

eating patterns



The term ‘eating patterns’ refers broadly to occasions of eating and the context of eating occasions. Eating patterns influence nutrient intake; for example, Dwyer et al. (2001) found that as the number of eating occasions increased, so did the overall energy intake.

Eating a healthy breakfast appears to confer a range of benefits, including: improved cognitive function at school; attentiveness; social interaction; and overall nutrient balance and energy intake (Shaw, 1998). Children who regularly consume breakfast had better Healthy Eating Index scores for grains, fruits and milk products compared with those who ate breakfast less frequently (Bowman et al., 1998) and among adults, skipping breakfast is associated with obesity (Ma et al., 2003).

Adolescents with a consistent meal pattern tend to be leaner than those with an inconsistent meal pattern (Siega-Riz, Carson & Popkin, 1998) and other evidence has suggested links between skipping meals and the development of overweight (Wolfe et al., 1994). That is, regular consumption of breakfast, lunch and dinner appears to support the maintenance of a healthy weight.

Videon and Manning (2003) found that adolescents who ate a higher number of family meals during the week were more likely to eat the recommended amounts of fruit, vegetables and dairy products. Neumark-Sztainer et al. (2003) produced very similar findings, but also found an inverse association between the number of family meals and soft drink consumption. That is, young people who ate more meals with their family also drank less soft drink.

In a similar study, Gillman et al. (2000) found a higher consumption of fruit and vegetables among those who ate more meals with their family and also found that these young people consumed fewer meals away from home and had a lower consumption of saturated fat as a percentage of total energy consumed. Coon et al. (2001) found that children from households that regularly ate dinner in front of the television were more likely to eat more energy-dense foods such as pizza, snacks and soft drink and were less likely to eat fruit and vegetables. Eating meals with the family, consuming breakfast and not eating dinner while watching television have all been suggested as positive strategies for improving the diets of young people (Davison & Campbell, in press).

Data from the Goteborg Study among adolescents in Sweden suggest that in-between meal snacks contribute more energy to the diet than the three main meals (Sjoberg et al., 2003). Frequent snack consumption has been associated with overweight among adolescents, with the overall energy intake increasing as the number of eating occasions increased (Dwyer et al., 2001).

Fast food outlets are very popular with adolescents (Frank 1994; Story, Neumark-Sztainer & French 2002). Meals from fast food outlets are generally higher in fat than food prepared at home and adolescents in the US visit fast food outlets more than twice a week (Story, Neumark-Sztainer & French 2002). Among adolescents, fast food restaurant use has been found to be positively associated with energy intake and soft drink consumption, and negatively associated with consumption of fruit, vegetables and milk (French et al., 2001). Among young women,

eating fast food meals once or more per week is associated with unhealthy weight gain (Ball, Brown, Crawford 2002; Jeffery, French 1998).

Key eating patterns are reported in four sections in this chapter:

- 1 Consumption of food and drink at the main meal times (breakfast, lunch and dinner).
- 2 Family eating patterns and habits.
- 3 Frequency of snacking between meals.
- 4 Fast food consumption.

CONSUMPTION OF FOOD AND DRINK AT THE MAIN MEAL TIMES

BREAKFAST (FOOD)

Eating a healthy breakfast every day provides many benefits that extend beyond physical health and the maintenance of a healthy weight.



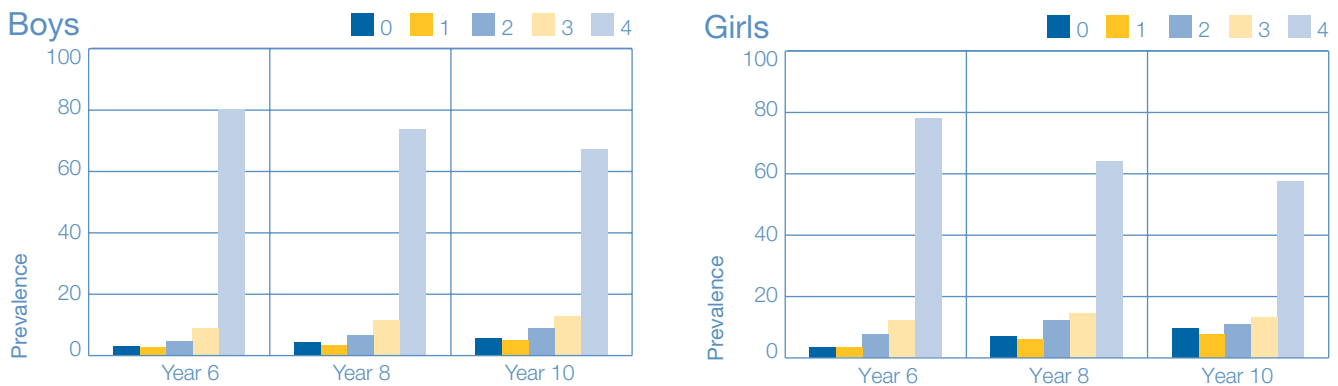
? Question

How often do you usually do the following?
Have something to eat for breakfast?

Usual consumption of breakfast by sex and Year group

Figure 11.1 and Table 11.1 show the frequency of eating breakfast every day among boys and girls in Years 6, 8 and 10. The prevalence of eating breakfast every day was higher among boys than girls and declined with increasing age. Eighty per cent, 74% and 67% of Year 6, 8 and 10 boys, respectively, reported eating breakfast every day and 78%, 66% and 59% of Year 6, Year 8 and Year 10 girls, respectively, reported eating breakfast every day. The prevalence of eating breakfast more than four times per week was 11%, 15% and 20% among Year 6, 8 and 10 boys, respectively, and 12%, 21% and 27% among Year 6, 8 and 10 girls, respectively.

Figure 11.1. Usual consumption of breakfast among boys and girls in Years 6, 8 and 10 (%)



0 = never/rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Table 11.1. Usual consumption of breakfast among boys and girls in Years 6, 8 and 10 (%)

	Year 6					Year 8					Year 10				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Boys	3.2	2.8	4.7	9.0	80.3	4.5	3.5	6.7	11.6	73.8	5.6	5.2	9.0	13.0	67.2
Girls	2.9	2.7	6.5	10.3	77.5	5.9	5.1	10.3	12.3	66.3	8.2	6.5	11.8	15.0	58.5

0 = never or rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Prevalence of eating breakfast daily by sex and Year group

Figure 11.2 and Table 11.2 show the prevalence of eating breakfast daily among boys and girls in Years 6, 8 and 10. The prevalence of eating breakfast daily declined with age and was higher among boys than girls in each Year group. Close to 80% of boys and girls in Year 6 reported eating breakfast daily, declining to 67% of Year 10 boys and to 59% of Year 10 girls. The differences between boys and girls were statistically significant for Year 10, but not for Year 6 or Year 8.

Figure 11.2. Prevalence of eating breakfast daily among boys and girls in Years 6, 8 and 10 (%)

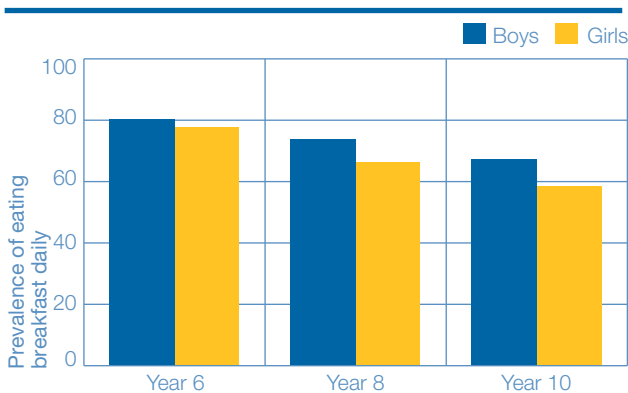


Table 11.2. Prevalence of eating breakfast daily among boys and girls in Years 6, 8 and 10 (%)

	Year 6	Year 8	Year 10
Boys	80.3	73.8	67.2
Girls	77.5	66.3	58.5*

* Indicates a statistically significant difference at $P < .05$ between boys and girls within the same Year group.

Prevalence of eating breakfast every day by rurality, socioeconomic status, cultural background and BMI category

Figure 11.3 and Table 11.3 show the prevalence of eating breakfast daily among boys and girls by rurality, socioeconomic status, cultural background and BMI category.

Rurality

The prevalence of eating breakfast every day was higher among rural secondary school students, with only small differences among Year 6 boys and girls. The prevalence of eating breakfast daily was lowest among Year 10 urban boys and girls. None of the differences between urban and rural students were statistically significant.

Socioeconomic status

Although the prevalence of eating breakfast daily was highest in the high socioeconomic status tertile for four of the six sex/Year groups, the differences between tertiles were generally very small and none were statistically significant.

Cultural background

There was no apparent consistent association between cultural background and the prevalence of eating breakfast among boys, other than that the prevalence was generally lowest among boys from Middle-Eastern cultural backgrounds. The prevalence was significantly lower among Year 6 boys from an Asian cultural background and Year 8 boys from a Middle-Eastern cultural background. Similarly, the differences among girls were generally small, with the exception of Year 10 girls from a European background, and none were statistically significant.

BMI category

There was a clear association between BMI category and eating breakfast among Year 8 and 10 boys and Year 6 girls, but not among the other sex/Year groups. The differences were statistically significant among overweight and obese Year 10 boys and obese Year 6 girls.

Figure 11.3. Prevalence of eating breakfast every day among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%)

