



# Young People in 2000

*The Health Related Behaviour Questionnaire  
results for 42,073 young people between the ages of 10 and 15*

## **Food choices and weight control**

**John Balding**

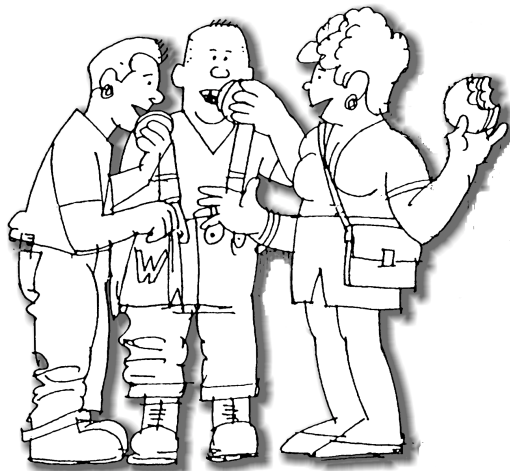
*Director*

Schools Health Education Unit

2001

# Food choices and weight control

This section of the Health Related Behaviour Questionnaire has passed through more revisions than any other. In earlier versions, attempts were made to derive quality and quantity measurements from the respondents' account of 'yesterday's intake', but the vagueness about amounts and quality made it impossible to do more than note the apparent presence or absence of certain important nutrients. The 2000 questionnaire (version 21) contains a checklist of 15 common food items against which the pupils indicate typical levels of consumption. It is hoped that classroom discussion of these results will raise levels of awareness regarding 'healthy' and 'unhealthy' foods. The health-related aspect of diet, as well as attitude to personal weight, is also included in this section.



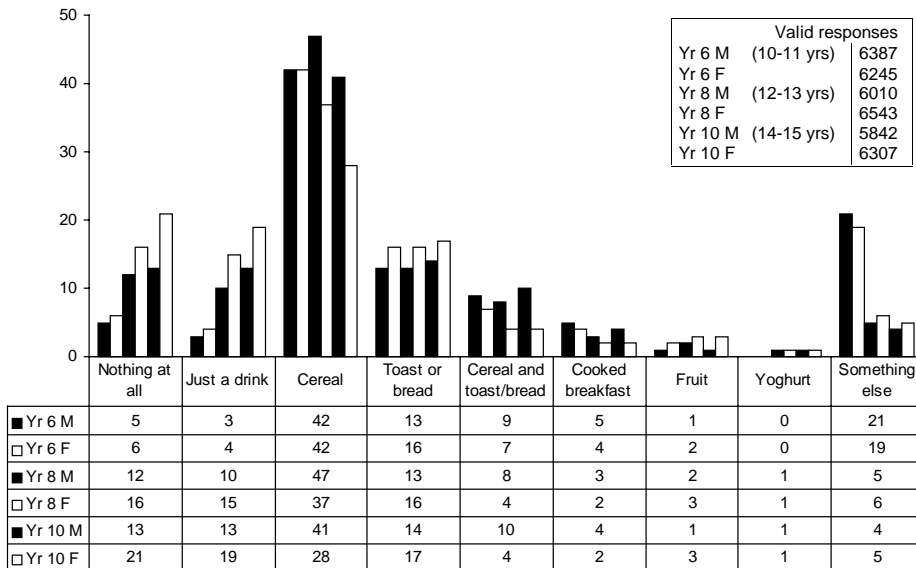
Question	
N2	What did you have for breakfast this morning? ..... 2
N1	What did you do for lunch yesterday? ..... 3
N4	Your weight — which statement describes you best? ..... 4
P14	Do you know your weight? ..... 5
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N3	When choosing what to eat, do you consider your health? ..... 12

# Schoolday breakfast

21% of the Year 10 females have *nothing at all* for breakfast

## What did you have for breakfast this morning? (N2) (Pri.7)

1. Seeking the breakfast 'missers', we find more Year 10s than Year 8s, and more Year 10 females than Year 8 females.
2. Cereal is the most commonly reported breakfast item, particularly for Year 6 pupils (42%), Year 8 males (47%) and Year 10 males (41%).
3. Just a drink is reported by 15% Year 8 females and 19% Year 10 females.
4. A cooked breakfast is taken by few and mainly from the males.



