ACT Government

ACT Physical Activity and Nutrition Survey of Year 6 Students

Trend Report 2006–2021

Epidemiology Section

Health and Community Services Directorate

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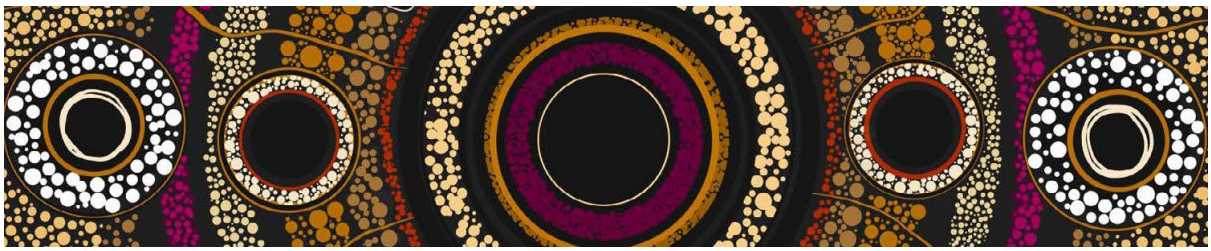
Acknowledgment of Country

We acknowledge the Ngunnawal people as traditional custodians of the ACT and recognise 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.



Our Health Journey artwork by Lynnice Church, Ngunnawal, Wiradjuri and Kamilaroi, 2020.

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Summary

The ACT Physical Activity and Nutrition Survey (ACTPANS) provides insights into the health, nutrition, physical activity, and wellbeing of Year 6 students in the ACT. This report presents trends and significant changes from six survey cycles conducted between 2006 and 2021.

Key Trends and Significant Changes between 2006 and 2021

Health and Wellbeing

- Fewer students are rating their health as **excellent, decreasing** from **32% of students in 2006 to 18% in 2021**, while those rating their health as **fair or poor increased from 17% to 26%**.
- The proportion of students reporting a high sense of **self-worth fell from 82% to 65%**, while students who reported a lower sense of self-worth increased from 4% to 12%. Males were more likely than females to record a high sense of self-worth in most years.

Weight Status

- The **proportion of students in each BMI category** (**underweight** (6.2%–8.2%)**, healthy weight (**67.4%–72.7%)**, overweight** (15.2%–20.8%**), obese** (3.9%–5.2%)) **remained stable** overall, with about two-thirds of students falling within the healthy weight range and up to one-quarter in the combined overweight and obese category.
- Students' **perceptions of** their **weight shifted: fewer** students **considered themselves "about the right weight"** (2006: 57%; 2021:46%) while **more considered themselves as "slightly overweight"** (2006:17%; 2021:26%). Males were more likely to consider themselves underweight/slightly underweight, while females were more likely to consider themselves as slightly overweight.
- The proportion of students who were **satisfied with** their **body weight decreased from 69% to 53% between 2006 and 2021.** Males were more likely to be satisfied with their body weight compared to females in most years.

Nutrition

- **Vegetable intake declined overall**, with significant decreases seen in 2015 and 2021. Fewer students met the guideline of 5 or more serves of vegetables per day, decreasing from **14% in 2009 to 5% in 2021**.
- **Fruit intake remained stable**, with 78% to 84% of students meeting the guideline of 2 or more serves of fruit per day over the 2006–2021 period. Students' consumption of **grain** foods (breads, pasta, rice, noodles) **and dairy** foods (milk, cheese, yoghurt, custard) at least weekly **remained stable** between 2006 and 2021, with at least 70% of students consuming grain foods and at least 60% consuming dairy foods.
- Students' consumption of **fish** at least weekly **declined significantly** from 37% in 2006 to 27% in 2021, while consumption of other meats remained stable (75% to 79% of students for red meat and 63% to 69% of students for poultry).

- Students' **consumption of a range of discretionary foods** including **energy/fruit bars** (64% in 2006 to 47% in 2021), **cakes and pastries** (49% to 33%), **ice cream/icy poles** (54% to 42%), and **pies/sausage rolls** (35% to 24%) at least weekly **declined** between 2006 and 2021.
- Students' consumption of **salty snacks** (58% to 66%) **and processed meats** (40% to 55%) at least weekly **increased** between 2006 and 2021. However, consumption of fried potato varieties (40% to 42%), confectionery (56% to 57%), and fast food (23% to 25%) remained unchanged.
- **Students' consumption of most drinks** (milk, water, sports drinks, energy drinks, diet drinks, flavoured water) at least weekly **remained stable, except** for **soft drinks** (46% to 34%) and **fruit juice (83% to 50%), which both declined** between 2006 and 2021.

Food Attitudes and Behaviours

- Students' perceptions of the health benefits of consuming fruit and vegetables remained stable overall. **Most students believed that eating fruit** (82% in 2006 to 91% in 2021) **and vegetables** (78% to 87% of students) **made them feel healthy**.
- **Fewer students enjoyed eating vegetables**, dropping from 67% of students in 2006 to 53% in 2021, although the **enjoyment of eating fruit remained high** (88% to 92% of students).
- Student **access to fruit at home remained high and stable**, with 92% to 96% of students between 2006 and 2021 reporting that they always or often had access to fruit.
- **Fewer** students indicated that their **families always or often served vegetables with dinner,** decreasing from 93% of students in 2006 to 83% in 2021.
- The proportion of students who **preferred soft drink over water or milk halved**, dropping from almost a quarter (24%) to an eighth (12%) between 2006 and 2021.
- The proportion of **students who rarely or never had access to soft drinks at home remained stable overall**, with the 2021 level (58%) almost the same as in 2006 (59%).
- **The influence of TV advertising on students' soft drink choices declined** from 13% of students agreeing or strongly agreeing that advertising influenced their choice in 2006 to just 7% in 2021.
- Students' fast-food beliefs and practices remained stable overall despite variations in some intervening years. This included those who indicated that taste was a driver for their consumption of fast food (49% to 58% of students), who visited fast food outlets with family (55% to 62% of students) and who were influenced by TV advertising in their choice of fast-food outlets (7% to 9% of students). However, the practice of **upsizing** their **meals at fast food outlets decreased** from 22% in 2006 to 12% in 2021.
- Over half of students reported that they usually help with **family meal preparation,** although this has **dropped** from 64% of students in 2006 to 53% in 2021.
- The proportion of students **eating dinner in front of the TV on school nights declined** from 30% of students in 2006 to 21% to 2021, while **weekend patterns remained stable**.
- **More than 87% of students** in each survey **reported** that **a parent or carer regularly made sure they ate breakfast** before school, a consistent finding that has remained unchanged since 2006.

Physical Activity

- The proportion of students **meeting** the **60-minute daily physical activity guideline decreased** from **18% in 2006 to 11% in 2021**. Male students were more likely than female students to meet the guideline. The proportion of females meeting the guideline declined from 13% to 8%, while the proportion among males remained relatively stable.
- **Levels of parental role modelling and encouragement of students' physical activity remained stable**, with 81% to 86% of students agreeing that they were encouraged and 41% to 45% agreeing that their parents modelled high levels of physical activity.
- In all survey years just over half the participants used **active travel to** get to school at least once a week, while 43%–46% of students did not use active travel.

Screen Time

- A **smaller proportion of students are meeting** the recommended maximum **2-hour daily screen time guideline, particularly on weekends.** The proportion meeting the guideline fell from 44% to 36% on weekdays, and from 31% to 13% on weekends between 2006 and 2021.
- Females were more likely to meet screen time guidelines across the week compared to males in most years.

ACT Physical Activity and Nutrition Survey

The ACT Physical Activity and Nutrition Survey is a health and wellbeing survey of ACT Year 6 students. Children in Year 6 are at a key developmental stage prior to entering secondary school and at an age where self-reported responses to survey questions can be considered reliable. First implemented in 2006 as part of efforts taken nationally to better understand and address the steady rise in childhood overweight and obesity observed globally, including in Australia since the mid-1980s, the survey has been conducted every three years, with the most recent cycle completed in 2021.

The ACT Physical Activity and Nutrition Survey collects information about physical activity, nutrition, healthy weight status, attitudes and general wellbeing from a sample of approximately 1,500 ACT Year 6 students. In addition to administering the survey questionnaire, trained survey staff take height and weight measurements from all consenting students in a private setting. These measurements are not disclosed to participants and are recorded against a de-identified study ID, which enables linkage to survey responses while maintaining confidentiality.

The ACT Physical Activity and Nutrition Survey is one of the few ACT population health surveys that collects measured rather than parent- or self-reported height and weight data of survey respondents. Measured data maximises the accuracy and reliability of the data and minimises any information and measurement bias.

The ACT Physical Activity and Nutrition Survey has been approved by the ACT Health Human Research Ethics Committee, the ACT Government Education Directorate and Catholic Education (Archdiocese of Canberra and Goulburn). Participation in the survey is voluntary with students able to withdraw from the survey at any time.

Summary results from ACT Physical Activity and Nutrition surveys help inform policies, programs and services that promote and support the health and wellbeing of children in the ACT. The survey is one of several which are managed by the Epidemiology Section to better understand the health and wellbeing of the ACT community and inform decisions about priorities for public health and wellbeing plans. More information about the population health survey program is available at HealthStats ACT.

Notes

The *ACTPANS Trend Report 2006–2021* presents results from the 6 surveys implemented over the 15-year period from 2006 to 2021, specifically in: 2006, 2009, 2012, 2015, 2018 and 2021. Data collection for the next ACTPANS is currently underway, with results expected to be available in 2027.

Limitations

Unlike previous ACT Physical Activity and Nutrition surveys, which were completed within a single calendar year, the 2021 survey employed an extended data collection period spanning 2021–2022 due to COVID-19-related school disruptions. Collecting data across two years may capture temporal changes in student experiences, as well as seasonal or cohort effects. Additionally, pandemic-related factors could influence participation rates and response patterns, potentially affecting measurement consistency. These methodological differences should be kept in mind and results interpreted with caution when using data from 2021 or when comparing it with prior single-year surveys.

Findings of the ACT Physical Activity and Nutrition Survey are not directly comparable to the findings of other Health and Community Services Directorate survey data, such as the Year 7 Health Survey. This is due to differences in the population being sampled, and in the questions asked.

Technicalities

The following response options have been recoded during analyses for this report:

Response options	Recodes applied for this report
Excellent, good, fair and poor	Excellent, good and fair/poor
Strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree	Agree/strongly agree, neither agree nor disagree, and disagree/strongly disagree
Extremely happy, happy, neutral, unhappy, and extremely unhappy	Extremely happy/happy, neutral, and unhappy/extremely unhappy
Food attitudes, availability and behaviours section: strongly agree, agree, neutral, disagree, strongly disagree	Agree/strongly agree, neutral/don't know, and disagree/strongly disagree
Always, often, sometimes, rarely, and never	Always/often, sometimes, and rarely/never

"Persons" includes male, female, other and participants who did not answer the question on gender and may not always equal the sum of the total number of male and female students.

In this report, 'stable' means that the changes over time or between groups (such as males and females) were not statistically significant, based on standard statistical testing (conducted at the $p<0.05$ level).

Estimates throughout the report, excluding in tables and figures, are rounded to the nearest whole number for improved readability. Non-overlapping 95% confidence intervals are used as a measure of the statistical significance of the difference between two estimates. The impact of this conservative method means that estimates that were marginally significantly different may have been classified as not statistically significant.

Only estimates with a relative standard error (RSE) of less than or equal to 25% are considered sufficiently reliable for most analytical purposes. Estimates with a RSE greater than 25% and less than or equal to 50% are less reliable and should be used with caution. These estimates are marked with a hash (#) throughout this report.

Estimates with a RSE greater than 50% or based on a numerator less than 10 are suppressed and represented by missing data points.

Tetrachoric correlation analysis included in this report identifies the strength and the direction of associations between binary variables; however, it does not imply causation and should not be interpreted as evidence of causal relationships.

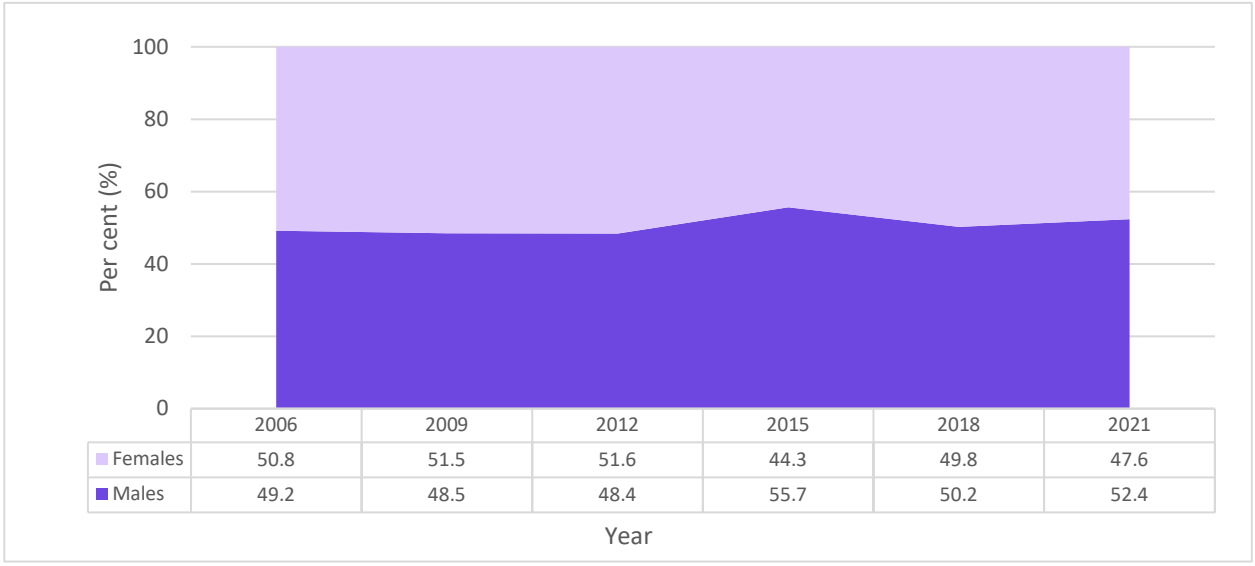
Survey weighting is a statistical technique to correct imbalances in the survey sample (those who participate in the survey) so that the survey results more accurately represent the broader population of interest. For the ACT Physical Activity and Nutrition Survey, survey weights are used to adjust for differences in school sector participation (including school non-responses) and student age and gender. Imbalances in student age and gender are adjusted using the known ACT student population data as a reference to ensure that the results represent those of the Year 6 student population rather than only those who participated in the survey.

Results

Survey sample

A total of 7,441 students from ACT schools participated in ACTPANS between 2006 and 2021 with the total number of participants in each survey year as follows: 1,176 (2006); 1,374 (2009); 1,335 (2012); 1,353 (2015); 1,491 (2018) and 718 (2021). An almost equal representation of males and females can be seen in each survey year (**Figure 1**).

Figure 1: Gender of ACTPANS participants, 2006–2021

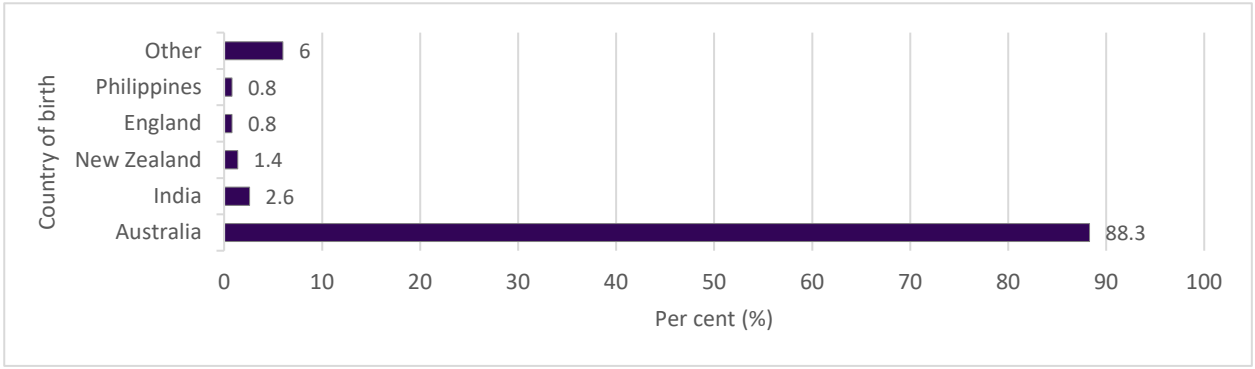


	2006	2009	2012	2015	2018	2021
Females	50.8	51.5	51.6	44.3	49.8	47.6
Males	49.2	48.5	48.4	55.7	50.2	52.4

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

From 2015 onwards, students were asked their country of birth. The majority reported that they were born in Australia (2015: 85%, 2018: 89%, 2021: 88%). After Australia, the most reported countries of birth were India and New Zealand (**Figure 2**). The proportion of students in the sample who identified as Aboriginal and Torres Strait Islander remained stable from 2006 to 2021 (2006: 3%, 2009: 4%, 2012: 3%, 2015–2021: 4%).

Figure 2: Country of birth of ACTPANS participants, 2021



Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2021.

Health and wellbeing

Self-rated health

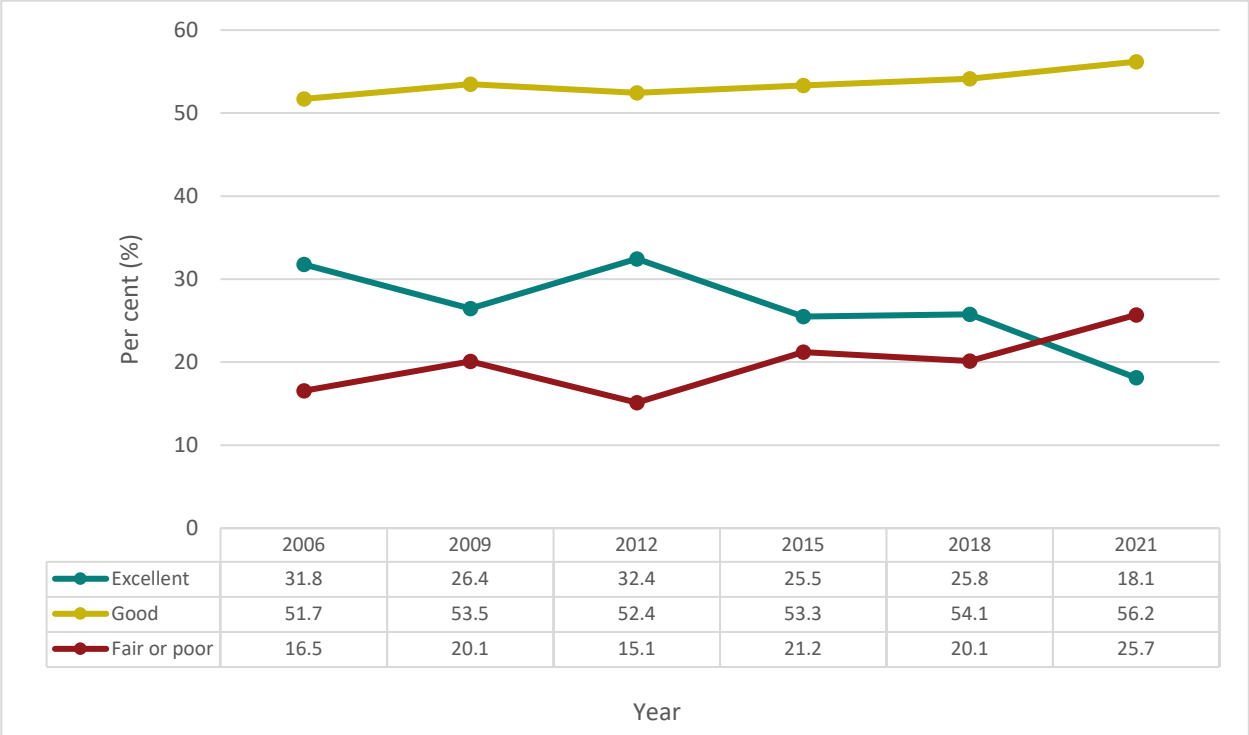
What did we measure? Students were asked to rate their overall health as *excellent*, *very good*, *good*, *fair* or *poor* over the past 4 weeks.

Why is it important? Self-rated health is one of the most frequently used measures in epidemiological, clinical and social research. It is known to predict mortality, future functional status and outcome of treatment in populations that vary by age, gender, social class, health status, country and culture.[1,2]

How are we going?

The proportion of students who reported their health as excellent decreased significantly from 32% in 2006 to 18% in 2021. Over half of the Year 6 respondents rated their health as good in all survey years; this has remained stable since 2006. The proportion of students who rated their health as fair/poor increased significantly from 17% in 2006 to 26% in 2021 (**Figure 3**).

Figure 3: Proportion of ACT Year 6 students who self-rated their health as excellent, good and fair/poor, 2006–2021



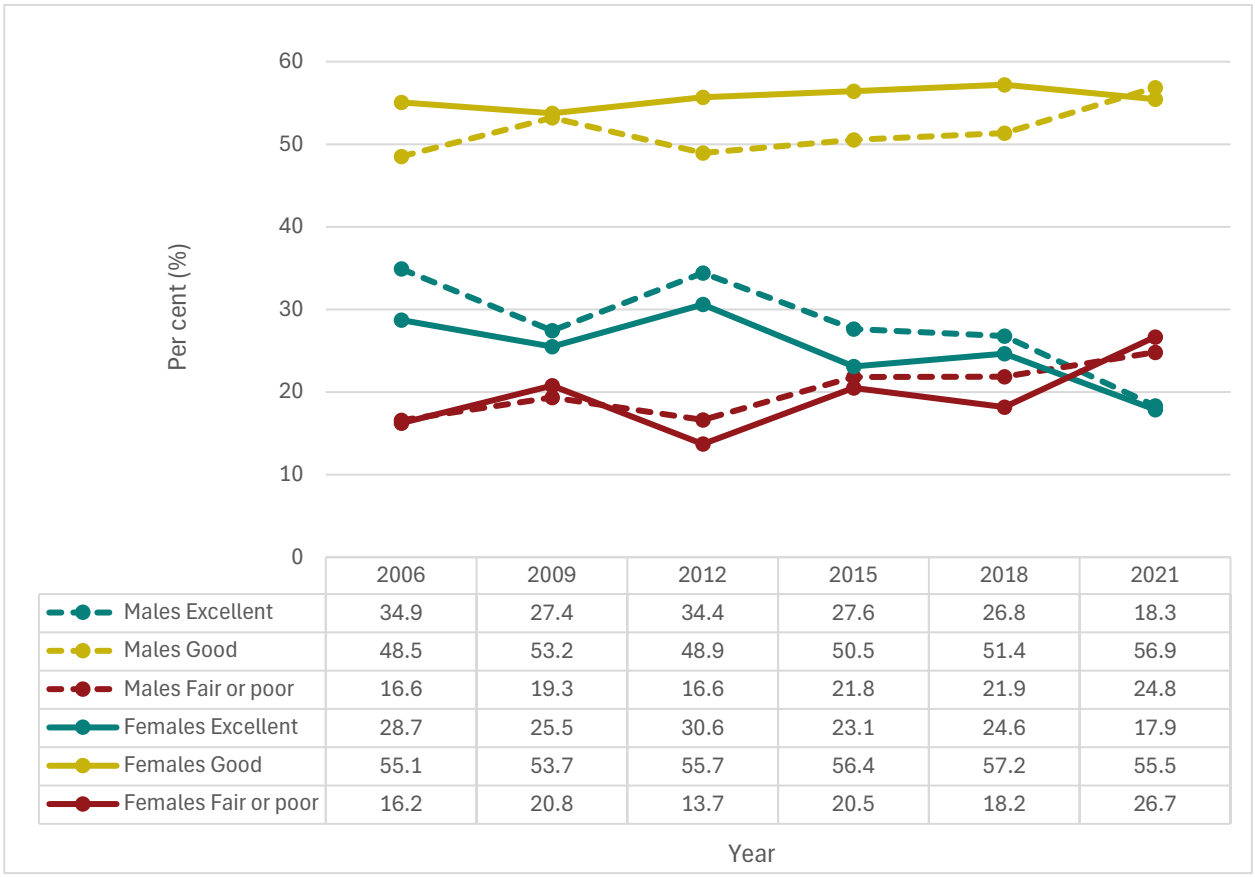
	2006	2009	2012	2015	2018	2021
Excellent	31.8	26.4	32.4	25.5	25.8	18.1
Good	51.7	53.5	52.4	53.3	54.1	56.2
Fair or poor	16.5	20.1	15.1	21.2	20.1	25.7

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Between 2006 and 2021, the proportion of males who rated their health as excellent decreased significantly from 35% to 18%. While those who rated their health as good increased significantly from 49% to 57%. Furthermore, the proportion of males who rated their health as fair/poor also increased significantly from 17% in 2006 to 25% in 2021.

During the same period, the proportion of females who rated their health as excellent decreased significantly from 29% to 18%, while those who rated their health as good remained stable. The proportion of females who rated their health as fair/poor increased significantly from 17% in 2006 to 27% in 2021 (**Figure 4**). There were no significant differences between males and females for each self-rated health category in any year.

Figure 4: Proportion of ACT Year 6 students who self-rated their health as excellent, good and fair/poor by gender, 2006–2021



	2006	2009	2012	2015	2018	2021
Males Excellent	34.9	27.4	34.4	27.6	26.8	18.3
Males Good	48.5	53.2	48.9	50.5	51.4	56.9
Males Fair or poor	16.6	19.3	16.6	21.8	21.9	24.8
Females Excellent	28.7	25.5	30.6	23.1	24.6	17.9
Females Good	55.1	53.7	55.7	56.4	57.2	55.5
Females Fair or poor	16.2	20.8	13.7	20.5	18.2	26.7

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Tetrachoric correlation analysis indicates that excellent self-rated health is positively associated with psychosocial wellbeing and healthy behaviours. The strongest positive correlations were observed with students strongly agreeing that they feel good about themselves (ρ = 0.65) and being extremely satisfied with their body weight (ρ = 0.56). Moderate positive associations were also observed between excellent self-rated health and 60 minutes or more of daily physical activity (ρ = 0.42) and helping to prepare meals for the family (ρ = 0.18).

