



Norfolk
County Council
Public Health

Norfolk Flourish Survey 2024 – Healthy eating and physical activity

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Norfolk Overview – 2024 data

Among Year 4 to Year 13 pupils...

Just over **1 in 5** report having a takeaway or fast food as an extra meal or snack at home at least once a week

Around **1 in 4** report meeting the 5-a-day fruit and vegetable target on the day before the survey

Almost **1 in 10** report having no portions of fruit or vegetables on the day before the survey

Water is the most frequently consumed drink



Diet



Among Year 6 to Year 13 pupils...

Over **4 in 10** report a desire to lose weight

Around **1 in 10** report a desire to gain weight

Female pupils are more likely to want to lose weight than males

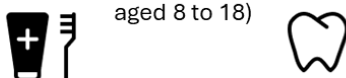
Just over **1 in 4** report that they usually or always eat or drink more when worried or stressed

Almost **1 in 5** report not going to the dentist for over a year or never having been

The percentage reporting not going to the dentist for over a year or never having been increased between 2017 and 2024

Dental Hygiene

proportions average across
Year 4 to Year 13 pupils (pupils aged 8 to 18)



1 in 20 report that they have never been to a dentist

Just over **8 in 10** report brushing their teeth at least twice a day

Over **1 in 5** report that they did exercise which made them breathe harder and faster on only one or no days in the week before the survey



Nearly **1 in 6** report that they did not do any sport or physical activity outside of school in the 4 weeks before the survey

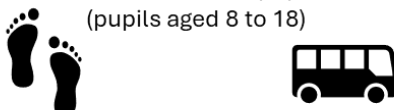
Among Year 6 pupils...

Over **1 in 5** report not being allowed to walk alone without adult supervision

Almost **1 in 2** report not being allowed to use public transport alone without adult supervision

Physical Activity and Active Travel

proportions average across
Year 4 to Year 13 pupils
(pupils aged 8 to 18)



Pupils report greater confidence when travelling if they are with friends

More pupils report feeling 'not at all confident' about cycling than about walking

Just over **1 in 5** rate their safety when going out after dark as poor or very poor

Just under **9 in 10** rate the ability of the police to keep them safe as ok, good or very good

Community Safety

proportions average across
Year 6 to Year 13 pupils
(pupils aged 10 to 18)



Just under **9 in 10** rate safety on public transport as ok, good or very good

Just over **9 in 10** rate safety on local roads as ok, good or very good

Over **4 in 10** think that there are not enough safe crossing places on local roads



Infographic text description

Diet

- Among Year 4 to Year 13 pupils:
 - Just over 1 in 5 report having a takeaway or fast food as an extra meal or snack at home at least once a week
 - Around 1 in 4 report meeting the 5-a-day fruit and vegetable target on the day before the survey
 - Almost 1 in 10 report having no portions of fruit or vegetables on the day before the survey
 - Water is the most frequently consumed drink
- Among Year 6 to Year 13 pupils:
 - Over 4 in 10 report a desire to lose weight
 - Around 1 in 10 report a desire to gain weight
 - Female pupils are more likely to want to lose weight than males
 - Just over 1 in 4 report that they usually or always eat or drink more when worried or stressed

Dental Hygiene

Proportions average across Year 4 to Year 13 pupils (pupils aged 8 to 18)

- Almost 1 in 5 report not going to the dentist for over a year or never having been
- The percentage reporting not going to the dentist for over a year or never having been increased between 2017 and 2024
- 1 in 20 report that they have never been to a dentist
- Just over 8 in 10 report brushing their teeth at least twice a day

Physical Activity and Active Travel

Proportions average across Year 4 to Year 13 pupils (pupils aged 8 to 18)