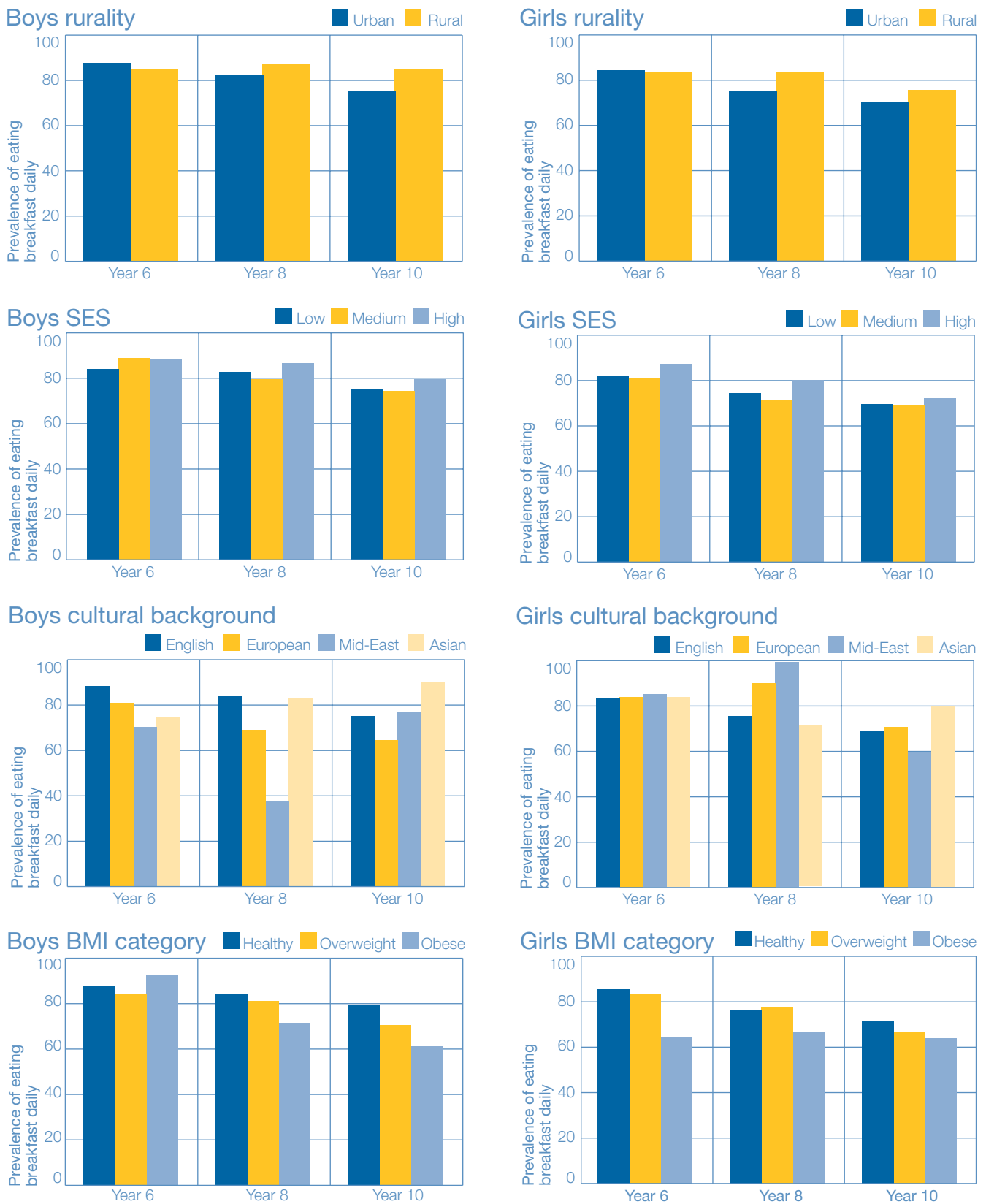


Table 11.3. Prevalence of eating breakfast every day among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%)

	Boys			Girls		
	Year 6	Year 8	Year 10	Year 6	Year 8	Year 10
Rurality						
Urban	80.3	72.7	65.6	77.6	65.3	57.5
Rural	79.7	78.4	77.8	77.1	71.2	63.0
SES						
Low	77.3	73.5	65.9	75.3	65.7	56.8
Medium	85.0	72.3	65.7	75.0	62.6	60.8
High	79.3	75.8	70.3	82.5	70.0	58.0
Cultural background						
English-speaking	82.0	75.1	67.4	77.4	67.1 ⁿ	58.4
European	75.0	69.2	58.8	84.6	72.7	28.6
Middle-Eastern	64.7	25.0*	61.5	76.9	0.0	50.0
Asian	66.7*	79.4	72.0	76.3	57.1	66.7
BMI category						
Healthy weight	81.1	76.8	71.2	80.4	65.4	59.2
Overweight	74.0	66.7	58.3*	75.3	70.4	51.7
Obese	89.5	60.7	47.2*	52.9*	66.7	64.3

* Indicates a statistically significant difference at $P < .05$. Comparisons are: between urban and rural; low and medium socioeconomic status compared with high socioeconomic status; European, Middle-Eastern and Asian cultural backgrounds compared with English-speaking cultural background; and overweight and obese compared with healthy weight. Comparisons are within each sex/Year group category.

ⁿ Indicates that statistical significance could not be calculated due to low numbers.

BREAKFAST (DRINK)



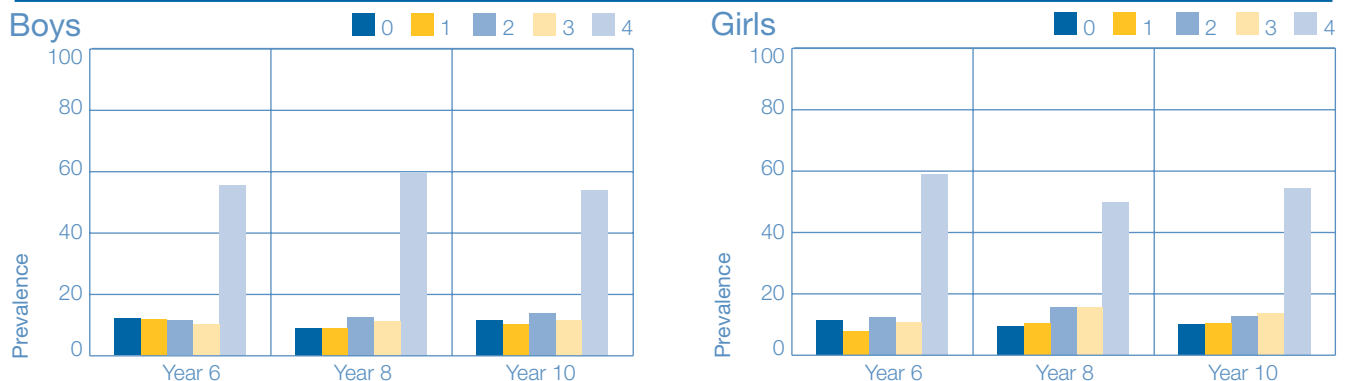
? Question

How often do you usually do the following?
Have something to drink at breakfast?

Usual consumption of a drink at breakfast by sex and Year group

Figure 11.4 and Table 11.4 show usual consumption of a drink at breakfast among boys and girls in Years 6, 8 and 10. Between 50% and 60% of students reported having something to drink at breakfast every morning, with little variation between boys and girls or across school Years. Approximately 10% of students in each sex/Year group responded to each of the remaining categories.

Figure 11.4. Usual consumption of a drink at breakfast among boys and girls in Years 6, 8 and 10 (%)



0 = never/rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Table 11.4. Usual consumption of a drink at breakfast among boys and girls in Years 6, 8 and 10 (%)

	Year 6					Year 8					Year 10				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Boys	11.9	11.7	11.3	10.0	55.1	8.9	8.9	12.3	11.1	58.9	11.4	10.1	13.7	11.5	53.3
Girls	11.2	7.6	12.2	10.5	58.4	9.3	10.1	15.5	15.5	49.6	10.0	10.2	12.6	13.3	53.9

0 = never or rarely, 1 = < 1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

LUNCH (FOOD)

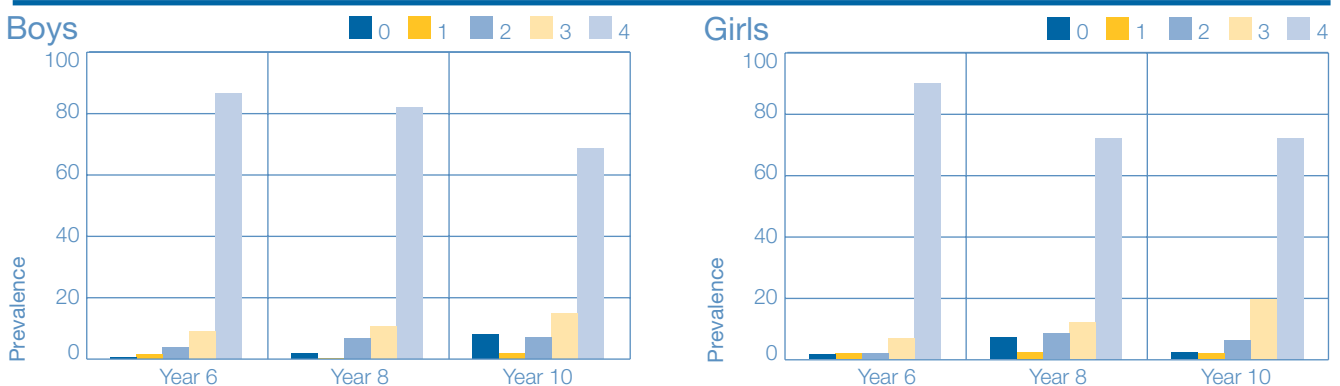
? Question

How often do you usually do the following?
Have something to eat for lunch?

Usual consumption of lunch by sex and Year group

Figure 11.5 and Table 11.5 show usual consumption of lunch among boys and girls in Years 6, 8 and 10. Almost 90% of Year 6 boys and girls reported eating lunch every day. The proportion was similar among Year 8 boys, but the prevalence fell to 68% among Year 10 boys. Somewhat surprisingly, almost 20% of Year 10 boys reported eating lunch three times per week or less. Among girls, approximately 70% of Year 8 and Year 10 girls reported eating lunch every day while 18% of Year 8 girls and 10% of Year 10 girls reported eating lunch three times per week or less.

Figure 11.5. Usual consumption of lunch among boys and girls in Years 6, 8 and 10 (%)



0 = never/rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Table 11.5. Usual consumption of lunch among boys and girls in Years 6, 8 and 10 (%)

	Year 6					Year 8					Year 10				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Boys	0.6	1.3	3.6	9.0	85.5	1.7	0.2	6.7	10.3	81.0	7.9	2.9	6.8	14.6	67.7
Girls	1.5	1.7	1.9	6.7	88.3	6.9	2.3	8.2	11.8	70.8	2.2	1.7	6.0	19.3	70.8

0 = never or rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Prevalence of eating lunch every day by sex and Year group

Figure 11.6 and Table 11.6 show the prevalence of eating lunch every day among boys and girls in Years 6, 8 and 10. The prevalence of eating lunch daily declined with age. Over 85% of boys and girls in Year 6 reported eating lunch every day, declining to 68% of Year 10 boys and to 71% of Year 10 girls. The differences between boys and girls were statistically significant for Year 8 only.

Figure 11.6. Prevalence of eating lunch every day among boys and girls in Years 6, 8 and 10 (%)

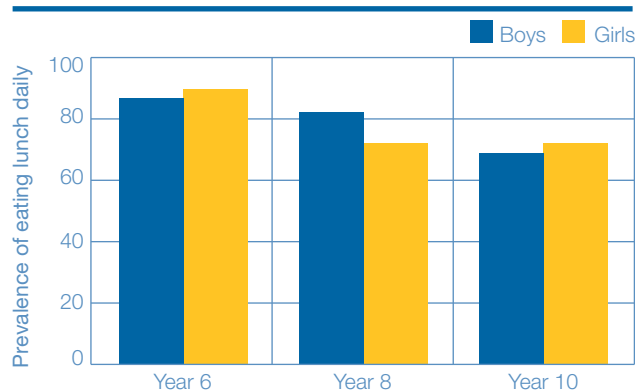


Table 11.6. Prevalence of eating lunch every day among boys and girls in Years 6, 8 and 10 (%)

	Year 6	Year 8	Year 10
Boys	85.5	81.0	67.7
Girls	88.3	70.8*	70.8

* Indicates a statistically significant difference at $P < .05$ between boys and girls within the same Year group.