## Comments

1. Is the high percentage of those having nothing at all or just a drink cause for concern?
2. We do not know if missing breakfast is an undesired omission (e.g. through lack of organisation, time or effort) or a deliberate decision to reduce food intake. Do children miss breakfast and then buy snack food from the shop on the way to school?
3. What foods come into the 'something else' category? It is interesting that this is the second highest category for the youngest pupils.
4. What relationships exist between breakfast and lunch eating behaviours? (see box below)



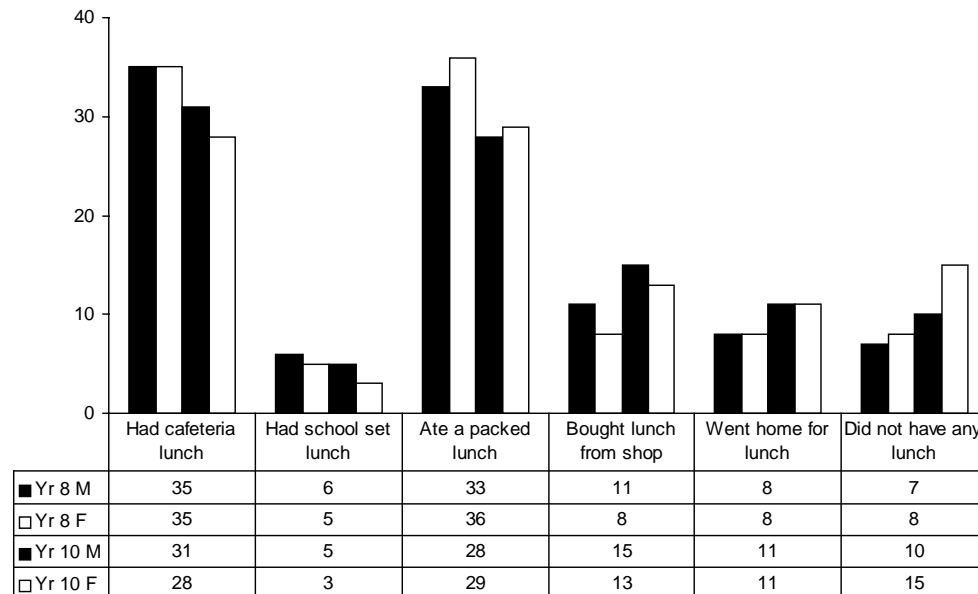
The breakfast question is about this morning, and the lunch question is about yesterday, so we cannot demonstrate that any pupil missed both breakfast and lunch on the same day. Nonetheless, we do know that the two options are related. For example, among Year 10 females: those missing breakfast are nearly twice as likely to have missed lunch the previous day:  
*Proportion having nothing for breakfast this morning: 21%*  
*Proportion missing lunch yesterday: 15%*  
*Proportion of those having nothing for breakfast this morning who had nothing for lunch yesterday: 23%*

# Schoolday lunch

15% of the Year 10 females did not have any lunch

## What did you do for lunch yesterday? (N1)

1. A packed lunch was the most popular option including 36% of the Year 8 females.
2. Up to a third had a cafeteria lunch or a packed lunch.
3. Figures for a school set lunch are low; 6% of Year 8 males is the highest reported for this type of lunch.
4. More of the older pupils missed lunch altogether — 15% of the Year 10 females had no lunch.



## Comments

1. The 'packed lunchers' form an interesting group. Earlier studies suggested that they are likely to enjoy a more balanced overall diet than the other categories — perhaps because families supplying a packed lunch tend to give more thought to what is eaten.
2. Are those who are buying their lunch from a shop allowed to leave the school premises at lunchtime or are they off-site without permission? 26% of the Year 10 males either went home for lunch or bought their lunch from a shop. Why are they choosing this option above the option of lunch at school?
3. We have seen on the previous page that there is a relationship between those who missed lunch and those who missed breakfast. Are there connections between pupils who miss meals and their attitudes to losing weight? [See over]

