2021 ACT General Health Survey Statistical Report

Epidemiology Section | ACT Health March, 2023





Acknowledgement of Country

ACT Health acknowledges the Ngunnawal people as traditional custodians of the ACT and recognises any other people or families with connection to the lands of the ACT and region. We acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region. ACT Health also acknowledges and welcomes Aboriginal and Torres Strait Islander peoples who are part of the community we serve.

1 Executive summary

1.1 What is the ACT General Health Survey

The ACT General Health Survey (ACTGHS) is an annual survey that has been conducted by ACT Health since 2007. The survey asks ACT residents questions about traditional health risk factors as well as broader factors that impact on wellbeing. The ACTGHS is a valuable tool for monitoring health-related trends in the ACT and for informing health service planning and policy development. In 2021, complete responses for 2,200 Canberrans were collected as part of the survey.

1.2 What is in this report

This report presents the results for key health indicators in the 2021 ACTGHS. These indicators are related to overall health; risk and protective factors; and mental health and wellbeing. Results are presented by age group and by sex, with comparisons made between groups where appropriate.

1.3 What are the key results

The results show that, during the period when the 2021 ACTGHS was conducted:

• Self-rated health was poorer among older Canberrans than it was among younger Canberrans, with 41.5% of people aged 65 years or older reporting very good or excellent health compared to 59.3% of people aged 18-24 years.

- Over one quarter (27.6%) of ACT adults and one fifth (20.6%) of ACT children had a diagnosed mental health condition. Mental health was poorest among Canberrans aged between 18 and 24 years, with 46.3% of this age group rating their mental health as either fair or poor and 43.2% reporting a diagnosed mental health condition. People in this group with a mental health condition were also less likely than Canberrans in other age groups to be receiving treatment.
- Among adults, females exhibited poorer mental health than males, being significantly less likely than males to rate their mental health as either excellent or very good (41.1% females compared to 53.1% males) and significantly more likely to report having a diagnosed mental health condition (36.1% females compared to 18.5% males).
- Among adults, the proportion of Canberrans who consumed discretionary foods, including sugar-sweetened drinks and fast food, decreased with increasing age.
- The majority (64.3%) of Canberrans aged 18 years or over who did not live alone reported they had eaten a meal together as a family every day in the past week. However, this differed by age group, with 27.3% of adults aged 18–24 years and 83.8% of adults aged 65 years or older reporting having eaten a meal together as a family every day in the past week.
- Seven in ten (70.8%) adults aged 18 years or older met the relevant physical activity guidelines, compared to only 23.0% of children.
- E-cigarettes were used daily or occasionally by 6.2% of ACT adults aged 16 years or older and had been used in the past by a further 9.5% of adult Canberrans. Canberrans aged between 16 and 24 years were significantly more likely than older Canberrans to have ever used e-cigarettes.

2 Project background

The ACT General Health Survey (ACTGHS) has been undertaken annually since 2007 as a way of monitoring health-related trends in the ACT and supporting health service planning and policy development. The relative size of the ACT population in relation to the other states and territories in Australia means national surveys typically only sample a small number of respondents from the ACT, limiting the reliability of findings that can be drawn. National surveys are also unable to focus exclusively on issues of most importance to the ACT and are often conducted at irregular intervals. The main objective of the ACTGHS is to provide ACT-specific health and wellbeing data.

The content of the ACTGHS is routinely reviewed and updated. Up until 2018, the ACTGHS collected information about traditional chronic disease risk factors such as nutrition, physical activity, obesity, alcohol and smoking from 1,200 adults and 500 children. In 2019, the scope of the ACTGHS was extended beyond traditional chronic disease risk factors to include broader factors that influence health and wellbeing. It is intended that the wellbeing component of the survey will be conducted every third year in a three-year cycle (Table 1). In 2021, the ACTGHS was based on the 2020 survey and collected information from adults and children about more traditional risk factors.

Table 1. Survey scope and sample size of ACT General Health Surveys, 2018-2024

Survey scope (sample size)	2018ª	2019	2020	2021	2022	2023	2024
Risk factors and child wellbeing (1,200 adults + 1,000 children)	✓		✓	✓		✓	✓
Wellbeing (2,000 adults)		✓			✓		

^aThe size of the child sample for the 2018 risk factors and child wellbeing survey was 500. All risk factors and child wellbeing surveys since have had a child sample of 1,000.

3 Results

3.1 Sample characteristics

In total, interviews were completed for 2,200 Canberrans for the 2021 ACTGHS. Of these, 1,200 interviews were conducted for non-institutionalised adults aged 16 years or over and 1,000 were conducted for children aged between 5 and 15 years. For surveys of children aged 5–15 years, interviews were conducted with the adult parent or carer who knew the most about the child's health information.

Of the 1,200 participants aged 16 years or over, 44.4% were male and 55.3% were female and, of the 1,000 participants aged 5–15 years, 55.2% were male and 43.7% were female.

For further information on the sample characteristics see Characteristics of the sample in Appendix B.

3.2 Overall health

3.2.1 Self-rated health

The self-rated health measure captures respondents' overall conception of their health. In 2021, 52.8% of adults aged 18 years or older rated their health as very good or excellent, compared to 77.2% of children aged 5–17 years (Table 2). In contrast, over the same period, 17.6% of adults and 7.1% of children rated their health as either fair or poor.

Children were significantly more likely than any of the adult age groups to report very good or excellent health and significantly less likely than any of the adult age groups to report fair or poor health. In general, self-rated health declined with increasing age across the adult age groups, however, only the difference between the 25–44 year age group and the 65 years and older age group was statistically significant (Table 3).

No significant differences in estimates of self-rated health were observed between the sexes for either the adult or child age groups.

Table 2. Self-rated health by sex, ACT, 2021

	С	Children (5–17)			Adults (18+		
	Male	Female	Persons	Male	Female	Persons	
		per cent					
Excellent/very good	81.4 [‡]	74.5‡	77.2‡	56.1‡	49.9‡	52.8‡	
Good	12.7‡	19.0‡	15.6‡	28.5‡	30.4 [‡]	29.5‡	
Fair/poor	6.0‡	6.5‡	7.1‡	15.4‡	19.7‡	17.6‡	

[‡]Estimate is significantly different from that for the equivalent population of the other age in the table.

Table 3. Self-rated health by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Excellent/very good	77.2	59.3	54.8	54.4	41.5

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

Table 3 (cont). Self-rated health by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Good	15.6	22.0	31.9	28.0	30.2
Fair/poor	7.1	18.7*	13.3	17.6	28.3

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

3.2.2 Self-rated mental health

This measure captures ACT residents' perception of their mental health. In 2021, 46.9% of adults aged 18 years or older and 58.4% of children aged 5–17 years described their mental health as either very good or excellent (Table 4). In contrast, over the same period, 22.9% of adults and 15.4% of children rated their mental health as either fair or poor.

Notably, among ACT adults, males typically reported better self-rated mental health than females, with males significantly more likely than females to report excellent or very good mental health. This finding was not observed among children aged 5–17 years, with males and females in this age group exhibiting similar self-rated mental health.