Prevalence of eating lunch every day by rurality, socioeconomic status, cultural background and BMI category

Table 11.7 shows the prevalence of eating lunch every day among Year 6, 8 and 10 boys and girls by rurality, socioeconomic status, cultural background and BMI category.

Rurality

The prevalence of eating lunch every day was higher among rural students in every sex/Year group, except Year 8 boys. However, the differences between urban and rural students were all quite small and none were statistically significant.

Socioeconomic status

There were no consistent patterns of association between socioeconomic status and the prevalence of eating lunch every day and no differences were statistically significant.

Cultural background

Among boys, there was no apparent consistent association between eating lunch and cultural background. However, the prevalence was significantly lower among Year 6 Middle-Eastern and Asian boys and Year 10 European boys. Similarly, a distinct pattern was not detectable among girls, although the prevalence was lowest among Year 8 and 10 Middle-Eastern girls. None of the differences between girls from different cultural backgrounds were statistically significant.

BMI category

A consistent association between BMI category and the prevalence of eating lunch every day was not apparent. However, in every Year group the prevalence of eating lunch every day was highest in the healthy weight category. The prevalence was lowest in the overweight category for half of the sex/Year groups and lowest in the obese category in the other half of the sex/Year groups. None of the differences were statistically significant.


Table 11.7. Prevalence of eating lunch every day among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%)

	Boys			Girls		
	Year 6	Year 8	Year 10	Year 6	Year 8	Year 10
Rurality						
Urban	85.4	81.3	66.7	87.7	69.8	70.4
Rural	85.9	79.7	75.0	91.5	75.8	72.6
SES						
Low	81.3	84.0	70.9	88.8	70.1	71.2
Medium	88.8	79.9	65.7	86.0	73.9	72.0
High	86.6	79.4	66.9	90.3	68.8	69.3
Cultural background						
English-speaking	87.5	82.4	68.5	88.4	71.8 ⁿ	70.6
European	87.5	76.9	52.9*	92.5	45.5	57.1
Middle-Eastern	64.7*	62.5	76.9	78.6	100.0	60.0
Asian	66.7*	74.3	64.0	89.5	70.4	76.5
BMI category						
Healthy weight	87.9	83.0	72.2	88.1	70.9	71.3
Overweight	80.0	74.4	57.4	91.9	67.1	65.5
Obese	79.5	78.6	50.0	82.4	80.0	78.6

* Indicates a statistically significant difference at P<.05. Comparisons are: between urban and rural; low and medium socioeconomic status compared with high socioeconomic status; European, Middle-Eastern and Asian cultural backgrounds compared with English-speaking cultural background; and overweight and obese compared with healthy weight. Comparisons are within each sex/Year group category.

ⁿ Indicates that statistical significance could not be calculated due to low numbers.

LUNCH (DRINK)



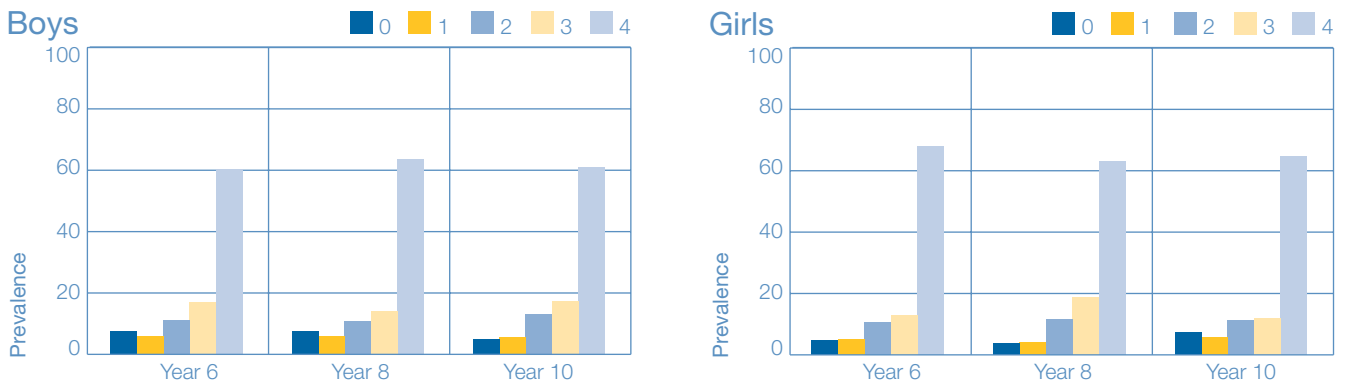
? Question

How often do you usually do the following?
Have something to drink at lunch?

Usual consumption of a drink at lunch by sex and Year group

Figure 11.7 and Table 11.8 show usual consumption of a drink at lunch among boys and girls in Years 6, 8 and 10. The results were consistent between boys and girls and across Years: approximately 60-65% of students reported having a drink at lunch every day. Approximately 20-25% of all students reported only having a drink at lunch three times per week or less.

Figure 11.7. Usual consumption of a drink at lunch among boys and girls in Years 6, 8 and 10 (%)



0 = never/rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Table 11.8. Usual consumption of a drink at lunch among boys and girls in Years 6, 8 and 10 (%)

	Year 6					Year 8					Year 10				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Boys	7.3	5.8	10.7	16.5	59.7	7.4	5.7	10.4	13.8	62.7	4.6	5.3	12.9	17.1	60.1
Girls	4.7	5.1	10.4	12.6	67.2	3.6	3.9	11.4	18.6	62.5	7.3	5.6	11.2	11.9	64.1

0 = never or rarely, 1 = <1week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

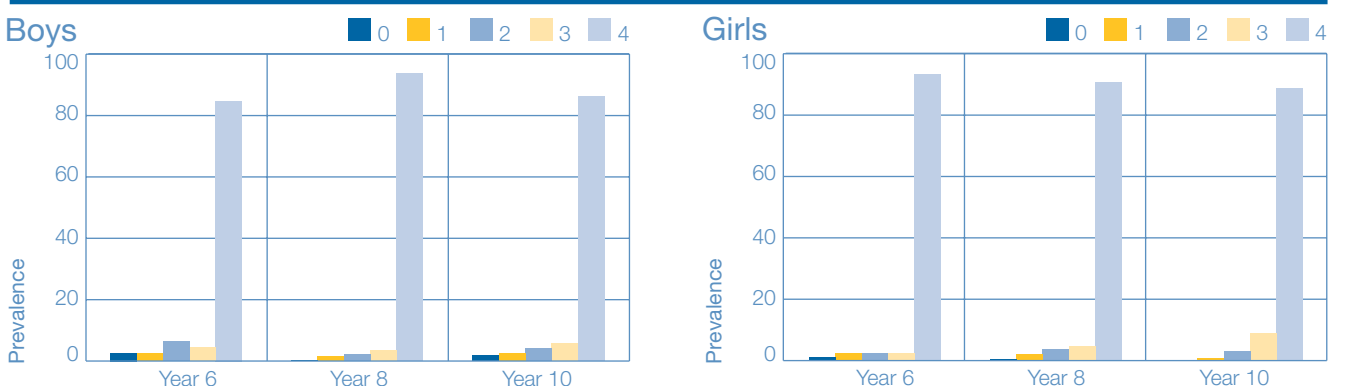
DINNER

? Question
 How many days each week do you usually do the following? Have something to eat for dinner (tea or the evening meal)?

Usual consumption of dinner by sex and Year group

Figure 11.8 and Table 11.9 show the usual consumption of dinner among boys and girls in Years 6, 8 and 10. Over 85% of boys and girls in all Year groups reported eating dinner every night and differences between boys and girls were small.

Figure 11.8. Usual consumption of dinner among boys and girls in Years 6, 8 and 10 (%)



0 = never/rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Table 11.9. Usual consumption of dinner among boys and girls in Years 6, 8 and 10 (%)

	Year 6					Year 8					Year 10				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Boys	2.6	2.4	6.4	4.5	84.0	0.3	1.5	2.0	3.5	92.8	1.8	2.5	4.0	5.8	85.5
Girls	1.0	2.5	2.3	2.5	91.6	0.5	2.0	3.6	4.8	89.1	0.0	0.7	3.1	8.9	87.2

0 = never or rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Prevalence of eating dinner every day by sex and Year group

Figure 11.9 and Table 11.10 show the prevalence of eating dinner daily among boys and girls in Years 6, 8 and 10. Over 85% of boys and girls in all Year groups reported eating dinner every night.

Figure 11.9. Prevalence of eating dinner every day among boys and girls in Years 6, 8 and 10 (%)

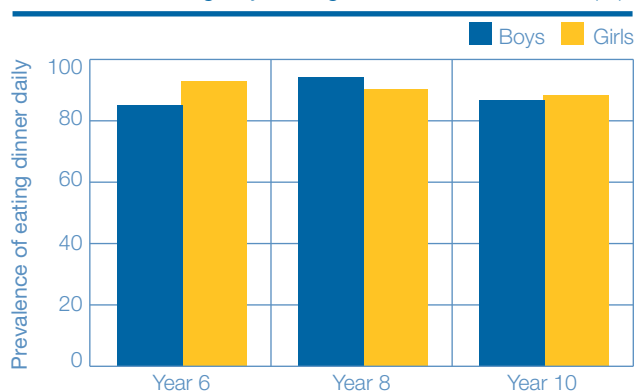


Table 11.10. Prevalence of eating dinner every day among boys and girls in Years 6, 8 and 10 (%)

	Year 6	Year 8	Year 10
Boys	84.0	92.8	85.5
Girls	91.6*	89.1	87.2*

* Indicates a statistically significant difference at $P < .05$ between boys and girls within the same Year group.

Differences between boys and girls were fairly small, but the prevalence for eating dinner daily was significantly higher among Year 6 and Year 10 girls, compared with boys in the same Year. Although these values appear high, it is noteworthy that over 10% of young people do not eat an evening meal every day.

Prevalence of eating dinner every day by rurality, socioeconomic status, cultural background and BMI category

Figure 11.10 and Table 11.11 show the prevalence of eating dinner daily among Year 6, 8 and 10 boys and girls by rurality, socioeconomic status, cultural background and BMI category.

Rurality

The prevalence of eating dinner every day was higher among rural students in every sex/Year group; however, differences were generally very small and none were statistically significant.

Socioeconomic status

With the exception of Year 10 boys and Year 8 girls, the prevalence of eating dinner daily increased with increasing socioeconomic status. Year 6 girls from the highest socioeconomic status tertile had the highest prevalence of daily dinner consumption (98%); this value was significantly higher than those for the low and medium tertiles. Year 6 boys from the lowest socioeconomic status tertile had the lowest reported prevalence, with only 75% reporting daily consumption of dinner. This value was significantly lower than the value for the high tertile. In contrast to these results, the prevalence was also significantly higher among girls in the middle tertile compared with girls in the high tertile.

Cultural background

There were no consistent differences among secondary school boys, but the prevalence of eating dinner daily was significantly lower among boys from European and Middle-Eastern cultural backgrounds. There were no consistent differences between girls from different cultural backgrounds.

