress. This is an improvement from 2020 (19.6%), 2019 (23.0%) and 2018 (20.4%)¹⁴².

SOCIAL CONNECTEDNESS AND INCLUSION

- > Volunteer participation in South Australia was 17% of the population or 250,655 people, in 2021. This was a decline from 21.4%, or 295,668 people in 2016¹⁴³.
- South Australian adults engaging in formal volunteering declined by 6.7% from 2019 to 2021. Informal volunteering increased by 3.6% over the same period¹⁴⁴.
- Most South Australians believe they can get help from family, friends, or neighbours when they need it (93.9%)¹⁴⁵. South Australians face-to-face contact with family and friends living outside their households in 2020 was 50.7% compared to 67.5% in 2019¹⁴⁶.
- In South Australia, the Australian Digital Inclusion Index (ADII) has been increasing steadily since 2016 and was 69.0 in 2021. The South Australian ADII score is consistently lower than the national score of 71.1 in 2021¹⁴⁷.
- > The majority of adults in South Australia were not socially isolated, according to the perceived loneliness scale measure (76.4% in 2022).
- > The majority of South Australians (85%) strongly agree or agree that it is a good thing for a society to be comprised of different cultures¹⁴⁸.

SAFETY PERCEPTIONS

- > The proportion of South Australians reporting that they feel their neighbourhood is a safe place all or most of the time was 88.6% (June to August 2022).
- > Those living in rural areas were more likely to report higher neighbourhood safety than those living in metropolitan areas.
- More positive neighbourhood safety perceptions increased with age and were higher in those living in higher socioeconomic areas.
- > Aboriginal people were less likely to report that they feel their neighbourhood was a safe place all or most of the time.
- Sexual assault in South Australia was the highest recorded victimisation rate. This rate has increased from 91.8 per 100,000 persons in 2020 to 100.5 per 100,000 persons in 2021, which is the highest victimisation rate since 2007 (106.7 per 100,000 persons). Nearly half (49%) of all sexual assault victims were aged under 18 years at the date of incident, and 39% were family and domestic violence related¹⁴⁹.