As with self-rated health, children were more likely than adults to report excellent or very good self-rated mental health, however this difference was not statistically significant when only males were considered. In contrast to self-rated health, self-rated mental health improved with increasing age across the adult age groups, with the 65 years and older age group significantly more likely to report excellent or very good mental health and significantly less likely to report fair or poor mental health than any of the other adult age groups (Table 5). Additionally, the 18–24 year age group was significantly more likely to report fair or poor mental health than any of the other age groups.

Table 4. Self-rated mental health by sex, ACT, 2021

	С	hildren (5–	17)		+)	
	Male	Female	Persons	Male	Female	Persons
Excellent/very good	59.5	58.4 [‡]	58.4 [‡]	53.1 [†]	41.1 ^{†‡}	46.9‡
Good	27.2	25.8	26.2	27.1	33.5	30.2
Fair/poor	13.3	15.9	15.4 [‡]	19.8	25.4	22.9‡

[†]Estimate is significantly different from that for the equivalent population of the opposite sex.

Table 5. Self-rated mental health by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Excellent/very good	58.4	38.1	40.7	48.6	65.3

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

[‡]Estimate is significantly different from that for the equivalent population of the other age in the table.

Table 5 (cont). Self-rated mental health by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Good	26.2	15.7*	34.1	31.5	26.5
Fair/poor	15.4	46.3	25.2	20.0	8.3*

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

3.2.3 Disability status

This measure is produced by asking respondents whether they had a disability, health condition or injury that restricted everyday activities and had lasted, or was likely to last six months or more. In 2021, 20.3% of adults aged 18 years or older and 15.0% of children aged 5–17 years reported having a disability, health condition or injury of this kind (Table 6).

People in the 65 years and older age group were significantly more likely than any of the other age groups to report having a disability, health condition or injury (Table 7). No significant difference in the prevalence of disability was observed between males and females.

Table 6. Disability status by sex, ACT, 2021

	С	Children (5–17)			Adults (18-	+)
	Male	Female	Persons	Male	Female	Persons
			per o	ent		
Has a disability, health condition or injury	14.7	15.6	15.0	18.1	22.5	20.3
No disability, health condition or injury	85.3	84.4	85.0	81.9	77.5	79.7

Table 7. Disability status by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Has a disability, health condition or injury	15.0	18.1*	13.7	20.2	39.1
No disability, health condition or injury	85.0	81.9	86.3	79.8	60.9

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

3.3 Risk and protective factors

3.3.1 Weight status

For the 2021 ACTGHS, weight status was assessed using two measures. The first of these, perceived weight, is based on an individual's perception of their own weight, while the second, body mass index (BMI), is a standardised height-to-weight ratio (for which both height and weight are self-reported).

Perceived weight

In 2021, 52.3% of adults aged 18 years or older perceived their weight to be healthy, compared to 87.2% of children aged 5–17 years (Table 8).

Children were significantly more likely than any of the adult age groups to perceive their weight as healthy, with the proportion of people perceiving their weight as healthy generally declining with increasing age (Table 9). Respondents aged 18–24 years were significantly more likely than those aged 45–64 years or 65 years and older to perceive their weight as healthy. No statistically significant differences were observed between the sexes.

Table 8. Perceived weight status by sex, ACT, 2021

	Children (5–17)			Adults (18+)			
	Male	Female	Persons	Male	Female	Persons	
		per cent					
Underweight	(n.p)	(n.p)	(n.p)	2.6*	3.0*	2.8	
Healthy weight	85.7‡	88.4‡	87.2 [‡]	55.7‡	49.0‡	52.3‡	
Overweight	7.3 [‡]	7.3*‡	7.3 [‡]	38.3‡	41.0 [‡]	39.7‡	
Very overweight	(n.p)	(n.p)	(n.p)	3.4*	7.0	5.2	

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

Table 9. Perceived weight status by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Underweight	(n.p)	(n.p)	3.2*	(n.p)	(n.p)
Healthy weight	87.2	71.5	54.4	45.0	48.4
Overweight	7.3	25.5	36.5	48.4	41.2
Very overweight	(n.p)	(n.p)	5.8	(n.p)	(n.p)

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

Body mass index

Body Mass Index (BMI) is a simple index of weight-for-height that is commonly used to categorise people as either underweight, healthy weight, overweight or obese. In the 2021 ACTGHS, BMI was calculated based on self-reported height and weight. BMI is calculated using the formula:

$$BMI = rac{mass}{height^2}$$

where mass refers to body mass in kilograms and height refers to body height in metres. In the 2021 ACTGHS, BMI was categorised as follows:

 BMI for children was categorised as being underweight, healthy weight, overweight or obese according to the international cut-offs for children developed by the International Obesity Taskforce.¹

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

[‡]Estimate is significantly different from that for the equivalent population of the other age in the table.

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

• BMI for adults aged 18 years and over was categorised using 6 BMI groups:2

Underweight: BMI less than 18.5
Healthy weight: BMI 18.5-24.99
Overweight: BMI 25.00-29.99
Obese class 1: BMI 30.00-34.99
Obese class 2: BMI 35.00-39.99
Obese class 3: BMI 40 or more.

In 2021, 59.6% of children aged 5–17 years were in a healthy BMI category (Table 10), compared to 36.1% of adults aged 18 years or older (Table 11).

As with perceived weight, the proportion of respondents with a healthy weight as determined by BMI declined with age. Respondents in the 18–24 year age group were significantly more likely than respondents in all the other adult age groups to have BMIs indicating a healthy weight. Among adult respondents, females typically had lower BMIs than males, with significantly fewer female respondents falling in the overweight BMI category.

Table 10. Body mass index category by sex, children (5-17 years), ACT, 2021

	Male	Female	Persons
		per cent	
Underweight	11.6	10.5	11.1
Healthy	60.9	58.2	59.6
Overweight	16.9	21.5	19.2
Obese	10.6	9.8	10.2

Table 11. Body mass index category by age and sex, adults (18+ years), ACT, 2021

	Age				Sex		
	18–24	25–44	45–64	65+	Male	Female	Persons
				per cent			
Underweight	(n.p)	(n.p)	(n.p)	(n.p)	(n.p)	3.4*	1.7*
Healthy	59.3	35.7	31.6	31.6	33.5	38.7	36.1
Overweight	18.4*	36.4	37.6	39.3	40.5 [†]	30.6 [†]	35.5
Obese class 1	(n.p)	12.9	19.9	16.5	17.2	13.9	15.6
Obese class 2 and 3	(n.p)	(n.p)	(n.p)	(n.p)	(n.p)	13.4	11.1

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

3.3.2 Nutrition

The 2013 Australian Dietary Guidelines provide evidence-based recommendations on the types and amounts of foods Australians should eat to meet nutritional requirements.³ The guidelines also recommend limiting the intake of discretionary (energy-dense, nutrient-poor) foods.

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

[†]Estimate is significantly different from that for the equivalent population of the opposite sex.