BMI category

In all Year groups except Year 8 boys, the prevalence of daily dinner consumption was lowest among obese students. In particular, only two-thirds of obese

Year 6 and Year 10 boys reported eating dinner every day. The differences between healthy-weight and overweight students were comparatively small.

The prevalence was significantly lower among obese Year 6 boys, overweight and obese Year 10 boys, and obese Year 8 girls.

Figure 11.10. Prevalence of eating dinner every day among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%)

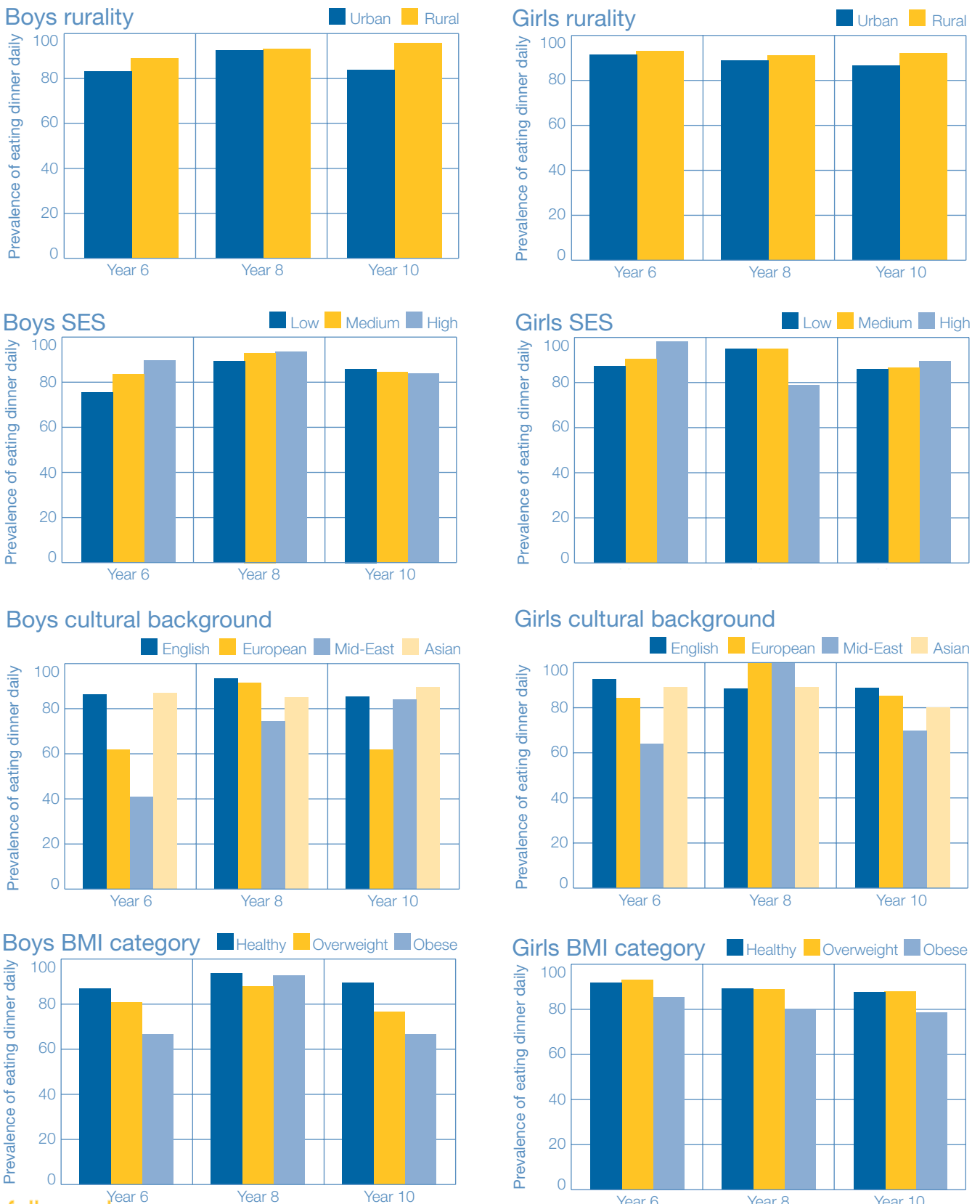


Table 11.11. Prevalence of eating dinner every day among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%)

	Boys			Girls		
	Year 6	Year 8	Year 10	Year 6	Year 8	Year 10
Rurality						
Urban	83.2	92.7	84.0	91.4	88.7	86.3
Rural	89.1	93.2	95.8	93.0	90.9	91.8
SES						
Low	76.1*	90.2	86.7	86.9*	94.8	85.7
Medium	84.3	93.8	85.3	90.2*	94.9*	86.4
High	90.5	94.4	84.6	98.1	78.7	89.3
Cultural background						
English-speaking	87.0	94.2	86.0	93.0	88.9	89.0
European	62.5*	92.3	62.5	84.6	100.0	85.7
Middle-Eastern	41.2*	75.0*	84.6	64.3*	100.0	70.0
Asian	87.5	85.7	90.0	89.5	89.3	80.4
BMI category						
Healthy weight	87.0	94.0	89.7	91.9	89.4	87.7
Overweight	81.0	88.0	76.9*	93.2	88.9	87.9
Obese	66.7*	92.9	66.7*	85.3	80.0*	78.6

* Indicates a statistically significant difference at $P < .05$. Comparisons are: between urban and rural; low and medium socioeconomic status compared with high socioeconomic status; European, Middle-Eastern and Asian cultural backgrounds compared with English-speaking cultural background; and overweight and obese compared with healthy weight. Comparisons are within each sex/Year group category.

n Indicates that statistical significance could not be calculated due to low numbers.

FAMILY EATING PATTERNS AND HABITS

Regularly eating meals with the family has been found to be associated with greater consumption of healthy foods (eg fruits and vegetables) and reduced consumption of less healthy foods (eg saturated fat and soft drinks).

EATING DINNER WITH THE FAMILY

Eating dinner with the family by sex and Year group

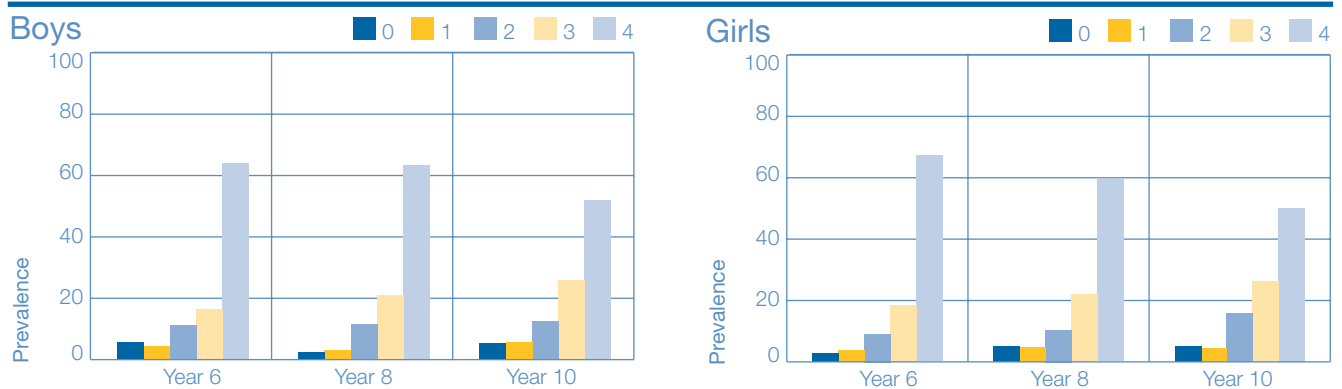


? Question

How many days each week do you usually do the following?
Eat dinner with most of your family?

Figure 11.11 and Table 11.12 show the prevalence of eating dinner with the family among boys and girls in Years 6, 8 and 10. The great majority of students reported eating dinner with most of their family every night, with little difference between boys and girls in each Year group.

Figure 11.11. Prevalence of eating dinner with the family among boys and girls in Years 6, 8 and 10 (%)



0 = never/rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Table 11.12. Prevalence of eating dinner with the family among boys and girls in Years 6, 8 and 10 (%)

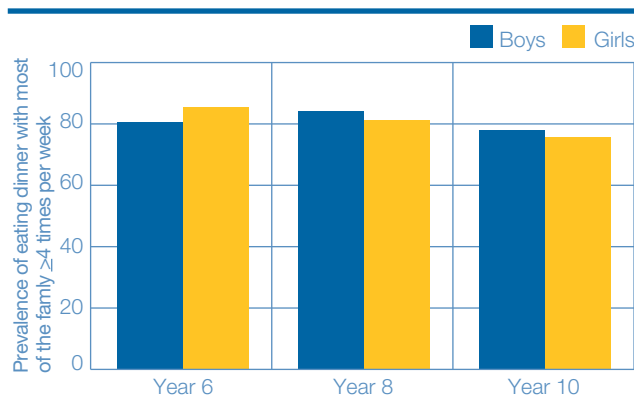
	Year 6					Year 8					Year 10				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Boys	5.5	4.2	11.0	16.1	63.2	2.5	3.0	11.3	20.7	62.5	5.2	5.6	12.4	25.4	51.4
Girls	2.8	3.7	9.1	18.2	66.2	4.9	4.6	10.3	21.6	58.5	5.1	4.3	15.7	25.8	49.2

0 = never or rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Prevalence of eating dinner with most of the family at least four times per week by sex and Year group

Figure 11.12 and Table 11.13 show the prevalence of eating dinner with most of the family at least four times per week among boys and girls in Years 6, 8 and 10. Approximately 80% of Year 6 and 8 boys and girls reported eating dinner with most of their families at least four times per week, with a slight decline among Year 10 students. The differences between boys and girls in each Year group were generally small, although the difference between Year 6 boys and girls was statistically significant.

Figure 11.12. Prevalence of eating dinner with most of the family at least four times per week among boys and girls in Years 6, 8 and 10 (%)



Prevalence of eating dinner with most of the family at least four times per week by rurality, socioeconomic status, cultural background and BMI category

Figure 11.13 and Table 11.14 show the prevalence of eating dinner with most of the family at least four times per week among Year 6, 8 and 10 boys and girls by rurality, socioeconomic status, cultural background and BMI category.

Table 11.13 Prevalence of eating dinner with most of the family at least four times per week among boys and girls in Years 6, 8 and 10 (%)

	Year 6	Year 8	Year 10
Boys	79.3	83.1	76.8
Girls	84.4*	80.2	74.9

* Indicates a statistically significant difference at P<.05 between boys and girls within the same Year group.

Rurality

The prevalence of eating dinner with the family at least four times per week was higher among rural students in all except one sex/Year group, but the differences were small and not statistically significant.

Socioeconomic status

There was no consistent association between socioeconomic status and eating dinner with the family at least four times per week and the differences between tertiles were all small and non-significant.