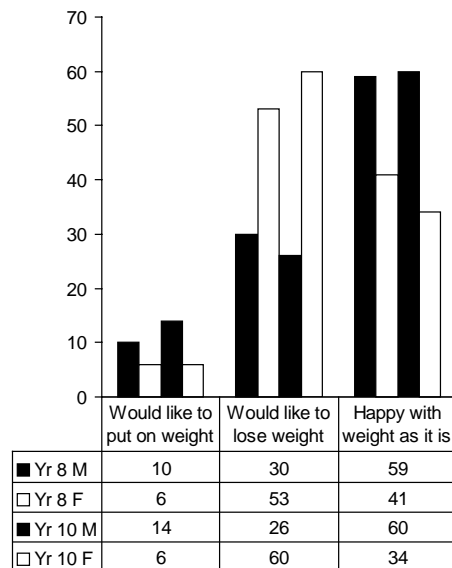
Valid responses		
Yr 8 M	(12-13 yrs)	7034
Yr 8 F		7491
Yr 10 M	(14-15 yrs)	6973
Yr 10 F		7351

# Attitude to personal weight

60% of Year 10 females and 53% of Year 8 females would like to lose weight

## Your weight — which statement describes you best? (N4)

1. Many more females than males want to lose weight.
2. 60% of the Year 10 females and 53% of the Year 8 females would like to lose weight.
3. More of the younger males would like to lose weight, as opposed to more of the older females.
4. Only a third of the Year 10 females said they were happy with their weight as it is.



Valid responses	
Yr 8 M (12-13 yrs)	7014
Yr 8 F	7411
Yr 10 M (14-15 yrs)	6916
Yr 10 F	7290

## Comments

1. It is easy to understand why more females than males want to lose weight, but the age differences are interesting:  
The slight preponderance of younger males could mean that they feel more self-conscious, or that weight seems more of a disadvantage — it could also be because more are overweight.  
Conversely, the preponderance of older females suggests the opposite.
2. The fashion for using very slender female models has this year been the subject of discussions between Government and the fashion magazines.
3. An analysis of the characteristics of the Year 10 females shows that most of those wanting to lose weight are within the limits of 'healthy' weight, and some are already underweight.



Year 10 females were more likely to miss breakfast and lunch if they desired to lose weight:  
*Proportion who had nothing for breakfast today: 21%*  
*Proportion who missed lunch yesterday: 15%*  
*Proportion of those who want to lose weight who missed breakfast: 24%*  
*Proportion of those who want to lose weight who missed lunch: 19%*  
 In earlier books in this series we also showed that a desire to lose weight could be linked to food choices.

# Weight

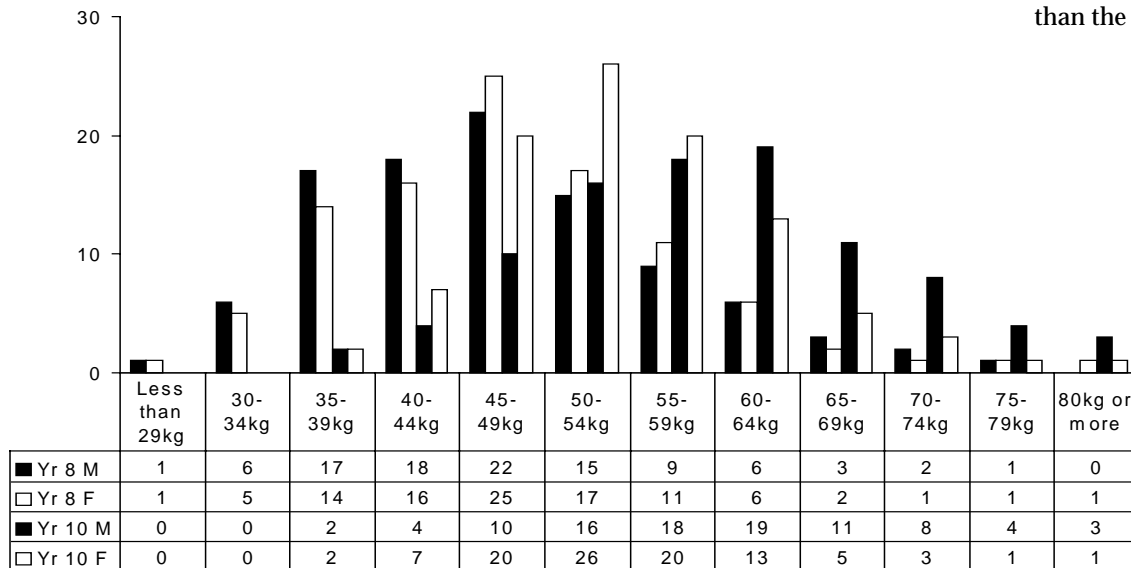
More than 45% were unsure of their weight