In 2021, 38.3% of adults aged 18 years or older met the guideline for daily fruit consumption, compared to 63.1% of children aged 5–17 years (Table 12). Meanwhile, 3.9% of adults aged 18 years or older met the guideline for daily vegetable consumption, compared to 2.7% of children aged 5–17 years. In addition, 54.6% of adults aged 18 years or older reported that they did not drink sugar-sweetened drinks, compared to 57.0% of children aged 5–17 years, while 23.7% of adults and 10.1% of children reported that they rarely or never consume fast food.

Both female and male children were significantly more likely than their adult counterparts to meet the 2013 guideline for daily fruit consumption. However, they were significantly less likely to report rarely or never consuming fast food. Among those aged 18 years or older, males were significantly less likely than females to abstain from consuming sugar-sweetened drinks or fast food.

Among the adult age groups, the proportion of respondents who rarely or never consume sugar-sweetened drinks and fast food typically increased with increasing age (Table 13). Respondents aged 18–24 years were significantly less likely than any other adult age group to report that they did not drink sugar-sweetened drinks. Conversely, respondents aged 65 years or older were significantly more likely than any other adult age group to report that they did not drink sugar-sweetened drinks. Similarly, across the 25–44 year, 45–64 year and 65 years and older age groups, each group was significantly more likely than the younger groups to report never consuming fast food.

Table 12. Indicators of nutrition by sex, ACT, 2021

	Children (5–17)				Adults (18+)		
	Male	Female	Persons	Male	Female	Persons	
			per	cent			
Meets 2013 guidelines for daily serves of fruit	61.1 [‡]	64.5 [‡]	63.1 [‡]	34.0 [‡]	42.3 [‡]	38.3‡	
Meets 2013 guidelines for daily serves of vegetables	(n.p)	4.1*	2.7	(n.p)	7.0	3.9	
Doesn't drink sugar-sweetened drinks	51.7	61.4	57.0	47.6 [†]	61.1 [†]	54.6	
Rarely/never consumes fast food	10.1‡	10.1‡	10.1‡	18.3 ^{†‡}	29.0†‡	23.7‡	

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

Table 13. Indicators of nutrition by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Meets 2013 guidelines for daily serves of fruit	63.1	39.8	32.4	39.3	50.7
Meets 2013 guidelines for daily serves of vegetables	2.7	(n.p)	3.6	5.0	4.9*
Doesn't drink sugar-sweetened drinks	57.0	24.5	52.8	57.3	71.6
Rarely/never consumes fast food	10.1	(n.p)	11.6	31.9	53.1

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

[†]Estimate is significantly different from that for the equivalent population of the opposite sex.

[‡]Estimate is significantly different from that for the equivalent population of the other age in the table.

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

3.3.3 Oral health

In 2021, 7.5% of children aged 5–17 years and 11.2% of adults aged 18 years and older reported that the condition of their teeth affected the types of food they can eat (Table 14).

An estimated 53.3% of adults aged 18 years or older reported having visited a dental professional in the last 12 months, compared to 72.8% of children aged 5–17 years. In contrast, 4.1% of adults aged 18 years or older and 3.1% of children aged 5–17 years reported that they had not visited a dental professional for at least 10 years.

Among Canberrans aged 16 years and older, an estimated 48.2% were missing natural teeth (including wisdom teeth) while 13.5% have dentures or false teeth (Table 15).

The proportion of respondents missing natural teeth increased with increasing age, with respondents aged 45–64 years and 65 years and older significantly more likely than all younger age groups to be missing natural teeth.

Table 14. Condition of teeth and last visit to dental professional by sex, ACT, 2021

	Children (5–17)			Adults (18+)		
	Male	Female	Persons	Male	Female	Persons
			per	cent		
Condition of teeth						
Condition of teeth affects the types of food that can be eaten	7.9	7.2	7.5	10.3	11.7	11.2
Last visit to dental professional						
Less than 1 year ago	71.0 [‡]	74.1‡	72.8 [‡]	50.0‡	56.8‡	53.3‡
1 - 2 years ago	18.5	18.4	18.2	18.9	20.1	19.6
2 - 10 years ago	7.7‡	4.2 [‡]	5.9 [‡]	26.5‡	19.8‡	23.0‡
10 years ago or more (or never)	2.9*	3.3*	3.1	4.7	3.4*	4.1

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

Table 15. Condition of teeth and last visit to dental professional by age and sex, adults (16+), ACT, 2021

	Age				Sex		
	18–24	25–44	45–64	65+	Male	Female	Persons
				per cent			
Condition of teeth							
Missing natural teeth	23.0	32.3	57.8	89.7	48.2	48.3	48.2
Has dentures/false teeth	(n.p)	6.0	14.6	36.6	12.6	14.4	13.5

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

[‡]Estimate is significantly different from that for the equivalent population of the other age in the table.

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

[‡]Estimate is significantly different from that for the equivalent population of the other age in the table.

Table 15 (cont). Condition of teeth and last visit to dental professional by age and sex, adults (16+), ACT, 2021

	Age			Sex			
	18–24	25–44	45–64	65+	Male	Female	Persons
				per cent			
Condition of teeth affects the types of food that can be eaten	(n.p)	9.2	11.8	15.8	10.0	11.0	10.6
Last visit to dental professional							
Less than 1 year ago	50.4	45.6	58.4	66.5‡	53.3	59.4	56.4
1 - 2 years ago	16.1*	21.2	19.1	18.2	18.8	19.8	19.4
2 - 5 years ago	26.0	20.3	14.9	12.8	18.1	14.2	16.0
5 - 10 years ago	(n.p)	6.9	4.9	(n.p)	5.4	3.3	4.3
10 years ago or more (or never)	(n.p)	6.0	2.7*	(n.p)	4.4	3.3	3.9

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

3.3.4 Physical activity

Physical activity guidelines

This measure reports the proportion of Canberrans who meet the Australian physical activity guidelines⁴ as defined below:

- Meeting the physical activity guidelines for children aged 5–17 years is based on the National Physical Activity guideline of accumulating 60 minutes or more of moderate to vigorous physical activity per day.
- Meeting the physical activity guidelines for adults aged 18 years and over is based on the ABS
 definition of participating in at least 150 minutes of activity (including walking for transport and
 fitness, and moderate and vigorous activity) per week. If the number of times for walking,
 moderate activity or vigorous activity was zero, the number of hours and minutes was given a
 value of zero.

In 2021, 70.8% of adults aged 18 years or older met the relevant physical activity guidelines, compared to 23.0% of children aged 5–17 years (Table 16).

Children were significantly less likely than adults to meet their age-specific physical activity guidelines. No significant differences in estimates for respondents meeting the physical activity guidelines were observed between the sexes for any of the age groups.

While the proportion of respondents reporting that they met physical activity guidelines appeared to decrease with age in the adult age groups, no statistically significant differences were observed between the estimates (Table 17).

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

[‡]Estimate is significantly different from that for the equivalent population of the other age in the table.

Table 16. Physical activity guidelines by sex, ACT, 2021

	С	hildren (5–	17)		Adults (18	Its (18+)		
	Male	Female	Persons	Male	Female	Persons		
		per cent						
Meets physical activity guidelines	25.5‡	19.1‡	23.0‡	74.5‡	67.3‡	70.8‡		
Does not meet physical activity guidelines	74.5‡	80.9‡	77.0‡	25.5‡	32.7‡	29.2‡		

^{*}Estimate is significantly different from that for the equivalent population of the other age in the table.