Cultural background

The prevalence of eating dinner with the family at least four times per week was generally high among boys, except those from Middle-Eastern cultural backgrounds. The prevalence was significantly lower among Year 8 and Year 10 boys from Middle-Eastern cultural backgrounds. Among girls, the prevalence

was also quite high, with few differences between the different cultural groups. However, as the prevalence dropped among Year 10 girls, the decline was most marked among girls from European and Middle-Eastern cultural backgrounds.

BMI category

Although the prevalence of eating dinner with the family at least four times per week was generally lowest in the obese category, the pattern of associations was not particularly consistent and the differences between BMI categories were all statistically non-significant.

Figure 11.13. Prevalence of eating dinner with most of the family at least four times per week among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%)

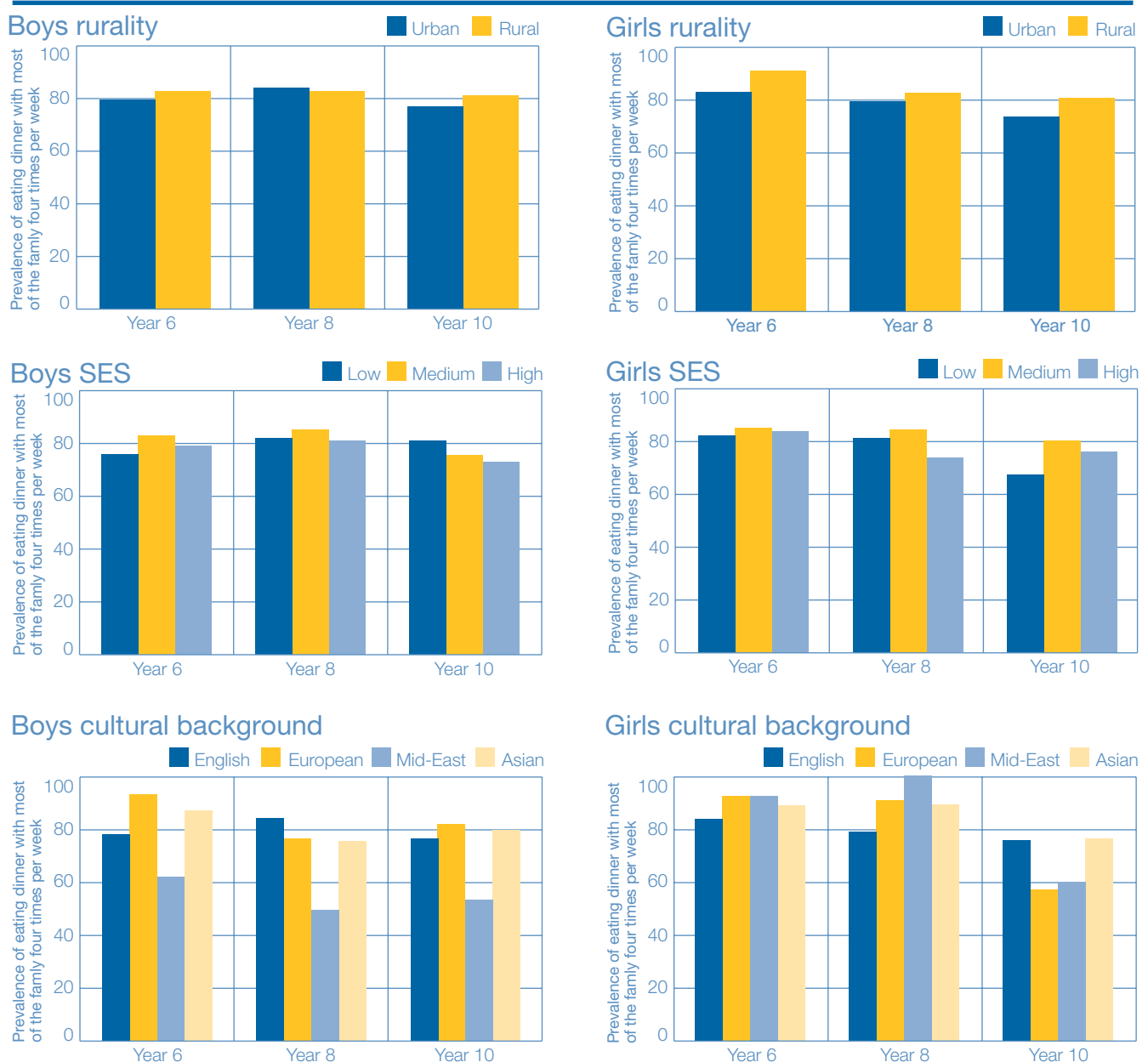


Figure 11.13. Prevalence of eating dinner with most of the family at least four times per week among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%) (continued)

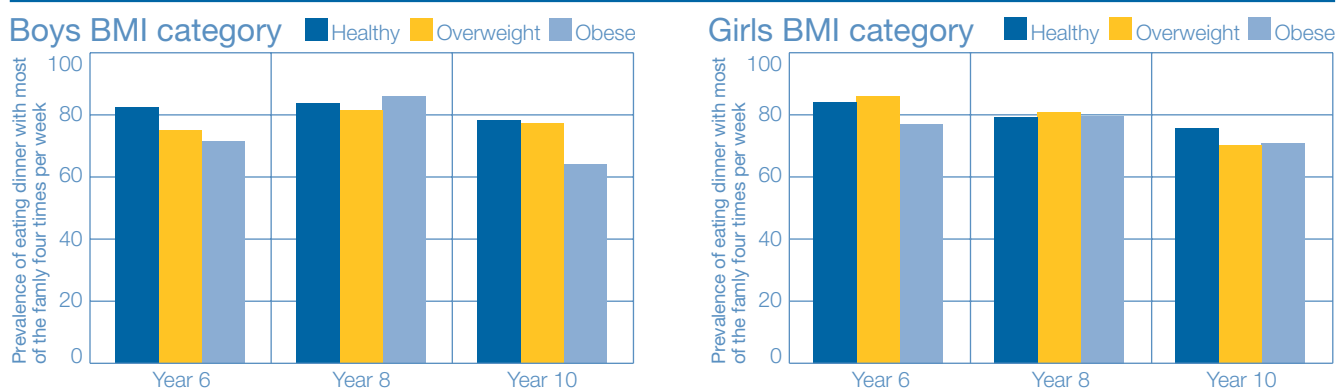


Table 11.14. Prevalence of eating dinner with most of the family at least four times per week among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%)

	Boys			Girls		
	Year 6	Year 8	Year 10	Year 6	Year 8	Year 10
Rurality						
Urban	78.8	83.3	76.2	83.2	79.6	73.7
Rural	82.3	82.2	80.6	91.2	82.8	80.8
SES						
Low	76.0	82.3	81.3	82.8	81.8	67.9
Medium	83.2	85.4	75.8	85.8	85.3	80.8
High	79.2	81.3	73.1	84.6	74.3	76.7
Cultural background						
English-speaking	78.7	84.7	77.0	83.5	78.8N	75.7
European	93.8	76.9	82.4	92.3	90.9	57.1
Middle-Eastern	62.5	50.0*	53.8*	92.3	100	60.0
Asian	87.5	75.8	80.0	88.9	89.3	76.5
BMI category						
Healthy weight	82.1	83.4	78.0	84.5	79.7	76.0
Overweight	74.8	81.1	76.9	86.5	81.4	70.7
Obese	71.1	85.7	63.9	77.4	80.0	71.4

* Indicates a statistically significant difference at $P < .05$. Comparisons are: between urban and rural; low and medium socioeconomic status compared with high socioeconomic status; European, Middle-Eastern and Asian cultural backgrounds compared with English-speaking cultural background; and overweight and obese compared with healthy weight. Comparisons are within each sex/Year group category.

n Indicates that statistical significance could not be calculated due to low numbers.

EATING DINNER IN FRONT OF THE TELEVISION

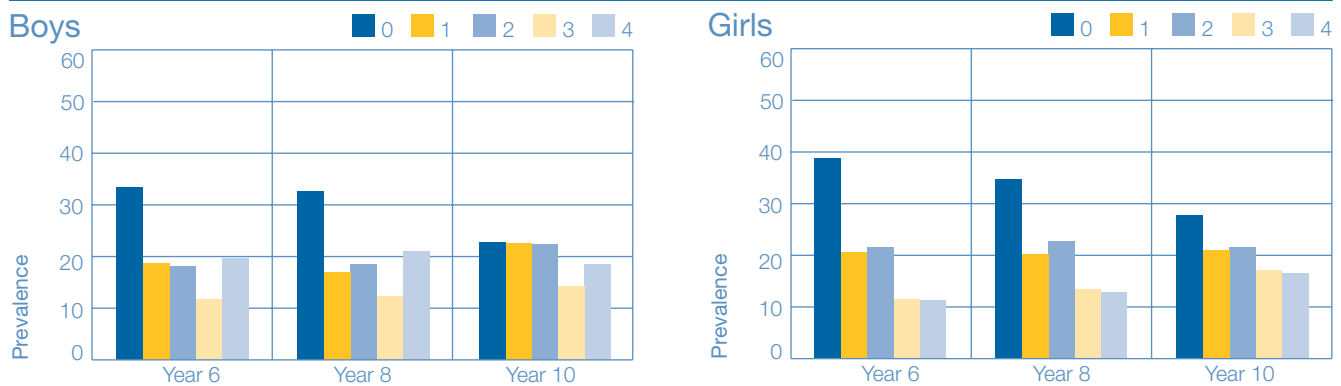


? Question

How many days each week do you usually do the following?
Eat dinner in front of the television?

Figure 11.14 and Table 11.15 show the prevalence of eating dinner in front of the TV among boys and girls in Years 6, 8 and 10. Only one-third of Year 6 and Year 8 boys and girls reported that they never or rarely ate dinner in front of TV, although this declined to about one-quarter of Year 10 students. The prevalence of eating dinner in front of TV every night was much higher among boys than girls in Years 6 and 8, although the difference between boys and girls was smaller in Year 10.

Figure 11.14. Prevalence of eating dinner in front of the TV among boys and girls in Years 6, 8 and 10 (%)



0 = never/rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Table 11.15. Prevalence of eating dinner in front of the TV among boys and girls in Years 6, 8 and 10 (%)

	Year 6					Year 8					Year 10				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Boys	32.9	18.4	17.8	11.6	19.3	32.2	16.7	18.2	12.2	20.7	23.4	22.3	22.0	14.1	18.2
Girls	37.4	19.9	20.7	11.1	10.9	33.4	19.5	21.9	12.9	12.3	26.7	20.2	20.7	16.4	15.9

0 = Never or rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Prevalence of eating dinner in front of the television more than four times per week by sex and Year group

Figure 11.15 and Table 11.16 show the prevalence of eating dinner in front of the television more than four times per week among boys and girls in Years 6, 8 and 10. Almost one-third of boys in all Year groups reported eating dinner in front of the television more than four times per week. Among girls, the prevalence increased with age from 22% among Year 6 girls to 32% among Year 10 girls. The difference in the prevalence between Year 6 boys and girls was statistically significant and the difference between Year 8 boys and girls approached statistical significance.