Conversely, excellent self-rated health was negatively associated with factors related to excess weight and less healthy behaviours. Notably, self-perceived overweight status showed a moderate negative correlation (ρ = –0.46), and a BMI classification of overweight or obese was also negatively associated (ρ = –0.33) with excellent self-rated health. Exceeding recommended screen time on both weekdays (ρ= –0.20) and weekends (ρ = –0.23), as well as frequent consumption of salty snacks (ρ = –0.13) and visiting fast food restaurants with family (ρ = –0.12), were also negatively correlated with excellent self-rated health (**Appendix 1** - **Table 29**).

Sense of self-worth

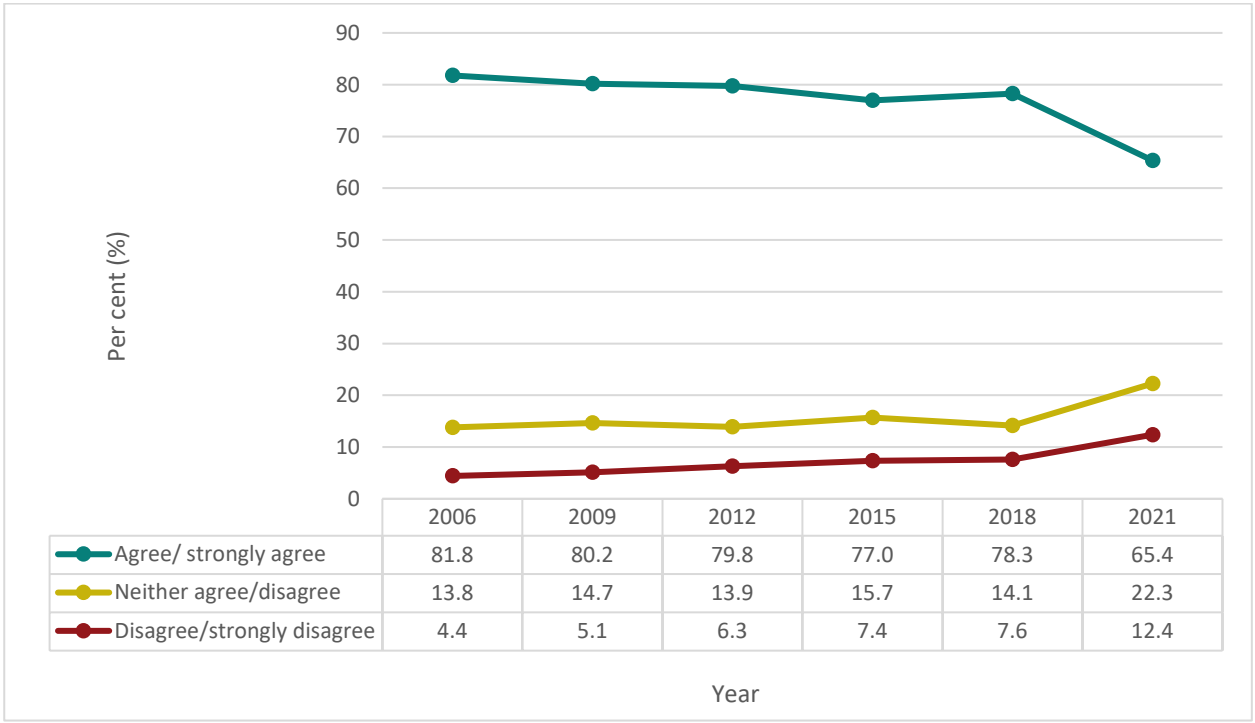
What did we measure? Students were asked to indicate how much they agreed with the statement "I feel good about myself" by selecting from *strongly agree*, *agree*, *neither agree or disagree*, *disagree* or *strongly disagree*.

Why is it important?. How students feel about themselves is a known measure of core wellbeing and a predictor of students' mental and physical health, and academic outcomes.[3]

How are we going?

Between 2006 and 2021, student proportions for sense of self-worth were largely stable until 2018, after which the changes in 2021 became large enough to be significantly different from both 2018 and 2006. The proportion of students who agreed or strongly agreed that they felt good about themselves decreased significantly overall from 82% in 2006 to 65% in 2021, while the proportion who were neutral in their response (14% to 22%) or disagreed or strongly disagreed (4% to 12%) with the statement increased significantly over the same period (**Figure 5**). The decrease in the proportion of students who agreed or strongly agreed that they felt good about themselves followed a similar overall trajectory to the proportion reporting excellent self-rated health between 2006 and 2021 (**Figure 3**).

Figure 5: Proportion of ACT Year 6 students who agreed/strongly agreed, neither agreed nor disagreed and disagreed/strongly disagreed with the statement "I feel good about myself", 2006-2021



	2006	2009	2012	2015	2018	2021
Agree/ strongly agree	81.8	80.2	79.8	77.0	78.3	65.4
Neither agree/disagree	13.8	14.7	13.9	15.7	14.1	22.3
Disagree/strongly disagree	4.4	5.1	6.3	7.4	7.6	12.4

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Males were significantly more likely to agree/strongly agree to feeling good about themselves compared to females in all years except 2021. The proportion of males who agreed/strongly agreed that they felt good decreased significantly from 86% in 2006 to 69% in 2021, while the proportion of females who felt the same also decreased significantly from 78% to 61%.

Females were significantly more likely to "neither agree nor disagree" compared to males in 2006 and 2009. However, these differences between the genders stabilised from 2012 onwards. The proportion of males who "neither agreed nor disagreed" about feeling good about themselves increased significantly from 11% to 22% between 2009 and 2021 while the proportion of females who felt the same remained stable during the same period.

Females were also significantly more likely to disagree/strongly disagree about feeling good about themselves compared to males from 2012 to 2018, while the differences between the genders were not significant in other years. Overall, the proportion of males who disagreed/strongly disagreed about feeling good about themselves remained stable over the years while the proportion of females who felt the same increased significantly from 5% to 17% (**Table 1**).

Table 1: Proportion of ACT Year 6 students who agreed/strongly agreed, neither agreed nor disagreed and disagreed/strongly disagreed with the statement "I feel good about myself" by gender, 2006–2021

Year	Males (%)	Females (%)
Agree/ strongly agree		
2006	85.5	78.0
2009	84.4	76.2
2012	83.5	76.3
2015	81.7	71.8
2018	82.8	73.1
2021	69.4	60.9
Neither agree/disagree		
2006	10.8	16.8
2009	11.0	18.2
2012	12.8	15.0
2015	13.8	17.8
2018	12.5	16.0
2021	22.0	22.6
Disagree/strongly disagree		
2006	3.7	5.2
2009	4.6	5.6
2012	3.8	8.7
2015	4.5	10.5
2018	4.7	10.9
2021	8.6	16.5

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Satisfaction with body weight

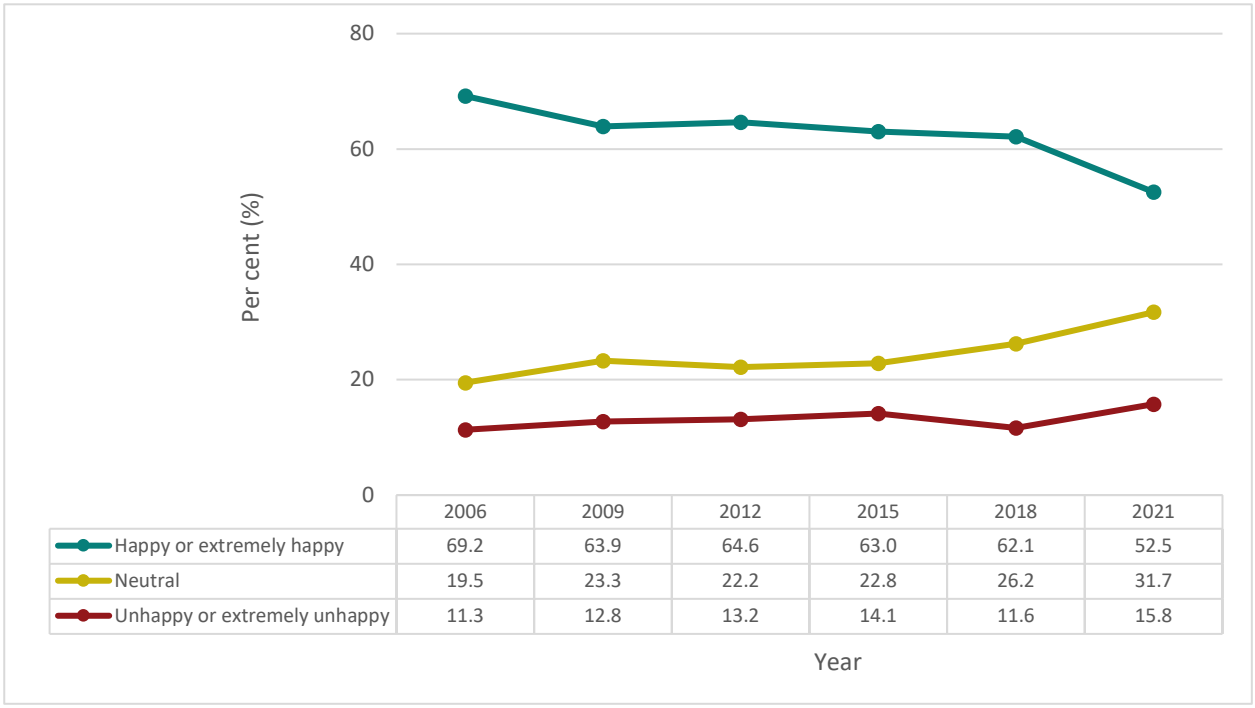
What did we measure? Students were asked to rate how happy they were with their body weight by selecting either *extremely happy*, *happy*, *neutral*, *unhappy* or *extremely unhappy*.

Why is it important? Body weight satisfaction is linked to perceptions of body image, and to well-being and health-related behaviour of adolescents. Higher levels of body weight satisfaction are associated with higher self-esteem, better well-being and greater engagement in health-promoting behaviours.[4]

How are we going?

The proportion of students who reported being happy/extremely happy with their weight declined significantly from 69% in 2006 to 53% in 2021, while those who had neutral feelings about their weight increased significantly from 20% to 32%. The proportion of students who were unhappy/extremely unhappy with their weight remained stable over time (**Figure 6**).

Figure 6: Proportion of ACT Year 6 students who were happy/extremely happy, neutral, and unhappy/extremely unhappy with their weight, 2006–2021



	2006	2009	2012	2015	2018	2021
Happy or extremely happy	69.2	63.9	64.6	63.0	62.1	52.5
Neutral	19.5	23.3	22.2	22.8	26.2	31.7
Unhappy or extremely unhappy	11.3	12.8	13.2	14.1	11.6	15.8

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Between 2006 and 2021, the proportions of males and females who were happy/extremely happy with their weight decreased significantly. However, males were significantly more likely to be happy/extremely happy with their weight compared to females between 2009 and 2018. The differences between the genders were not significant thereafter. The proportions of both males and females who had neutral feelings about their weight increased significantly between 2006 and 2021, however females were more likely to record a neutral response regarding their happiness with their body weight compared to males, with a significant difference noted in 2015. Females were also more

likely to report being unhappy/ extremely unhappy with their weight compared to males, with significant differences detected between the genders in 2012, 2018, and 2021. Overall however, the proportion of students who were unhappy/extremely unhappy with their body weight remained stable (**Table 2**).

Table 2: Proportion of ACT Year 6 students who were happy/extremely happy, neutral, and unhappy/extremely unhappy with their weight by gender, 2006–2021

Year	Males (%)	Females (%)
Happy/extremely happy		
2006	72.3	66.2
2009	68.8	59.3
2012	70.0	59.6
2015	69.0	56.5
2018	68.3	55.2
2021	58.1	46.5
Neutral		
2006	18.5	20.4
2009	21.1	25.4
2012	20.3	23.9
2015	18.9	27.1
2018	24.0	28.7
2021	30.7	32.8
Unhappy/extremely unhappy		
2006	9.2	13.4
2009	10.1	15.3
2012	9.6	16.4
2015	12.1	16.3
2018	7.7	16.1
2021	11.2	20.7

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Self-perceived weight

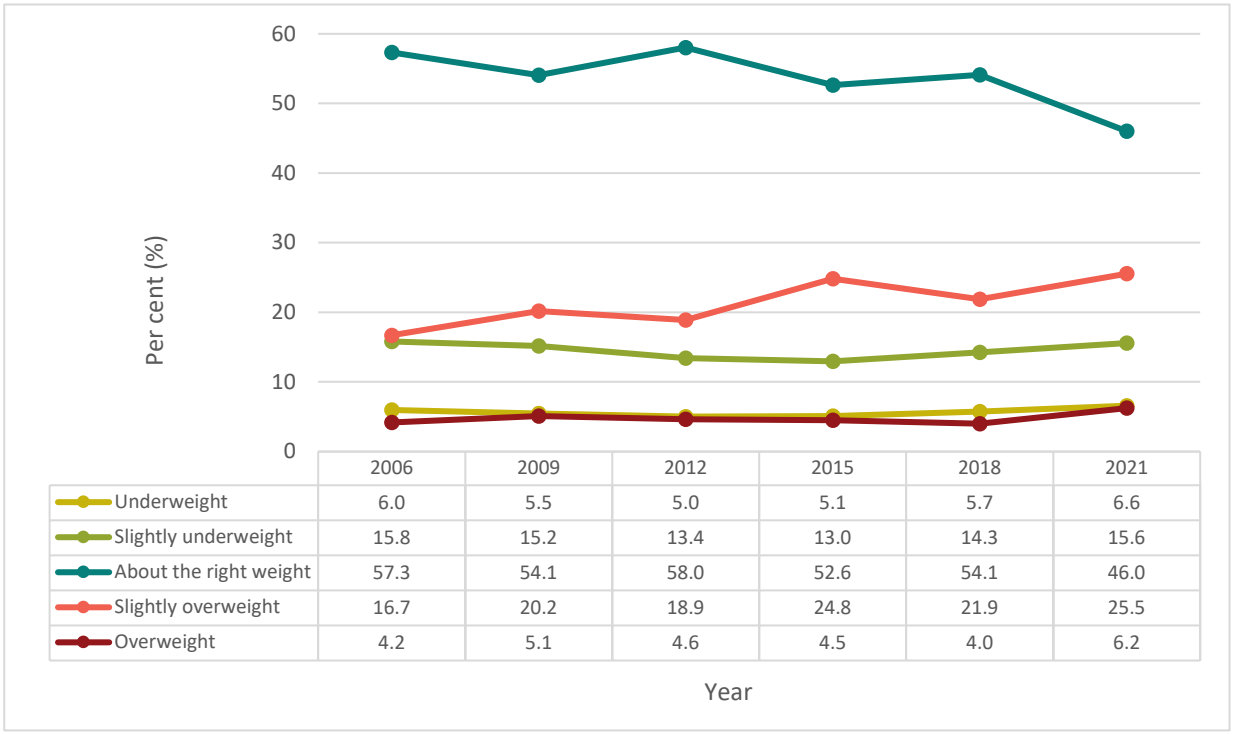
What did we measure? Students were asked if they thought that their body weight was *underweight*, *slightly underweight*, *about the right weight*, *slightly overweight* or *overweight*.

Why is it important? Self-perceived body weight is associated with mental health and well-being regardless of actual body weight and it is considered a risk factor for the mental health of adolescents.[5]

How are we going?

The proportion of students who thought they were underweight or slightly underweight remained stable between 2006 and 2021. From 2006 to 2018, over half of responding students reported being about the right weight; however, this proportion declined significantly to 46% in 2021. The proportion of students who considered themselves to be slightly overweight rose significantly from 17% in 2006 to 25% in 2015 and remained significantly higher in 2021 at 26% than in 2006, while the proportion who thought they were overweight remained stable between 2006 and 2021 (**Figure 7**).

Figure 7: Proportion of ACT Year 6 students who perceived their weight as underweight, slightly underweight, about the right weight, slightly overweight, or overweight, 2006–2021



	2006	2009	2012	2015	2018	2021
Underweight	6.0	5.5	5.0	5.1	5.7	6.6
Slightly underweight	15.8	15.2	13.4	13.0	14.3	15.6
About the right weight	57.3	54.1	58.0	52.6	54.1	46.0
Slightly overweight	16.7	20.2	18.9	24.8	21.9	25.5
Overweight	4.2	5.1	4.6	4.5	4.0	6.2

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Males were more likely to consider themselves underweight or slightly underweight compared to females, with significant differences noted between the genders for underweight in 2009 and 2021, and for slightly underweight in 2006 and 2018. There were no significant differences between the genders for the proportion of students who considered themselves to be the right weight or those who considered themselves overweight. Females were more likely to consider themselves slightly

overweight compared to males, with significant differences noted between the genders from 2015 to 2021. Over the years, the proportions of males across different weight categories have remained stable. The proportions of females also remained stable for most weight categories, except for the categories of “about right weight” (61% to 44%) and “slightly overweight” (16% to 30%) (**Table 3**).

Table 3: Proportion of ACT Year 6 students who self-perceived their weight as underweight, slightly underweight, about the right weight, slightly overweight, or overweight by gender, 2006–2021

Year	Males (%)	Females (%)
Underweight		
2006	6.9	5.1
2009	7.2	3.8
2012	6.0	4.1
2015	6.2	3.9
2018	7.0	4.3
2021	9.2	3.8
Slightly underweight		
2006	18.7	12.9
2009	16.4	14.0
2012	15.2	11.8
2015	13.3	12.6
2018	16.4	11.9
2021	16.4	14.7
About right weight		
2006	53.6	61.0
2009	50.5	57.5
2012	57.3	58.7
2015	55.6	49.3
2018	55.2	52.8
2021	48.4	43.5
Slightly overweight		
2006	17.1	16.3
2009	21.6	18.8
2012	18.0	19.7
2015	21.3	28.7
2018	18.6	25.5
2021	21.9	29.5
Overweight		
2006	3.7[#]	4.7
2009	4.2	5.9
2012	3.5	5.7
2015	3.6	5.5
2018	2.7	5.5
2021	4.2[#]	8.5

Note: [#]Proportions for Females underweight 2021, Males overweight 2006 and 2021 have a RSE 25–50% and must be used with caution.

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Body Mass Index (BMI)

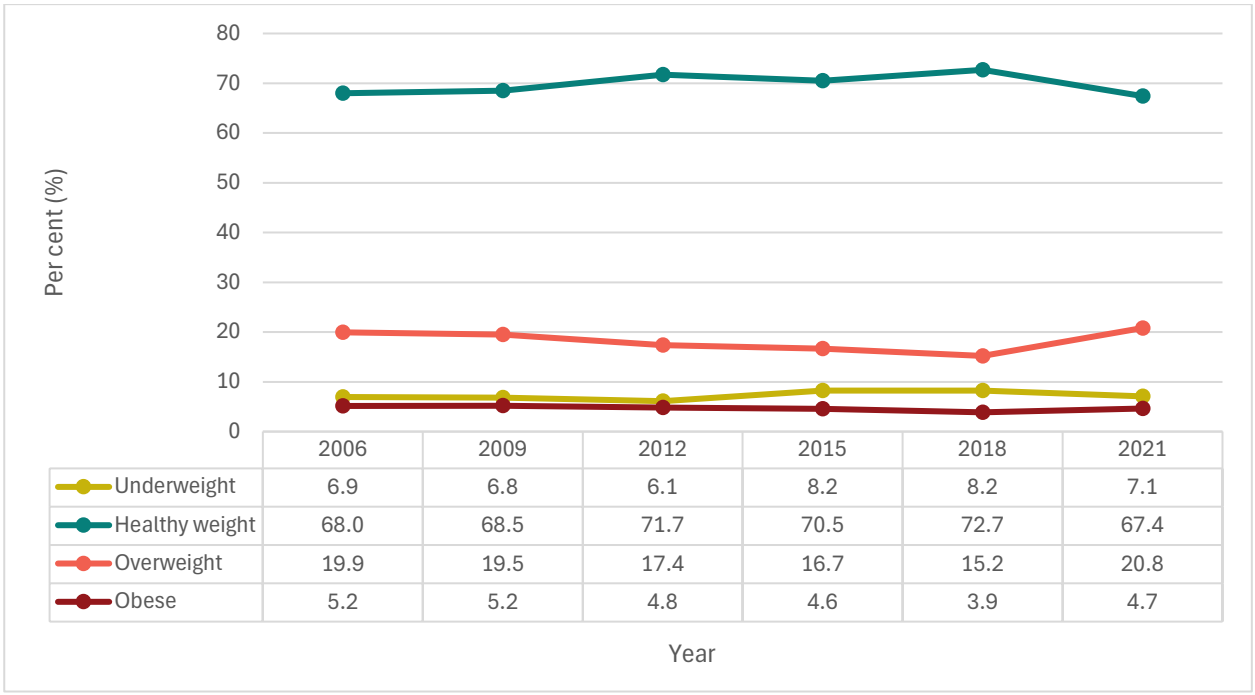
What did we measure? Participant students' body weight and height without shoes were individually measured, and from these, BMIs were calculated (weight in kilograms divided by the square of height in metres) and categorised according to the age-specific BMI classifications by Cole of underweight, healthy weight, overweight, and obese.[6]

Why is it important? BMI is an internationally recognised standard for classifying body weight. It is a practical measure for monitoring weight status at a population level.[7] Healthy weight status is a protective factor for many diseases and chronic conditions such as cardiovascular disease, type 2 diabetes and osteoarthritis. Childhood BMI is often used as a predictor of health and disease in adult life.[8]

How are we going?

The number of students who participated in the survey and agreed to have their height and weight measured has largely remained consistent across survey years. Between 2006 and 2018, between 1,092 and 1,333 students (89% to 99% of survey participants) had their weight and height measured. In 2021, this decreased to 651 students (91%) due to the disruption to schooling during the COVID-19 (SARS-CoV-2) pandemic. Since 2006, around two-thirds of responding students have been in the healthy weight range. Overall, the proportions of students classified as underweight, healthy weight, overweight, and obese have remained stable (**Figure 8**). However, when the proportion of students who were either overweight or obese is considered together, a gradual decline is seen between 2006 (25%) and 2018 (19%), after which it increases to 26%, a level similar to that of 2006.

Figure 8: Proportion of ACT Year 6 students with a BMI of underweight, healthy weight, overweight and obese, 2006–2021



	2006	2009	2012	2015	2018	2021
Underweight	6.9	6.8	6.1	8.2	8.2	7.1
Healthy weight	68.0	68.5	71.7	70.5	72.7	67.4
Overweight	19.9	19.5	17.4	16.7	15.2	20.8
Obese	5.2	5.2	4.8	4.6	3.9	4.7

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

During the period from 2006 to 2021, there were no significant differences between genders within the different BMI categories (**Table 4**). However for male students, there was a noticeable increase in the combined proportion who were overweight and obese – from 17% in 2018 to 24% in 2021 – a level approaching that of 2006 (28%), following a steady significant decrease between 2006 and 2018.

Table 4: Proportion of ACT Year 6 students with a BMI of underweight, healthy weight, overweight and obese by gender, 2006–2021

Year	Males (%)	Females (%)
Underweight		
2006	5.8#	8.1
2009	5.3	8.3
2012	6.2	6.0
2015	8.4	8.1
2018	8.3	8.2
2021	8.1	6.0
Healthy weight		
2006	66.5	69.4
2009	68.6	68.4
2012	69.8	73.5
2015	69.7	71.3
2018	74.3	70.8
2021	67.6	67.3
Overweight		
2006	21.3	18.6
2009	20.5	18.6
2012	18.1	16.7
2015	17.7	15.6
2018	13.8	16.9
2021	20.1	21.6
Obese		
2006	6.5	3.9
2009	5.7	4.7
2012	5.9	3.8
2015	4.2	5.0
2018	3.6	4.2
2021	4.2	5.2#

Note: #Proportions for Underweight Male 2006 and Obese Females 2021 have a RSE 25–50% and must be used with caution.

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

BMI and perceived weight

What did we measure? Students' BMIs for age categories, classified by Cole[6] as underweight, healthy weight, overweight, or obese, were compared with students' perceptions of their own body weight as either underweight/slightly underweight (underweight), about the right weight (healthy weight), or slightly overweight/overweight (overweight).

Why is it important? A mismatch between perceived and actual body weight classification is a predictor of body weight management strategies and affects the social, emotional and physical wellbeing of children and adolescents.[5]

How are we going?

BMI underweight and perceived weight

Between 2006 and 2021, the proportion of students who were classified as underweight using BMI and who perceived their weight as either underweight, healthy weight or overweight remained stable. There were no significant differences between males and females who were underweight and perceived their weight as underweight, healthy weight or overweight (**Table 5**).

Table 5: Proportion of ACT Year 6 students with a BMI of underweight and perceived weight, 2006–2021

Year	Persons (%)	Males (%)	Females (%)
BMI underweight vs perceived underweight			
2006	67.9	70.7	66.0
2009	72.9	81.2	68.1
2012	70.0	74.4	65.8
2015	54.0	50.2	58.5
2018	59.8	60.6	58.8
2021	73.8	85.5	55.5
BMI underweight vs perceived healthy weight			
2006	29.5	NP	29.6[#]
2009	24.3	NP	27.5
2012	28.8	25.6[#]	31.7
2015	43.0	46.0	39.6
2018	37.4	37.4	37.3
2021	26.2[#]	NP	NP
BMI underweight vs perceived overweight			
Proportions have been supressed due to small numbers for all years, persons, males and females.	NP	NP	NP

Note:

[1] *[#]Proportions for BMI underweight vs perceived healthy weight Persons 2021, Males 2012 and Females 2006 have a RSE 25–50% and must be used with caution.*

[2] *Estimates with RSE > 50% or based on a numerator less than 10 are supressed and presented as NP/missing data points.*

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

BMI healthy weight and perceived weight

The proportion of students who had a healthy BMI and perceived their weight as healthy decreased from 68% in 2006 to 54% in 2021, with a significant drop noted in 2021. Between 2006 and 2021, the proportion of females who had a healthy BMI and perceived themselves as having a healthy weight decreased significantly, while the proportion of males remained stable. There were no significant differences between the genders during this period (**Table 6**).