Table 17. Physical activity guidelines by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Meets physical activity guidelines	23.0	80.4	74.5	66.7	62.9
Does not meet physical activity guidelines	77.0	19.6*	25.5	33.3	37.1

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

Self-rated physical activity

This measure was produced by asking ACTGHS respondents to rate how physically active they usually are using a five-point scale from "not active at all" to "very active".

In 2021, 13.2% of adults aged 18 years or older described themselves as very active while a further 27.2% described themselves as active (Table 18). By comparison, 33.5% of children aged 5–17 years described themselves as very active and 32.7% described themselves as active.

In general, child respondents reported higher levels of physical activity than adults. Among children aged 5–17 years, males were significantly more likely than females to report being very active.

Table 18. Self-rated physical activity by sex, ACT, 2021

	С	Children (5–17)			Adults (18+)			
	Male	Female	Persons	Male	Female	Persons		
			per o	cent				
Very active	40.7†‡	27.2†‡	33.5‡	15.3‡	11.4 [‡]	13.2‡		
Active	30.3	35.8‡	32.7	29.3	25.3‡	27.2		
Moderately active	20.7‡	27.8	25.1‡	33.2‡	32.9	33.1‡		
Not very active	(n.p)	6.7 [‡]	6.9 [‡]	19.8	24.8‡	22.2 [‡]		
Not at all active	(n.p)	2.6*	1.7*	2.5*	5.7	4.2		

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

[†]Estimate is significantly different from that for the equivalent population of the opposite sex.

[‡]Estimate is significantly different from that for the equivalent population of the other age in the table.

Table 19. Self-rated physical activity by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Very active	33.5	(n.p)	13.2	14.7	9.1*
Active	32.7	17.6*	29.4	24.1	32.0
Moderately active	25.1	29.3	34.0	34.0	31.6
Not very active	6.9	32.0	20.5	22.2	21.3
Not at all active	1.7*	(n.p)	2.8*	5.0	6.1*

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

Active travel

This measure estimates the proportion of Canberrans who walk or cycle to work or school, including those who only walk or cycle part of the way. In 2021, 12.1% of ACT adults aged 18 years or older and 36.0% of children aged 5–17 years reported that they usually walk or cycle to work or school (Table 20).

Among both males and females, significantly more children reported using active travel. Within the adult age groups, younger people were more likely than older people to use active travel to get to school/work, with significantly more Canberrans aged 18–24 years using active travel than those aged 25–44 years or 45–64 years (Table 21).

Table 20. Active travel by sex, ACT, 2021

	Children (5–17)				Adults (18+)		
	Male	Female	Persons	Male	Female	Persons	
	per cent						
Usually walks or cycles to school/work	39.7‡	31.0‡	36.0‡	12.6‡	11.6‡	12.1 [‡]	
Does not usually walk or cycle to school/work	60.3‡	69.0‡	64.0‡	87.4 [‡]	88.4‡	87.9 [‡]	

^{*}Estimate is significantly different from that for the equivalent population of the other age in the table.

Table 21. Active travel by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Usually walks or cycles to school/work	36.0	28.1	12.0	11.7	(n.p)
Does not usually walk or cycle to school/work	64.0	71.9	88.0	88.3	(n.p)

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

Sedentary behaviour

This measure assesses how ACT adults spend a usual working day. For people who do not work, this refers to what they consider a usual day. In 2021, 64.8% of adults aged 18 years or older reported sitting for most of a usual day, compared to 15.6% who reported standing and 19.6% who reported

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

walking or doing heavy labour (Table 22). The finding that a majority of respondents spend a usual work day mostly sitting was consistent across age groups.

Table 22. Sedentary behaviour by age and sex, adults (18+ years), ACT, 2021

	Age				Sex		
	18–24	25–44	45–64	65+	Male	Female	Persons
				per cent			
Spends usual work day mostly sitting	64.0	63.9	68.7	60.4	63.8	65.5	64.8
Spends usual work day mostly standing	17.7*	14.2	14.9	19.3	13.6	17.7	15.6
Spends usual work day mostly walking or doing heavy labour	18.2*	21.8	16.4	20.2	22.6	16.8	19.6

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

3.3.5 Sleep

This measure assesses the proportion of Canberrans who meet the sleep recommendations of the Sleep Health Foundation on a usual night. The Sleep Health Foundation recommends 10–13 hours of sleep for 5 year olds, 9–11 hours for 6–13 year olds, 8–10 hours for 14–17 year olds, 7–9 hours for 18–64 year olds and 7–8 hours for people aged 65 years and over. In 2021, 63.7% of adults aged 18 years or older and 76.1% of children aged 5–17 years met the sleep recommendation on a usual night (Table 23).

These results indicate that over one-fifth of ACT children and one-third of ACT adults do not meet the sleep guidelines. Among adults, the youngest (18–24 year olds) and oldest (65 years and older) age groups were the least likely to meet sleep guidelines (55.1% and 52.9% respectively) (Table 24).

Table 23. Meeting sleep guidelines by sex, ACT, 2021

	Children (5–17)			Adults (18+)				
	Male	Female	Persons	Male	Female	Persons		
		per cent						
Meets sleep guidelines	76.7‡	75.5‡	76.1‡	64.3‡	63.2‡	63.7‡		
Does not meet sleep guidelines	23.3‡	24.5‡	23.9‡	35.7‡	36.8‡	36.3 [‡]		

[‡]Estimate is significantly different from that for the equivalent population of the other age in the table.

Table 24. Meeting sleep guidelines by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Meets sleep guidelines	76.1	55.1	68.0	66.5	52.9
Does not meet sleep guidelines	23.9	44.9	32.0	33.5	47.1

3.3.6 Alcohol consumption

This measure assesses alcohol consumption habits within the adult population of the ACT. The National Health and Medical Research Council 2020 alcohol guideline for adults recommends drinking no more than 10 standard drinks a week and no more than four standard drinks on any one day to reduce the risk of harm from alcohol-related disease or injury.⁶

In 2021, 19.7% of adults aged 18 years or older reported that they did not drink alcohol (Table 25). Including these non-drinkers, 79.9% of adults aged 18 years or older reported that they met the 2020 alcohol guidelines, while 29.2% reported having consumed more than four standard drinks on one occasion in the past 4 weeks.

Females were significantly more likely than males to be non-drinkers and significantly less likely to be risky drinkers. Those aged 65 years and over were significantly more likely than those aged 18–24 years or 25–44 years to meet the National Health and Medical Research Council 2020 alcohol guideline.