Figure 11.15. Prevalence of eating dinner in front of the TV more than four times per week among boys and girls in Years 6, 8 and 10 (%)

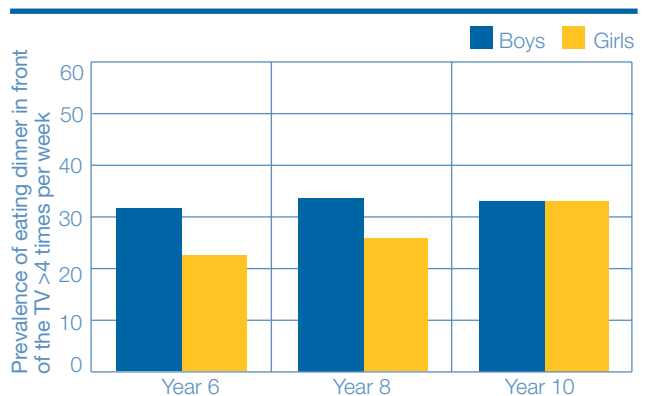


Table 11.16. Prevalence of eating dinner in front of the TV more than four times per week among boys and girls in Years 6, 8 and 10 (%)

	Year 6	Year 8	Year 10
Boys	83.8	79.9	76.7
Girls	72.4*	66.2*	54.5*

* Indicates a statistically significant difference at $P < .05$ between boys and girls within the same Year group.

Prevalence of eating dinner in front of television more than four times per week by rurality, socioeconomic status, cultural background and BMI category

Figure 11.16 and Table 11.17 show the prevalence of usually eating dinner in front of the television among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status, cultural background and BMI category.

Rurality

The differences in the prevalence between urban and rural students were generally small and inconsistent. Only the difference between urban and rural Year 6 girls was statistically significant.

Socioeconomic status

The prevalence of eating dinner in front of television was lowest in the high socioeconomic tertile in five of the six sex/Year groups, but there was no clear pattern of differences between the low and medium tertiles. The prevalence was significantly higher in the low tertile among Year 6 boys and in the medium tertile among Year 10 girls.

Cultural background

Among boys, the prevalence was highest among those from Middle-Eastern cultural backgrounds in every Year group and lowest among those from European cultural backgrounds in two of the three sex/Year groups. However, none of the differences were statistically significant. Among girls, the prevalence varied substantially across cultural backgrounds between Year groups, with no clear pattern of results. Again, none of the differences were statistically significant.

BMI category

The associations between BMI categories and eating dinner while watching TV were inconsistent among both boys and girls. Only the difference between the overweight and healthy weight categories among Year 6 girls was statistically significant.

Figure 11.16. Prevalence of eating dinner in front of the TV more than four times per week among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%)

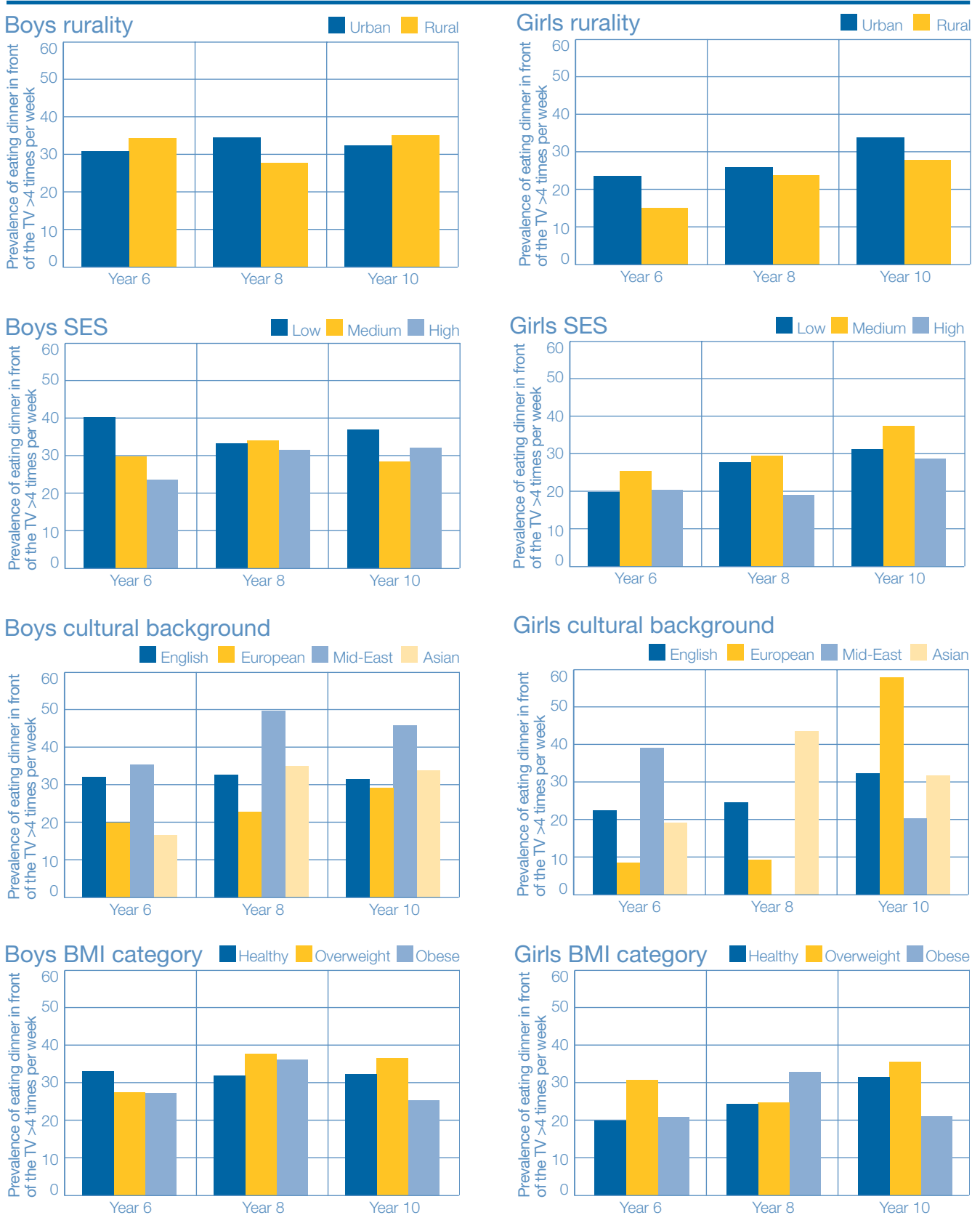


Table 11.17. Prevalence of eating dinner in front of the TV more than four times per week among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%)

	Boys			Girls		
	Year 6	Year 8	Year 10	Year 6	Year 8	Year 10
Rurality						
Urban	30.4	34.1	31.9	23.2	25.5	33.3
Rural	33.9	27.4	34.7	14.9*	23.4	27.4
SES						
Low	40.1*	33.1	36.8	19.9	27.8	31.4
Medium	29.8	34.0	28.3	25.5	29.6	37.6*
High	23.6	31.5	32.0	20.5	19.1	28.7
Cultural background						
English-speaking	32.3	33.0	31.7	22.2	24.2 ⁿ	31.7
European	20.0	23.1	29.4	8.3	9.1	57.1
Middle-Eastern	35.7	50.0	46.2	38.5	0.0	20.0
Asian	16.7	35.3	34.0	18.9	42.9	31.4
BMI category						
Healthy weight	32.7	31.5	32.0	20.1	24.7	31.9
Overweight	27.2	37.3	36.1	31.1*	25.0	36.2
Obese	27.0	35.7	25.0	21.2	33.3	21.4

* Indicates a statistically significant difference at $P < .05$. Comparisons are: between urban and rural; low and medium socioeconomic status compared with high socioeconomic status; European, Middle-Eastern and Asian cultural backgrounds compared with English-speaking cultural background; and overweight and obese compared with healthy weight. Comparisons are within each sex/Year group category.

ⁿ Indicates that statistical significance could not be calculated due to low numbers.

FAMILY FOOD HABITS

Table 11.18 shows the prevalence of family food habits among boys and girls in Years 6, 8 and 10. Approximately 70% of Year 6 and 8 boys reported that, on school nights, their family ate meals together usually or always, declining to 63% among Year 10 students. The proportions were fairly similar among girls, but with a smaller decline between Year 8 and Year 10. Approximately 5-10% fewer Year 6 and Year 8 boys and girls reported eating with their family on weekends compared with school nights, with about 15% fewer Year 10 students reporting that they usually or always ate meals with their family on weekends compared with school nights.

Approximately 60-65% of boys and 65-70% of girls reported that they usually or always ate dinner in front of TV on school nights. Slightly lower proportions of boys and girls in each Year reported usually or always eating dinner in front of TV on weekends.

More than 80% of all girls and Year 6 boys reported that they usually or always ate whatever they wanted on school nights. The proportions were somewhat smaller among Year 8 and Year 10 boys. Substantially fewer boys and girls in each Year reported that they usually or always ate what they liked on weekends.

Among both boys and girls in every Year, 70-78% reported that celebrations usually or always involved special food.


Table 11.18. Prevalence of family food habits among boys and girls in Years 6, 8 and 10 (%)

	Year 6			Year 8			Year 10		
	-	+/-	+	-	+/-	+	-	+/-	+
Boys									
On school nights in my family, we eat meals sitting down together	18.9	9.0	72.1	16.0	12.1	71.9	23.6	13.9	62.5
On weekends in my family, we eat meals sitting down together	22.6	14.0	63.4	23.8	14.1	62.0	33.5	18.5	48.0
On school nights in my family, we eat dinner in front of the TV	22.2	11.7	66.1	26.5	12.0	61.4	25.4	12.1	62.5
On weekends in my family, we eat meals in front of the TV	25.3	11.2	63.5	30.6	15.3	54.1	23.3	19.1	57.6
On school nights in my family, we eat whatever we like	9.4	8.6	82.0	13.6	9.4	77.0	14.7	11.3	74.0
On weekends in my family, we eat whatever we like	18.0	11.6	70.4	18.0	16.3	65.8	21.5	19.1	59.4
In my family, celebrations involve special meals	19.1	9.0	71.8	12.3	9.9	77.8	12.3	12.8	75.0
Girls									
On school nights in my family, we eat meals sitting down together	15.8	11.4	72.8	22.0	10.7	67.3	21.9	10.1	68.0
On weekends in my family, we eat meals sitting down together	20.4	13.2	66.4	29.2	12.8	58.1	34.6	11.4	54.0
On school nights in my family, we eat dinner in front of the TV	18.3	9.1	72.6	20.8	9.3	69.9	23.6	11.8	64.6
On weekends in my family, we eat meals in front of the TV	20.6	11.4	68.0	21.2	13.0	65.8	21.3	13.8	64.9
On school nights in my family, we eat whatever we like	8.3	6.6	85.1	11.0	5.6	83.4	9.0	9.7	81.4
On weekends in my family, we eat whatever we like	12.7	9.9	77.4	19.1	9.2	71.7	17.4	13.6	69.0
In my family, celebrations involve special meals	15.3	11.3	73.3	14.1	13.3	72.6	16.7	12.3	70.9

'-' = disagree strongly or very strongly, '+/-' = neither agree nor disagree, '+' = agree strongly or very strongly

EATING SNACKS BETWEEN MEALS

The question used in the SPANS survey regarding snack consumption refers to having something to eat between meals.