The proportion of students who had a healthy BMI and perceived their weight as underweight remained stable between 2006 to 2021. Males were significantly more likely to have a healthy BMI but perceive their weight as underweight compared to females in 2006, 2009, 2012, and 2018. There were no significant differences between the genders in 2015 and 2021.

The proportion of students who had a healthy BMI and perceived their weight as overweight increased from 11% in 2006 to 21% in 2021; with, a significant increase noted in 2015. Similarly, the proportions of males and females who had a healthy BMI and perceived themselves as overweight increased over the years with a significant increase noted in females in 2015. Females were also significantly more likely to have a healthy BMI but perceive themselves as overweight compared to males between 2015 and 2021.

Table 6: Proportion of ACT Year 6 students with a BMI of healthy weight and perceived weight, 2006–2021

Year	Persons (%)	Males (%)	Females (%)
BMI healthy weight vs perceived underweight			
2006	21.1	26.3	16.2
2009	21.3	26.8	16.1
2012	19.0	22.9	15.5
2015	18.6	21.2	15.8
2018	21.3	25.0	16.7
2021	25.4	27.3	23.1
BMI healthy weight vs perceived healthy weight			
2006	68.1	65.2	70.9
2009	64.9	60.0	69.4
2012	68.0	67.2	68.8
2015	61.4	64.4	58.2
2018	63.4	63.2	63.7
2021	53.9	56.4	51.0
BMI healthy weight vs perceived overweight			
2006	10.8	8.6	12.9
2009	13.8	13.2	14.5
2012	13.0	10.0	15.7
2015	19.9	14.4	26.0
2018	15.3	11.8	19.6
2021	20.8	16.3	25.8

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Over the years, the proportion of females who had a healthy weight and perceived themselves to be a healthy weight decreased significantly from 71% to 51%, while those who perceived themselves as overweight increased significantly from 13% to 26%. All other proportions for males and females who were a healthy weight across different perceived weight categories remained stable in the same period.

BMI overweight and perceived weight

In 2021, of the students who were overweight, 62% perceived themselves as overweight and 36% perceived themselves as a healthy weight. Very few overweight students perceived themselves as underweight in most survey years. Between 2006 and 2021, the proportions of students who were overweight and perceived their weight as underweight, healthy or as overweight have been stable. There were no significant differences between males and females in these groups (**Table 7**).

Table 7: Proportion of ACT Year 6 students with a BMI of overweight by perceived weight, 2006–2021

Year	Persons (%)	Males (%)	Females (%)
BMI overweight vs -perceived underweight			
2006	8.8	11.5	NP
2009	3.5[#]	NP	NP
2012	NP	NP	NP
2015	NP	NP	NP
2018	NP	NP	NP
2021	NP	NP	NP
BMI overweight vs -perceived healthy weight			
2006	37.7	33.2	43.0
2009	32.3	32.0	32.6
2012	33.6	36.7	30.2
2015	30.3	33.3	26.6
2018	34.5	35.4	33.7
2021	35.6	41.9	29.1
BMI overweight vs perceived overweight			
2006	53.5	55.3	51.5
2009	64.1	65.2	63.0
2012	63.7	60.7	66.9
2015	66.6	64.4	69.2
2018	63.6	61.9	65.3
2021	61.8	56.9	66.9

Note:

[1] #Proportion for BMI overweight vs perceived underweight Persons 2009 has a RSE 25–50% and must be used with caution.

[2] Estimates with RSE > 50% or based on a numerator less than 10 are supressed and presented as NP/missing data points.

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Nutrition

What did we measure? Students were asked to estimate how many serves, and how often, they usually consumed core food and drinks such as vegetables, fruit, grain-based foods, meats, and dairy items as well as discretionary or non-core food and drinks such as sugary food and drinks and fast-food. The serves and frequencies reported by participating students were then compared to the recommended serves or intake frequencies in the Australian Dietary Guidelines.[9]

Why is it important? The quality and quantity of food and drinks consumed by students has a significant impact on their health and wellbeing, their future, society and the broader environment. Better nutrition can improve health outcomes and reduce healthcare costs. The Australian Dietary Guidelines provide evidence-based recommendations on the types and amounts of food Australian children should consume to support their health, growth and development.[10]

The Australian Guide to Healthy Eating (a food selection guide based on the Australian Dietary Guidelines) recommends that children consume a balanced diet from five core food groups: vegetables, fruit, grains, meats and meat alternatives, dairy and dairy alternatives.[11] The Australian Dietary Guidelines also recommend that children limit food containing saturated fat, added salt, and added sugars, such as biscuits, cakes, pastries, pies, processed meats, commercial burgers, pizza, fried foods, potato chips, crisps, and other savoury snacks.

In the section below, fruit and vegetable consumption is reported against the Australian Dietary Guidelines recommendations. All other food consumed is reported as a frequency of one or more times per week.

Daily Vegetable intake

What did we measure? Students were asked to estimate how many serves of vegetables they usually eat, either by selecting *none* or *I don't eat any [vegetables]*, or by reporting the number of vegetable serves they typically consume each day or week. The responses were used to assess the average number of serves which students usually ate each day as well as the proportion of responding students whose usual daily vegetable intake met the dietary guideline for vegetable consumption. The Australian Dietary Guidelines recommend that children aged 9 to 13 years consume 5 or more serves of vegetables each day.[10]

How are we going?

Students usually ate an average of 3 serves of vegetables each day in 2009, 2012, 2015 and 2018 and 2 serves in 2021. There was no significant difference between males and females in the usual number of vegetable serves consumed each day. However, in 2021, the proportion of males who ate an average of 2 serves daily was significantly less than all preceding survey years except 2018. A similar pattern was observed among female students except that the decrease in 2021 was significantly less than for all other survey years. The proportion of students overall who usually consumed 5 or more serves of vegetables each day decreased significantly from 14% in 2009 to 5% in 2021. There were no significant gender differences observed during the same period (**Figure 9**). Between 2009 and 2021, the proportion of males who consumed five or more serves of vegetables decreased significantly from 16% to 6%, and similarly the proportion of females decreased significantly from 12% to 5%.

Figure 9: Proportion of ACT Year 6 students who usually consumed 5 or more serves of vegetables daily, 2009–2021

	2009	2012	2015	2018	2021
Males	15.8	15.4	9.7	8.6	6.0
Females	12.2	12.1	9.5	11.5	4.8
Persons	13.9	13.7	9.6	10.0	5.4

Note: Question introduced in 2009.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2009–2021.

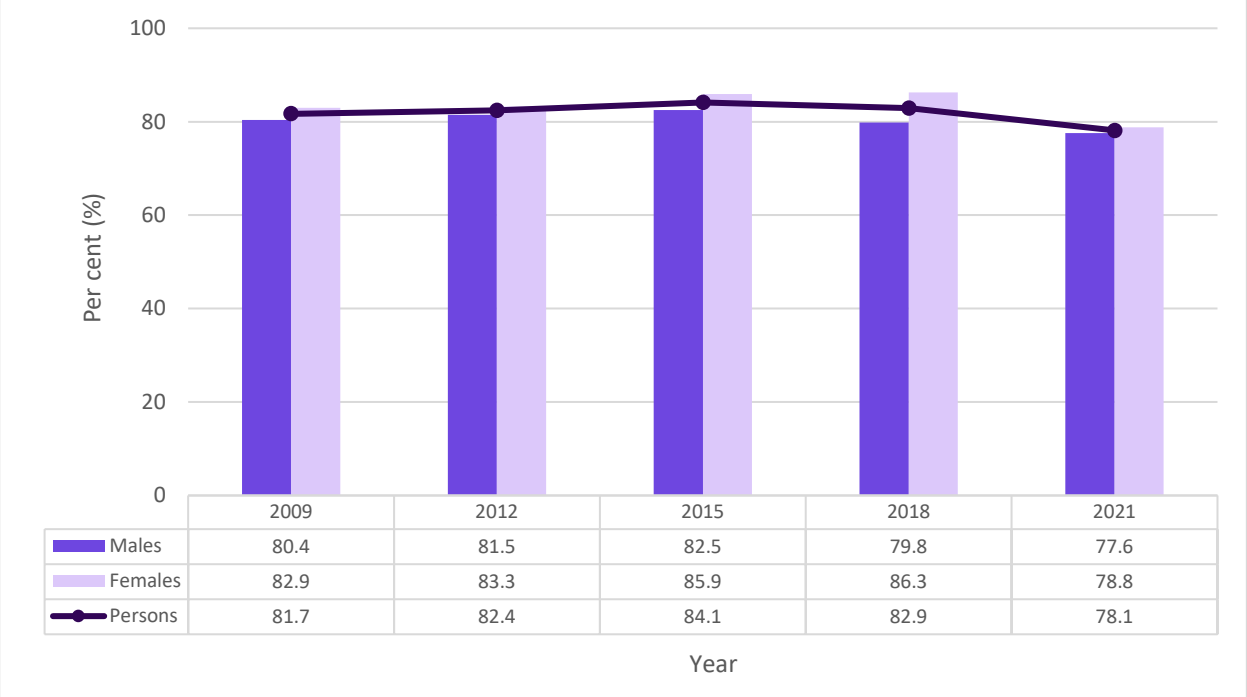
Daily fruit intake

What did we measure? Students were asked to estimate how many serves of fruit they usually eat, either by selecting *none* or *I don't eat any [fruit]*, or by reporting the number of fruit serves they typically consume each day or week. The responses were used to assess the proportion of responding students whose usual daily fruit intake met the dietary guideline for fruit consumption. The Australian Dietary Guidelines recommend that children aged 9 to 13 years consume 2 or more serves of fruit each day.[10]

How are we going?

Students usually ate an average of 3 serves of fruit each day in 2009, 2012, 2015 and 2018 and 2 serves in 2021. There were no significant differences between males and females in the average number of daily serves usually consumed except in 2018 when the amount eaten by female students was significantly more than what male students usually ate. In 2021, the usual fruit intake decreased to 2 serves a day among males which was lower, but not significantly lower, than for each of the preceding survey years. A similar pattern was seen among female students, however, the decrease to two serves in 2021 was statistically significant compared to 2012, 2015 and 2018. Most Year 6 students consumed the recommended minimum of 2 serves of fruit daily; this remained stable across all survey years from 2009 to 2021. Females were slightly more likely than males to consume 2 or more serves of fruit in all years, however a significant difference only occurred in 2018 when females were more likely to consume the recommended number of serves (**Figure 10**).

Figure 10: Proportion of ACT Year 6 students who usually consumed 2 or more serves of fruit daily, 2009–2021



	2009	2012	2015	2018	2021
Males	80.4	81.5	82.5	79.8	77.6
Females	82.9	83.3	85.9	86.3	78.8
Persons	81.7	82.4	84.1	82.9	78.1

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2009–2021.

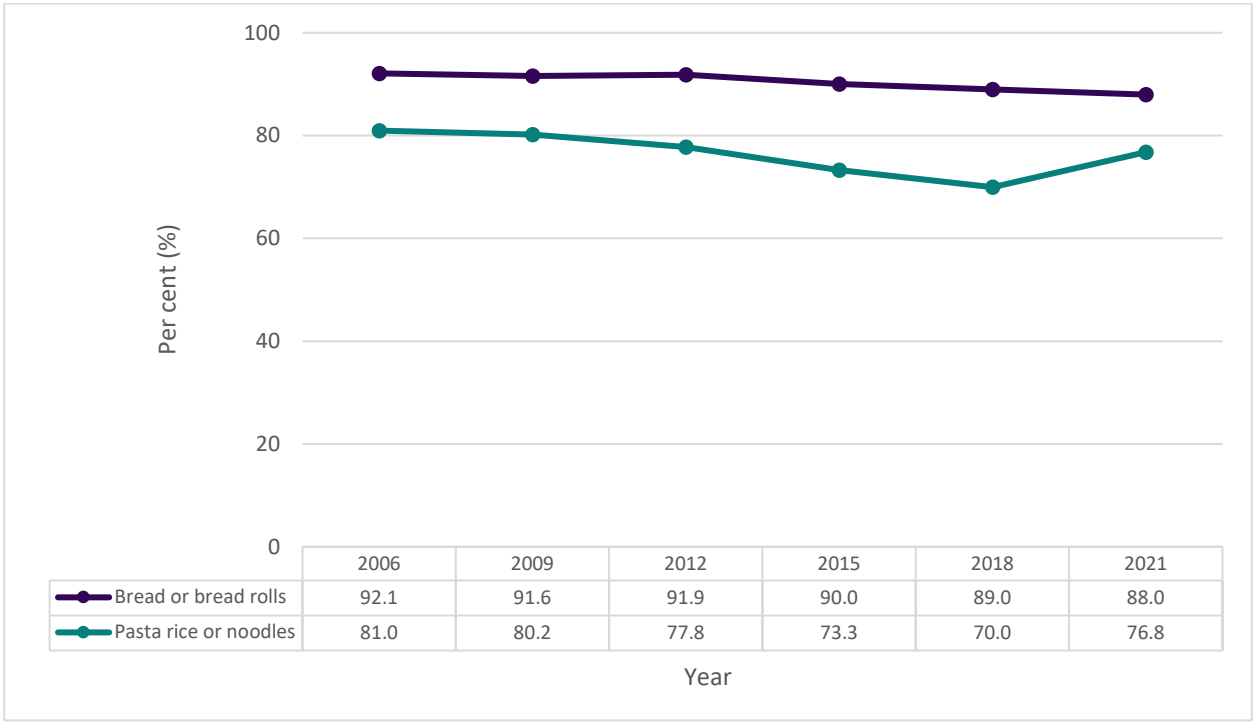
Grain intake

What did we measure? Students were asked to estimate how often they usually eat grain-based foods such as bread or bread rolls, pasta, rice, or noodles using the response options of *never*, *less than once a week*, *about 1-3 times a week*, *about 4-6 times a week* or *every day*. The responses were used to assess the proportion of responding students who usually consumed grain-based foods each week. The Australian Dietary Guidelines recommend that children aged 9 to 13 years consume 5-6 serves of grain-based foods every day.[10]

How are we going?

Most Year 6 students usually consumed bread, or bread rolls one or more times per week. The proportion of students who consumed bread or bread rolls, pasta, rice, or noodles weekly remained stable between 2006 and 2021. No gender differences were observed in the consumption of the various grain-based food one or more times per week (**Figure 11**).

Figure 11: Proportion of ACT Year 6 students who consumed bread/bread rolls, pasta, rice or noodles one or more times per week, 2006–2021



	2006	2009	2012	2015	2018	2021
Bread or bread rolls	92.1	91.6	91.9	90.0	89.0	88.0
Pasta rice or noodles	81.0	80.2	77.8	73.3	70.0	76.8

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

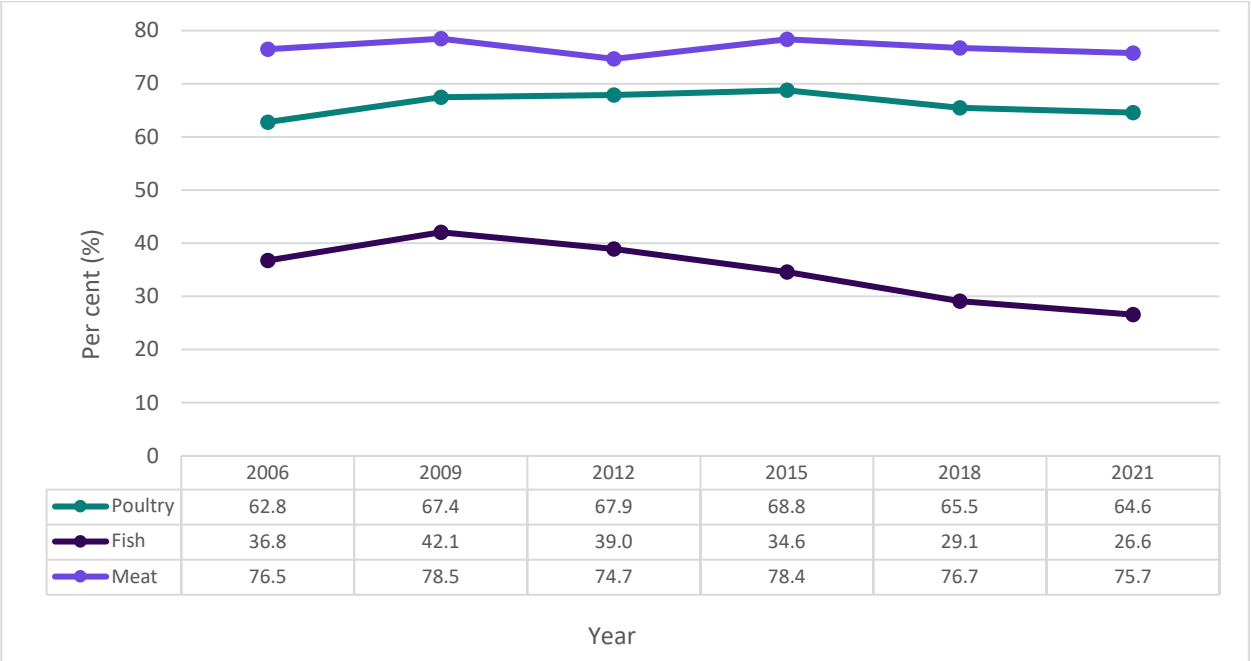
Meat intake

What did we measure? Students were asked to report how often they usually eat poultry (including chicken, turkey or duck), fish (including canned fish) and meat (including lamb, beef, pork, goat and minced meat) each week by selecting from the response options of *never*, *less than once a week*, *about 1-3 times a week*, *about 4-6 times a week* or *every day*. The responses were used to assess the proportion of responding students who usually consumed meat each week. The Australian Dietary Guidelines recommend that children aged 9 to 13 years consume 2.5 serves of meat or meat alternatives each day.[10]

How are we going?

Between 2006 and 2021, over half of the Year 6 student population in each survey year reported that they usually consumed poultry and meat on a weekly basis. These proportions remained stable between 2006 and 2021. Fish consumption one or more times per week decreased significantly from 37% to 27% (**Figure 12**). The decline in fish consumption was gradual from 2009 to 2021 and became significant from 2018. Significant differences between males and females were noted for poultry consumption in 2015 (males: 65%, females: 73%), fish consumption in 2021 (males: 32%, females: 20%) and for meat consumption in 2006 (males: 80%, females: 73%). In other years, gender differences were not significant.

Figure 12: Proportion of ACT Year 6 students who consumed meat, fish or poultry one or more times per week, 2006–2021



	2006	2009	2012	2015	2018	2021
Poultry	62.8	67.4	67.9	68.8	65.5	64.6
Fish	36.8	42.1	39.0	34.6	29.1	26.6
Meat	76.5	78.5	74.7	78.4	76.7	75.7

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Dairy intake

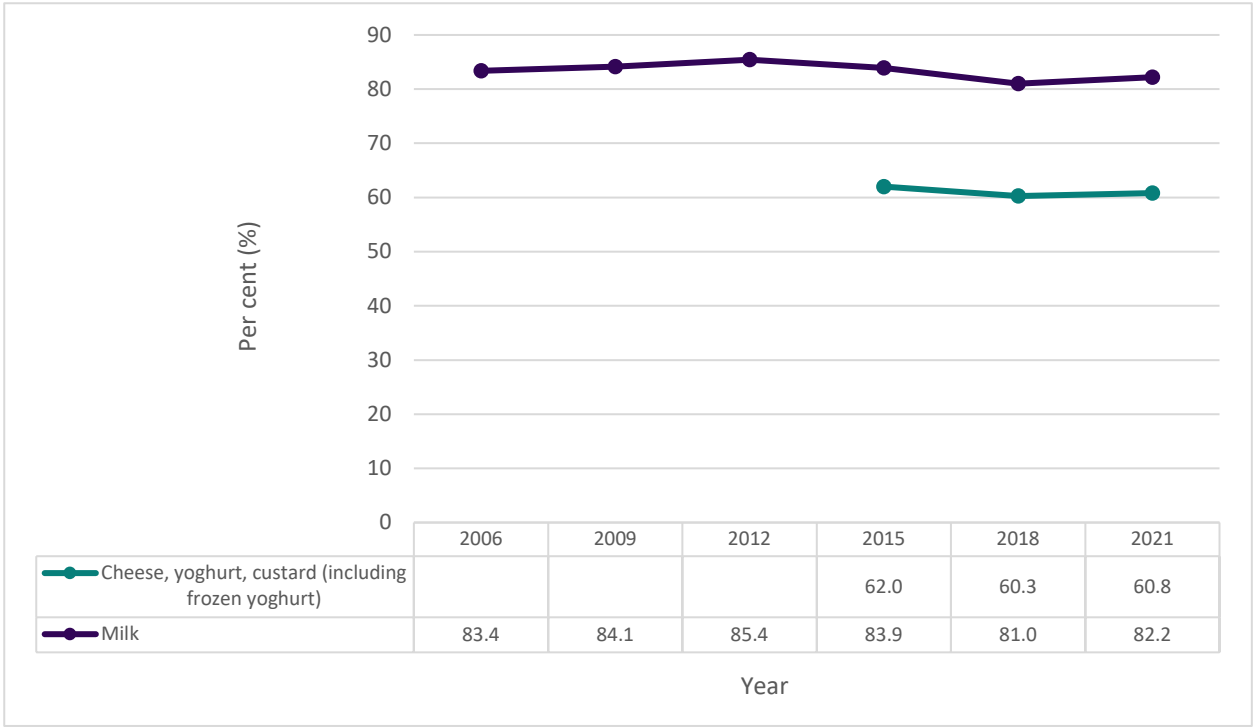
What did we measure? Students were asked to report how often they usually consume milk and milk alternatives, cheese, yoghurt and custard (including frozen yoghurt) each week, by selecting from the response options of *never*, *less than once a week*, *about 1-3 times a week*, *about 4-6 times a week* or *every day*. The responses were used to assess the proportion of responding students who usually consumed dairy foods (and/or milk alternatives) one or more times a week. The Australian Dietary Guidelines recommend that children aged 9 to 13 years consume 2.5 to 3.5 serves of dairy foods (and/or milk alternatives) each day.[10]

How are we going?

More than 80% of ACT Year 6 students reported that they usually consumed milk, including soy milk, one or more times a week. The proportion of students who consumed milk remained stable between 2006 and 2021 (**Figure 13**). Males were significantly more likely than females to drink milk one or more times a week (87% versus 77%) in 2021; however, the differences between the genders in earlier years were not significant.

Over half of the students reported that they consumed cheese, yoghurt, custard including frozen yoghurt one or more times in a week (**Figure 13**). There were no significant differences between males and females who consumed cheese, yoghurt, custard including frozen yoghurt on a weekly basis.

Figure 13: Proportion of ACT Year 6 students who consumed dairy one or more times per week, 2006–2021



	2006	2009	2012	2015	2018	2021
Cheese, yoghurt, custard (including frozen yoghurt)				62.0	60.3	60.8
Milk	83.4	84.1	85.4	83.9	81.0	82.2

Note: Question on cheese, yoghurt, custard including frozen yoghurt was introduced in 2015.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Discretionary food intake

What did we measure? Students were asked to report how often they usually eat discretionary foods each week, using the response options of *never*, *less than once a week*, *about 1-3 times a week*, about *4-6 times a week* or *every day*. The responses were used to assess the proportion of responding students who usually consumed discretionary foods one or more times a week. The Australian Dietary Guidelines recommend that children aged 9 to 13 years limit their intake of discretionary foods, consuming from none up to a maximum of 3 serves a day (depending on age, height and activity levels), with fewer serves preferred.[10]

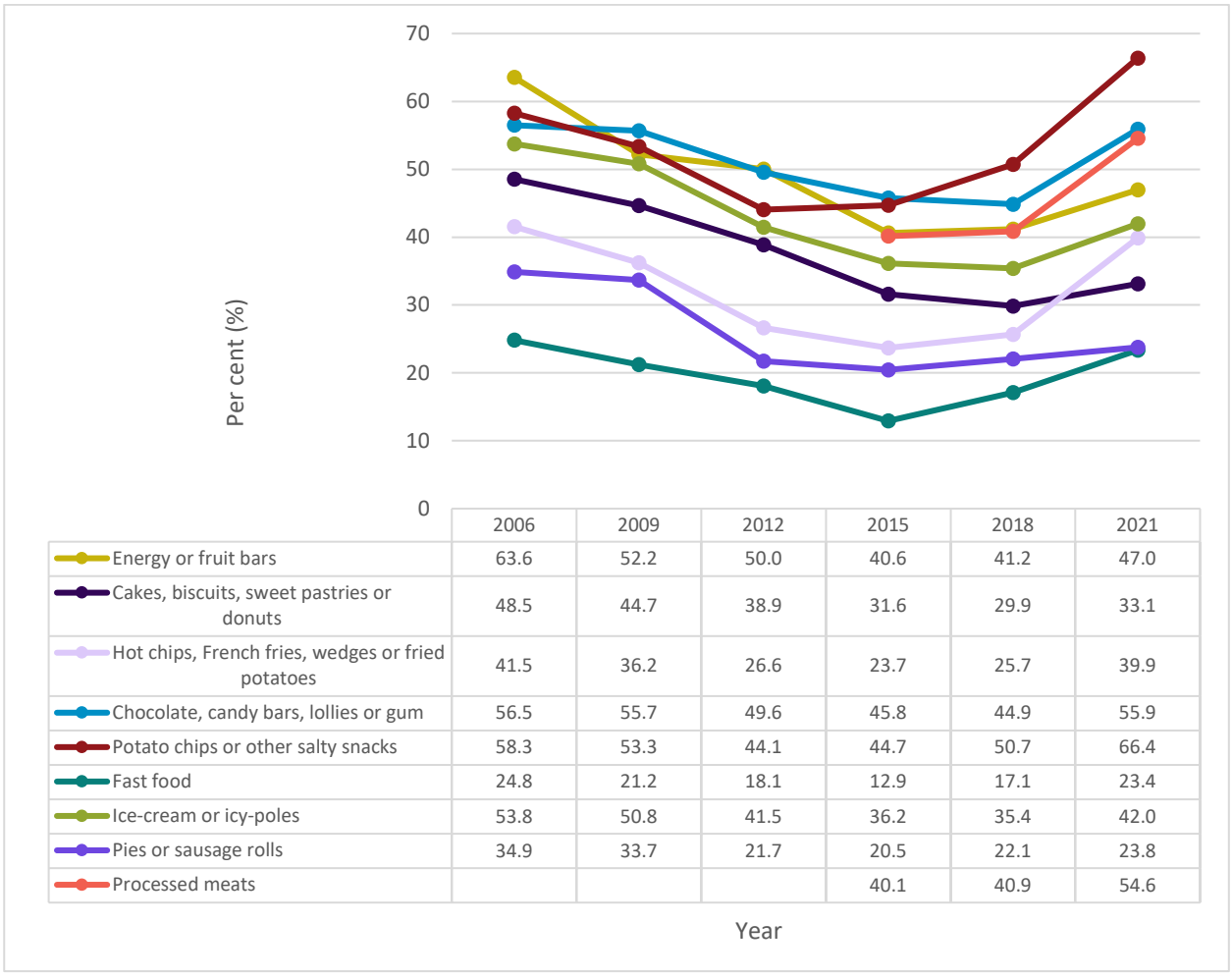
How are we going?