## Do you know your weight? (P14)

1. There are some unsurprising age and sex differences here: older males are the heaviest, which fits well with the data relating to height.
2. We do not ask the question in the primary version of the questionnaire because of the work that would be involved for teachers in the collection of accurate data. In the secondary surveys, schools are asked to prompt pupils to check their height and weight before completing the questionnaire.

## Comments

1. Unusually high or low responses reported to use may be due to difficulties of converting. [Many pupils still think of this data in imperial units of measure so we provide conversion charts in the survey support materials. Assistance, from teachers may be sought by pupils, with this or any other item in the questionnaire.]
2. The following percentages of missing values provides an indication of those who did not know or were unsure of their weight:  
Y8M: 50% Y8F: 45% Y10M: 46% Y10F: 47%
3. There is no evidence in our data that those young people who are unhappy with their weight are significantly less likely to report their weight to us than the rest of the sample.



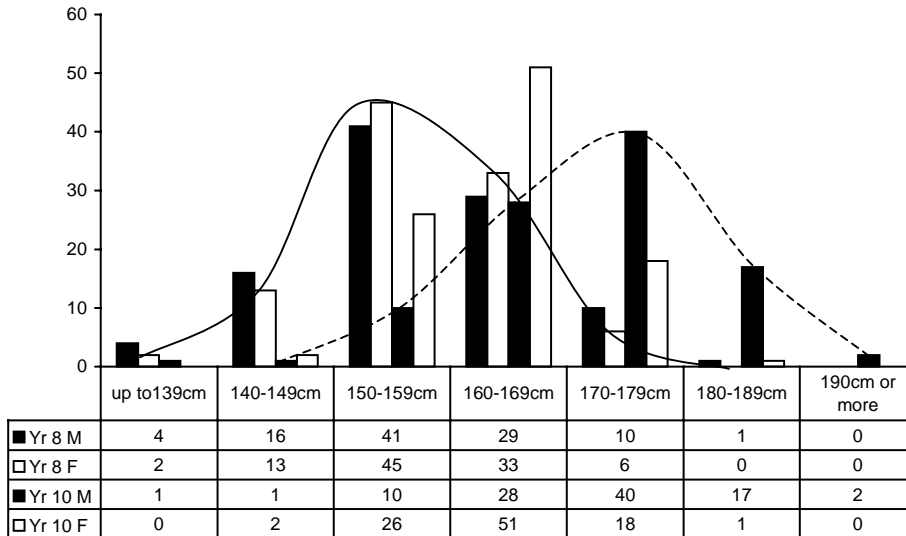
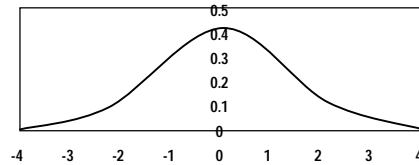
Valid responses		
Yr 8 M (12-13 yrs)		3540
Yr 8 F		4051
Yr 10 M (14-15 yrs)		3753
Yr 10 F		3772

# Height

Males start 'growing away' from females in Year 10

## Do you know your height? (P13)

- Again, we see that older males are the tallest. Females appear to be taller than the males in Year 8, but by Year 10 the males are clearly taller than the females.
- Height and weight are 'continuous' measures, which show the classical pattern of a 'bell curve': a heap in the middle with two tapering ends.



## Comments

- Many of the comments we made about weight above also apply here.
- A higher proportion of young people are sure of their height than their weight.
- A comment from many primary school teachers is that youngsters, particularly girls, are getting taller at an earlier age. If this is combined with theories about better diet and lack of exercise producing taller individuals then it will be interesting to see if the average heights observed increase in our data in the years to come.
- Is height a health issue? In fact, poverty and poor diet may still contribute to a failure to grow as well as possible. But beyond this, it may have more subtle effects. For example, taller young people may find it easier to purchase age-restricted material.