? Question

Thinking about yesterday, how many times did you have a snack between your main meals?

CONSUMPTION OF BETWEEN-MEAL SNACKS BY SEX AND YEAR GROUP

Figure 11.17 and Table 11.19 show the consumption of between-meal snacks among boys and girls in Years 6, 8 and 10. Snack consumption increased with increasing age among both boys and girls. Generally, less than 10% of students had no snacks between meals. Approximately 70% of Year 6 girls, 60% of Year 6 boys and Year 8 boys and girls and 50% of Year 10 boys and girls consumed one to two snacks per day. Approximately 20-30% of students reported three to four snacks per day.

Figure 11.17. Consumption of between-meal snacks among boys and girls in Years 6, 8 and 10 (%)

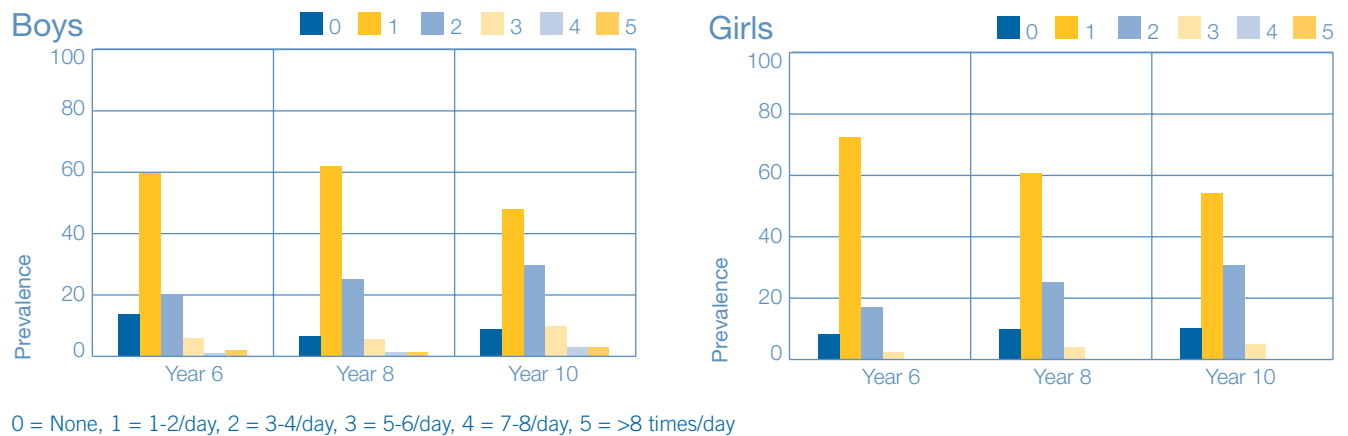


Table 11.19. Consumption of between-meal snacks among boys and girls in Years 6, 8 and 10 (%)

	Year 6						Year 8						Year 10					
	0	1	2	3	4	5	0	1	2	3	4	5	0	1	2	3	4	5
Boys	13.3	58.6	19.7	5.8	0.9	1.7	6.4	60.9	24.8	5.4	1.2	1.2	8.6	47.2	29.0	9.5	2.7	2.9
Girls	8.2	72.0	16.8	2.5	0.0	0.4	9.9	60.3	24.9	4.1	0.5	0.3	10.1	53.5	30.6	5.1	0.5	0.2

0 = none, 1 = 1-2/day, 2 = 3-4/day, 3 = 5-6/day, 4 = 7-8/day, 5 = >8 times/day

Prevalence of consumption of at least five between-meal snacks per day by sex and Year group

The definition of 'too many' snacks is arbitrary, with no clear justification for choosing any particular number. Young people going through puberty and the associated growth spurt, particularly if they are physically active, may need to eat quite frequently. They might reasonably be expected to eat a snack between breakfast and lunch, at least one (sometimes two) between lunch and the evening meal and at least one after the evening meal. That is, it would not be unreasonable for an adolescent to consume five snacks in a day so it was decided to establish the criterion for a high number of snacks at five or more.

Figure 11.18 and Table 11.20 show the prevalence of consuming at least five snacks per day between meals among boys and girls in Years 6, 8 and 10. Among girls, the prevalence of consuming at least five snacks per day was 3%, 5% and 6% in Years 6, 8 and 10, respectively, and among boys, it was 8%, 8% and 15% in Years 6, 8 and 10, respectively. The differences between boys and girls were statistically significant for Years 6 and 10.

Figure 11.18. Prevalence of consuming at least five snacks per day between meals among boys and girls in Years 6, 8 and 10 (%)

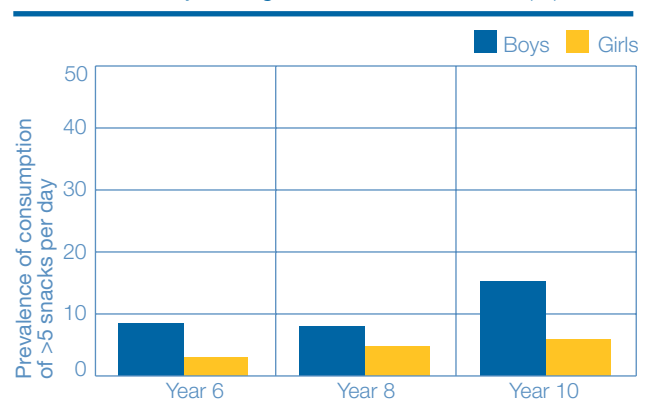


Table 11.20. Prevalence of consuming at least five snacks per day between meals among boys and girls in Years 6, 8 and 10 (%)

	Year 6	Year 8	Year 10
Boys	8.4	7.9	15.1
Girls	3.0*	4.8*	5.8*

* Indicates a statistically significant difference at $P < .05$ between boys and girls within the same Year group.

Prevalence of consumption of at least five between-meal snacks per day by rurality, socioeconomic status, cultural background and BMI category

Table 11.21 shows the prevalence of consuming at least five snacks per day between meals among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status, cultural background and BMI category.

Rurality

The prevalence of at least five snacks per day was similar among urban and rural students, except among Year 10 boys. None of the differences were statistically significant.

Socioeconomic status

There was no clear pattern of association between socioeconomic status and the prevalence of snacking.

Cultural background

The prevalence of at least five snacks per day was generally low among girls, with no clear association with cultural background. Among boys, the prevalence was much greater among Year 6 and Year 8 boys from a Middle-Eastern cultural background (statistically significant for Year 6 and significance could not be calculated for Year 8). The prevalence was significantly higher among Year 10 boys from a European cultural background.

BMI category

There were no clear associations between BMI category and the prevalence of at least five snacks per day and no differences between categories were statistically significant.

Table 11.21. Prevalence of consuming at least five snacks per day between meals among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%)

	Boys			Girls		
	Year 6	Year 8	Year 10	Year 6	Year 8	Year 10
Rurality						
Urban	8.2	7.8	16.1	3.2	4.9	5.6
Rural	9.4	8.3	8.3	1.4	4.5	6.8
SES						
Low	9.7*	8.4	13.7	1.3	8.1	6.4
Medium	6.7	9.5	16.2	5.6	2.6	3.2*
High	8.4	5.6	15.4	1.9	3.5	7.3
Cultural background						
English-speaking	7.7	7.8 ⁿ	15.6	3.1 ^N	4.9 ⁿ	6.4 ⁿ
European	12.5	0.0	29.4*	0.0	9.1	0.0
Middle-Eastern	23.5*	37.5	7.7	0.0	0.0	10.0
Asian	4.2	5.7	8.0	2.6	3.6	2.0
BMI category						
Healthy weight	8.4	8.7	15.1	3.0 ⁿ	5.3 ⁿ	7.0 ⁿ
Overweight	9.6	3.8	15.7	4.0	4.2	0.0
Obese	5.1	10.7	11.1	0.0	0.0	0.0

* Indicates a statistically significant difference at P<.05. Comparisons are: between urban and rural; low and medium socioeconomic status compared with high socioeconomic status; European, Middle-Eastern and Asian cultural backgrounds compared with English-speaking cultural background; and overweight and obese compared with healthy weight. Comparisons are within each sex/Year group category.

ⁿ Indicates that statistical significance could not be calculated due to low numbers.

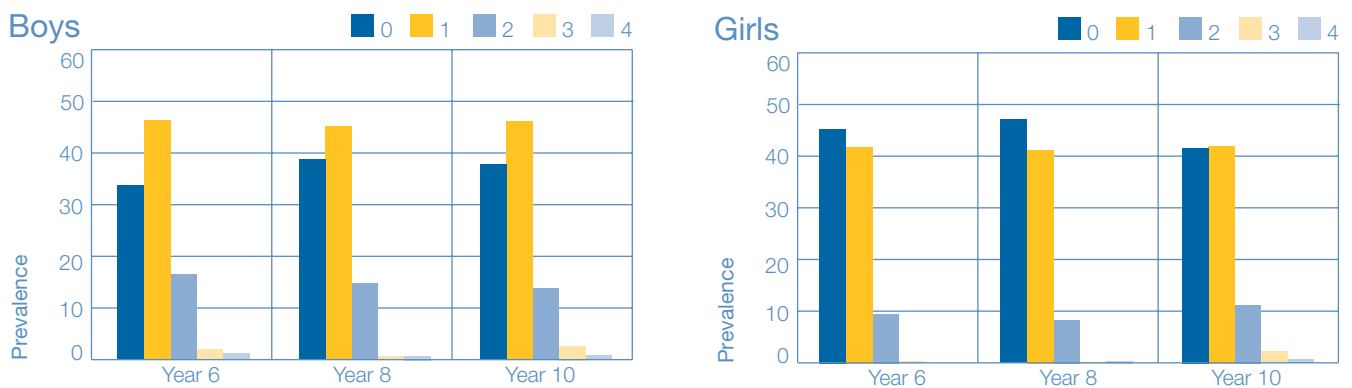
FAST FOOD MEALS

Question
 How many days each week do you usually do the following? Eat food from a fast food outlet (like McDonald's, KFC, Burger King)?

EATING FAST FOOD MEALS BY SEX AND YEAR GROUP

Figure 11.19 and Table 11.22 show the frequency of eating fast food meals among boys and girls in Years 6, 8 and 10. Approximately 30-40% of boys and 40-50% of girls reported never eating meals at fast food outlets. However, 16-20% of boys and 10-15% of girls reported eating a meal at a fast food outlet at least once per week. The prevalence of eating fast food meals more than three times per week was negligible.