For most discretionary foods, consumption followed a U-shaped trend between 2006 and 2021 (**Figure 14**). The proportion of students consuming these foods declined from 2006 to 2015, after which it increased through to 2021. An exception was potato chips and other salty snacks, where the proportion declined only until 2012 before increasing. For three sweet food categories—cakes, biscuits and pastries; chocolate, candy and gum; and ice-cream or icy-poles—the turnaround did not occur until 2018. A particularly steep rise was observed between 2018 and 2021 for high-salt, high-fat discretionary foods, including potato chips and other salty snacks, processed meats, and fried potato products. **Energy or fruit bars (e.g. muesli bars, LCMs, roll-ups, K-time bars)**: the proportion of students who consumed energy or fruit bars decreased significantly from 64% in 2006 to 47% in 2021. There were no differences between genders in the consumption of energy or fruit bars.

- **Cakes, biscuits, sweet pastries, or donuts**: The proportion of students who consumed cakes, biscuits, sweet pastries, or donuts decreased significantly from 49% in 2006 to 33% in 2021. There were no differences between genders in the consumption of these foods during the same period.
- **Hot chips, French fries, and fried potatoes**: The proportion of students who consumed hot chips, French fries, and fried potatoes remained stable between 2006 (42%) and 2021 (40%) There were no differences between genders in the consumption of fried potato products.
- **Chocolate, candy bars, lollies, or gum**: The proportion of students who consumed chocolate, candy bars, lollies, or gum remained stable between 2006 (57%) and 2021 (56%). There were no differences between genders in the consumption of these foods during the same period.
- **Potato chips or other salty snacks (e.g. corn chips)**: The proportion of students who consumed potato chips or other salty snacks increased significantly from 58% in 2006 to 66% in 2021. There were no differences between genders in the consumption of potato or other salty snacks.
- **Fast food (e.g. McDonald's, KFC, Pizza, Hungry Jack's)**: The proportion of students who ate fast food on a weekly basis remained stable between 2006 (25%) and 2021 (23%). Males (26%) were significantly more likely than females (17%) to consume fast food one or more times per week in 2009; however, the differences between genders were not significant in other years.
- **Ice cream or icy poles**: The proportion of students who consumed ice cream or icy poles decreased significantly from 54% in 2006 to 42% in 2021. There were no differences between genders in their consumption of ice cream and icy poles.

- **Pies or sausage rolls**: The proportion of students who consumed pies or sausage rolls decreased significantly from 35% in 2006 to 24% in 2021. Males were significantly more likely than females to consume pies or sausage rolls in all years (2006: 42% vs. 28%, 2009: 40% vs. 28%, 2012: 25% vs. 17%, 2015: 24% vs. 17%, 2018: 27% vs. 16%, 2021: 29% vs. 18%). Between 2006 and 2021, the proportion of males who consumed pies or sausage rolls one or more times per week decreased significantly from 42% to 29%, and the proportion of females decreased significantly from 28% to 18%.
- **Processed meats (e.g. chicken nuggets, hotdogs)**: The question about processed meats was introduced in 2015. The proportion of students who consumed processed meats increased significantly from 40% in 2015 to 55% in 2021. Males were significantly more likely than females to consume processed meats one or more times per week in 2015 (45% vs. 35%) and 2018 (46% vs. 35%). The differences between genders were not significant in 2021. Over the years, the proportion of males who consumed processed meats one or more times per week increased significantly from 45% to 58%. Similarly, consumption for females also increased significantly from 35% to 51%.

Figure 14: Proportion of ACT Year 6 students who consumed discretionary food one or more times in a week, 2006–2021



	2006	2009	2012	2015	2018	2021
Energy or fruit bars	63.6	52.2	50.0	40.6	41.2	47.0
Cakes, biscuits, sweet pastries or donuts	48.5	44.7	38.9	31.6	29.9	33.1
Hot chips, French fries, wedges or fried potatoes	41.5	36.2	26.6	23.7	25.7	39.9
Chocolate, candy bars, lollies or gum	56.5	55.7	49.6	45.8	44.9	55.9
Potato chips or other salty snacks	58.3	53.3	44.1	44.7	50.7	66.4
Fast food	24.8	21.2	18.1	12.9	17.1	23.4
Ice-cream or icy-poles	53.8	50.8	41.5	36.2	35.4	42.0
Pies or sausage rolls	34.9	33.7	21.7	20.5	22.1	23.8
Processed meats				40.1	40.9	54.6

Note: Processed meats as a discretionary food category was added to ACTPANS from 2015.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Drinks intake

What did we measure? Students were asked to report how often they usually consume different types of drinks each week, using the responses options *never*, *less than once a week*, *about 1-3 times a week*, *about 4-6 times a week* or *every day*. The responses were used to determine the proportion of responding students who usually consumed each type of drink. The Australian Dietary Guidelines recommend that children drink plenty of water and limit drinks containing added sugars, which includes sugar-sweetened soft drinks and cordials, fruit drinks, vitamin waters, energy drinks, and sports drinks.[10]

How are we going?

ACT Year 6 students reported usually consuming several types of drinks one or more times per week (**Figure 15**). Significant decreases were seen in the proportion of students who drank fruit juice, and soft drinks or other sugar-sweetened drinks between 2006 and 2018. The decrease is similar to the change in the proportion of students consuming sugar-sweetened snacks across this same period (**Figure 14**). Little change was observed across Year 6 students as a whole for other drinks between 2006 and 2021.

- **Soft drinks or other sugar-sweetened drinks**: The proportion of students who consumed soft drinks or other sugar-sweetened drinks decreased significantly from 46% in 2006 to 34% in 2021. Males were significantly more likely than females to consume soft drinks or other sugar-sweetened drinks in 2009 (48% vs. 37%) and 2012 (36% vs. 23%). The differences between genders were not significant in other years. Soft drink and other sugar-sweetened drink consumption in males decreased significantly from 50% to 37%, while the proportion for females remained stable in the same period.

- **Fruit juice (e.g. orange, apple, pineapple, grapefruit, tomato)**: The proportion of students who consumed fruit juice one or more times a week decreased significantly from 83% in 2006 to 50% in 2021. There were no differences between genders in the consumption of fruit juice one or more times a week in all years. Over the same period, fruit juice consumption within genders decreased significantly from 81% to 51% for males and from 85% to 48% for females.

- **Milk**: The proportion of students who consumed milk one or more times per week remained stable between 2006 (83%) and 2021 (82%). Males (87%) were significantly more likely than females to consume milk one or more times a week (77%) in 2021; however, no significant differences were noted for other years.

- **Water (e.g. from a drinking fountain, glass, cup, or bottle):** Almost all students who took part in the ACTPANS consumed water one or more times a week, and this proportion remained stable at 97% between 2006 and 2021. There were no gender differences in the consumption of water one or more times a week.

- **Sports drinks (e.g. Gatorade, Powerade)**: The question about sports drinks was introduced in 2015 to more fully capture students' intake of sugar-containing drinks. The proportion of students who consumed sports drinks one or more times a week remained stable between 2015 (15%) and 2021 (21%). Males were significantly more likely than females to consume

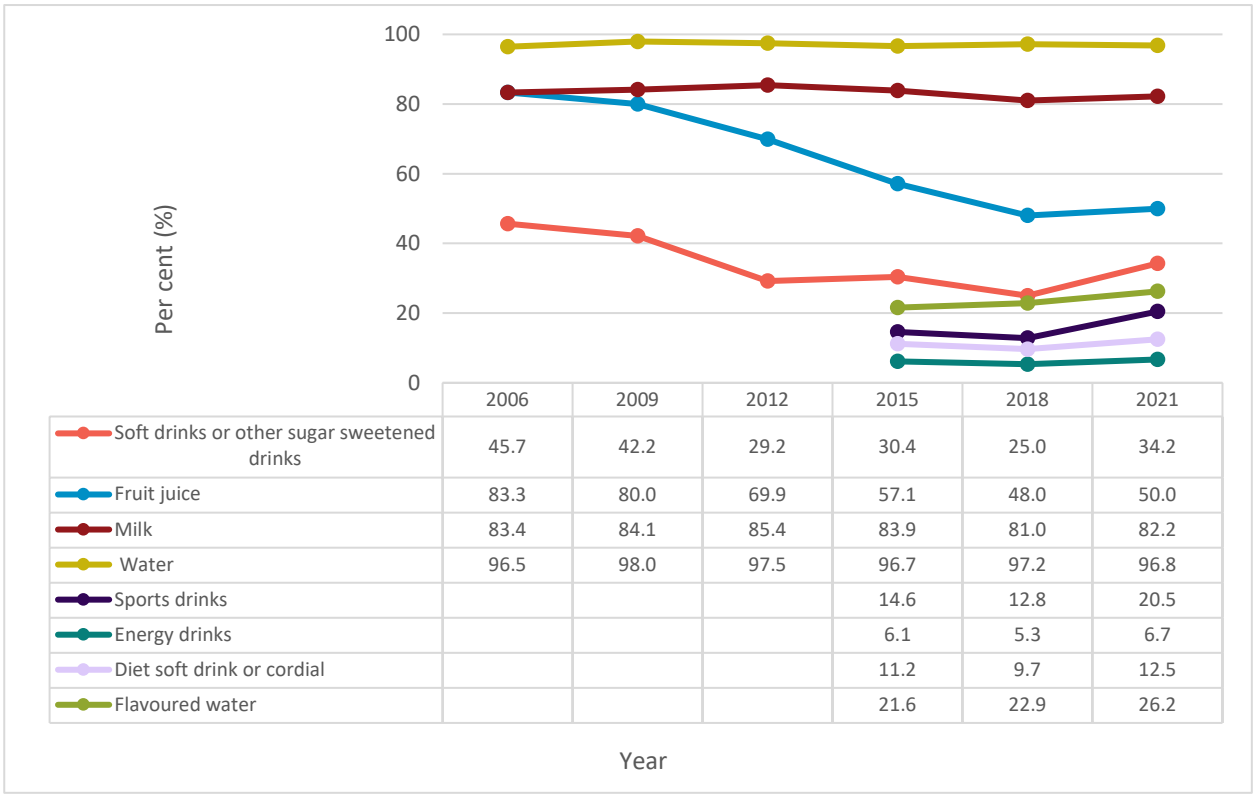
sports drinks one or more times a week in all years (2015: 20% vs. 9%, 2018: 17% vs. 8%, 2021: 25% vs. 15%). Over the years, sports drink consumption for males remained stable while consumption for females increased significantly from 9% to 15%. Gender differences were not large enough to impact the overall student consumption of sports drinks.

- **Energy drinks (e.g. Red Bull, Mother, V)**: The question about energy drinks was introduced in 2015. The proportion of students who consumed energy drinks one or more times a week remained stable at 6% between 2015 and 2021. Males (9%) were significantly more likely than females to consume energy drinks (3%) in 2015. However, no gender differences were detected for the other years.

- **Diet soft drink or diet cordial**: The question about diet drinks was introduced in 2015. The proportion of students who consumed diet soft drinks or cordials remained stable between 2015 (11%) and 2021 (13%). No differences were detected between genders in the consumption of diet soft drinks or cordials one or more times a week.

- **Flavoured water (e.g. Smart Water, Vitamin Water, iced tea)**: The question about flavoured water was introduced in 2015. The proportion of students who consumed flavoured water one or more times a week remained stable between 2015 (22%) and 2021 (26%). There were no differences between genders in the consumption of flavoured water one or more times a week.

Figure 15: Proportion of ACT Year 6 students who consumed different types of drinks one or more times in a week, 2006–2021



	2006	2009	2012	2015	2018	2021
Soft drinks or other sugar sweetened drinks	45.7	42.2	29.2	30.4	25.0	34.2
Fruit juice	83.3	80.0	69.9	57.1	48.0	50.0
Milk	83.4	84.1	85.4	83.9	81.0	82.2
Water	96.5	98.0	97.5	96.7	97.2	96.8
Sports drinks				14.6	12.8	20.5
Energy drinks				6.1	5.3	6.7
Diet soft drink or cordial				11.2	9.7	12.5
Flavoured water				21.6	22.9	26.2

Note: Sports drinks, energy drinks, diet soft drinks or cordial and flavoured water as a drink category was added to ACTPANS from 2015.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Food attitudes, availability and behaviours

Perceived health benefits and enjoyment of vegetables and fruit

What did we measure?

Students were asked to rate their level of agreement with the statements that "eating vegetables [or fruit] makes me feels healthy" and "I enjoy the taste of many [or most] vegetables [or fruit]" by selecting from the response options *strongly agree*, *agree*, *neutral*, *disagree* or *strongly disagree*. Responses from participating students were used to assess the extent to which students felt that eating vegetables [or fruit] was associated for them with feeling healthy and enjoying the taste of these foods.

Why is it important? Determinants of healthy eating include both personal factors such as food preferences and nutrition knowledge, as well as the context in which food is consumed. Supporting the development of healthy food preferences, which are strongly associated with food choices and food consumption, is essential to achieving and sustaining good health and wellbeing.[12] Fruit and vegetables are particularly important for the health promoting properties associated with their high fibre content and high nutrient density.[13]

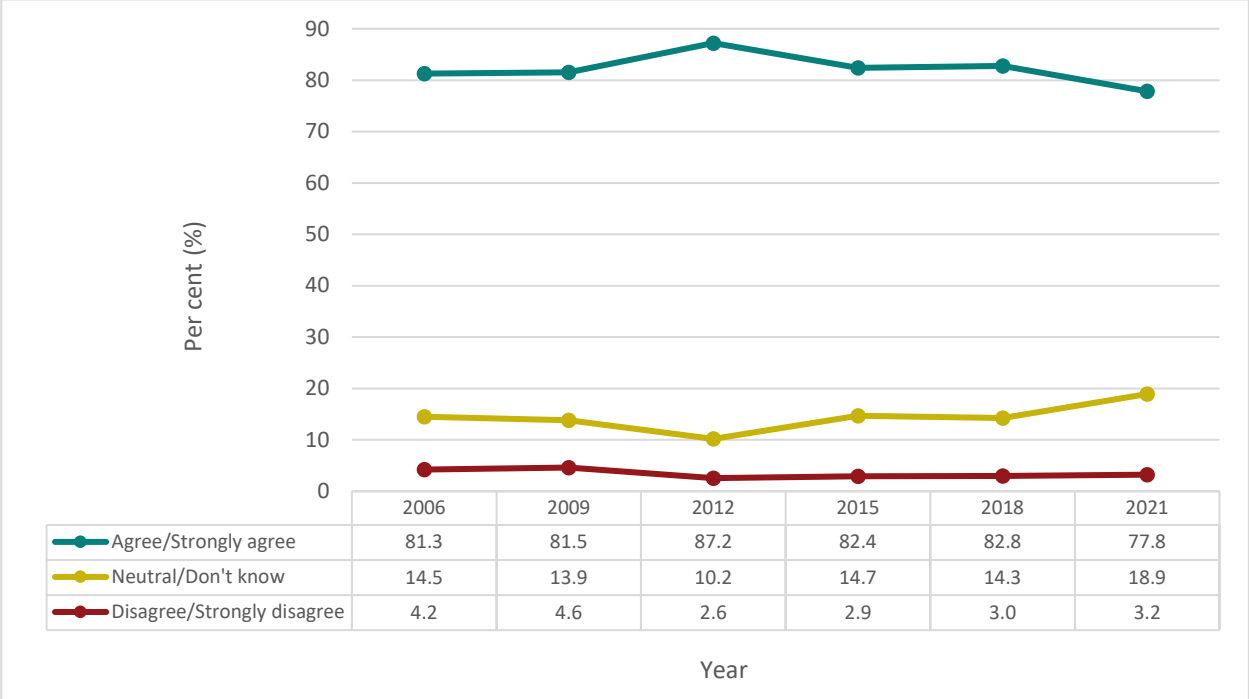
How are we going?

"Eating vegetables makes me feels healthy"

Between 2006 and 2021, the proportions of Year 6 respondents who rated the statement "eating vegetables makes me feel healthy" across all response categories (agreed/strongly agreed, neutral/don't know and disagreed/strongly disagreed) remained stable (**Figure 16**).

Most Year 6 students who took part in ACTPANS reported that they agreed/strongly agreed with the statement "eating vegetables makes me feel healthy". Females were significantly more likely to agree/strongly agree with this statement compared to males in 2009 and 2018. In other years, significant differences were not observed between genders.

Figure 16: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "eating vegetables makes me feel healthy", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	81.3	81.5	87.2	82.4	82.8	77.8
Neutral/Don't know	14.5	13.9	10.2	14.7	14.3	18.9
Disagree/Strongly disagree	4.2	4.6	2.6	2.9	3.0	3.2

Note: Proportion for Disagree/strongly disagree 2021 has a RSE 25–50% and must be used with caution.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Similarly, no significant differences were detected between males and females for the neutral/don't know and disagree/strongly disagree answer options between 2006 and 2021, apart from 2009, when males (6%) were significantly more likely to record a disagree/strongly disagree response compared to females (3%) (**Table 8**).

Table 8: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "eating vegetables makes me feel healthy" by gender, 2006–2021

Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	78.4	84.2
2009	77.3	85.5
2012	85.4	88.9
2015	82.7	82.1
2018	80.1	85.7
2021	77.9	77.8
Neutral/Don't know		
2006	17.3	11.8
2009	16.3	11.6
2012	11.6	8.9
2015	13.7	15.7
2018	16.2	12.1
2021	18.6	19.3
Disagree/Strongly disagree		
2006	4.3#	4.0
2009	6.4	2.9
2012	3.0	2.2#
2015	3.6	2.2#
2018	3.7	2.2#
2021	3.5#	2.9#

Note: #Proportions for Disagree/strongly disagree Males 2006 and 2021, Females 2015-2021 have a RSE 25–50% and must be used with caution.

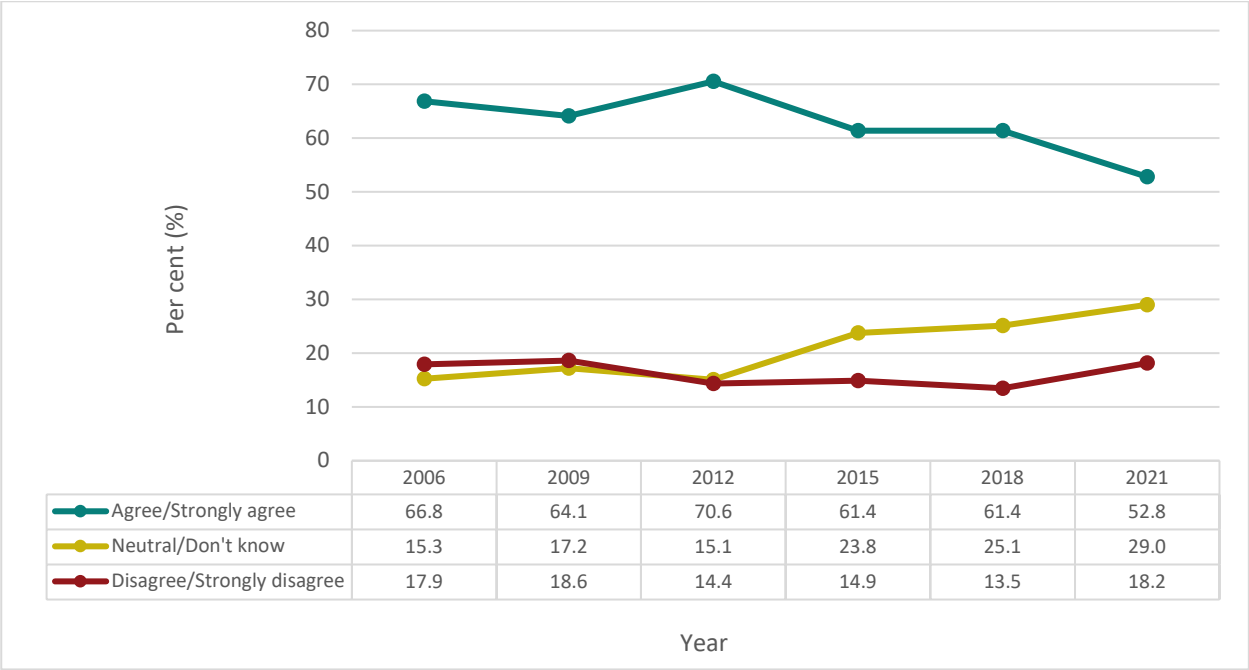
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

"I enjoy the taste of many vegetables"

In 2021, over half of ACT Year 6 students who took part in ACTPANS reported that they enjoy the taste of many vegetables. The proportion of students who agreed/strongly agreed that they enjoyed the taste of many vegetables decreased significantly from 67% in 2006 to 53% in 2021, while those who recorded a neutral/don't know response increased significantly over time (15% to 29%).The proportion of students who recorded a disagree/strongly disagree response remained stable during the same period (**Figure 17**).

Between 2006 and 2021, females were more likely than males to agree/strongly agree that they enjoyed the taste of many vegetables, with significant differences noted in 2006 and 2018. Gender differences for neutral/don't know and disagree/strongly disagree response options were not significant over the years. Agreement with the statement declined significantly between 2006 and 2021 for both genders, falling from 63% to 49% among males and from 71% to 58% among females. The proportions reporting neutral/don't know and disagree/strongly disagree responses remained stable over the same period (**Table 9**).

Figure 17: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I enjoy the taste of many vegetables", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	66.8	64.1	70.6	61.4	61.4	52.8
Neutral/Don't know	15.3	17.2	15.1	23.8	25.1	29.0
Disagree/Strongly disagree	17.9	18.6	14.4	14.9	13.5	18.2

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Table 9: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I enjoy the taste of many vegetables" by gender, 2006–2021

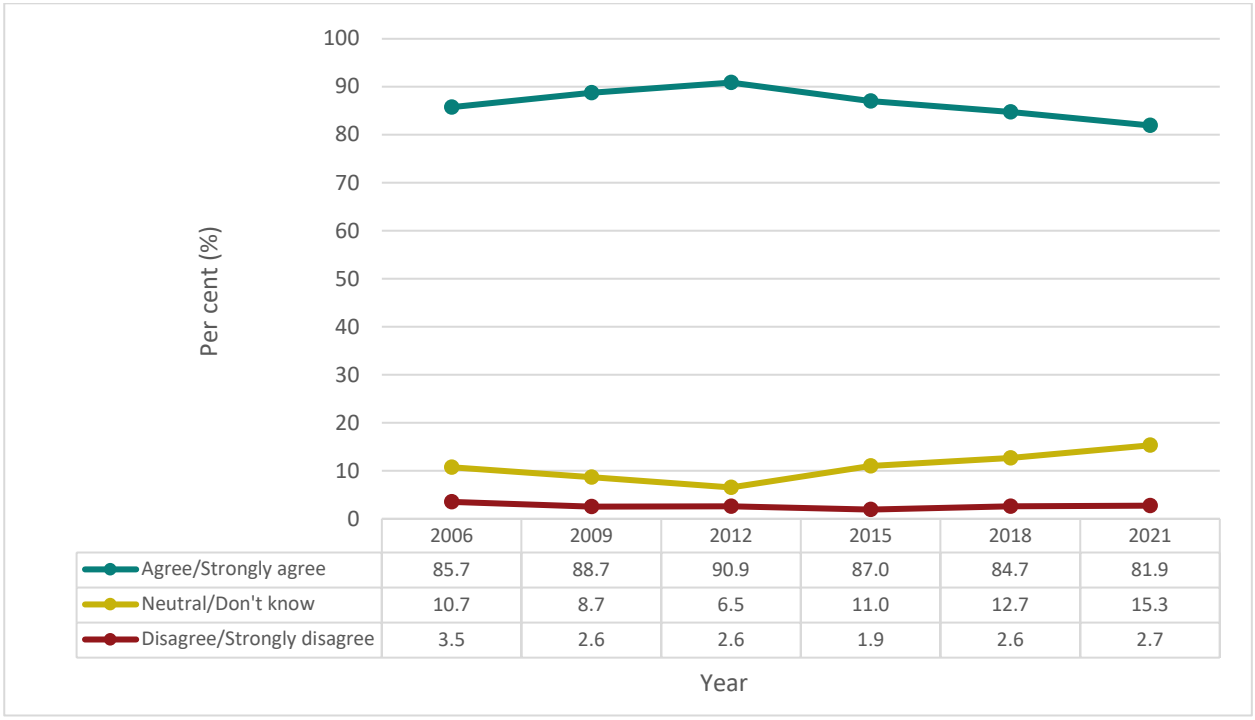
Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	62.7	71.0
2009	60.5	67.6
2012	68.0	73.0
2015	60.0	62.8
2018	56.1	67.3
2021	48.5	57.5
Neutral/Don't know		
2006	16.1	14.5
2009	18.1	16.5
2012	15.7	14.5
2015	23.1	24.5
2018	28.5	21.4
2021	32.4	25.4
Disagree/Strongly disagree		
2006	21.2	14.5
2009	21.5	15.9
2012	16.3	12.6
2015	16.9	12.7
2018	15.4	11.3
2021	19.1	17.2

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

"Eating fruit makes me feel healthy"

Most respondents agreed/strongly agreed with the statement "eating fruit makes me feel healthy." The proportions for all response categories remained relatively stable over the years (**Figure 18**).