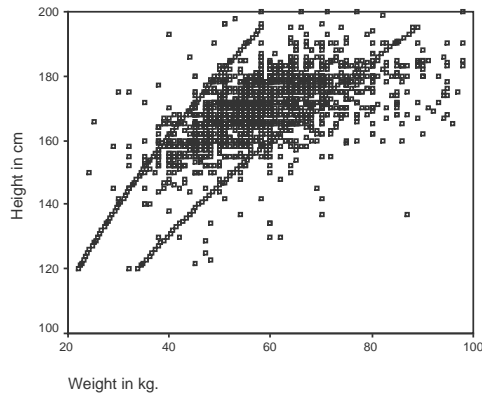
Valid responses	
Yr 8 M (12-13 yrs)	3732
Yr 8 F	4439
Yr 10 M (14-15 yrs)	3973
Yr 10 F	4301

# Weight analysis

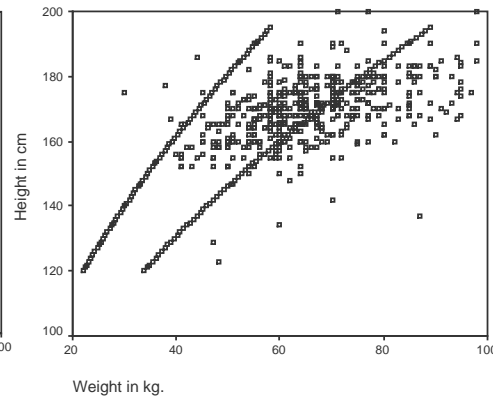
Around 15% need to lose weight

## Derived body mass measurement

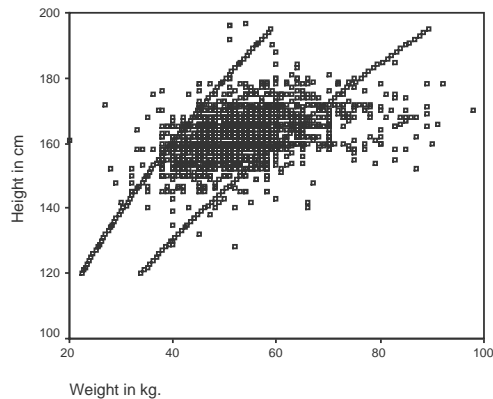
All 14y males: 2nd and 91st Percentiles of BMI



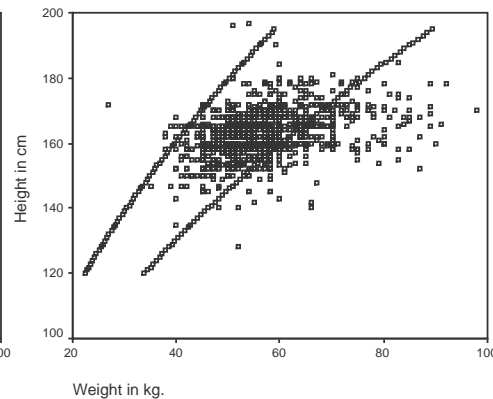
Males: 2nd and 91st Percentiles of BMI for those who would like to lose weight



All 14y females: 2nd and 91st Percentiles of BMI



Females: 2nd and 91st Percentiles of BMI for those who would like to lose weight



## The Overweight group

1. The Year 10 group of respondents contained 14-year-olds and 15-year-olds. In order to relate their recorded weight to published guidelines regarding 'desirable' weight, we isolated the 14-year-olds. This is because the Body Mass Index (BMI) formula for young people takes their age as well as their height into account.
2. Of this sample, 15.5% of the males and 14.6% of the females were 'overweight' according to the Child Growth Foundation formula used in this presentation. This compares with the 26% of all Year 10 males and 60% of all Year 10 females in the survey that would have liked to lose some weight.
3. The scattergrams presented here include two lines representing the upper and lower limits of 'satisfactory' weight. The left-hand diagrams plot all the 14-year-olds; the right-hand diagrams show only those who want to lose weight.
4. Examining the 'want to lose weight' diagrams, it is seen that less than half of these males are above the guidelines for healthy weight, and the rest are concentrated in the upper part of the 'safe' band.
5. However, the pattern for females is almost indistinguishable from that in the left-hand diagram for the whole sample, confirming that their desire to lose weight bears little correlation with their actual weight.
6. We also note, in the right-hand diagrams, that some individuals wishing to lose weight are already at or below the 'safe' weight limit.