Table 25. Alcohol consumption by age and sex, adults (18+ years), ACT, 2021

		Ą	ge	Sex			
	18–24	25–44	45–64	65+	Male	Female	Persons
				per cent			
Doesn't drink alcohol	20.1*	18.1	17.7	26.9	15.2 [†]	24.0 [†]	19.7
Consumed more than four standard drinks on one occasion in the past four weeks	41.2	34.9	26.3	12.2	38.3 [†]	20.0 [†]	29.2
Meets 2020 alcohol guideline	66.1	77.9	82.0	89.0	70.6 [†]	88.7 [†]	79.9

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

3.3.7 Smoking and e-cigarettes

Tobacco smoking

This measure assesses the prevalence of tobacco smoking in the ACT. In 2021, 10.3% of ACT adults aged 18 years or older were daily or occasional smokers, while 39.0% were ex smokers or had tried smoking but never smoked regularly (Table 26). In contrast, 50.7% of the ACT adult population reported they had never smoked. Of ACT adults who smoked regularly, the average daily number of cigarettes smoked was 8.2.

The finding that approximately half of adult Canberrans have never smoked was observed to remain relatively consistent across age groups and sexes.

Table 26. Smoking status by age and sex, adults (18+ years), ACT, 2021

	Age				Sex				
	18–24	25–44	45–64	65+	Male	Female	Persons		
	per cent								
Daily or occasional smoker	(n.p)	12.6	13.5	(n.p)	12.3	8.5	10.3		

[†]Estimate is significantly different from that for the equivalent population of the opposite sex.

Table 26 (cont). Smoking status by age and sex, adults (18+ years), ACT, 2021

	Age				Sex		
	18–24	25–44	45–64	65+	Male	Female	Persons
				per cent			
Ex smoker or tried it but never smoked regularly	48.4	35.7	37.0	(n.p)	39.6	38.1	39.0
Never smoked	(n.p)	51.7	49.5	51.6	48.1	53.3	50.7

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

E-cigarette use

Electronic cigarettes (e-cigarettes or personal vaporisers) are products that create aerosols containing flavouring agents that are inhaled. They simulate the act of tobacco smoking and are becoming increasingly popular.⁷ This measure assesses the prevalence of e-cigarette usage in the ACT.

In 2021, 6.2% of adults aged 16 years or older were daily or occasional e-cigarette users and a further 9.5% had used e-cigarettes in the past (Table 27). In contrast, 84.4% of the ACT population aged 16 years and over had never used e-cigarettes.

Prevalence of e-cigarette use decreases as age increases, with 16–24 year olds and 25–44 year olds significantly more likely than the older age groups to have used e-cigarettes.

Table 27. E-cigarette usage status by age and sex, adults (16+ years), ACT, 2021

	Age				Sex		
	16–24	25–44	45–64	65+	Male	Female	Persons
				per cent			
Daily or occasional e-cigarette user	18.8*	7.7	(n.p)	(n.p)	8.1	3.8*	6.2
Ex e-cigarette user or tried it but never used regularly	24.6	11.9	(n.p)	(n.p)	10.4	8.5	9.5
Never used e-cigarettes	56.6	80.4	92.8	97.7	81.5	87.7	84.4

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

3.4 Mental health and wellbeing

3.4.1 Mental health conditions

This measure gives the proportion of ACT residents diagnosed with various mental health conditions in the previous 12 months. The condition can be diagnosed for the first time or be an ongoing condition. In 2021, 27.6% of adults aged 18 years or older and 20.6% of children aged 5–17 years reported that they had been diagnosed with any mental health condition in the previous 12 months (Table 28). This "any mental health condition" measure includes respondents with a single diagnosed mental health condition and those with multiple conditions.

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

A total of 17.8% of adults and 16.8% of children reported they had been diagnosed with anxiety in 2021. Additionally, 16.3% of adults and 6.0% of children reported they had been diagnosed with depression, while 16.9% of adults and 8.9% of children reported they had been diagnosed with a stress-related problem. Of those who had been diagnosed with a mental health condition in the last 12 months, 70.5% of adults and 66.8% of children were currently receiving treatment.

The results indicate that over a quarter of ACT adults and 1 in 5 ACT children had a diagnosed mental health condition at some time in the 12 months preceding the survey. While the prevalence of reported mental illness among children was not significantly different between males and females, among adults, females were significantly more likely than males to report a mental health diagnosis. Female adults were also significantly more likely than male adults to report having been diagnosed with certain specific mental health conditions such as anxiety, depression and stress-related problems.

While female children were significantly less likely than female adults to report having been diagnosed with a mental health condition, males reported similar rates of mental health conditions in the child and adult age groups. Within the adult age groups, respondents in the younger 18–24 year and 25–44 year age groups were significantly more likely to report having been diagnosed with a mental health condition than older respondents aged 65 years and over (Table 29). Notably, the 18–24 year age group, the age group with the highest prevalence of mental health conditions, had the lowest proportion of respondents receiving treatment.

Table 28. Diagnosed mental health conditions by sex, ACT, 2021

	Children (5–17)			Adults (18+)		
	Male	Female	Persons	Male	Female	Persons
			per o	cent		
Any mental health condition	19.1	20.5‡	20.6‡	18.5 [†]	36.1 ^{†‡}	27.6‡
Anxiety	14.9	17.0	16.8	11.9 [†]	23.2 [†]	17.8
Depression	3.4‡	6.7*‡	6.0‡	11.1#	21.3†‡	16.3‡
A stress-related problem	7.0	10.9‡	8.9 [‡]	11.0 [†]	22.5 ^{†‡}	16.9‡
Another mental health condition	8.1	8.0	8.9	5.0	7.4	6.3
Currently receiving treatment - of those who have a mental health condition	70.1	60.0	66.8	68.8	70.8	70.5

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

Table 29. Diagnosed mental health conditions by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Any mental health condition	20.6	43.2	29.2	27.7	14.4
Anxiety	16.8	30.7	19.7	16.0	8.4*

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

[†]Estimate is significantly different from that for the equivalent population of the opposite sex.

[‡]Estimate is significantly different from that for the equivalent population of the other age in the table.

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

Table 29 (cont). Diagnosed mental health conditions by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
Depression	6.0	28.5	17.1	16.3	7.2*
A stress-related problem	8.9	22.0	17.5	18.3	10.3*
Another mental health condition	8.9	(n.p)	7.5	5.4	(n.p)
Currently receiving treatment - of those who have a mental health condition	66.8	51.0	72.5	78.8	73.4

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

3.4.2 Psychological distress

For adults, the Kessler 6 (K6) scale was developed to discriminate cases of serious mental illness from non-cases. It uses a five-level response scale to determine how often respondents report feeling nervous; hopeless; restless or fidgety; that everything was an effort; so sad that nothing could cheer them up; and worthless in the past four weeks.

This measure assesses the proportion of ACT residents with a K6 score that indicates serious probable mental illness. Results from the 2021 ACTGHS show that 5.5% of ACT adults aged 18 years or older may have been experiencing serious mental illness at the time the survey was conducted (Table 30).

Table 30. Psychological distress by age and sex, adults (18+ years), ACT, 2021

	Age				Sex		
	18–24	25–44	45–64	65+	Male	Female	Persons
				per cent			
K6 score indicates probable serious mental illness	(n.p)	5.1	5.5	(n.p)	5.3	5.6	5.5
K6 score does not indicate probable serious mental illness	(n.p)	94.9	94.5	(n.p)	94.7	94.4	94.5

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

3.4.3 Life satisfaction

This measure is a subjective assessment of the life satisfaction of ACT residents. Using a scale from zero to 10, respondents are asked to rate how satisfied they are with their life as a whole, with zero being completely dissatisfied and 10 completely satisfied.