Figure 18: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "eating fruit makes me feel healthy", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	85.7	88.7	90.9	87.0	84.7	81.9
Neutral/Don't know	10.7	8.7	6.5	11.0	12.7	15.3
Disagree/Strongly disagree	3.5	2.6	2.6	1.9	2.6	2.7

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

There were no significant differences between males and females across all response categories between 2006 and 2021. The proportions of males and females who agreed or disagreed with the statement remained stable over the years. However, while neutral/don't know responses among males remained stable, the proportion of females selecting these responses increased significantly from 8% to 15% (**Table 10**).

Table 10: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "Eating fruit makes me feel healthy" by gender, 2006–2021

Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	83.4	88.2
2009	86.2	91.1
2012	89.0	92.6
2015	85.5	88.8
2018	82.0	87.8
2021	81.1	82.8
Neutral/Don't know		
2006	13.0	8.4
2009	10.1	7.3
2012	8.3	4.9
2015	11.9	10.1
2018	14.8	10.3
2021	15.8	14.8
Disagree/Strongly disagree		
2006	3.6[#]	3.5
2009	3.7	1.6[#]
2012	2.7[#]	2.5
2015	2.6[#]	NP
2018	3.2	1.9[#]
2021	3.1[#]	NP

Note:

[1] [#]Proportions for Disagree/strongly disagree Males 2006, 2012, 2015 and 2021 and Females 2009 and 2018 have a RSE 25–50% and must be used with caution.

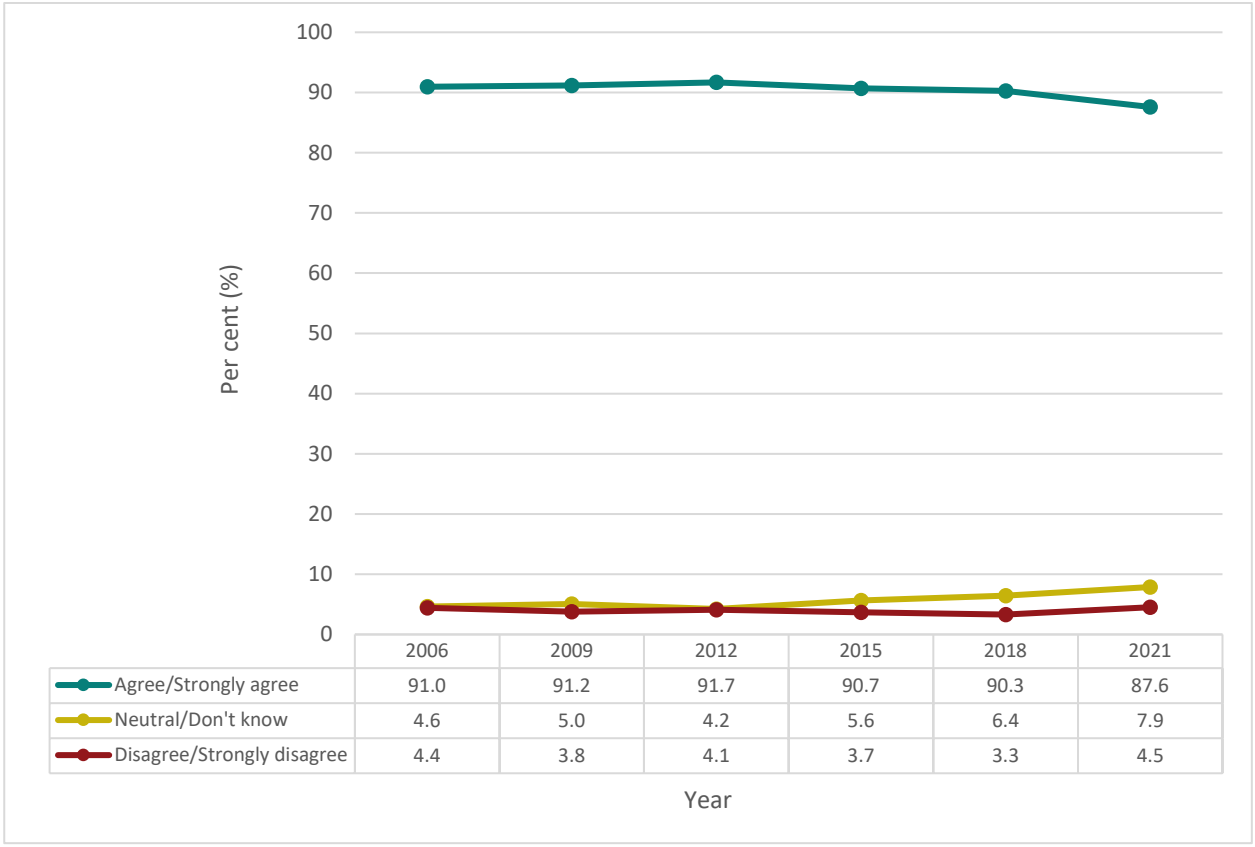
[2] Estimates with RSE > 50% or based on a numerator less than 10 are supressed and presented as NP/missing data points.

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

"I enjoy the taste of most fruit"

Most Year 6 respondents reported that they enjoyed the taste of most fruit. Between 2006 and 2021, the proportions of students who agreed or disagreed with the statement remained stable, while the proportion reporting a neutral/don't know response increased significantly from 5% to 8% (**Figure 19**).

Figure 19: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I enjoy the taste of most fruit", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	91.0	91.2	91.7	90.7	90.3	87.6
Neutral/Don't know	4.6	5.0	4.2	5.6	6.4	7.9
Disagree/Strongly disagree	4.4	3.8	4.1	3.7	3.3	4.5

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

There were no differences between the proportions of males and females who agreed/strongly agreed and disagreed/strongly disagreed about enjoying the taste of most fruit. Males were significantly more likely than females to record a neutral or don't know response in 2018; however, there were no gender differences observed in other years (**Table 11**).

Table 11: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I enjoy the taste of most fruit" by gender, 2006–2021

Year	Males (%)	Females (%)
Agree/ Strongly agree		
2006	90.5	91.5
2009	89.5	92.8
2012	90.3	93.0
2015	89.0	92.6
2018	88.9	91.8
2021	86.3	89.0
Neutral/Don't know		
2006	5.3	3.8
2009	5.7	4.4
2012	5.2	3.4
2015	6.4	4.8
2018	8.0	4.7
2021	8.4	7.3
Disagree/Strongly disagree		
2006	4.2#	4.7
2009	4.8#	2.8
2012	4.5	3.7
2015	4.6	2.6
2018	3.1	3.5
2021	5.3	3.7#

Note: #Proportions for Disagree/strongly disagree Males 2006 and 2009 and Females 2021 have a RSE 25–50% and must be used with caution.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Availability of fruit and vegetables in the home

What did we measure? Students were given two statements — "In my home fruit is available to eat at any time" and "In my home vegetables are usually served with dinner" — and asked how often each applied to them by selecting from the options *always*, *often*, *sometimes*, *rarely*, or *never*. Responses from participating students were used to determine the extent to which students' home environments provided ready access to fruit and meals which usually included vegetables.

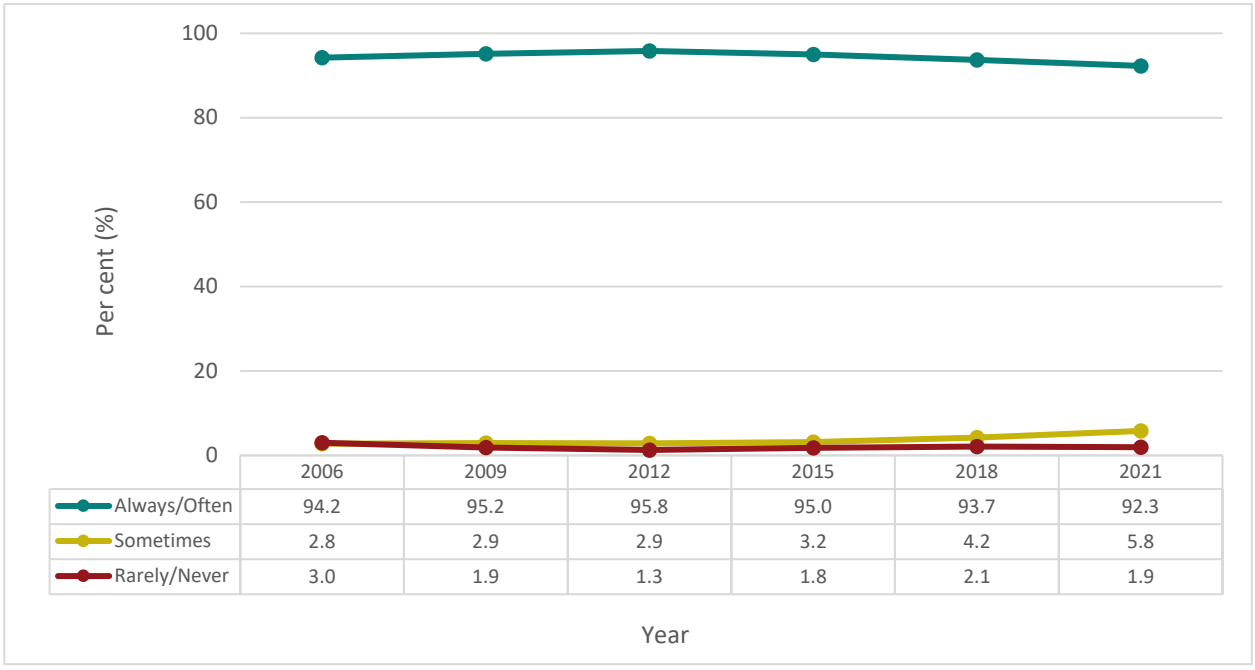
Why is it important? The home environment is known to influence the development of children's food preferences and choices and can promote either healthy or unhealthy eating preferences.[14] Greater availability of fruit and vegetables at home increases their consumption by children.[15]

How are we going?

"In my home fruit is available to eat at any time"

The majority of responding Year 6 students reported that they had fruit available to eat at home always/often between 2006 and 2021 (**Figure 20**). The proportions of those who had access always/ often and rarely/never remained stable during the same period. The proportion of students who had access sometimes increased significantly from 3% in 2006 to 6% in 2021. No significant differences were detected between genders within the different response categories. Females who had access to fruit at home sometimes increased significantly from 3% in 2006 to 5% in 2021, while all other proportions for genders remained stable (**Table 12**).

Figure 20: Proportion of ACT Year 6 students who reported always/often, sometimes and rarely/never to the statement "In my home fruit is available to eat at any time", 2006–2021



	2006	2009	2012	2015	2018	2021
Always/Often	94.2	95.2	95.8	95.0	93.7	92.3
Sometimes	2.8	2.9	2.9	3.2	4.2	5.8
Rarely/Never	3.0	1.9	1.3	1.8	2.1	1.9

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Table 12: Proportion of ACT Year 6 students who reported always/often, sometimes and rarely/never to the statement "in my home fruit is available to eat at any time" by gender, 2006–2021

Year	Males (%)	Females (%)
Always/Often		
2006	93.9	94.5
2009	95.0	95.3
2012	94.6	96.9
2015	94.9	95.2
2018	93.7	93.6
2021	91.6	93.0
Sometimes		
2006	3.1	2.4
2009	3.3	2.6
2012	3.6	2.2
2015	3.0[#]	3.3[#]
2018	4.3	4.1[#]
2021	6.2	5.3
Rarely/Never		
2006	3.0[#]	3.0[#]
2009	1.7[#]	2.1[#]
2012	1.7[#]	NP
2015	2.1%	NP
2018	2.0[#]	2.3
2021	NP	NP

Note:

[1] [#]Proportions for Sometimes Males 2015, Females 2015 and 2018, Rarely/never Males 2006, 2009, 2012 and 2018, Females 2006 and 2009 have a RSE 25–50% and must be used with caution.

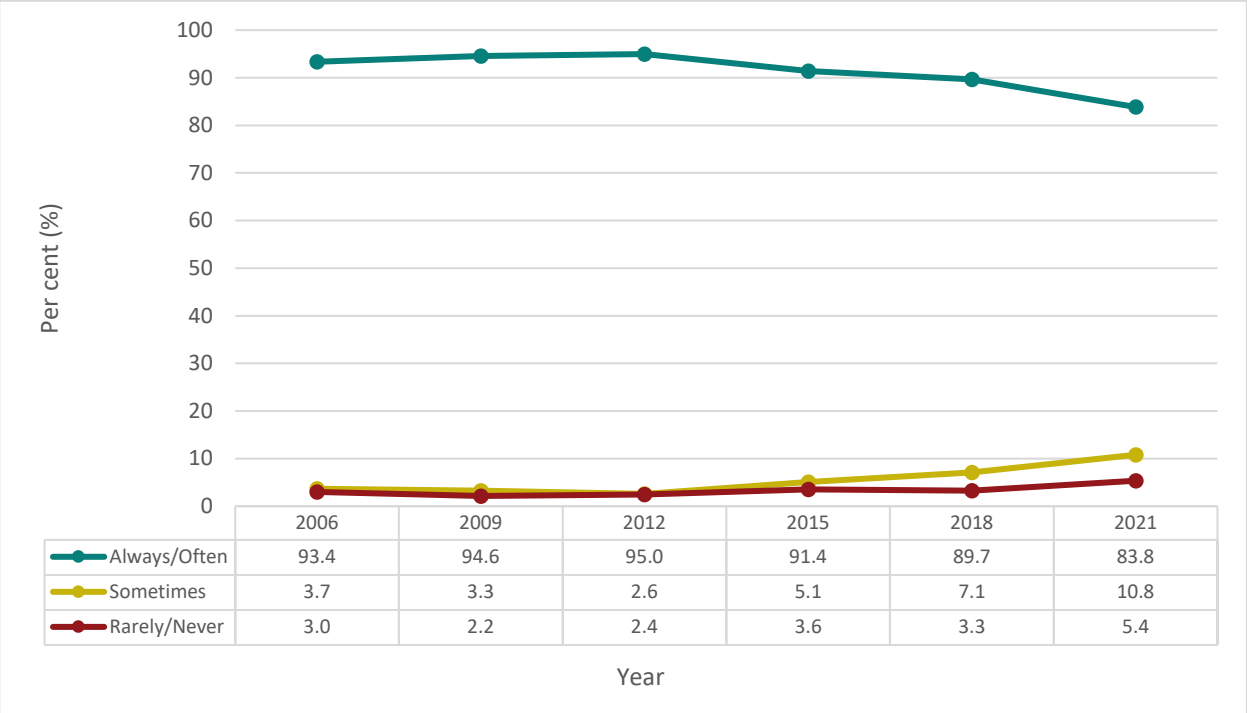
[2] Estimates with RSE > 50% or based on a numerator less than 10 are supressed and presented as NP/missing data points.

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

"In my home vegetables are usually served with dinner"

Most students reported that vegetables are always/often served with dinner. This proportion decreased significantly over time from 93% in 2006 to 83% in 2021. The proportion of students who reported that vegetables are sometimes offered with dinner also increased significantly from 4% to 11% between 2006 and 2021, while those who reported that they rarely/never have vegetables served with dinner remained stable (**Figure 21**).

Figure 21: Proportion of ACT Year 6 students who reported always/often, sometimes and rarely/never to the statement "in my home vegetables are usually served with dinner", 2006–2021



	2006	2009	2012	2015	2018	2021
Always/Often	93.4	94.6	95.0	91.4	89.7	83.8
Sometimes	3.7	3.3	2.6	5.1	7.1	10.8
Rarely/Never	3.0	2.2	2.4	3.6	3.3	5.4

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

There were no significant differences between male and female responses in the different categories over the years. Between 2006 and 2021, the proportion of students who reported always/often having vegetables served at dinner declined significantly, from 93% to 83% among males and from 94% to 85% among females. Conversely, those reporting that vegetables were served sometimes as part of dinner increased significantly, from 4% to 11% for males and from 3% to 10% for females. The proportion of students who reported vegetables were rarely/never served remained stable throughout the period (**Table 13**).

Table 13: Proportion of ACT Year 6 students who reported always/often, sometimes and rarely/never to the statement "In my home vegetables are usually served with dinner" by gender, 2006–2021

Year	Males (%)	Females (%)
Always/Often		
2006	92.6	94.0
2009	93.6	95.4
2012	93.5	96.3
2015	89.0	93.9
2018	90.6	88.6
2021	82.9	84.9
Sometimes		
2006	4.1	3.2
2009	3.8	2.8
2012	3.8	1.5#
2015	6.9	3.1#
2018	6.4	7.8
2021	11.4	10.2
Rarely/Never		
2006	3.2	2.8
2009	2.6	1.7
2012	2.7#	2.2#
2015	4.1	3.0#
2018	3.0	3.6
2021	5.7	5.0

Note: #Proportions for Sometimes Females 2012 and 2015, Rarely/never Males 2012, Females 2012 and 2015 have a RSE 25–50% and must be used with caution.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Availability, preference and promotion of soft drinks

What did we measure? Students were given three statements about soft drinks. Two of these related to the availability and selection of soft drinks: "Soft drinks are usually available in my home" and "I usually choose soft drinks instead of water or milk". Students indicated how often the two statements applied to them by selecting *always*, *often*, *sometimes*, *rarely*, or *never*. For the third statement, "I choose the soft drink with the best TV adverts", students rated their agreement by selecting *strongly agree*, *agree*, *neutral*, *disagree*, or *strongly disagree*. Responses from participating students were used to determine how students' home environments and drink preferences favoured soft drink consumption and the extent to which soft drink choices were associated with television advertising.

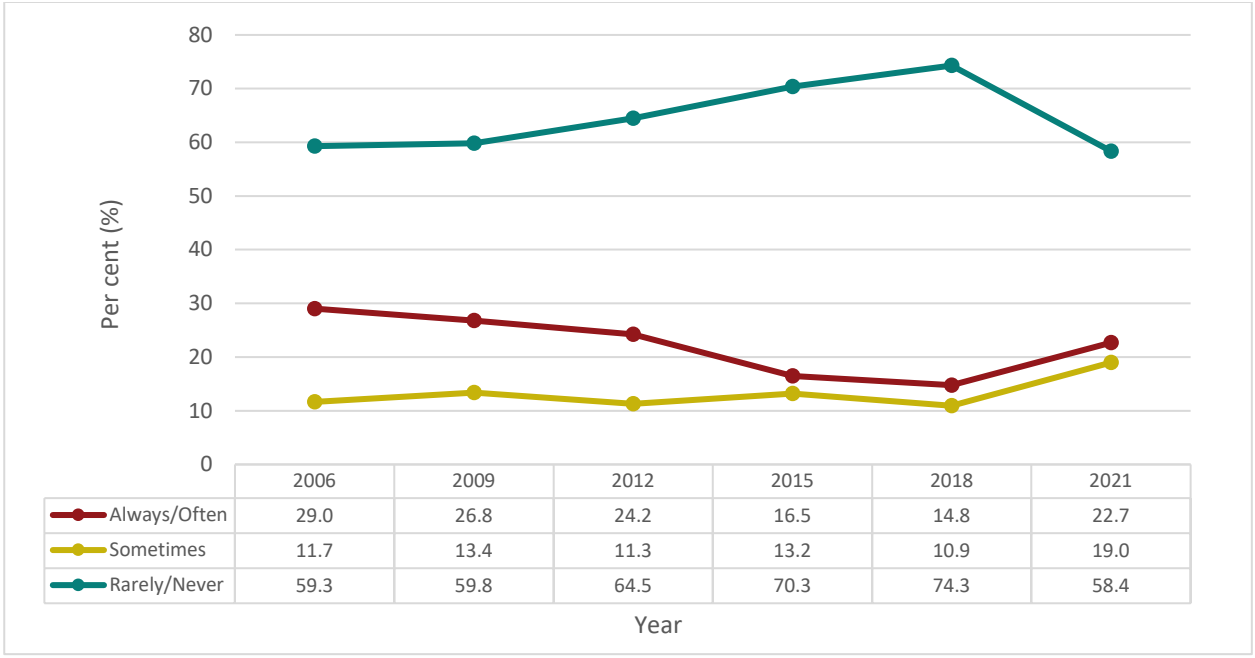
Why is it important? The intake of soft drinks and sugar-sweetened drinks by children and adolescents is influenced by a range of factors, including their availability, promotion, taste and the belief that these drinks make children feel more energised. However, because sugar-sweetened drinks are considered discretionary, and higher intakes of these drinks are associated with increased risks of dental caries and obesity in children, their consumption should be limited.[16]

How are we going?

"Soft drinks are usually available in my home"

Over half of respondent students reported that they rarely/never had access to soft drinks in their homes between 2006 and 2021. Students who reported sometimes having access to soft drinks at home increased significantly from 12% to 19% over time. The proportions of students who reported having access to soft drinks at home always/often, as well as rarely/never remained stable over this same period (**Figure 22**).

Figure 22: Proportion of ACT Year 6 students who reported always/often, sometimes and rarely/never to the statement "soft drinks are usually available in my home", 2006–2021



	2006	2009	2012	2015	2018	2021
Always/Often	29.0	26.8	24.2	16.5	14.8	22.7
Sometimes	11.7	13.4	11.3	13.2	10.9	19.0
Rarely/Never	59.3	59.8	64.5	70.3	74.3	58.4

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Females were significantly more likely to record a rarely/never response to soft drinks usually being available in their homes compared to males in 2009. There were no significant differences between males and females in other response categories over the years. The proportion of females who sometimes have access to soft drinks at home increased significantly from 11% in 2006 to 20% in 2021, while all other categories remained stable within genders (**Table 14**).

Table 14: Proportion of ACT Year 6 students who reported always/often, sometimes and rarely/never to the statement "Soft drinks are usually available in my home" by gender, 2006–2021

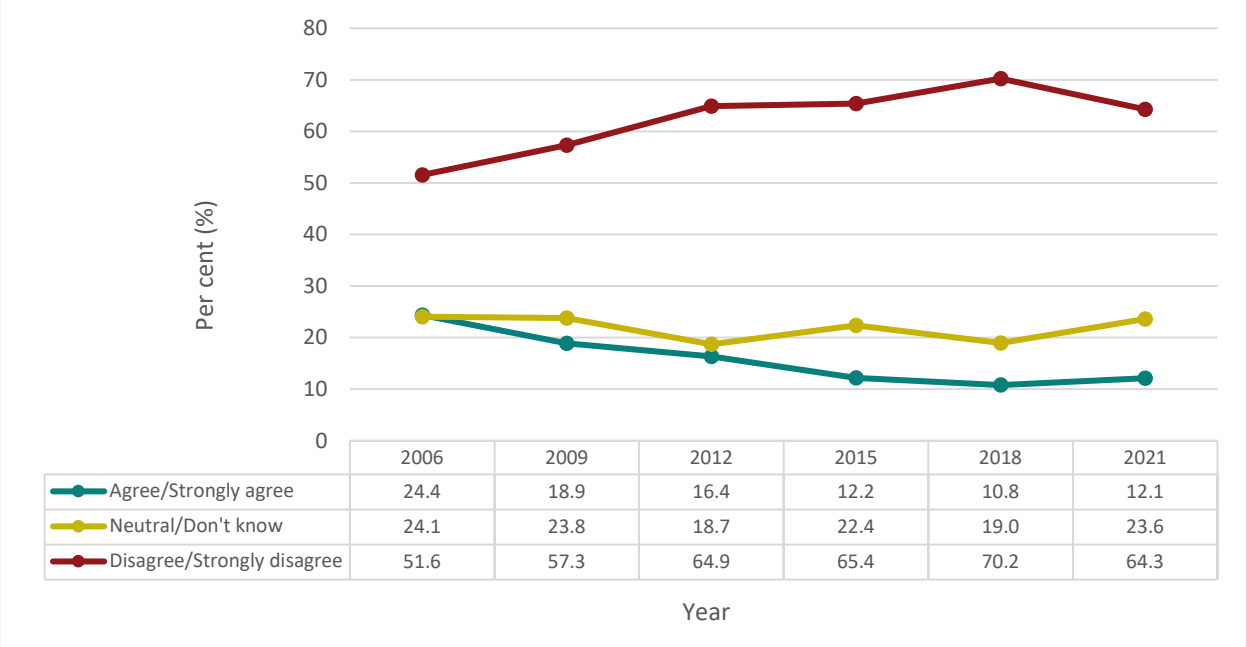
Year	Males (%)	Females (%)
Always/Often		
2006	31.1	26.9
2009	32.1	21.7
2012	26.1	22.5
2015	17.4	15.5
2018	16.6	12.7
2021	23.3	22.0
Sometimes		
2006	11.7	11.4
2009	14.7	12.2
2012	10.4	12.2
2015	13.0	13.4
2018	11.4	10.4
2021	18.0	20.1
Rarely/Never		
2006	57.2	61.7
2009	53.3	66.0
2012	63.5	65.3
2015	69.7	71.1
2018	72.0	76.8
2021	58.7	57.9

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

"I usually choose soft drinks instead of water or milk"

Over half of Year 6 students who participated in ACTPANS reported that they disagree/strongly disagree with the statement, "I usually choose soft drinks instead of water or milk." The proportion of students who preferred soft drinks over water or milk declined significantly from 24% in 2006 to 12% in 2021. Neutral responses remained stable during this period, while the proportion of students who disagreed with preferring soft drinks increased significantly from 52% to 64% (**Figure 23**).