- Over 1 in 5 report that they did exercise which made them breathe harder and faster on only one or no days in the week before the survey
- Nearly 1 in 6 report that they did not do any sport or physical activity outside of school in the 4 weeks before the survey
- Among Year 6 pupils...
 - Over 1 in 5 report not being allowed to walk alone without adult supervision
 - Almost 1 in 2 report not being allowed to use public transport alone without adult supervision
- Pupils report greater confidence when travelling if they are with friends
- More pupils report feeling 'not at all confident' about cycling than walking

Community Safety

Proportions average across Year 6 to Year 13 pupils (pupils aged 10 to 18)

- Just over 1 in 5 rate their safety when going out after dark as poor or very poor
- Just under 9 in 10 rate the ability of the police to keep them safe as ok, good or very good
- Just under 9 in 10 rate safety on public transport as ok, good or very good
- Just over 9 in 10 rate safety on local roads as ok, good or very good
- Over 4 in 10 think that there are not enough safe crossing places on local roads

The Survey

The results from the Flourish Survey begin to be reported on page 10; below, we first provide context to help interpret the results by discussing key details about the sample and analysis. This includes the sample's representativeness, variations in analysis by year group and how confidence intervals allow us to assess which differences in the results are likely to be real. Additionally, Appendix 1 provides further detail on the representativeness of the sample and Appendix 2 explains how year groups map to the age of pupils.

The sample

The analysis is based on a survey which in 2024 sampled 9,347 school pupils in Norfolk from 28 primary schools and 17 secondary schools/further education colleges.¹ The sample represents 12.3% of pupils in state-funded schools in eligible year groups (Year 4 to Year 13, equivalent to pupils aged 8 to 18). Three of the schools in the sample were independent schools. The survey was conducted by the School Health Education Unit (SHEU) which has run similar surveys in other parts of the country for many years. Where the similarity of question wording allows it, we have combined the 2024 data with that from previous Norfolk surveys conducted in 2015 and 2017.

While SHEU has found that results from its surveys are generally broadly consistent with those from other data sources, it is important to note that the dataset is not a truly random sample. Instead, schools self-select to take part in the survey. As such, while the analysis below results from a large Norfolk sample and offers unique insights into the lives of Norfolk pupils, the results may differ from a survey that had a truly random sample of Norfolk pupils.

A separate topic report provides a detailed comparison of the Flourish Survey sample with the known characteristics of pupils in state-funded schools in Norfolk. A number of key points result from this comparison. First, we do not break out the data by individual district as the data is unevenly distributed across districts, in particular, only primary schools took part in the Borough of Great Yarmouth. Second, the geographic distribution of the data and information on the prevalence of pupils receiving free school meals suggests that pupils from deprived backgrounds may be under-represented in the Flourish Survey sample. Third, between 2015, 2017 and 2024 the age distribution of the

¹ Two private schools served both primary and secondary pupils so 43 schools took part in total.

sample varied noticeably, hence, when making comparisons between these three years we control for age by performing the comparison for individual year groups.

Questions and year groups

The questionnaire for secondary pupils was more detailed than the questionnaire for primary pupils, particularly around alcohol, drugs, smoking/vaping and sexual health. As healthy eating and physical activity are less sensitive topics many results are reported for Year 4 to Year 13 pupils. However, some of the questions on the present topics were only asked from Year 6 upwards or only in the questionnaire for secondary pupils. Data related to questions that only featured in the questionnaire for secondary pupils are reported for Year 8 to Year 13 (pupils aged 12 to 18).² The year groups on which analysis is based are clearly indicated in the figure captions and text in each section.

All the percentages and figures in this report are based on the data available for the relevant survey questions. Not all pupils responded to all questions. As such, the number of responses on which percentages and figures are calculated varies within and across topics.

As is standard, the survey was anonymous to ensure that pupils felt able to be honest in their responses. While this means it is not possible to contact pupils revealing issues of concern, the survey did contain multiple phone numbers and web addresses of organisations that pupils could contact to obtain topic specific support.