In 2021, the average life satisfaction score for ACT adults was 7.7 (Table 31). Among respondents, life satisfaction appeared to increase with age, with significantly higher self-reported life satisfaction in the 65 years and older age group than in the 18–24 year age group.

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

Table 31. Life satisfaction by age and sex, adults (18+ years), ACT, 2021

	Age				Sex		
	18–24	25–44	45–64	65+	Male	Female	Persons
				mean			
Life satisfaction	7.1	7.7	7.7	7.9	7.8	7.6	7.7

3.4.4 Meals together as a family

This measure is produced by asking respondents how often they have eaten meals together as a family in the past week. As this measure is a proxy for family connectedness, responses from people living alone are excluded from the analysis.

In 2021, 64.3% of adults aged 18 years or older reported having eaten a meal together as a family every day in the last week, compared to 65.6% of children aged 5–17 years (Table 32). In contrast, 6.1% of adults aged 18 years or older reported not having eaten a meal together as a family on any day in the last week, compared to 3.4% of children aged 5–17 years.

The results show that the majority of adults and children in the ACT eat a meal as a family every day in a typical week. However, this result was not observed to extend to all age groups, with less than one-third of respondents aged 18–24 years reporting having eaten a meal with their family every day in the past week (Table 33). This result is significantly lower than that of any other age group and is considerably lower than the 83.8% estimate found for the 65 years and older age group, which was significantly higher than any of the other adult age groups.

Table 32. Meals together as a family by sex, ACT, 2021

	Children (5–17)			Adults (18 [.]	8+)	
	Male	Female	Persons	Male	Female	Persons
		per cent				
0 days	3.0*‡	3.8*	3.4*	7.5‡	4.8	6.1
1-3 days	10.1	8.7	9.3	12.5	11.5	12.2
4-6 days	19.0	24.8‡	21.7	20.2	14.6‡	17.3
Every day	67.8	62.7	65.6	59.8	69.0	64.3

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

Table 33. Meals together as a family by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
0 days	3.4*	17.6*	5.6	4.0	(n.p)
1-3 days	9.3	22.7*	10.9	14.2	(n.p)

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

[‡]Estimate is significantly different from that for the equivalent population of the other age in the table.

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

Table 33 (cont). Meals together as a family by age, ACT, 2021

	5–17	18–24	25–44	45–64	65+
			per cent		
4-6 days	21.7	32.5	18.8	16.7	(n.p)
Every day	65.6	27.3	64.6	65.1	83.8

⁽n.p) Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

3.4.5 Social connectedness in children

These measures assess the social wellbeing of children aged 5–17 years in the ACT. In 2021, 85.4% of children reported that there were safe places in the neighbourhood where they felt comfortable hanging out with friends and 93.4% reported that they had adults other than their parent or carer whom they could rely on for advice (Table 34).

Additionally, 68.7% of children aged 5–17 years reported participating in after school or weekend programs like sports, art, dance, music classes and other clubs and activities, while 94.2% reporting having a group of friends to play or hang out with.

Table 34. Social connectedness by sex, children (5-17 years), ACT, 2021

	Male	Female	Persons
		per cent	
Participates in local after school/weekend programs	66.2	72.6	68.7
Has a group of friends to play or hang around with	93.0	95.2	94.2
Has adults other than parent/carer they can rely on for advice	92.5	94.1	93.4
Has access to safe places in the neighbourhood	85.6	85.3	85.4

3.4.6 School participation

This measure assesses the attitudes of ACT children towards school. In 2021, 36.2% of children aged 5–17 years reported looking forward to school every day while 4.4% reported never looking forward to school (Table 35).

While male children were slightly less likely than female children to report looking forward to school every day, this difference was not statistically significant.

Table 35. School participation by sex, children (5-17 years), ACT, 2021

	Male	Female per cent	Persons
Looks forward to school every day	32.9	40.1	36.2
Looks forward to school most days	47.1	42.9	44.5
Looks forward to school some days	15.4	12.7	14.9

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

Table 35 (cont). School participation by sex, children (5-17 years), ACT, 2021

	Male	Female per cent	Persons
Never looks forward to school	4.6	4.2*	4.4

^{*}Estimate has a relative standard error of 25% to 50% and should be used with caution.

4 Methodology

4.1 Data collection

4.1.1 Sample design

The ACTGHS is implemented using Computer Assisted Telephone Interviewing (CATI). In 2021, the survey sample frame comprised a 100% mobile phone sample from two sources: listed mobile numbers and a selection of pre-screened - using random digit dialling (RDD) - mobile numbers. The target sample size was 1,200 adult interviews and 1,000 child interviews. See Appendix B for more information on sample design, details of the in-scope population and the characteristics of the sample.

4.1.2 Weighting

To ensure that survey estimates were representative of the ACT population, design weights were adjusted to match external benchmarks for key demographic parameters likely to be correlated with survey outcomes or with the likelihood of responses. Two weights were created for the 2021 ACTGHS based on the following parameters:

- An adult weight, which adjusts adult respondents aged 16 years and over for age by gender, age
 by education, birthplace, number of adults in the household and SA3 (see Appendix B: Table 39);
 and
- A child weight, which adjusts child respondents for age, gender, number of children in the household and SA3 (See Appendix B: Table 40).

4.2 Reporting procedures

4.2.1 Don't know and refused values

For reporting, survey responses classified as "Don't know" and "Refused" were coded to missing and not included in the analysis. The exception to this is "Refused" sex responses, which were coded to "Other" (refer to the "Other" sex category section below).

4.2.2 "Other" sex category

In 2021, four categories for sex were included (male, female, non-binary and something different). Due to small numbers in the non-binary and something different categories, responses for these two categories were combined with refused into an "other" category (refer to the Small sample size section). While the results for the "other" category are not included in this report, all categories were included in total persons estimates. As such, the sum of male and female estimates (where reported) may not match the persons estimate.

4.2.3 Age groups

The following age groups were used for reporting: 5–17 years, 18 years and over, 18–24 years, 25–44 years, 45–64 years and 65 years and older. These age groups were chosen as they are in line with the Medical Subject Headings (MeSH) meaningful age groups and there is sufficient sample size in each subgroup.

4.2.4 Reliability of results

A confidence interval expresses the extent of potential variation in the point estimate. This variation is because the point estimate is based on a sample of the population rather than the entire population. The 95% confidence interval is an interval that would contain the true (population) value 95% of the time if you repeated the study. The narrower the confidence interval, the more precise the estimate.⁹

The accuracy of a survey estimate refers to the closeness of the estimate to the true population value. Where there is a discrepancy between the value of the survey estimate and the true population value, the difference between the two is referred to as the error of the survey estimate. The standard error is a measure of the spread of survey estimates around the true population value, while the relative standard error (RSE) is a useful metric for expressing the magnitude of the error of the survey estimate. The RSE indicates the size of the standard error as a percentage of the estimate and can be calculated as follows:

$$RSE = rac{SE}{estimate} \cdot 100$$

where SE is the standard error of the estimate.