Figure 23: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I usually choose soft drinks instead of water or milk", 2006-2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	24.4	18.9	16.4	12.2	10.8	12.1
Neutral/Don't know	24.1	23.8	18.7	22.4	19.0	23.6
Disagree/Strongly disagree	51.6	57.3	64.9	65.4	70.2	64.3

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Males were more likely than females to agree/strongly agree to choosing soft drinks over water or milk, with significant differences noted in 2009 and 2018. Females were more likely to disagree/strongly disagree with choosing soft drinks over water or milk compared to males, with significant differences also noted in 2009 and 2018. Between 2006 and 2021, the proportion of males preferring soft drinks over water or milk declined significantly, from 26% to 12%, and similarly for females where they decreased from 22% to 12%. Responses which were neutral or disagreed remained stable throughout the period (**Table 15**).

Table 15: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I usually choose soft drinks instead of water or milk" by gender, 2006–2021

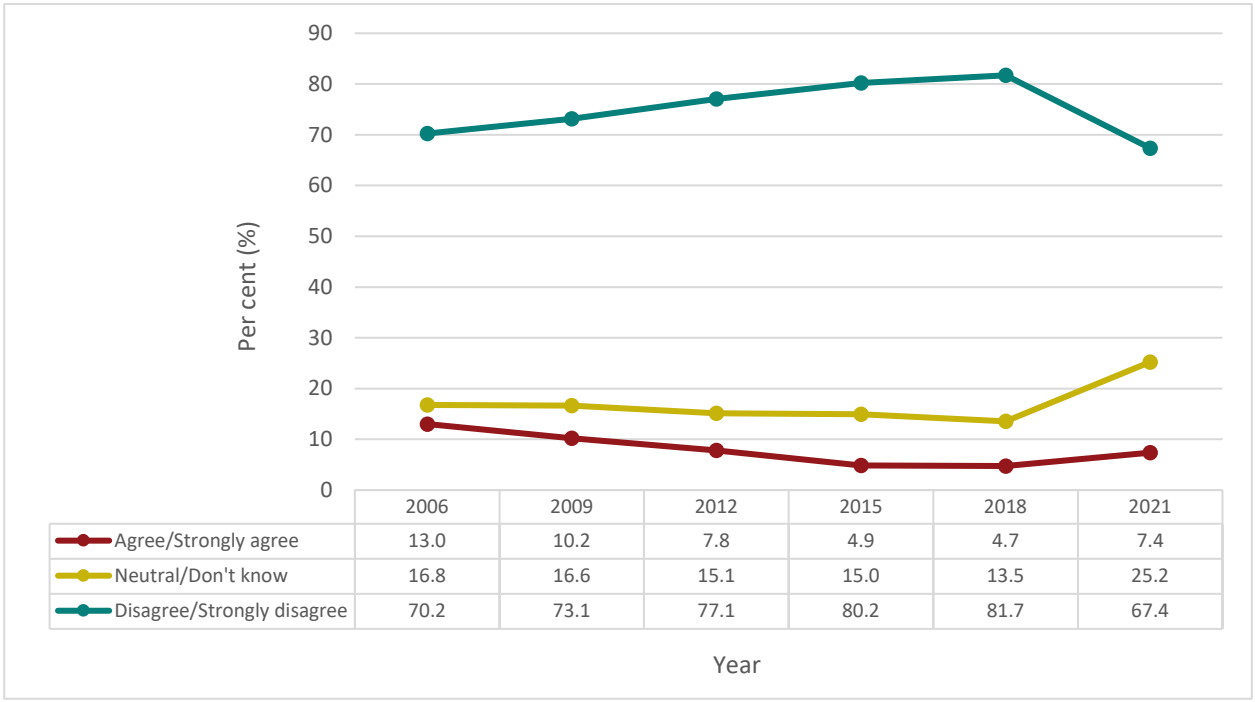
Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	26.3	22.3
2009	23.0	15.1
2012	19.6	13.3
2015	14.6	9.6
2018	12.9	8.4
2021	12.3	11.9
Neutral/Don't know		
2006	23.7	24.5
2009	26.0	21.7
2012	18.5	18.9
2015	21.5	23.4
2018	20.8	16.9
2021	24.3	22.9
Disagree/Strongly disagree		
2006	50.0	53.2
2009	51.0	63.3
2012	61.9	67.8
2015	63.9	67.0
2018	66.3	74.6
2021	63.4	65.2

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

"I choose the soft drink with the best TV adverts"

Over two-thirds of Year 6 respondents reported disagreeing/strongly disagreeing with the statement that they choose soft drinks based on TV adverts. This proportion remained stable from 2006 and 2021. The proportion of students who agreed/strongly agreed to choosing soft drinks based on the best TV adverts decreased significantly from 13% in 2006 to 7% in 2021, while neutral/do not agree responses increased significantly from 17% to 25% in the same period (**Figure 24**).

Figure 24: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I choose the soft drink with best TV adverts", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	13.0	10.2	7.8	4.9	4.7	7.4
Neutral/Don't know	16.8	16.6	15.1	15.0	13.5	25.2
Disagree/Strongly disagree	70.2	73.1	77.1	80.2	81.7	67.4

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Males were significantly more likely than females to agree/strongly agree with choosing soft drinks based on the best TV adverts in 2006 and 2009; however, the differences were not significant between the genders in other years. Females were significantly more likely to record a disagree/strongly disagree response compared to males in 2009, while the differences between the genders were not significant in other years.

Between 2006 and 2021, the proportion of males who agreed with choosing soft drinks based on TV adverts decreased significantly from 17% to 9%, while the proportion for females remained stable. Conversely, neutral/don't know responses increased significantly from 17% to 24% among males and from 17% to 26% among females during the same period. Proportions for both genders remained stable for those who disagreed with choosing soft drinks based on TV adverts (**Table 16**).

Table 16: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I choose the soft drink with best TV adverts" by gender, 2006–2021

Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	16.9	8.7
2009	14.3	6.4
2012	9.3	6.5
2015	5.3	4.4
2018	5.5	3.9
2021	8.7	6.0
Neutral/Don't know		
2006	16.6	17.1
2009	19.3	14.1
2012	14.8	15.4
2015	16.3	13.5
2018	15.9	10.9
2021	24.3	26.3
Disagree/Strongly disagree		
2006	66.5	74.2
2009	66.4	79.5
2012	75.9	78.2
2015	78.4	82.2
2018	78.6	85.2
2021	67.0	67.8

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Fast food - taste preferences, upsizing, restaurant visits and the influence of marketing

What did we measure? Students were asked to respond to four statements about fast food and the extent to which they agreed with each one, selecting from the options *strongly agreed*, *agreed*, were *neutral*, *disagreed* or *strongly disagreed*. Participating students' responses were used to assess their level of agreement about fast food: taste preferences, meal upsizing practices, visits to fast food outlets and the influence of television advertising on fast food choices.

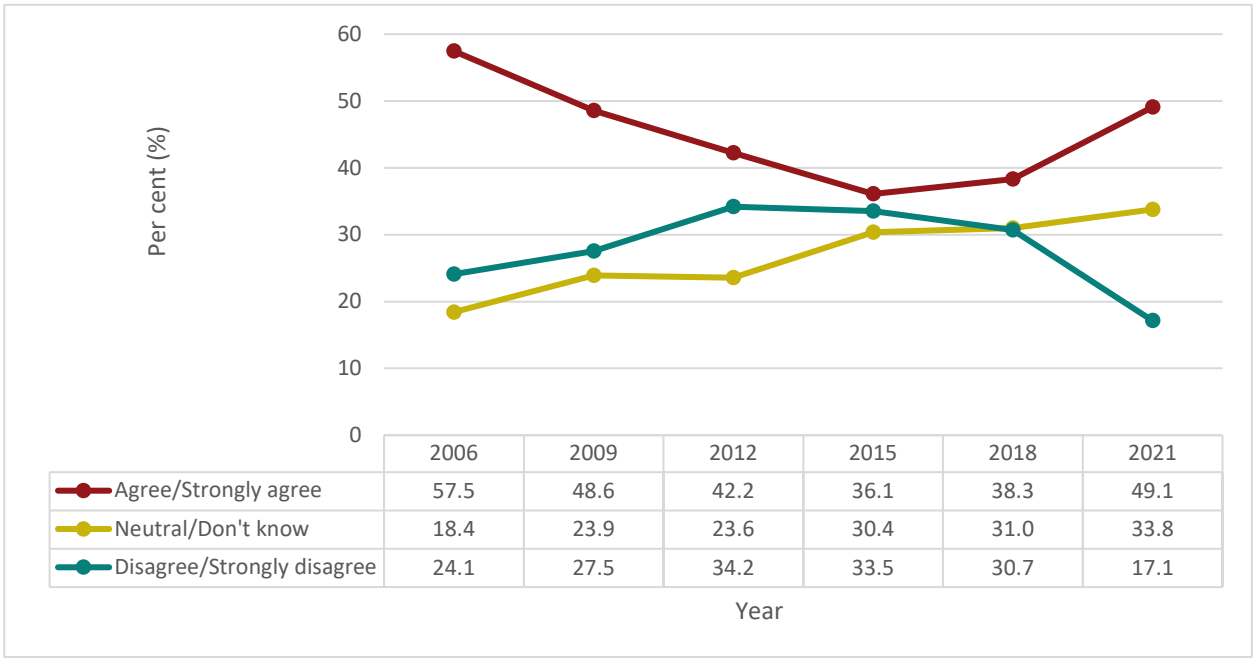
Why is it important? The development of food preferences and choices, including for fast food, develops through the influence of multiple factors such as family, food availability and advertising.[17] Evidence indicates that unhealthy food and drink marketing increases dietary intake and preference for energy-dense, low nutritional-value food and drinks.[18]

How are we going?

"I go to fast food outlets because I like the taste of the food"

The proportions of students who agreed or disagreed with choosing fast food based on taste remained stable overall between 2006 and 2021 (despite fluctuations in the intervening survey years in these proportions) while neutral/don't know responses increased significantly from 18% to 34% during the same period (**Figure 25**).

Figure 25: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I go to fast food outlets because I like the taste of the food", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	57.5	48.6	42.2	36.1	38.3	49.1
Neutral/Don't know	18.4	23.9	23.6	30.4	31.0	33.8
Disagree/Strongly disagree	24.1	27.5	34.2	33.5	30.7	17.1

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Males were more likely than females to agree/strongly agree with choosing fast food based on taste in all years, with differences becoming significant from 2012 onwards. Conversely, females were more likely to disagree in all years, although significant gender differences were observed only in 2012. The proportions of males and females who agreed or disagreed remained stable between 2006 and 2021, while neutral/don't know responses increased significantly from 17% to 30% among males and from 20% to 38% among females (**Table 17**).

Table 17: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I go to fast food outlets because I like the taste of the food" by gender, 2006–2021

Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	61.5	53.4
2009	52.8	44.6
2012	48.2	36.6
2015	41.9	29.8
2018	42.6	33.5
2021	56.1	41.5
Neutral/Don't know		
2006	17.0	19.9
2009	23.1	24.6
2012	22.7	24.4
2015	28.2	32.8
2018	31.0	31.0
2021	29.7	38.1
Disagree/Strongly disagree		
2006	21.5	26.7
2009	24.1	30.8
2012	29.1	39.0
2015	29.9	37.4
2018	26.4	35.5
2021	14.1	20.4

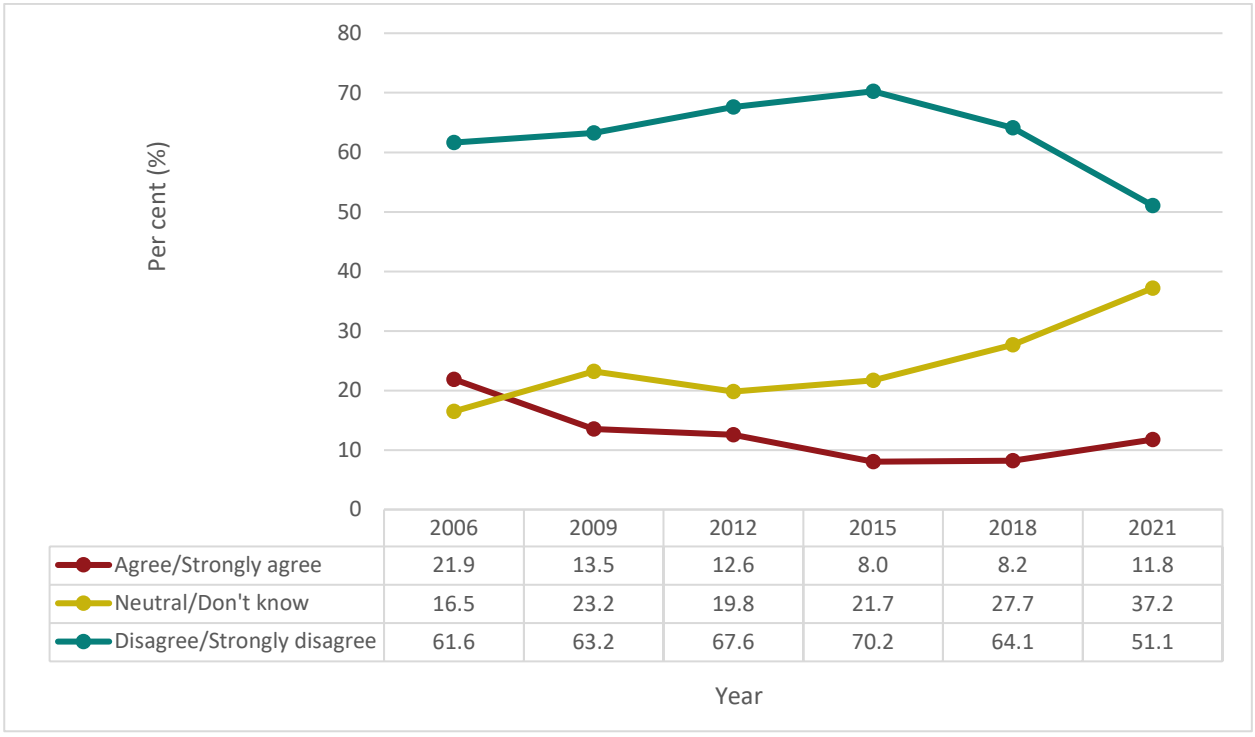
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Meal upsizing habits at fast food outlets

"At fast food outlets if I can upsize, I usually do"

The proportion of Year 6 students who reported usually upsizing their meals at fast food outlets decreased significantly from 22% in 2006 to 12% in 2021. Meanwhile, the proportion who disagreed with upsizing also declined significantly from 62% to 51%. Conversely, neutral/don't know responses increased significantly from 17% to 37% over the same period (**Figure 26**).

Figure 26: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "at fast food outlets if I can upsize, I usually do", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	21.9	13.5	12.6	8.0	8.2	11.8
Neutral/Don't know	16.5	23.2	19.8	21.7	27.7	37.2
Disagree/Strongly disagree	61.6	63.2	67.6	70.2	64.1	51.1

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Males were significantly more likely than females to upsize their meals at fast food outlets in all years. Conversely, females were more likely to disagree that they upsized, with significant gender differences observed in 2006, 2009, 2012, and 2018. Between 2006 and 2021, the proportion of males who agreed to upsizing decreased significantly from 30% to 16%, while the proportion of females also declined significantly from 14% to 8%. Neutral/don't know responses increased significantly from 16% to 38% among males and from 17% to 36% among females during the same period. The proportion of females who disagreed with upsizing decreased significantly from 70% to 56%, while the proportion for males remained stable (**Table 18**).

Table 18: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "at fast food outlets if I can upsize, I usually do" by gender, 2006–2021

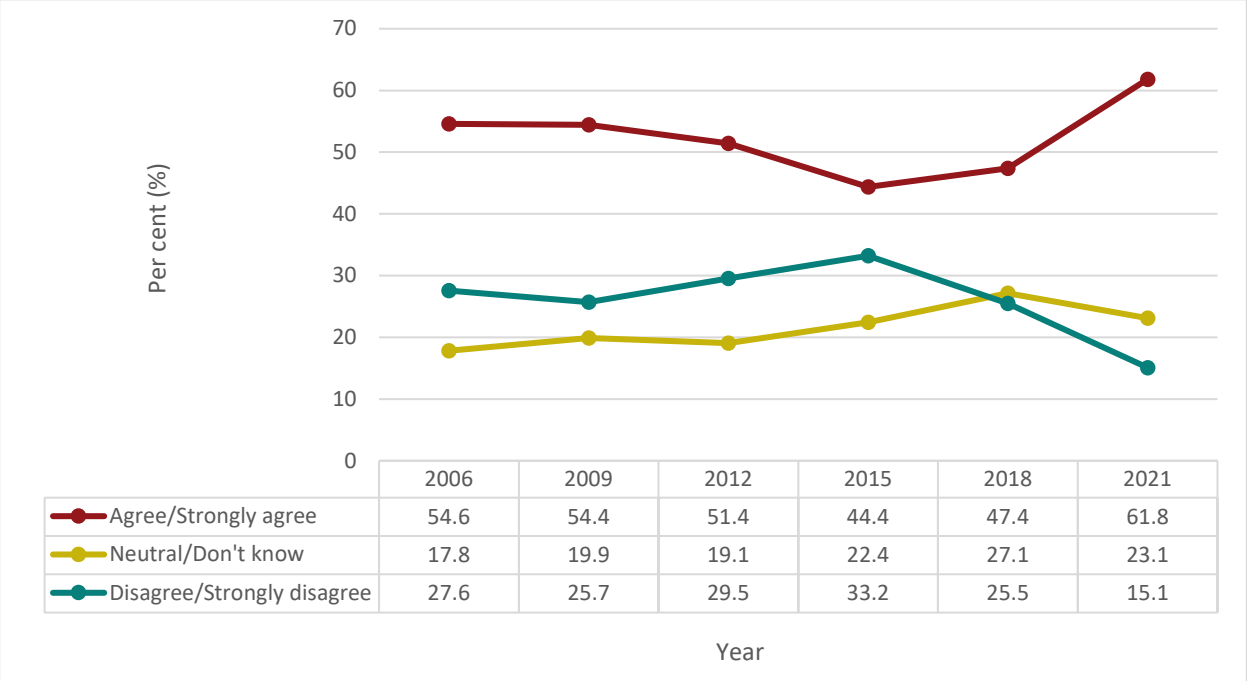
Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	30.2	13.7
2009	19.3	8.1
2012	16.4	9.0
2015	10.5	5.3
2018	11.1	4.9
2021	15.5	7.7
Neutral/Don't know		
2006	16.2	16.9
2009	24.2	22.3
2012	21.6	18.2
2015	23.5	19.7
2018	31.0	24.0
2021	37.9	36.4
Disagree/Strongly disagree		
2006	53.6	69.5
2009	56.5	69.6
2012	62.0	72.8
2015	66.0	74.9
2018	57.9	71.1
2021	46.6	55.9

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

"I go to fast food outlets with my family"

The proportions of responding students who agreed or recorded a neutral/don't know response to visiting fast food outlets with family remained stable between 2006 and 2021, while those who disagreed decreased significantly from 28% to 15% over the same period (**Figure 27**).

Figure 27: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I go to fast food outlets with my family", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	54.6	54.4	51.4	44.4	47.4	61.8
Neutral/Don't know	17.8	19.9	19.1	22.4	27.1	23.1
Disagree/Strongly disagree	27.6	25.7	29.5	33.2	25.5	15.1

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Males were more likely than females to agree/strongly agree that they visited fast food outlets with their family in most years; however, a significant gender difference was only observed in 2012. No other significant differences were noted across other response categories. Between 2006 and 2021, the proportion of males who agreed that they visit fast food outlets with family remained stable, while the proportion of females who agreed increased significantly from 52% to 62%. Neutral/don't know responses remained stable, while the proportion of students who disagreed decreased significantly from 26% to 15% for males and from 29% to 15% for females (**Table 19**).

Table 19: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I go to fast food outlets with my family" by gender, 2006–2021

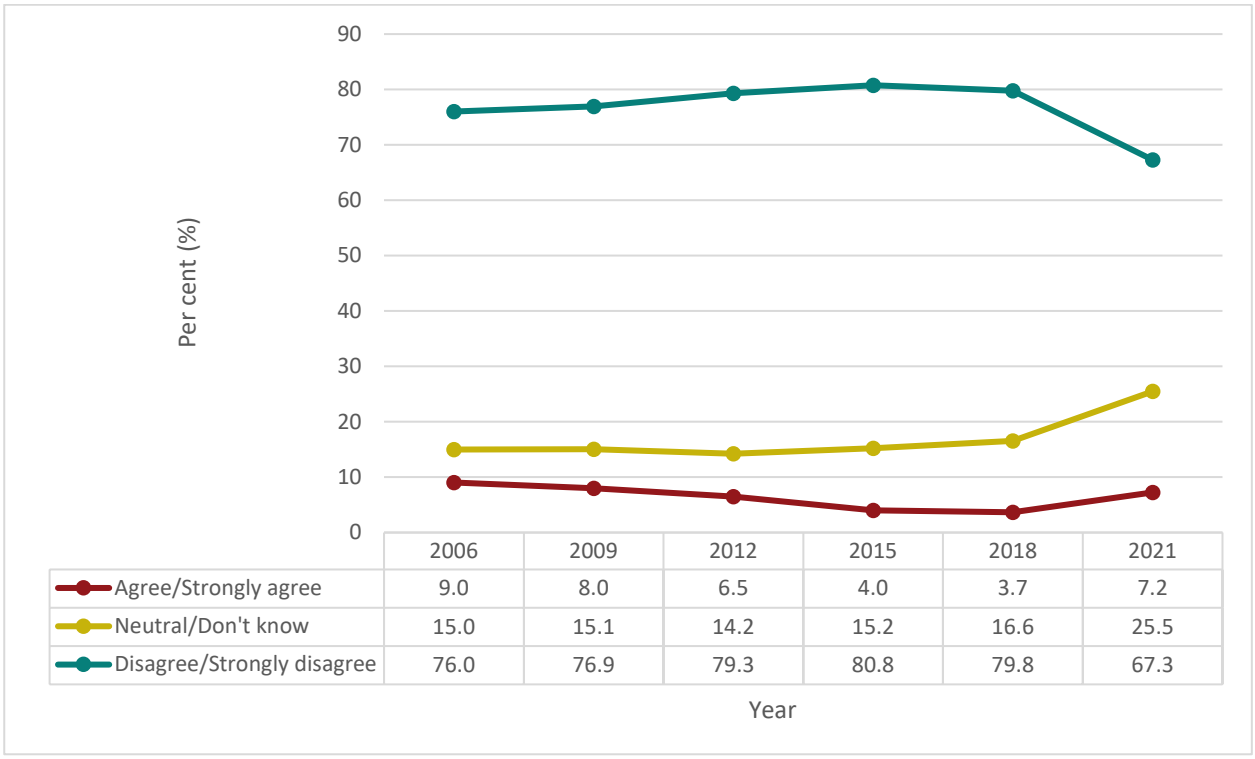
Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	57.4	51.9
2009	55.6	53.3
2012	56.7	46.5
2015	46.1	42.5
2018	48.9	45.7
2021	61.7	61.9
Neutral/Don't know		
2006	16.6	19.1
2009	21.7	18.1
2012	16.7	21.3
2015	21.6	23.3
2018	26.2	28.2
2021	23.0	23.2
Disagree/Strongly disagree		
2006	26.0	29.0
2009	22.7	28.6
2012	26.6	32.2
2015	32.3	34.2
2018	24.9	26.1
2021	15.3	14.9

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

"I choose the fast-food outlet with the coolest TV adverts"

The proportion of responding students who agreed with the statement remained stable between 2006 and 2021, while neutral/don't know responses increased significantly from 15% to 26%. Conversely, the proportion of students who disagreed with choosing fast food outlets based on TV adverts decreased significantly from 76% to 67% over the same period (**Figure 28**).

Figure 28: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I choose the fast food outlet with the coolest TV adverts", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	9.0	8.0	6.5	4.0	3.7	7.2
Neutral/Don't know	15.0	15.1	14.2	15.2	16.6	25.5
Disagree/Strongly disagree	76.0	76.9	79.3	80.8	79.8	67.3

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Males were significantly more likely than females to agree/strongly agree with choosing fast food outlets based on the coolest TV adverts in 2009; however, no significant gender differences were observed in other years across response categories. Between 2006 and 2021, the proportions of males and females agreeing with this statement remained stable, while neutral/don't know responses increased significantly from 17% to 25% among males and from 13% to 26% among females. The proportion of females who disagreed with choosing fast food outlets based on TV advertising decreased significantly from 80% to 66%, while the proportion of males remained stable over the same period (**Table 20**).

Table 20: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I go to fast food outlets with my family" by gender, 2006–2021

Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	11.1	6.9
2009	11.8	4.4
2012	8.7	4.4
2015	4.5	3.4
2018	5.1	2.0[#]
2021	6.6	7.9
Neutral/Don't know		
2006	16.9	13.0
2009	17.3	13.0
2012	15.2	13.4
2015	15.6	14.8
2018	18.5	14.4
2021	24.9	26.1
Disagree/Strongly disagree		
2006	72.0	80.2
2009	70.8	82.7
2012	76.1	82.2
2015	79.9	81.7
2018	76.4	83.6
2021	68.5	66.0

Note: [#]Proportion for Females 2018 has a RSE 25–50% and must be used with caution.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Family meals and patterns

What did we measure? Students were asked to respond to four statements about family meals and eating patterns by indicating their level of agreement, selecting from the options *strongly agreed*, *agreed*, were *neutral*, *disagreed* or *strongly disagreed*. Participating students' responses were used to assess the extent to which various family meal practices occurred.