The weight guidelines on this page were derived using a UK-reference group for Body mass Index adjusted for age (Child Growth Foundation).

	Males	Females
<i>Underweight</i>	5.6	5.3
<i>Satisfactory</i>	78.9	80.1
<i>Overweight</i>	15.5	14.6
Valid responses	3176	3312



# Protein

Over 60% of 12-15 year olds have dairy produce *on most days*

## Protein items in their diet (N5) (Pri.9)

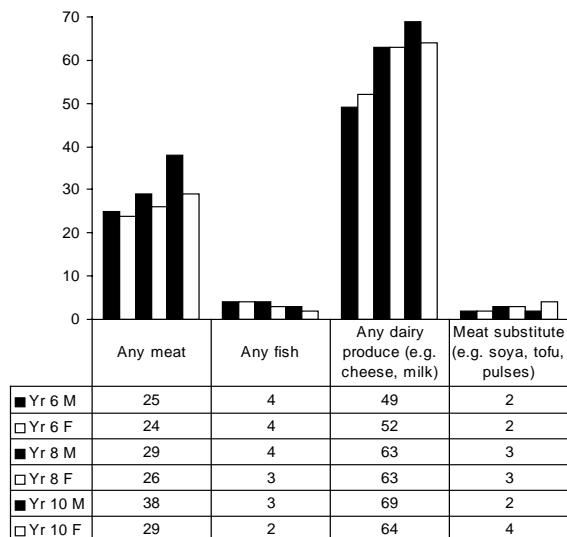
## Comments

### Responses to eaten 'on most days'.

Please note that all the 'diet' items are offered as a single list, and are not subdivided by content as we have done here.

1. Meat is slightly more popular with males than females.
2. Dairy products are more frequently eaten than meat and fish.
3. There is a marked age gradient for meat and dairy products, with older pupils reporting eating them with higher frequencies. In Year 8, 29% of males and 26% of females report eating meat on most days but by Year 10, 38% of the males report the same, with only a small increase observed in the Year 10 females.

1. The age differences are interesting: is it that the older age groups are better at recognising when a food item is present? For example, do primary school pupils recognise that 'cottage pie' is a meat dish? Of course, the differences may well be genuine. Is this a deliberate plan to increase intake of protein, either by the young people or their parents, or is it a reflection of personal preference and enhanced spending power that comes with age and opportunities?
2. The small sex differences also beg an explanation. It may be that more girls than boys avoid meat products, either because they are uncomfortable with the way animals are raised, or because these high-protein foods may also be rich in fats.
3. Foods that are not normally thought of as being high in protein, like cereals and pulses, also contribute significantly to the amount of protein eaten.



Available sample	
Yr 6 M (10-11 yrs)	6511
Yr 6 F	6391
Yr 8 M (12-13 yrs)	7180
Yr 8 F	7548
Yr 10 M (14-15 yrs)	7034
Yr 10 F	7409

# Starchy foods

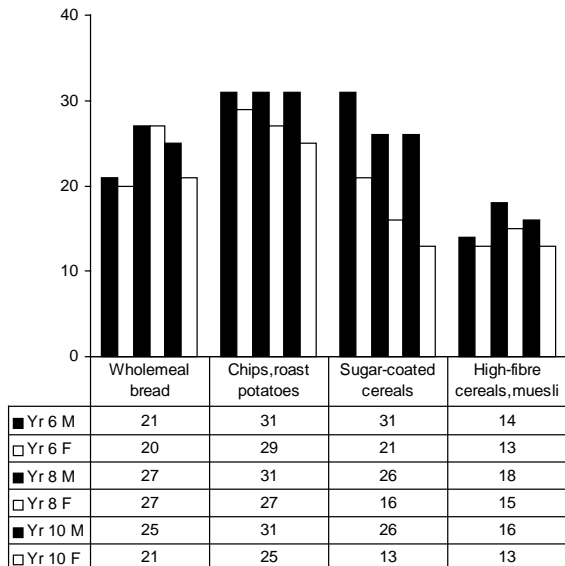
For females, there is an age-related drop in frequency of consumption of *chips* and *sugary cereals*

## Starchy items in their diet (N5) (Pri.9)

### Responses to eaten 'on most days'.

Please note that all the 'diet' items are offered as a single list, and are not subdivided by content as we have done here.