Comparisons with wider SHEU data

Alongside the data from the Norfolk sample, some data is available for equivalent surveys conducted by SHEU in other parts of the country. For specific important questions, and where an equivalent question is available in the wider SHEU data, comparisons are made with the Norfolk sample. As the SHEU comparator data is only from areas where SHEU has been contracted to run the survey, it does not necessarily provide a fully representative national average. Similarly, the demographic and socio-economic characteristics of the areas in the SHEU comparator data may differ from

² Most Year 7 pupils were asked to respond to the questionnaire for primary pupils rather than the questionnaire for secondary pupils due to the more sensitive nature of some of the questions in the questionnaire for secondary pupils. As such, the secondary year groups for which the data aims to be representative are Year 8 to Year 13.

Norfolk. Also, the most recent SHEU comparator data is from 2022 and is only available for Year 8 and Year 10.³

Assessing differences

Any differences we highlight in the text below are statistically significant at the 5% level. In the charts, the black lines extending from the end of bars are (95%) confidence intervals. The smaller the confidence interval the greater the certainty we have about the true length of the bar/percentage. If the confidence intervals of two categories/groups do not overlap, we know that the difference between the categories is statistically significant, i.e. it is likely to be real. If the confidence intervals of two different categories/groups overlap, further analysis would be required to determine if any difference is statistically significant (likely to be real).

³ We do not make a comparison with SHEU data from other parts of the country for Year 12/13, as SHEU's comparator Year 12 data involves far fewer observations than for Year 8 or Year 10.

Pupils' views of their weight

Overview

The Flourish Survey asked two slightly different questions about pupils' views of their weight: (i) whether they wanted to change their weight, and (ii) whether they thought their weight was healthy or not. The first question was asked of pupils from Year 6 upwards, while the second question was asked only in the questionnaire for secondary pupils and so we report it for Year 8 to Year 13 pupils.

Overall, 45.5% of sampled Year 6 to Year 13 pupils (pupils aged 10 to 18) report they would like to lose weight, while 10.3% report that they would like to gain weight. While the percentage of sampled pupils that report they would like to lose weight is essentially flat across age groups, the percentage reporting that they wish to gain weight is somewhat higher in older secondary year groups. For example, 8.3% of sampled pupils in Year 8 state they would like to gain weight rising to 15.7% of Year 10 pupils.

Turning to the second question, 20.8% of sampled Year 8 to Year 13 pupils (pupils aged 12 to 18) view themselves as overweight and 9.9% view themselves as underweight. It is noticeable when comparing the results to these two questions that more pupils report a wish to lose weight than those who consider themselves to be overweight.

While the proportions reporting that they are underweight and that they wish to gain weight appear fairly similar, the pupils answering providing each of these answers do not perfectly overlap. Only 62.0% of sampled Year 8 to Year 13 pupils who view themselves as underweight wish to put on weight and 13.2% want to lose weight. In contrast, among those who view themselves as overweight, 95.7% want to lose weight. Among those who view themselves as a healthy weight only 55.5% report that they are happy with their weight as it is.