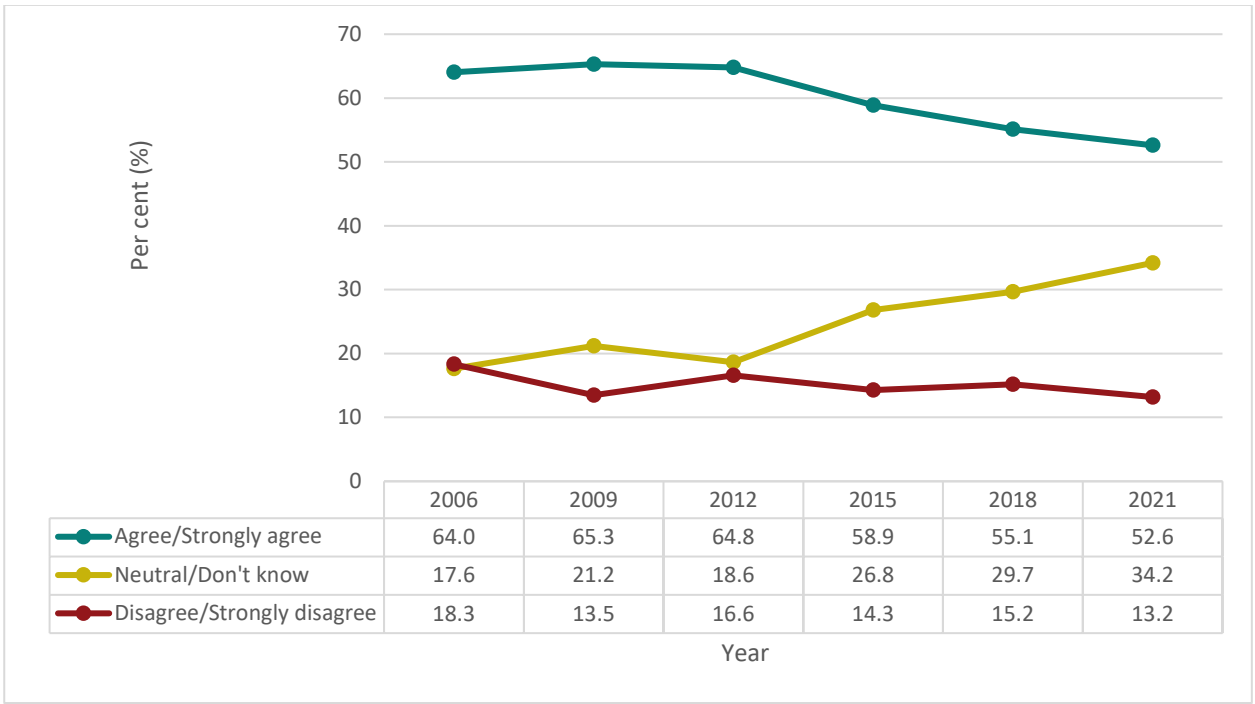
Why is it important? Families play a significant role in shaping the development of children's eating behaviours by actively making family food choices, modelling eating patterns and reinforcing what are considered appropriate eating habits. Positive and health promoting social modelling within families is an effective way to encourage healthy eating patterns in children. [14]

How are we going?

"I help prepare meals for my family"

Over half of participating Year 6 students agreed/strongly agreed with the statement, although this proportion decreased significantly from 64% in 2006 to 53% in 2021. Neutral/don't know responses increased significantly from 18% to 34% during the same period, while the proportion of students who disagreed remained stable (**Figure 29**).

Figure 29: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I help prepare meals for my family", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	64.0	65.3	64.8	58.9	55.1	52.6
Neutral/Don't know	17.6	21.2	18.6	26.8	29.7	34.2
Disagree/Strongly disagree	18.3	13.5	16.6	14.3	15.2	13.2

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Females were significantly more likely than males to agree/strongly agree that they helped prepare meals for their family across all years. In contrast, males were more likely to respond with a

neutral/don't know compared to females, with significant gender differences observed in 2009 and 2021. Males were also more likely to disagree than females in every year, with significant differences recorded between 2006 and 2018. Between 2006 and 2021, the proportion of males who agreed with helping prepare meals declined significantly from 58% to 45%, while the proportion of females remained stable. Neutral responses increased significantly for both genders: among males from 19% to 38% and among females from 16% to 30%. The proportions of males and females who disagreed that they helped prepare meals remained stable during this period (**Table 21**).

Table 21:Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "I help prepare meals for my family" by gender, 2006–2021

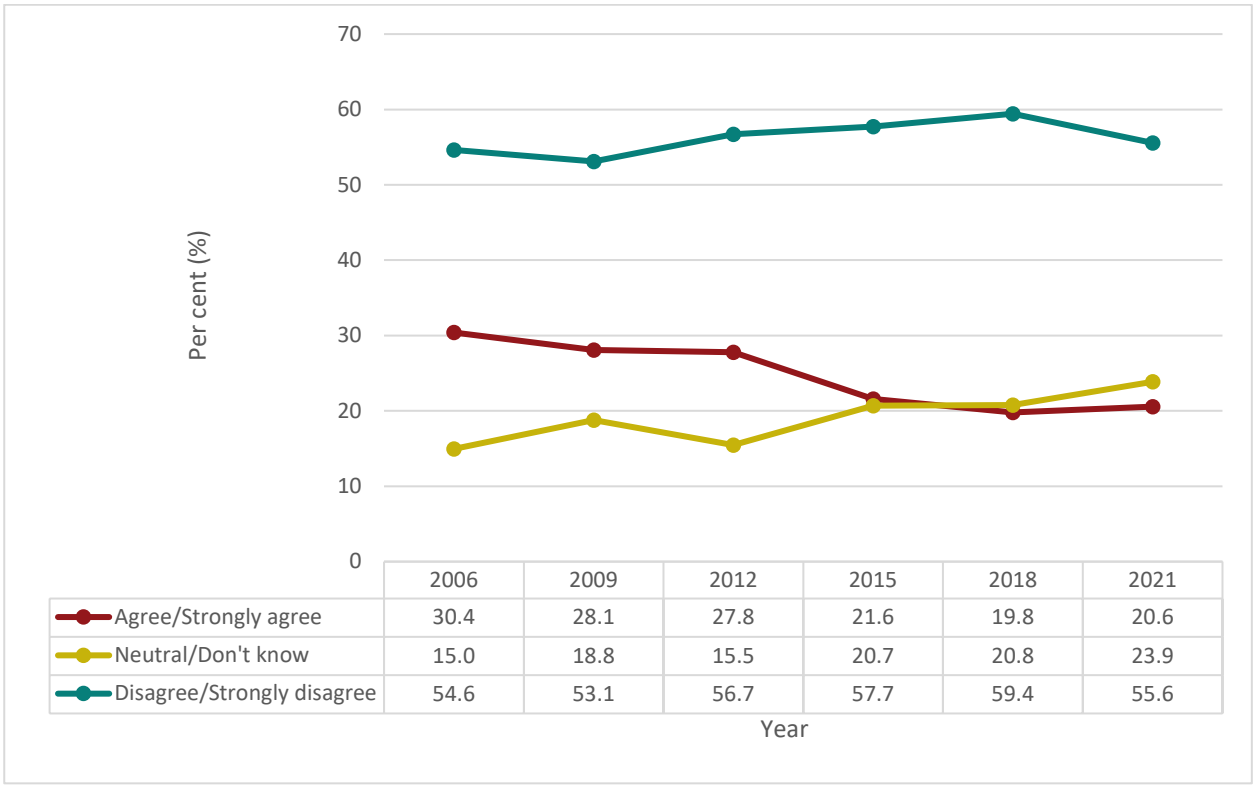
Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	58.3	69.6
2009	58.3	71.9
2012	58.7	70.5
2015	52.0	66.4
2018	47.7	63.5
2021	45.1	60.7
Neutral/Don't know		
2006	19.2	16.2
2009	24.6	18.0
2012	19.4	17.9
2015	28.9	24.5
2018	32.2	26.8
2021	38.3	29.8
Disagree/Strongly disagree		
2006	22.5	14.1
2009	17.1	10.1
2012	21.9	11.6
2015	19.1	9.1
2018	20.1	9.7
2021	16.6	9.6

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

"On school nights in my family we eat dinner in front of the TV"

The proportion of students who agreed that their family eats dinner in front of the TV on school nights declined significantly from 30% in 2006 to 21% in 2021. Meanwhile, neutral/don't know responses increased significantly from 15% to 24%. The proportion of students who disagreed with the statement remained stable over the same period (**Figure 30**).

Figure 30: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "on school nights in my family we eat dinner in front of the TV", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	30.4	28.1	27.8	21.6	19.8	20.6
Neutral/Don't know	15.0	18.8	15.5	20.7	20.8	23.9
Disagree/Strongly disagree	54.6	53.1	56.7	57.7	59.4	55.6

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

There were no significant gender differences across any response category in all years. Between 2006 and 2021, the proportion of students who agreed that they ate dinner in front of the TV declined significantly from 33% to 23% among males and from 28% to 18% among females. Neutral/don't know responses among males increased significantly from 15% to 25%, while the proportion for females remained stable. The proportions of both males and females who disagreed that they ate dinner in front of the TV also remained stable over the same period (**Table 22**).

Table 22: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "on school nights in my family we eat dinner in front of the TV" by gender, 2006–2021

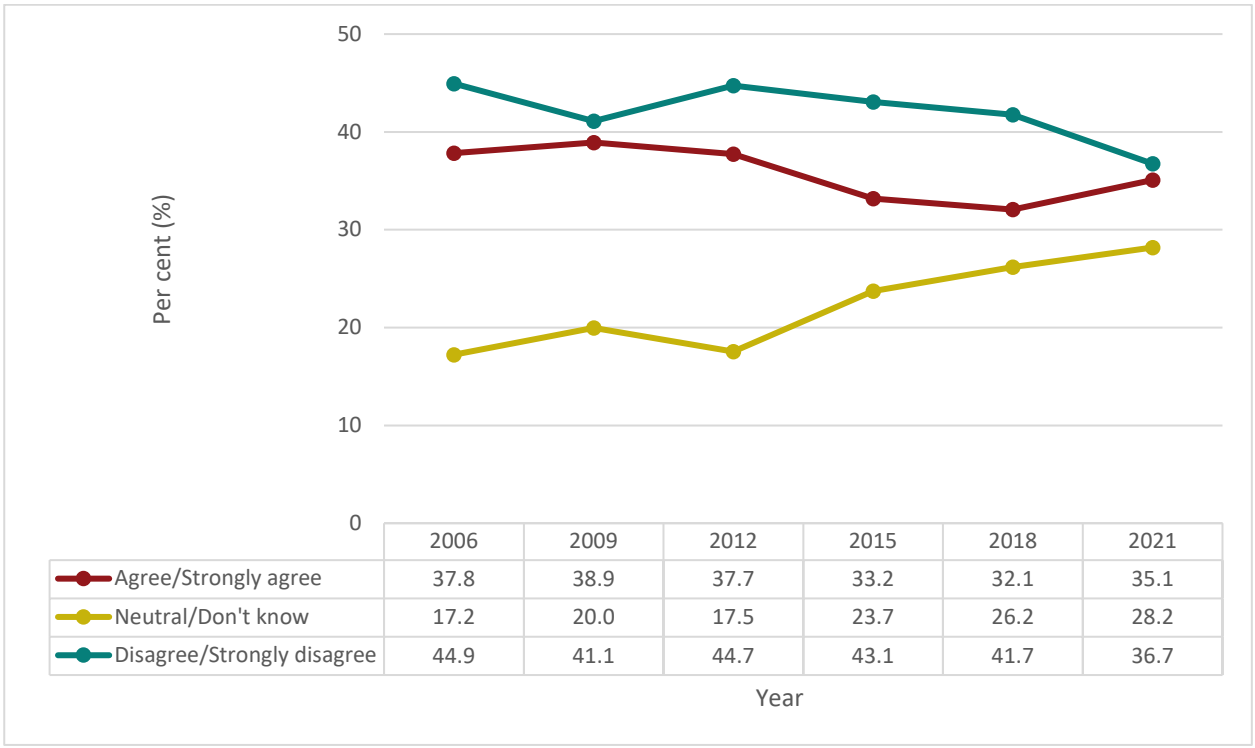
Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	32.6	28.2
2009	31.1	25.3
2012	29.3	26.4
2015	23.9	19.1
2018	21.0	18.4
2021	22.8	18.2
Neutral/Don't know		
2006	15.1	14.7
2009	19.9	17.8
2012	15.7	15.3
2015	20.2	21.2
2018	22.0	19.4
2021	25.2	22.4
Disagree/Strongly disagree		
2006	52.3	57.1
2009	49.1	56.9
2012	55.0	58.3
2015	55.9	59.7
2018	57.0	62.2
2021	52.0	59.4

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

"On weekends in my family we eat dinner in front of the TV"

The proportion of responding students who agreed that their family eats dinner in front of the TV on weekends remained stable between 2006 and 2021. Over the same period, neutral/don't know responses increased significantly from 17% to 28%, and the proportion of students who disagreed decreased significantly from 45% (**Figure 31**).

Figure 31: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "on weekends in my family we eat dinner in front of the TV", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	37.8	38.9	37.7	33.2	32.1	35.1
Neutral/Don't know	17.2	20.0	17.5	23.7	26.2	28.2
Disagree/Strongly disagree	44.9	41.1	44.7	43.1	41.7	36.7

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Males were more likely than females to agree that they ate dinner in front of the TV on weekends, with significant gender differences observed in 2009 and 2015. No other gender differences were noted across other response categories in any year. Between 2006 and 2021, the proportions of both males and females who agreed or disagreed that they ate dinner in front of the TV on weekends remained stable. However, neutral/don't know responses rose significantly from 17% to 28% among males and from 18% to 28% among females (**Table 23**).

Table 23: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "on weekends in my family we eat dinner in front of the TV" by gender, 2006–2021

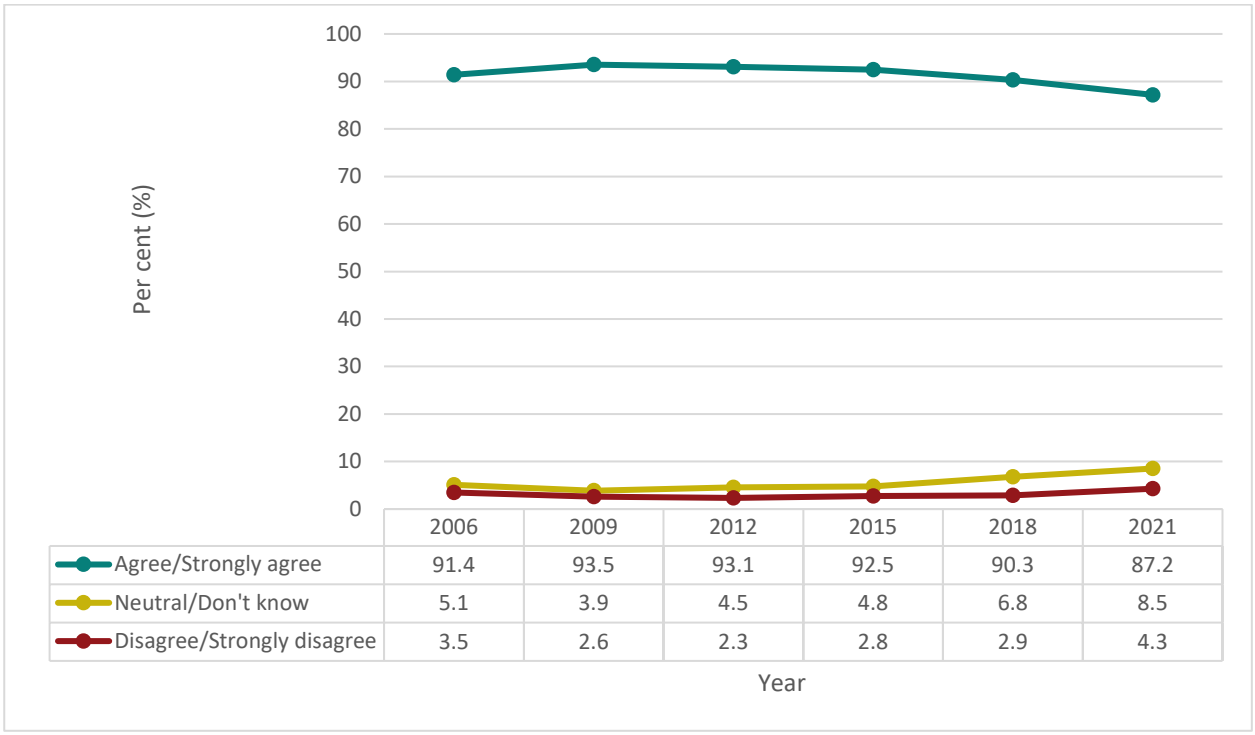
Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	39.5	36.0
2009	43.7	34.4
2012	39.2	36.4
2015	37.2	28.8
2018	33.7	30.2
2021	38.0	31.9
Neutral/Don't know		
2006	16.7	17.8
2009	18.5	21.4
2012	17.3	17.8
2015	21.5	26.2
2018	27.0	25.2
2021	28.0	28.4
Disagree/Strongly disagree		
2006	43.8	46.2
2009	37.8	44.2
2012	43.5	45.8
2015	41.3	45.0
2018	39.3	44.5
2021	33.9	39.8

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

"My parent/carer insists that I eat something for breakfast before school"

The majority of responding students agreed that their parent or carer insists they eat breakfast before school; this response has remained stable at over 87% between 2006 and 2021. Those who reported a neutral/don't know response increased significantly from 5% to 9% in the same period. The proportion of student who disagreed with the statement remained stable over time (**Figure 32**).

Figure 32: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "My parent or carer insists that I eat something for breakfast before school", 2006–2021



	2006	2009	2012	2015	2018	2021
Agree/Strongly agree	91.4	93.5	93.1	92.5	90.3	87.2
Neutral/Don't know	5.1	3.9	4.5	4.8	6.8	8.5
Disagree/Strongly disagree	3.5	2.6	2.3	2.8	2.9	4.3

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

There were no significant gender differences across any response category in all years. Between 2006 and 2021, the proportion of females who agreed with the statement decreased significantly from 92% to 84%, while the proportion for males remained stable. Neutral/don't know responses among females increased significantly from 5% to 10%, whereas male proportions remained unchanged (**Table 24**).

Table 24: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "My parent or carer insists that I eat something for breakfast before school" by gender, 2006–2021

Year	Males (%)	Females (%)
Agree/Strongly agree		
2006	90.8	91.9
2009	92.4	94.6
2012	93.0	93.3
2015	93.3	91.5
2018	90.6	90.0
2021	90.2	83.9
Neutral/Don't know		
2006	5.4	4.9
2009	4.5	3.3
2012	4.2	4.8
2015	3.9	5.8
2018	6.9	6.6
2021	7.7	9.5
Disagree/Strongly disagree		
2006	3.8	3.2[#]
2009	3.1	2.1[#]
2012	2.8[#]	1.9[#]
2015	2.8	2.7
2018	2.5	3.4
2021	NP	6.7[#]

Note:

[1] [#]Proportions for Disagree/strongly disagree Males 2012; Females 2006, 2009,2012 and 2021 have a RSE 25–50% and must be used with caution.

[2] Estimates with RSE > 50% or based on a numerator less than 10 are supressed and presented as NP/missing data points.

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Physical health

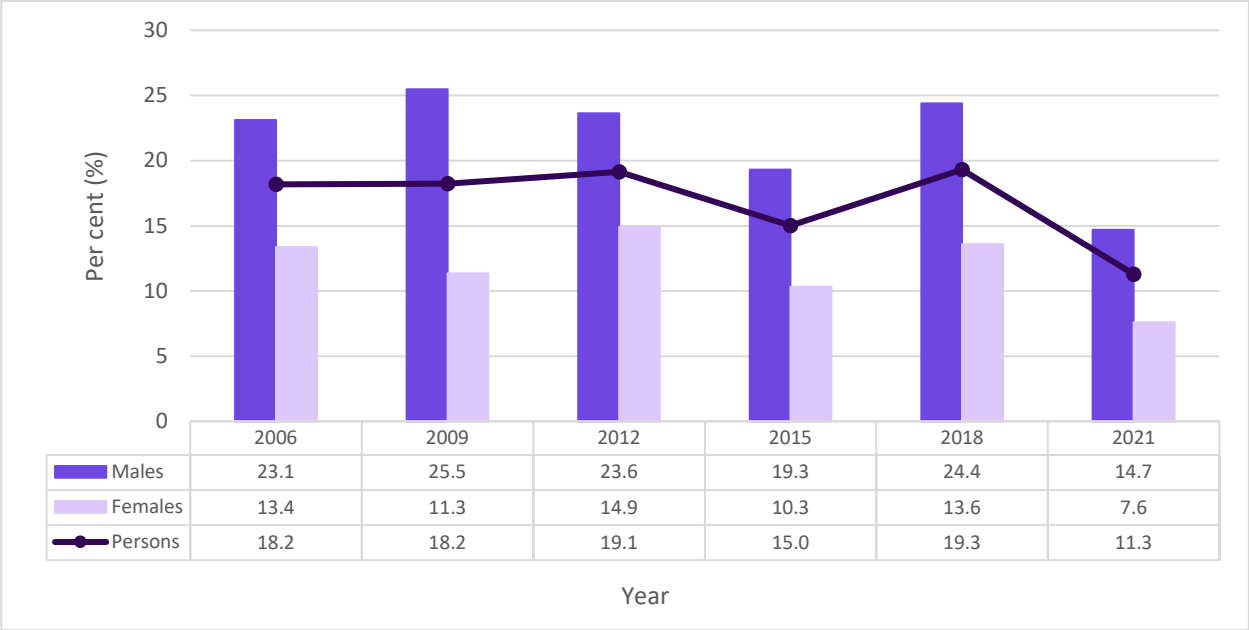
What did we measure? Students were asked to estimate how often they engaged in physical activity, how frequently they used active travel when going to and from school, and the extent to which they agreed with statements related to parental modelling of physical activity and parental encouragement to be physically active. Responses from participating students about their frequency of physical activity and their agreement with these family-related statements about physical activity were assessed and, where relevant, compared to the Australian 24 hour movement guidelines *for children and young people (5 to 17 years)*. [19]

Why is it important? Being active is essential for good mental and physical health and wellbeing. Regular physical activity is linked to improved memory and sleep, and lower levels of stress, depression and anxiety. The Australian 24-hour movement guidelines recommend that children and young people aged 5–17 years aim for at least 60 minutes of moderate to vigorous physical activity each day for better overall health, including benefits for heart, respiratory, muscular and metabolic health; emotional regulation; and academic success.[19]

How are we going?

The proportion of students who were physically active for an hour each day as recommended in the Australian 24-hour movement guidelines decreased significantly between 2006 (18%) and 2021 (11%). Males were significantly more likely than females to achieve the recommended 60 minutes of daily physical activity in every survey year. Between 2006 and 2021, the proportion of females meeting the guideline declined significantly from 13% to 8%, while the proportion of males remained stable (**Figure 33**).

Figure 33: Proportion of ACT Year 6 students who engage in physical activity for 60 minutes or more daily, 2006–2021

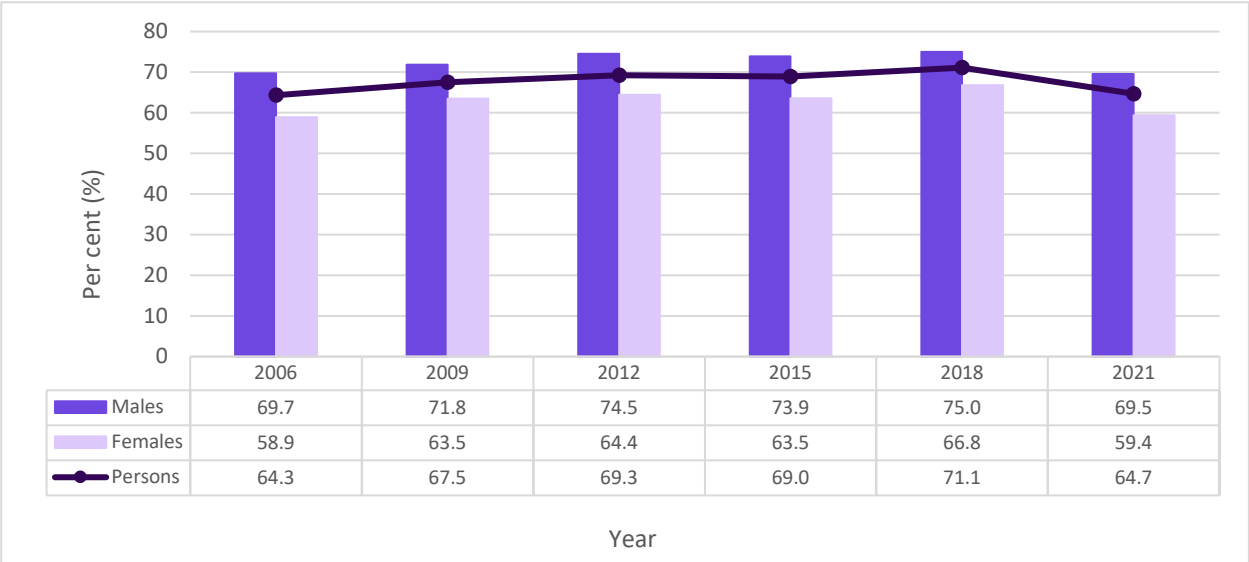


	2006	2009	2012	2015	2018	2021
Males	23.1	25.5	23.6	19.3	24.4	14.7
Females	13.4	11.3	14.9	10.3	13.6	7.6
Persons	18.2	18.2	19.1	15.0	19.3	11.3

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Physical activity on 4 or more days has been recoded to "most days" for the purpose of this report. Over 64% of Year 6 students reported that they do physical activity for 60 minutes or more on most days, which has remained stable between 2006 and 2021. Males were significantly more likely than females to do physical activity for 60 minutes or more on most days in 2006 and 2021 (**Figure 34**). Proportions of males and females who met the guidelines on most days remained stable between 2006 and 2021.