Only estimates with an RSE of less than or equal to 25% are considered sufficiently reliable for most analytical purposes. Estimates with an RSE greater than 25% and less than or equal to 50% are less reliable and should be used with caution. Estimates with an RSE greater than 50% are considered unreliable and were not published in this report.

If an estimate has an RSE greater than 25%, it is marked with an asterisk (*) with the following commentary:

Estimate has a relative standard error of 25% to 50% and should be used with caution.

If an estimate has an RSE greater than 50% it will be marked (np) with the following commentary:

Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

4.2.5 Small sample size

Estimates with a sample less than 10 are withheld from reporting. A second estimate is also withheld where this is necessary to avoid calculation of the withheld figure. The second group to be withheld will be that with an RSE >25 %, or if there is no group with an RSE >25%, the group that has the lowest estimate for the measure is withheld.

If an estimate is withheld due to small sample size or to prevent calculation of a withheld figure, it will be marked (np) with the following commentary:

Estimate not published due to relative standard error greater than 50%, small numbers or confidentiality.

4.2.6 Statistical significance

In this report, non-overlapping confidence intervals were used as a measure of the statistical significance of the difference between two estimates. The use of this conservative method may result in marginally significantly different estimates being classified as not statistically significant. When comparisons are made in this report, only in cases where it is explicitly indicated that a significant difference exists should it be assumed that the difference described is statistically significant.

4.2.7 Extreme values

Some indicators may contain extreme values. These values have not been truncated because:

- Results were categorical or binary in nature and so these extreme values did not affect the estimate; and
- Where averages were reported, excluding the extreme values did not make a significant difference to the estimates.

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7 References

- 1. Cole TJ, Lobstein T. Extended international (IOTF) body mass index cut-offs for thinness, overweight and obesity. Pediatr Obes. 2012; 7(4):284–294. https://doi.org/10.1111/j.2047-6310.2012.00064.x)↔
- 2. Australian Bureau of Statistics. National Health Survey: Users' Guide, 2017–18 [Internet]. Canberra ACT: Australian Bureau of Statistics; 2019. Catalogue no. 4363.0. Available from: https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4363.0~2017-18~Main%20Features~Body%20mass%20and%20physical%20measurements~45 (https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/4363.0~2017-18~Main%20Features~Body%20mass%20and%20physical%20measurements~45)↔
- 3. National Health and Medical Research Council. Eat for Health, Australian Dietary Guidelines [Internet]. Canberra ACT: Department of Health; 2013. 226 p. ISBN: 1864965746. Available from: https://www.eatforhealth.gov.au/sites/default/files/content/n55_australian_dietary_guidelines.pdf (https://www.eatforhealth.gov.au/sites/default/files/content/n55_australian_dietary_guidelines.pdf)↔
- 4. Department of Health. Physical activity and exercise guidelines for all Australians [Internet]. Canberra ACT; Department of Health [updated 2021 7 May]. Available from: https://www.health.gov.au/health-topics/physical-activity-and-exercise/physical-activity-and-exercise-guidelines-for-all-australians?utm_source=health.gov.au&utm_medium=callout-auto-custom&utm_campaign=digital_transformation (https://www.health.gov.au/health-topics/physical-activity-and-exercise-guidelines-for-all-australians?utm_source=health.gov.au&utm_medium=callout-auto-custom&utm_campaign=digital_transformation)↔
- 5. Sleep Health Foundation. How much sleep do you really need? [Internet]. North Strathfield NSW: Sleep Health Foundation; 2011. Available from: https://www.sleephealthfoundation.org.au/how-much-sleep-do-you-really-need.html (https://www.sleephealthfoundation.org.au/how-much-sleep-do-you-really-need.html)↔
- 6. National Health and Medical Research Council. Australian Guidelines to Reduce Health Risks from Drinking Alcohol [Internet]. Canberra ACT: Commonwealth of Australia; 2020. 106 p. Publication number: DS14. Available from: https://www.nhmrc.gov.au/health-advice/alcohol (https://www.nhmrc.gov.au/health-advice/alcohol)↔
- 7. Australian Institute of Health and Welfare 2020. National Drug Strategy Household Survey 2019. Drug Statistics series no. 32. PHE 270. Canberra AIHW. https://doi.org/10.25816/e42p-a447 (https://doi.org/10.25816/e42p-a447)↔
- 8. Australian Bureau of Statistics. Information paper: Use of the Kessler psychological distress scale in ABS health surveys, Australia, 2007–08 [Internet]. Canberra ACT: Australian Bureau of Statistics; 2012. Catalogue no. 4817.0.55.001. Available from: https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4817.0.55.001Chapter92007-08 (https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4817.0.55.001Chapter92007-08) ↔
- 9. Australian Bureau of Statistics. Errors in statistical data [Internet]. Canberra ACT: Australian Bureau of Statistics; 2018. Available from: https://www.abs.gov.au/websitedbs/d3310114.nsf/home/Basic+Survey+Design+-

- +Errors+in+Statistical+Data (https://www.abs.gov.au/websitedbs/d3310114.nsf/home/Basic+Survey+Design++Errors+in+Statistical+Data)←
- 10. Josse J, Husson F. missMDA: A package for handling missing values in multivariate data analysis. J. Stat. Softw. 2016; 70(1):1–31. https://doi.org/10.18637/jss.v070.i01 (https://doi.org/10.18637/jss.v070.i01)↔

8 Appendix A - 2021 ACTGHS Questionnaire

For more information about the ACT General Health Survey (ACTGHS) and the 2021 survey questionnaire please visit the Epidemiology Section's Data Collection Page: https://www.health.act.gov.au/about-our-health-system/data-and-publications/healthstats/data-collections (https://www.health.act.gov.au/about-our-health-system/data-and-publications/healthstats/data-collections)

9 Appendix B – Methodology

9.1 Sample design

It is not possible to append geographic identifiers to randomly generated (RDD) mobile numbers. Listed mobile numbers are sourced from a composite phone database built by contributors from different organisations, including charities, telemarketing companies and other business entities. In this sense they are not random like RDD mobile numbers. The benefits of using listed numbers, however, is that the billing address of the owner is known, so selections can be undertaken based on geography (in this case, the ACT). A commercial provider provided the listed mobile sample, which is updated monthly. The listed mobile frame increases coverage. For this reason, the ACTGHS primarily uses listed numbers with a small proportion of pre-screened RDD mobile numbers tagged as belong to ACT residents from the NSW Population Health Survey.

The sample design also involved setting targets proportionate to the population, with seven geographical areas based on SA3 regions. The SA3 targets were used to ensure adequate coverage across the regions in the ACT and has been standard practice for all ACTGHS projects since 2018.

9.2 In-scope population

In 2020 the ACTGHS had two discrete in-scope populations:

- Adults (target n=1,200): Non-institutionalised ACT residents, aged 16 years or over who provided information about their own health and;
- Children (target n=1,000): For children aged 5–15 years, interviews were conducted with an ACT adult resident or carer who knew the most about the child's health. These individuals provided information about the selected child after the child had been selected at an initial screening, or from an adult interview where children were present in the household.