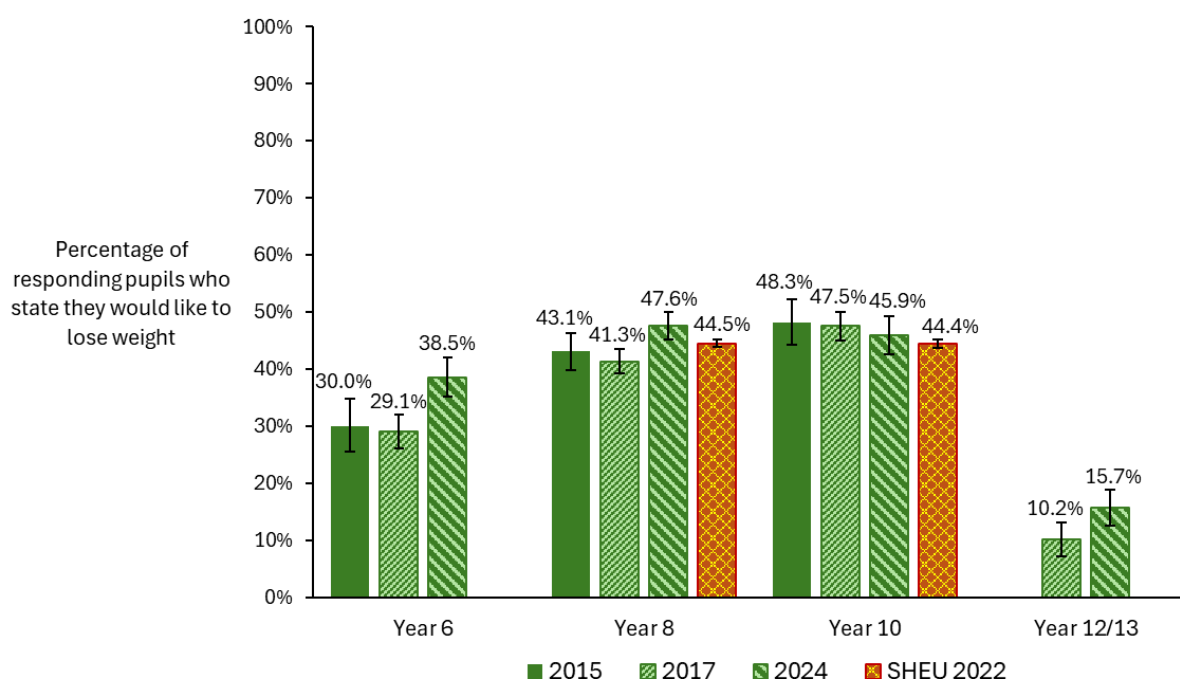
Over time

To enable comparison over time and with SHEU data from other parts of the country we focus on pupils' statements about whether they would like to lose weight or not. Also, Year 8 and Year 10 are analysed separately to match the SHEU comparator data, while

Year 6 is included as the youngest year group with data and Year 12/13 is included as the oldest year group with data.⁴

Figure 1 shows that there has been a noticeable increase in the proportion of Year 6 and Year 8 pupils stating that they would like to lose weight between 2017 and 2024. In 2024 38.5% of Year 6 pupils report that they would like to lose weight compared to 29.1% in 2017. The proportion of sampled Year 10 pupils reporting that they would like to lose weight appears broadly stable over time, while we cannot be sure that the increase between 2017 and 2024 for Year 12/13 is statistically significant. The proportion of Year 10 pupils reporting a desire to lose weight in the Norfolk sample in 2024 is also in line with the 2022 SHEU comparator data, however, the 2024 Norfolk percentage for Year 8 is likely to be higher than in the 2022 SHEU comparator data.

Figure 1: Percentage of sampled pupils reporting that they would like to lose weight by selected year group - 2015, 2017, 2024 and SHEU 2022 (Year 6, Year 8, Year 10 and Year 12/13 data separately)



⁴ The oldest age category is Year 12/13 as in the questionnaire the oldest year group was labelled 'Year 12+' and there are 276 18-year olds in the 2024 sample. No Year 12/13 data was collected in 2015.

Variations across groups – interpretation

In the following subsection, the aim is to understand how the reported rate of wanting to lose weight varies across a range of groups. The characteristics used for the breakdown are the same in all the Flourish Survey topic reports. In all instances, the identifiers are based on pupils self-reporting their status and so are likely to identify a slightly different group of children than if official designations were used. The characteristics used to split pupils are: identifying as having a Special Educational Need or Disability (SEND)⁵, receipt of free school meals⁶, different ethnicities⁷, identifying as a young carer⁸, reporting low mental wellbeing⁹, and gender identity¹⁰. It is worth remembering that