1. The male and female responses are, on the whole, similar, although interesting differences are to be found.
2. Where sex differences are found, the males are usually ahead of the females, especially sugar-coated cereals.
3. Among the females, we see an age-related drop in frequency of consumption for chips and sugary cereals.



Available sample	
Yr 6 M (10-11 yrs)	6511
Yr 6 F	6391
Yr 8 M (12-13 yrs)	7180
Yr 8 F	7548
Yr 10 M (14-15 yrs)	7034
Yr 10 F	7409

## Comments

1. Does the greater attraction of chips for the Year 10 males reflect the increased diet-consciousness of the females? The age-related drop in the responses of females suggests that this is the case.
2. The wholemeal bread figures are encouraging. Does this reflect a positive attempt to improve diet on the part of young people?
3. The avoidance by older females of sugar-coated cereals may be part of a general avoidance of calorific foods, but there may be some specific attitudes at play here - perhaps a greater sensitivity to dental risks than the males, or that fewer females eat breakfast by comparison.
4. The slight excess of males over females eating high-fibre cereals is interesting and counter to our expectations. More females than males skip breakfast (page 2) but when we select only for those pupils having breakfast the difference persists.



In an earlier book in this series we showed that the frequency of eating chips could be linked to the type of lunch eaten.

# Fruit and vegetables

Females show a greater preference for fruit and vegetables

## Fruit and vegetables in their diet (N5) (Pri.9)

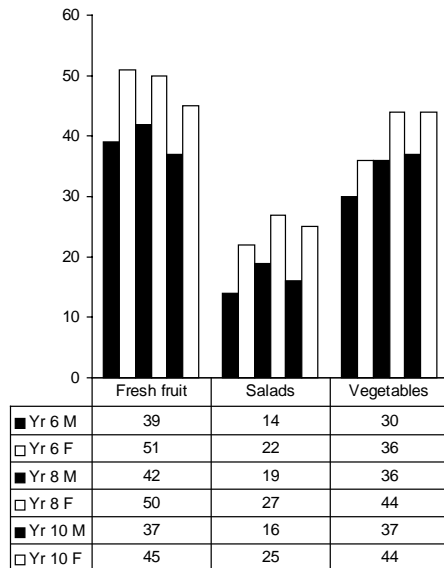
### Comments

### Responses to eaten 'on most days'.

Please note that all the 'diet' items are offered as a single list, and are not subdivided by content as we have done here.

1. More females than males are recorded against the items in this table.
2. There are some consistent age-related patterns here: older pupils eat fresh fruit less often, and salads and vegetables more often.

1. Gender differences are reflected most markedly in this section: we may speculate about differences in health and diet consciousness.
2. A quarter of the females in secondary school eat salad and over 40% of them eat vegetables on most days. Is this because they are keen to have a balanced diet or are they choosing food items that have lower calorific content?
3. There is an increase with age in the consumption of vegetables for both genders. Perhaps this is a sign of youngsters approaching adult tastes rather than the juvenile abhorrence of certain vegetables.
4. The fall in the consumption of fresh fruit with increasing age is undesirable and unexplained. We have also observed a decline year-on-year in the reported frequency of consumption of fresh fruit among our databank samples. The long-term nature and uniformity of the fall suggest that it is not an effect of questionnaire revisions.



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Yr 6 F	6391
Yr 8 M (12-13 yrs)	7180
Yr 8 F	7548
Yr 10 M (14-15 yrs)	7034
Yr 10 F	7409