To achieve the target of n=1,000 child interviews, the ACTGHS was conducted via two separate surveys; the main survey, which included adults and children, and the child booster survey which included children via proxy only (Table 36 for sample size and response rate). The main survey was conducted from 04 October 2021 until 28 November 2021 and the child booster survey was conducted from 18 October 2021 until 28 October 2021.

Table 36. Response rate by sample frame and survey component, ACTGHS, 2021

Survey	Listed Mobile	RDD Mobile	Total
Main survey			
Interviews completed	1083	276	1359
Response rate	39.8%	53.3%	41.7%
Child booster survey			
Interviews completed	841	0	841
Response rate	34.9%	N/A	34.9%

9.3 Characteristics of the sample

The following tables present the adult profile (Table 37) and child profile (Table 38) of the sample.

Table 37. Unweighted adult profile by sample type, ACTGHS, 2021

Table 37. Unweighted adult profile by sample type, ACTGHS, 2			
Characteristics	Listed Mobile	RDD Mobile	Total
		per cent	
Sex			
Male	43.4	48.3	44.4
Female	56.1	51.7	55.3
Age			
16–17 years	0.4	0.8	0.5
18–24 years	4.3	10.8	5.6
25–34 years	17.1	20.0	17.7
35–44 years	22.4	22.9	22.5
45–54 years	21.3	16.3	20.3
55–64 years	18.9	13.8	17.8
65+ years	15.7	15.4	15.7
Marital status			
Married	65.7	53.4	63.2
Widowed	3.2	2.5	3.1
Separated	4.1	3.8	4.0
Divorced	7.8	8.4	8.0
Never married	18.4	31.5	21.0
Born in Australia			
Yes	72.6	70.8	72.3
Language other than English			
Yes	15.4	17.1	15.8
Aboriginal and/or Torres Strait Islander			

Table 37 (cont). Unweighted adult profile by sample type, ACTGHS, 2021

Characteristics	Listed Mobile	RDD Mobile	Total
		per cent	
Yes	2.5	1.3	2.3
Highest qualification			
University	57.2	53.8	56.5
TAFE certificate or diploma	27.0	27.5	27.1
Completed year 12	9.4	12.5	10.0
Completed year 10	4.1	3.8	4.0
Completed years 7–9	0.8	0.8	8.0
Completed primary school	0.1	0.0	0.1
Other	0.1	0.4	0.2
Current employment status			
Self-employed	8.3	5.8	7.8
Employed	66.6	65.4	66.3
Unemployed	1.4	1.7	1.4
Engaged in home duties	1.3	1.3	1.3
A student	1.8	4.6	2.3
Retired	18.1	18.3	18.2
Unable to work	2.2	2.1	2.2
Other	0.2	0.0	0.2
Affluence			
We are spending more money than we get	1.8	1.3	1.7
We have just enough money to get through to the next pay day	9.0	9.2	9.0
There's some money left over each week but we just spend it	4.7	5.9	4.9
We can save a bit every now and then	43.8	42.0	43.5
We can save a lot	36.1	35.3	35.9

Table 38. Unweighted child profile by sample type, ACTGHS, 2021

Characteristics	RDD Mobile
	per cent
Sex	
Male	55.2
Female	43.7
Age	
5–9 years	44.0
10–15 years	56.0

Table 38 (cont). Unweighted child profile by sample type, ACTGHS, 2021

Characteristics	RDD Mobile
	per cent
Born in Australia	
Yes	91.9
Language other than English	
Yes	16.5
Aboriginal and/or Torres Strait Islander	
Yes	2.8

9.4 Weighting

The method used to adjust the design weights was generalised regression (GREG) weighting, which uses non-linear optimisation to minimise the distance between the design and adjusted weight, subject to the weights meeting the benchmarks.

The regression weighting approach requires that there are no missing values across the adjustment variables or values other than those for which there are reliable benchmarks. Like most surveys however, some survey respondents did not provide responses to the questions required for weighting.

A statistical model was applied to each item with missing values to impute the most likely value for a respondent, conditional upon their other responses.¹⁰ Given the low prevalence of missing values overall, the imputation process is expected to have a negligible impact on weighted estimates made from the dataset.

Table 39. Adult population benchmarks used for adjustment, ACTGHS, 2021

Characteristic	n	per cent
Age group by sex ^a		
16–34 years female	61,338	17.8
16–34 years male	60,180	17.5
35–44 years female	32,852	9.6
35–44 years male	32,627	9.5
45–54 years female	27,605	8.0
45–54 years male	27,073	7.9
55–64 years female	23,122	6.7
55–64 years males	21,360	6.2
65–74 years female	17,793	5.2
65–74 years male	15,999	4.6
75+ years female	13,489	3.9

^aABS Census 2016 with ERP June 2021 updates

bNational Health Survey, 2017-18

[°]Census 2016

Table 39 (cont). Adult population benchmarks used for adjustment, ACTGHS, 2021

Characteristic	n	per cent
75 + years male	10,570	3.1
Age group by highest qualification ^a		
16–34 years bachelor or higher	44,939	13.1
16–34 years below bachelor	76,579	22.3
35–44 years bachelor or higher	34,762	10.1
35–44 years below bachelor	30,717	8.9
45–54 years bachelor or higher	24,579	7.1
45–54 years below bachelor	30,099	8.8
55–64 years bachelor or higher	19,005	5.5
55–64 years below bachelor	25,477	7.4
65–74 years bachelor or higher	12,399	3.6
65–74 years below bachelor	21,393	6.2
75+ years bachelor or higher	6,143	1.8
75+ years below bachelor	17,916	5.2
Country of birth (collapsed) ^a		
Australia	230,841	67.1
Other English-speaking country	29,035	8.4
Non English-speaking country	84,132	24.5
Number of adults ^b		
One adult	51,079	14.8
Two adults	196,744	57.2
Three adults	50,759	14.8
Four or more adults	45,427	13.2
SA3 (collapsed) ^c		
Belconnen	83,461	24.3
Gungahlin	57,097	16.6
North Canberra	49,344	14.3
South Canberra/Canberra East	26,298	7.6
Tuggeranong	72,900	21.2
Weston Creek/Molonglo/Uriarra-Namadgi	24,141	7.0
Woden Valley	30,767	8.9

^aABS Census 2016 with ERP June 2021 updates

^bNational Health Survey, 2017–18

cCensus 2016

Table 40. Child population benchmarks used for adjustment, ACTGHS, 2021

Characteristic	n	per cent
Sexa		
Female	28,634	48.2
Male	30,820	51.8
Age group ^a		
5–10 years	34,460	58.0
11–15 years	24,994	42.0
Number of children ^b		
One child	10,164	17.1
Two children	32,164	54.1
Three or more children	17,126	28.8
SA3 (collapsed) ^c		
Belconnen	14,141	23.8
Gungahlin	12,869	21.6
North Canberra	5,304	8.9
South Canberra/Canberra East	3,469	5.8
Tuggeranong	13,703	23.1
Weston Creek/Molonglo/Uriarra-Namadgi	4,611	7.8
Woden Valley	5,359	9.0

^aABS Census 2016 with ERP June 2021 updates

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^bNational Health Survey, 2017–18

[°]Census 2016