Figure 11.19. Consumption of fast food among boys and girls in Years 6, 8 and 10 (%)



0 = never/rarely, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Table 11.22. Consumption of fast food among boys and girls in Years 6, 8 and 10 (%)

	Year 6					Year 8					Year 10				
	0	1	2	3	4	0	1	2	3	4	0	1	2	3	4
Boys	33.8	46.3	16.6	1.9	1.3	38.9	45.1	14.7	0.8	0.5	37.8	46.1	13.9	1.8	0.4
Girls	46.6	43.1	9.9	0.4	0.0	48.5	42.3	8.7	0.3	0.3	42.9	43.1	11.6	1.9	0.5

0 = none, 1 = <1/week, 2 = 1-3 times/week, 3 = 4-6 times/week, 4 = every day

Prevalence of eating at least one fast food meal per week by sex and Year Group

Figure 11.20 and Table 11.23 show the prevalence of eating a meal at a fast food outlet at least once per week among boys and girls in Years 6, 8 and 10. Between 16% and 20% of boys and 10-15% of girls reported eating a meal at a fast food outlet at least once per week. The differences between boys and girls were statistically significant for Year 6 and Year 8.

Figure 11.20. Prevalence of eating a meal at a fast food outlet at least once per week among boys and girls in Years 6, 8 and 10 (%)

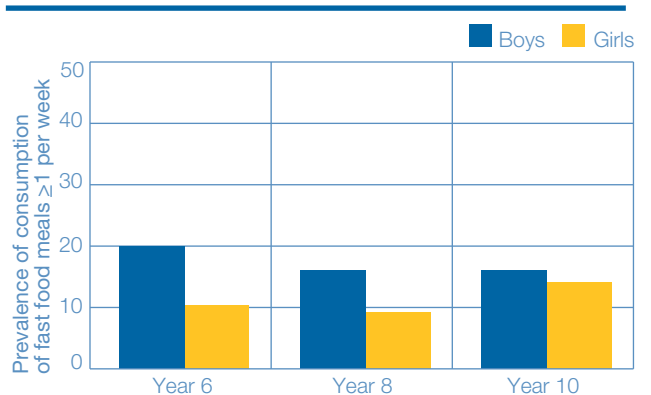


Table 11.23. Prevalence of eating a meal at a fast food outlet at least once per week among boys and girls in Years 6, 8 and 10 (%)

	Year 6	Year 8	Year 10
Boys	19.8	16.0	16.0
Girls	10.3*	9.2*	14.0

* Indicates a statistically significant difference at P<.05 between boys and girls within the same Year group.

Prevalence of eating at least one fast food meal per week by rurality, socioeconomic status, cultural background and BMI category

Table 11.24 shows the prevalence of eating a meal at a fast food outlet at least once a week among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status, cultural background and BMI category.

Rurality

The prevalence of eating regularly at fast food restaurants was markedly higher (approximately 10 percentage points) among urban than rural students in every sex/Year group. The differences were statistically significant for boys in Years 6 and 8 and for Year 10 girls and the differences approached statistical significance among Year 6 and 8 girls.

Socioeconomic status

The prevalence of eating at a fast food restaurant at least once a week was highest in the low socioeconomic status tertile in every sex/Year group, except Year 8 girls, and lowest in the high socioeconomic status tertile in every sex/Year group, except Year 8 girls. The differences were greatest among Year 6 students and diminished with increasing age. The difference between the low and high tertile was statistically significant among Year 6 girls, but not for any other groups.

Cultural background

The prevalence of eating at a fast food restaurant was distinctly higher among students from Middle-Eastern cultural backgrounds in all sex/Year groups (except Year 8 girls) and the differences were statistically significant among Year 6 and Year 10 Middle-Eastern boys and girls. There were no consistent patterns among the other cultural groups.

BMI category

There were no clear patterns of association between the prevalence of eating at fast food restaurants and BMI category and none of the differences were statistically significant.

Table 11.24. Prevalence of eating a meal at a fast food outlet at least once per week among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status (SES), cultural background and BMI category (%)

	Boys			Girls		
	Year 6	Year 8	Year 10	Year 6	Year 8	Year 10
Rurality						
Urban	21.4	18.0	17.2	11.6	10.2	16.4
Rural	9.5*	6.8*	8.3	2.8	4.6	2.7*
SES						
Low	24.8	18.2	17.6	17.0*	7.4	15.0
Medium	17.3	16.6	16.7	7.9	8.6	15.2
High	17.4	12.9	13.7	5.9	11.5	12.0
Cultural background						
English-speaking	19.1	15.5	14.6	8.7	8.9 ⁿ	12.8
European	31.3	15.4	17.6	15.4	9.1	28.6
Middle-Eastern	37.5*	37.5	38.5*	35.7*	0.0	40.0*
Asian	12.5	14.3	22.0	16.2	14.3	13.7



Table 11.24. Prevalence of eating a meal at a fast food outlet at least once per week among boys and girls in Years 6, 8 and 10 by rurality, socioeconomic status, cultural background and BMI category (%) (continued)

	Boys			Girls		
	Year 6	Year 8	Year 10	Year 6	Year 8	Year 10
BMI category						
Healthy weight	21.3	14.4	16.8	9.8	8.3	14.3
Overweight	16.2	21.6	14.8	14.9	13.9	10.3
Obese	17.9	17.9	11.1	5.9	6.7	14.3

* Indicates a statistically significant difference at $P < .05$. Comparisons are: between urban and rural; low and medium socioeconomic status compared with high socioeconomic status; European, Middle-Eastern and Asian cultural backgrounds compared with English-speaking cultural background; and overweight and obese compared with healthy weight. Comparisons are within each sex/Year group category.

n Indicates that statistical significance could not be calculated due to low numbers.

FAST FOOD CONSUMPTION HABITS

Fast food outlets are popular with adolescents, but fast food tends to be higher in fat and its consumption is inversely associated with the consumption of fruit, vegetables and milk. The frequency of fast food consumption has been found to be associated with the development of overweight among young women. Table 11.25 shows the prevalence of fast food consumption habits among boys and girls in Years 6, 8 and 10.

Approximately 10% of boys and girls reported that they never ate food from a fast food outlet and 25-33% gave a non-committal response. Between 50 and 60% of students reported that they had eaten at a fast food restaurant.

Among boys, 36-42% reported that they usually choose the value meal at a fast food outlet and slightly smaller proportions reported that they did not usually

choose the value meal. Girls reported differently: approximately 25% reported that they usually choose the value meal and over 40% reported that they did not usually buy the value meal.

Girls and boys responded differently to the question of whether or not they usually 'upsized' at a fast food outlet. Approximately 30% of Year 6 and Year 8 boys reported that they did and 40-50% reported that they did not. Over 40% of Year 10 boys reported that they usually upsize. In contrast, only 10-20% of girls agreed that they would usually upsize while 60-70% reported that they would usually not choose to upsize.

When asked if they would choose the low-fat or healthy option at a fast food outlet, less than 30% of Year 6 and Year 8 boys agreed, but nearly 50% of Year 10 boys agreed. In contrast, 36% of Year 6 girls and approximately 60% of Year 8 and Year 10 girls reported that they would choose the healthy option if it was available.

Table 11.25. Prevalence of fast food consumption habits among boys and girls in Years 6, 8 and 10 (%)

	Year 6			Year 8			Year 10		
	-	+/-	+	-	+/-	+	-	+/-	+
Boys									
I never eat food from a fast food outlet	53.8	33.3	12.9	60.0	30.0	10.1	60.5	28.3	11.2
When I go to a fast food outlet, I usually choose the 'value' meal	37.0	27.3	35.7	33.5	28.6	37.9	31.8	26.4	41.9
At a fast food outlet if I can 'upsize' I usually do	48.7	24.2	27.1	41.5	27.0	31.4	32.7	24.4	43.0
At fast food outlets I choose the low fat or healthy option if available	36.3	34.4	29.2	39.6	36.6	23.8	17.0	32.2	47.0

Table 11.25. Prevalence of fast food consumption among boys and girls in Years 6, 8 and 10 (%) (continued)

	Year 6			Year 8			Year 10		
	-	+/-	+	-	+/-	+	-	+/-	+
Girls									
I never eat food from a fast food outlet	51.6	36.1	12.4	53.4	34.1	12.5	63.1	26.5	10.4
When I go to a fast food outlet, I usually choose the 'value' meal	41.7	29.7	28.6	43.5	33.3	23.2	43.0	30.4	26.6
At a fast food outlet if I can 'upsized' I usually do	64.9	22.6	12.6	59.3	21.0	19.7	68.9	17.1	14.0
At fast food outlets I choose the low fat or healthy option if available	22.9	41.5	35.6	10.2	20.6	62.1	11.7	23.9	58.1

'-' = disagree strongly or very strongly, '+/-' = neither agree nor disagree, '+' = agree strongly or very strongly

DISCUSSION

A substantial number of young people (particularly girls) reported not eating breakfast every day (30-40% of secondary school students), showing a marked decline with increasing age. Furthermore, not regularly eating breakfast was directly associated with BMI category.

Although the consumption of lunch every day was more prevalent than eating breakfast, approximately 30% of secondary school girls and Year 10 boys did not eat lunch every day. It was notable that the prevalence of eating lunch every day was highest among young people in the healthy-weight category.

Although the prevalence of eating dinner every night was high, it is of concern that 10-15% of young people reported not eating an evening meal every night. The prevalence of eating dinner every night was directly associated with socioeconomic status and was lowest among obese young people. Less than two-thirds of young people reported eating dinner with their family every night, with approximately 80% reporting that the family ate together at least four nights per week. An alternate interpretation is that approximately 20% of young people reported eating dinner with most of their family on less than half of all evenings. Like the prevalence of eating dinner, eating dinner with most of the family was least prevalent among obese young people.

Overall, there were quite clear associations between regular consumption of the main meals and overweight and obesity, such that overweight and obese students were less likely to consume meals regularly. It is not possible to determine from these data if irregular meal consumption is a cause

or effect of overweight. It is entirely plausible that overweight young people skip meals in an attempt to control their weight, but it is also possible that irregular meals may be associated with binge eating or excessive consumption of energy-dense snack foods, resulting in increased adiposity.

It is difficult to determine an excessive amount of snacking among adolescents, particularly boys who, if very active, need to snack frequently. Of course, the quality of the food consumed while snacking is also critically important, but that information was not collected as part of this study. Among all young people, except Year 10 boys, the prevalence of snacking five or more times per day was less than 10%.

The reported consumption of food from a fast food outlet was surprisingly low, with less than 20% of all students reporting that they ate food from a fast food outlet once per week or more. Although there was an inverse association between socioeconomic status and the prevalence of fast food consumption (ie the prevalence was higher among students from lower socioeconomic backgrounds) and a high prevalence of fast food consumption among young people from a Middle-Eastern cultural background, there did not appear to be any association between the frequency of fast food consumption and BMI category.

Overall, these data suggest that failure to eat regular meals may be the aspect of eating patterns that is most strongly associated with overweight and most detrimental to good food habits and health. The frequent associations between socioeconomic status and the various aspects of eating patterns were also notable.

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