# Drinks and snacks

*Crisps and sweets remain popular*

## Drinks and snacks they enjoy (N5) (Pri.9)

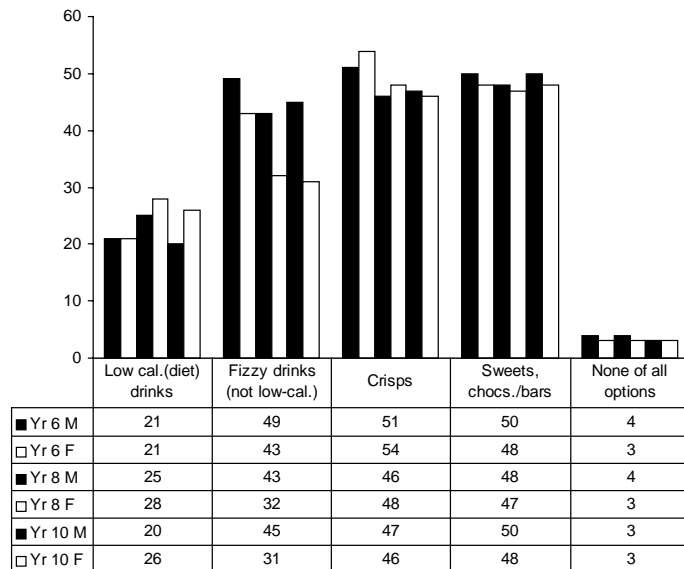
## Comments

### Responses to eaten 'on most days'.

Please note that all the 'diet' items are offered as a single list, and are not subdivided by content as we have done here.

1. Males have a taste for fizzy drinks, and females for low-calorie drinks.
2. There is little gender difference in the appeal of sweets and crisps.
3. Many of these high-calorie foods show high values in Year 6.

1. The greater health-consciousness of the females is reflected in their choice of diet drinks, but not in other highly calorific or dentally-doubtful snacks.
2. Are the high figures here related to items that youngsters find in their packed lunches? Do more primary school pupils than secondary school pupils have a packed lunch?
3. The observed year-group differences may reflect their different spending habits: these dietary responses may be related to their responses to the spending questions in section 6.



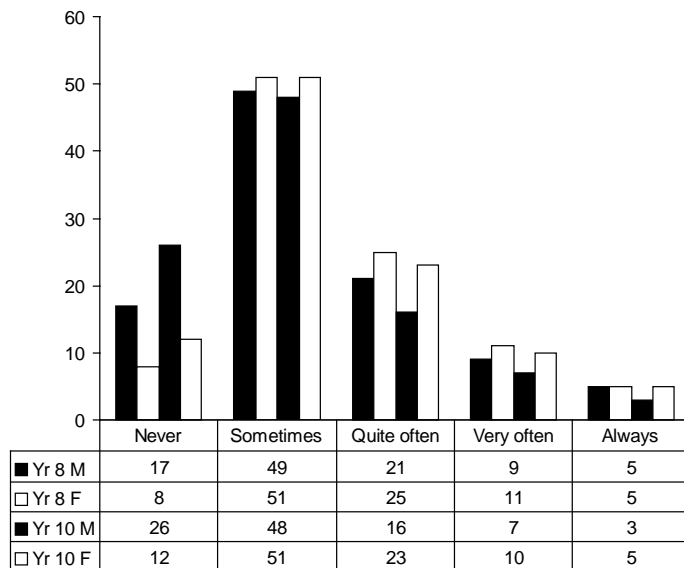
Available sample		
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# Dietary decisions

26% of the Year 10 males never consider their health when choosing food

## When choosing what to eat, do you consider your health? (N3)

1. Most of the young people respond at least *sometimes*.
2. More females than males respond very often, and many more males than females respond *never*.
3. With respect to age, more of the older males respond *never*; the females show less change.



Valid responses	
Yr 8 M (12-13 yrs)	7102
Yr 8 F	7431
Yr 10 M (14-15 yrs)	6983
Yr 10 F	7371

## Comments

1. If health considerations are prominent this does not mean that they are the deciding factor.
2. The table bears out the evidence of the previous pages that the females are more health-conscious about food than the males. Has 'scare fatigue' particularly affected the Year 10 males?
3. There are many prompts to think about the food we eat — coverage in the media seems never to have been higher. But with so much publicity about BSE, food poisoning, GM foods, additives and contaminants, let alone health education messages, we have to face the fact that more than half of this sample never or only sometimes evaluate their diet from a health point of view.
4. Dietary advice about specific items may have changed over the years, but the general exhortation to eat a diet which is well-balanced has not.



In earlier books in this series, we described how those young people who reported that they often thought about health when choosing food did indeed have different dietary habits to their peers, for example, being more likely to choose low-calorie options.