Figure 34: Proportion of ACT Year 6 students who engage in physical activity for 60 minutes or more on most days, 2006–2021



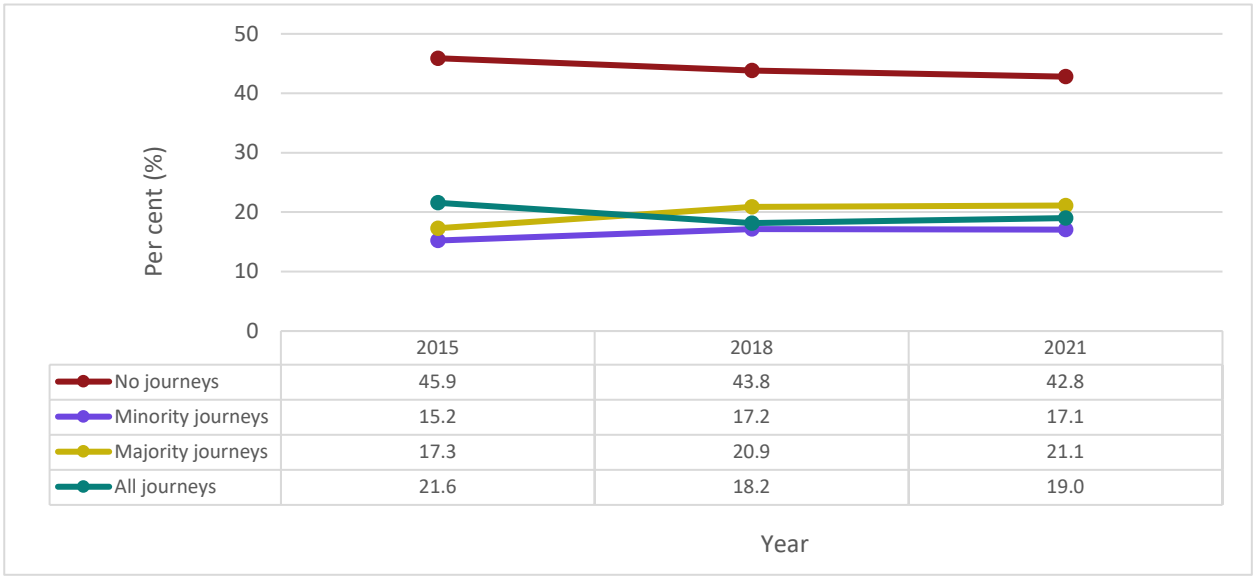
	2006	2009	2012	2015	2018	2021
Males	69.7	71.8	74.5	73.9	75.0	69.5
Females	58.9	63.5	64.4	63.5	66.8	59.4
Persons	64.3	67.5	69.3	69.0	71.1	64.7

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Active Travel to and from school

Year 6 students were asked how they travel to and from school during the school term using travel methods such as walking, cycling, scooting or skateboarding, catching the bus, and riding in a car. Students were able to report combined travel methods as well. Responding students' journeys to and from school using active travel were classified into four categories –no journeys, minority (1–4 times), majority (5–9 times). All categories of journeys and the proportions in each category have remained stable since 2015. Almost half of Year 6 students did not use active travel as a means to go to and from school each week in all survey years (**Figure 35**).

Figure 35: Proportion of ACT Year 6 students who used active travel to and from school by type of journeys, 2015–2021



	2015	2018	2021
No journeys	45.9	43.8	42.8
Minority journeys	15.2	17.2	17.1
Majority journeys	17.3	20.9	21.1
All journeys	21.6	18.2	19.0

Note:
[1] No journeys (0 times), minority of journeys (1-4 times), majority of journeys (5-9 times) and all journeys (10 times)
[2] Question was introduced in 2015.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2015–2021.

There were no significant differences between males and females in their use of active travel for commuting to and from school (**Table 25**).

Table 25: Proportion of ACT Year 6 students who used active travel to and from school by type of journeys by gender, 2015–2021

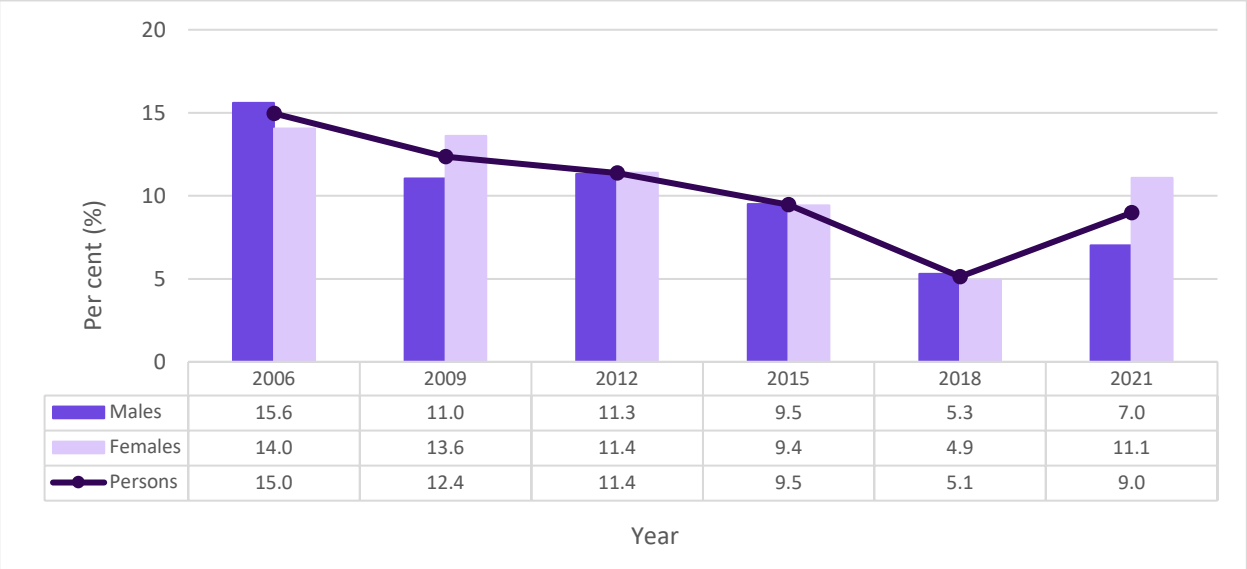
Year	Males				Females			
	No journeys (%)	Minority journeys (%)	Majority journeys (%)	All journeys (%)	No journeys (%)	Minority journeys (%)	Majority journeys (%)	All journeys (%)
2015	46.0	12.3	16.6	25.1	45.8	18.4	18.1	17.7
2018	42.8	14.7	20.0	22.5	44.9	19.9	21.9	13.3
2021	42.0	16.1	21.8	20.2	43.6	18.1	20.4	17.8

Note:
[1] No journeys (0 times), minority of journeys (1-4 times), majority of journeys (5-9 times) and all journeys (10 times)
[2] Question was introduced in 2015.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2015–2021.

Walking to and from school every day

The proportion of students who walked to and from school every day remained stable between 2006 (15%) and 2021 (9%). While there were some differences between the proportions of males and females who walked to and from school daily across survey years, the differences were not large enough to be significant. However, looking at males and females separately, the proportion of males who walked to and from school daily decreased significantly from 16% in 2006 to 7% in 2021, while for females the proportion remained stable overall (**Figure 36**).

Figure 36: Proportion of ACT Year 6 students who walked all journeys to and from school, 2006–2021



	2006	2009	2012	2015	2018	2021
Males	15.6	11.0	11.3	9.5	5.3	7.0
Females	14.0	13.6	11.4	9.4	4.9	11.1
Persons	15.0	12.4	11.4	9.5	5.1	9.0

Note: Proportion for Males 2021 has a RSE 25–50% and must be used with caution.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Riding to and from school every day

The proportion of students who ride to and from school every day remained stable between 2006 (9%) and 2021 (6%). Males were significantly more likely than females to ride to and from school every day between 2006 and 2012 (**Table 26**).

Table 26: Proportion of ACT Year 6 students who cycled all journeys to and from school, 2006–2021

Year	Persons (%)	Males (%)	Females (%)
2006	9.0	14.1	4.1
2009	7.9	12.8	3.2
2012	6.4	8.6	4.2
2015	4.2	6.8	NP
2018	6.3[#]	8.9	3.3[#]
2021	5.6[#]	8.5[#]	NP

Note:
[1] [#]Proportions for Persons 2018 and 2021, Males 2021, Females 2018 have a RSE 25–50% and must be used with caution.
[2] Estimates with RSE > 50% or based on a numerator less than 10 are supressed and presented as NP/missing data points.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Parental attitudes towards physical activity

"My parents and caregivers do a lot of physical activity"

In 2021, less than half of the responding students (41%) agreed/strongly agreed that their parents and caregivers do a lot of physical activity, while 40% reported they either did not know or felt neutral. A further 19% of students did not think their parents and caregivers did a lot of physical activity. Between 2012 and 2021, the proportions have remained stable across the response categories. There were no significant differences between males and females within the response categories over the years (**Table 27**).

Table 27: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "my parents and caregivers do a lot of physical activity", 2012–2021

Year	Persons (%)	Males (%)	Females (%)
Agree/Strongly agree			
2012	45.0	43.2	46.6
2015	44.4	43.0	45.9
2018	42.6	41.4	44.0
2021	40.6	42.9	38.1
Neutral/Don't know			
2012	29.0	30.4	27.7
2015	34.2	35.8	32.4
2018	35.4	37.0	33.6
2021	40.2	39.1	41.4
Disagree/Strongly disagree			
2012	26.1	26.4	25.7
2015	21.5	21.2	21.7
2018	21.9	21.5	22.4
2021	19.2	18.0	20.5

Note: Question was introduced in 2012.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2012–2021.

"My parents and caregivers encourage me to do physical activity or sports"

Between 2012 and 2021, most responding students agreed/strongly agreed that their parents and caregivers encouraged them to be physically active; this has remained stable over time. Similarly, disagreement with the statement also remained stable over the same period. Those who reported a neutral/don't know response increased significantly from 8% in 2012 to 14% in 2021. There were no significant differences between the genders across all response categories (**Table 28**).

Table 28: Proportion of ACT Year 6 students who agree/strongly agree, neutral/don't know and disagree/strongly disagree with the statement "my parents and caregivers encourage me to do physical activity or sports", 2012–2021

Year	Persons (%)	Males (%)	Females (%)
Agree/Strongly agree			
2012	85.5	84.7	86.3
2015	81.8	81.3	82.4
2018	81.0	78.4	84.0
2021	80.9	80.8	81.0
Neutral/Don't know			
2012	8.3	8.0	8.6
2015	11.3	11.7	10.8
2018	12.4	14.2	10.4
2021	13.6	12.3	15.2
Disagree/Strongly disagree			
2012	6.2	7.3	5.2
2015	6.9	7.0	6.8
2018	6.6	7.4	5.6
2021	5.4	6.9	3.8

Note: Question was introduced in 2012.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2012–2021.

Screen time

What did we measure? Students were asked to estimate how much of their free time they usually spent watching television, including videos and DVDs, on weekdays and weekend days. They were also asked to report how long they would use a computer for non-school purposes such as playing games, emailing, chatting or surfing the internet on weekdays and weekend days. Students' recreational screen time was analysed using combined responses from the television and computer screen time questions. Responses from participating students were used to assess the proportion of Year 6 students who, by limiting their recreational screen time, met the sedentary recreational screen time guideline given in the Australian 24-hour movement guidelines.

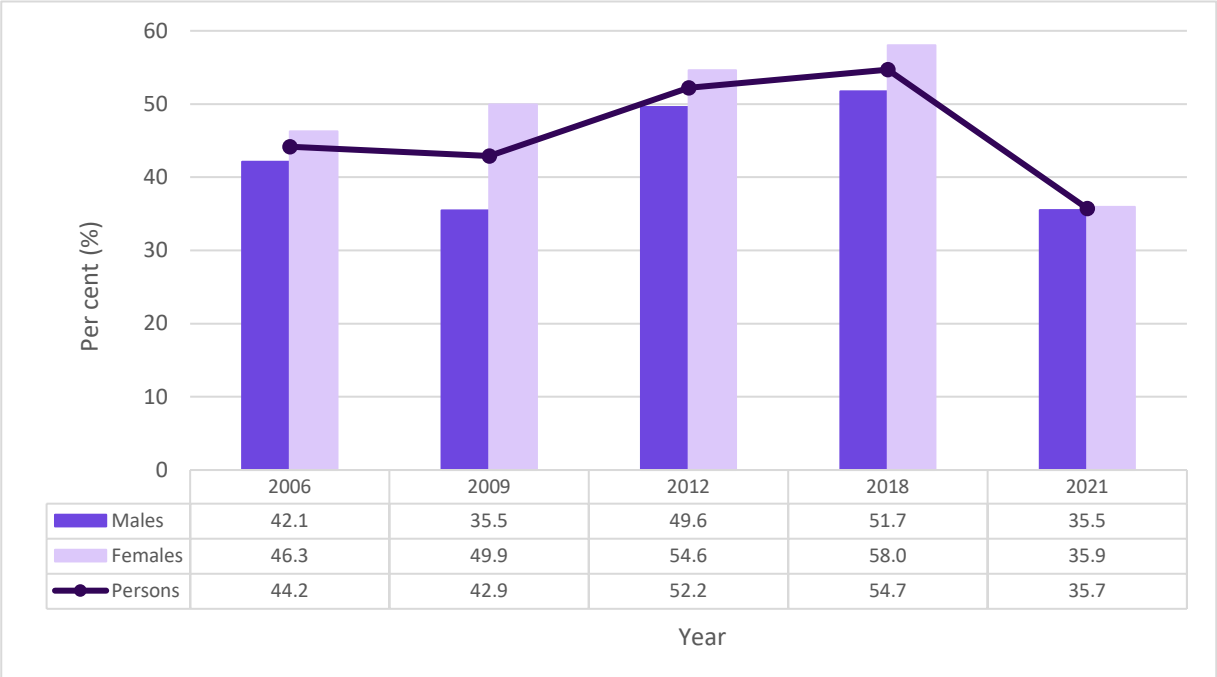
Why is it important? Sitting for long periods of time can impact the benefits of physical activity, disrupt sleep and affect general health and wellbeing.[20] Additionally, excessive screen time can cause eye strain, headaches and negatively affect attention and academic performance. The Australian 24-hour movement guidelines recommends that children from 5 to 17 years of age limit their recreational screen time to no more than 2 hours on any day.

How are we going?

Recreational screen time on weekdays

Between 2006 and 2009, the proportion of responding Year 6 students meeting the daily screen time guideline of 2 hours during weekdays declined significantly from 44% in 2006 to 36% in 2021. Females were significantly more likely to meet the screen time guidelines on weekdays than males in 2009, however, the differences between the genders were not significant in other years (**Figure 37**).

Figure 37: Proportion of ACT Year 6 students who spent 2 or less hours per day on recreational screen time on weekdays, 2006–2021



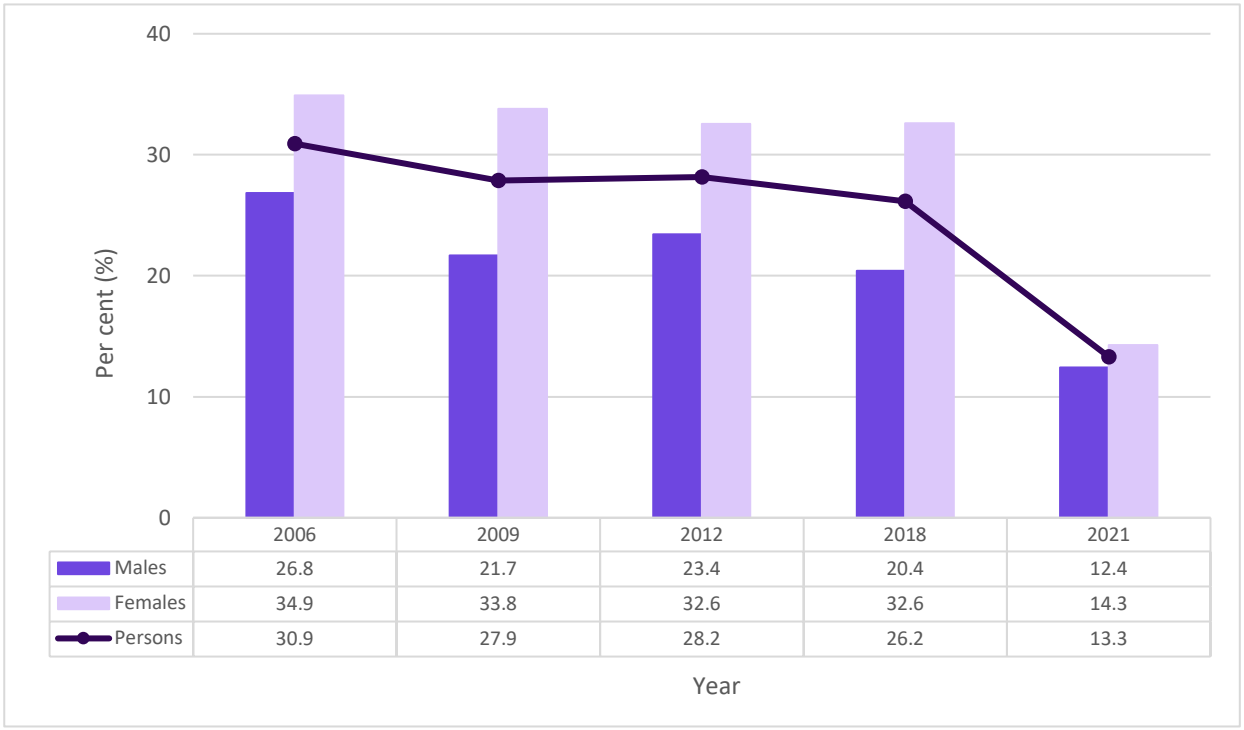
	2006	2009	2012	2018	2021
Males	42.1	35.5	49.6	51.7	35.5
Females	46.3	49.9	54.6	58.0	35.9
Persons	44.2	42.9	52.2	54.7	35.7

Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

Recreational screen time on weekend days

The proportion of responding students who met the daily screen time guideline of 2 hours on weekends decreased significantly from 31% in 2006 to 13% in 2021. Females were significantly more likely than males to meet the guideline from 2009 to 2018, although gender differences were not significant in 2006 and 2021. Over the same period, the proportion of students meeting the guideline declined significantly from 27% to 12% among males and from 35% to 14% among females (**Figure 38**).

Figure 38: Proportion of ACT Year 6 students who spent less than 2 hours per day on recreational screen time on weekends, 2006–2021

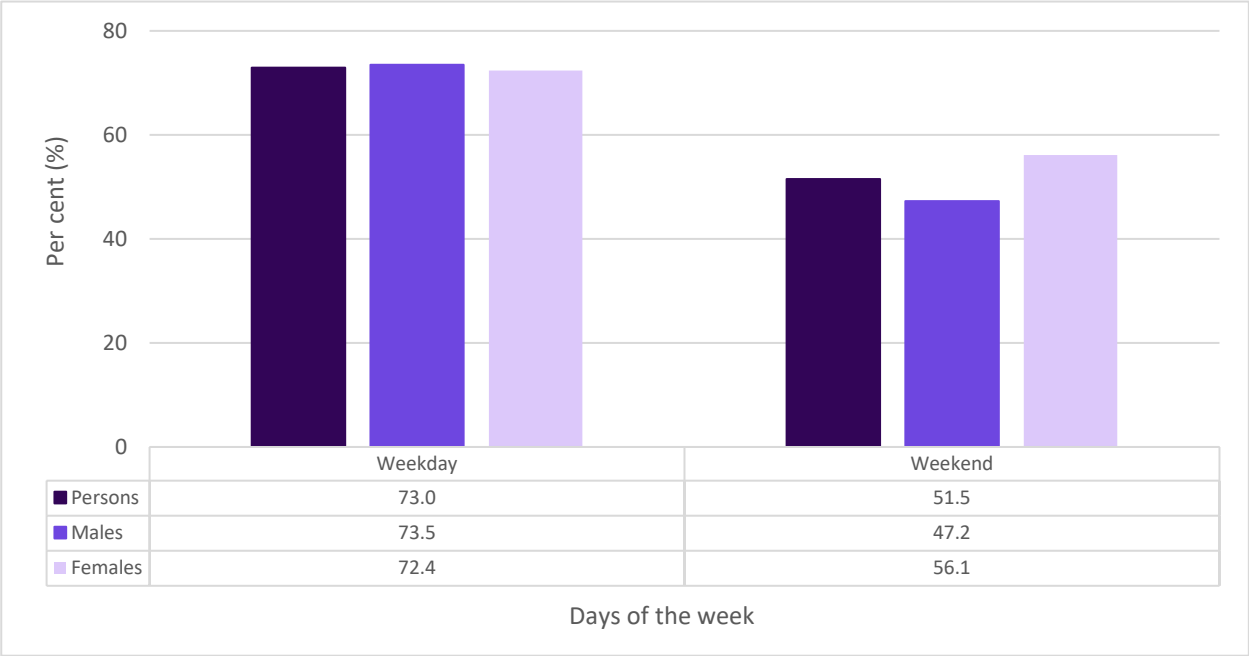


	2006	2009	2012	2018	2021
Males	26.8	21.7	23.4	20.4	12.4
Females	34.9	33.8	32.6	32.6	14.3
Persons	30.9	27.9	28.2	26.2	13.3

Note: Data from 2015 is excluded from this time series due to differences in the screen time questions asked.
Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2006–2021.

In 2015, students were asked how much time they spent viewing television, mobile phone, iPad, tablet, computers, Wii, Xbox, and PlayStation. In 2015, 73% of students met the 2-hour daily screen time guideline on weekdays, while a significantly smaller proportion of 52% met the guideline on weekends. There were no significant differences between males and females in their recreational screen time use either during weekdays or the weekend (**Figure 39**).

Figure 39: Proportion of ACT Year 6 students who spent less than 2 hours per day on recreational screen time during the week, 2015



Source: ACT Physical Activity and Nutrition Survey (ACTPANS) 2015.

Conclusion

Findings from the review of 15 years of the ACT Physical Activity and Nutrition Survey have reinforced the value of tracking changes in population health over time. Encouraging children to enjoy more vegetables, engage in daily physical activity, and spend less time on screen-based activities (excluding for school-related use) remain public health priorities for the ACT.

Continuing investment to sustain previously achieved gains in children's health such as reduced discretionary food and drink consumption and maintaining weight within the healthy weight range has cause to be reinvigorated. The efforts of parents and carers in reinforcing healthy behaviours through nurturing, role modelling, and providing health-promoting home environments despite the everyday demands of modern life, should be acknowledged and applauded.

While the reasons for all observed changes in trends over the 2006 to 2021 period are not fully understood, they have coincided with shifts in the emphasis given to health promotion in the ACT during this time, and towards the end of the period, with the onset of the COVID-19 (SARS-CoV-2) pandemic. Results from the 2026 ACT Physical Activity and Nutrition Survey will provide a current indication of the direction in which health-related behaviours are trending, helping to better inform future health policy and program decisions to support the wellbeing of the ACT's children.

Appendix 1 Tetrachoric Correlations

Table 29:Tetrachoric Correlations of Binary Indicators of Health, Body Image, and Lifestyle Behaviours in Repeated Surveys, 2006–2021

Variables (Binary)	Male	Excellent self-rated health	Feels good about myself (strongly agree)	Satisfaction with my body weight (extremely happy)	Self-perceived body weight (slightly overweight/ overweight)	BMI – Overweight/obese	Visit fast food outlets with family (Agree/ strongly agree)	Help prepare meals for family (agree/ strongly agree)	Meets PA guidelines (60 minutes per day)	Consumes potato chips and other salty snacks (4 times or more per week)	Meeting screen time guidelines on weekdays (exceeds 2 hours)	Meeting screen time guidelines on weekends (exceeds 2 hours)
Male	1.00											
Excellent self-rated health	0.06	1.00										
Feels good about myself (strongly agree)	0.16	0.65	1.00									
Satisfaction with my body weight (extremely happy)	0.14	0.56	0.59	1.00								
Self-perceived body weight (slightly overweight/overweight)	-0.10	-0.46	-0.38	-0.69	1.00							
BMI - Overweight/obese	0.03	-0.33	-0.24	-0.49	0.70	1.00						
Visit fast food outlets with family (Agree/strongly agree)	0.06	-0.12	-0.03	-0.02	0.04	0.05	1.00					
Help prepare meals for family (agree/strongly agree)	-0.23	0.18	0.16	0.06	0.00	0.04	-0.05	1.00				
Meets PA guidelines (60 minutes per day)	0.24	0.42	0.32	0.23	-0.17	-0.14	-0.10	0.12	1.00			
Consumes potato chips and other salty snacks (4 times or more per week)	0.03	-0.13	-0.06	0.00	0.02	-0.03	0.23	-0.16	-0.06	1.00		
Meeting screen time guidelines on weekdays (exceeds 2 hours)	0.10	-0.20	-0.15	-0.10	0.16	0.18	0.17	-0.18	-0.16	0.33	1.00	
Meeting screen time guidelines on weekends (exceeds 2 hours)	0.18	-0.23	-0.15	-0.11	0.15	0.10	0.21	-0.23	-0.18	0.30	0.72	1.00

Note:

[1] Pair-wise correlation n=7,392

[2] The tetrachoric correlation coefficients range from −1 to +1 and show the strength and direction of association between two binary variables, assuming an underlying continuous relationship. Positive values indicate that variables occur together (e.g., “excellent self-rated health” and “feels good about myself,” ~0.65), while negative values indicate that one occurs when the other does not (e.g., “self-perceived overweight” and “satisfaction with body weight,” ~−0.69). Values near zero (−0.10 to 0.10) show little association, and moderate values (±0.3 to ±0.5) indicate moderate relationships. Overall, the sign shows direction and the magnitude shows strength. Tetrachoric correlation analysis included in this report identifies the strength and the direction of associations between binary variables; however, it does not imply causation and should not be interpreted as evidence of causal relationships.

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