⁵ 2,058 individuals in the 2024 sample identify as having SEND (since only 12% of pupils are sampled the number for Norfolk as a whole would be much higher). This number excludes those answering 'I don't want to say' and represents 22.3% of the sample (when considering Year 4 to Year 13 and excluding non-responses). The number of respondents identifying as having SEND is considerably higher in 2024 than in 2015 or 2017. This is probably linked to a change in question design whereby in 2024 respondents are identified as having SEND if they indicate that they experience at least one of six impairments/difficulties (those identifying as having a long-term illness are not included in the SEND indicator). For most questions in the survey, the number responding will be different as some pupils will choose not to respond.

⁶ 1,171 pupils in the 2024 sample report that they currently receive free school meals (since only 12% of pupils are sampled the number for Norfolk as a whole would be much higher). This number excludes those answering 'Don't know' or 'Don't want to say' and represents 15.4% of the sample (when considering Year 6 to Year 13 and excluding non-responses). In 2024 the free school meals indicator is only available for Year 6 and above. For most questions in the survey, the number responding will be different as some pupils will choose not to respond.

⁷ 986 individuals in the 2024 sample identify as not having a solely white ethnicity (since only 12% of pupils are sampled the number for Norfolk as a whole would be much higher). This number excludes those answering 'Don't want to say' and represents 10.6% of the sample (when considering Year 4 to Year 13 and excluding non-responses). For most questions in the survey, the number responding will be different as some pupils will choose not to respond.

⁸ 625 individuals in the 2024 sample identify as young carers (since only 12% of pupils are sampled the number for Norfolk as a whole would be much higher). This number excludes those answering 'Don't want to say' or 'Not sure' and represents 6.8% of the sample (when considering Year 4 to Year 13 and excluding non-responses). For most questions in the survey, the number responding will be different as some pupils will choose not to respond.

⁹ 3,155 pupils in 2024 have been classified as having low mental wellbeing (since only 12% of pupils are sampled the number for Norfolk as a whole would be much higher). This represents 39.9% of the sample when considering Year 4 to Year 13 and non-responses to the constituent questions are excluded. For most questions in the survey, the number responding will be different as some pupils will choose not to respond. Low mental wellbeing is identified according to an aggregate score from a range of questions according to recognised academic methods. For primary pupils and most Year 7 pupils the questions result in the Stirling Children's Wellbeing Scale (Stirling Scale), while for older pupils the questions result in the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). For both scales, 'low' mental wellbeing is identified as being a score at least one standard deviation below the mean score on the respective scales as reported in academic studies. Both scales ask pupils to rate their experience of life in the couple of weeks before the survey.

¹⁰ 168 individuals in the 2024 sample describe their gender in another way beyond simply male or female (since only 12% of pupils are sampled the number for Norfolk as a whole would be much higher). This

some pupils will fall into multiple groups, e.g. both identify as a young carer and report receipt of free school meals.

When interpreting all figures in this report, it is important to remember that the analysis only shows correlations, i.e. how things differ across groups, it does not demonstrate that the difference is caused by being in a different group. For example, Figure 2 shows those reporting low mental wellbeing report higher rates of wanting to lose weight. However, we do not know whether: (i) low mental wellbeing leads to pupils wanting to lose weight, (ii) wanting to lose weight leads pupils to have lower mental wellbeing, or (iii) some other factor is driving the patterns in both mental wellbeing and the desire to lose weight.

Linked to this, all figures in this report only report ‘univariate’ associations. In other words, they report how one characteristic (e.g. identifying as a young carer) is associated with one outcome variable (e.g. reporting a desire to lose weight). They do not control for any other characteristics, such as age. It is possible that the patterns shown in the figures could result from differences in other characteristics between two groups e.g. if those identifying as a young carer and those not identifying as a young carer differed in age. However, controlling robustly for all characteristics is much more involved than the present analysis allows with it requiring multivariate regression analysis.

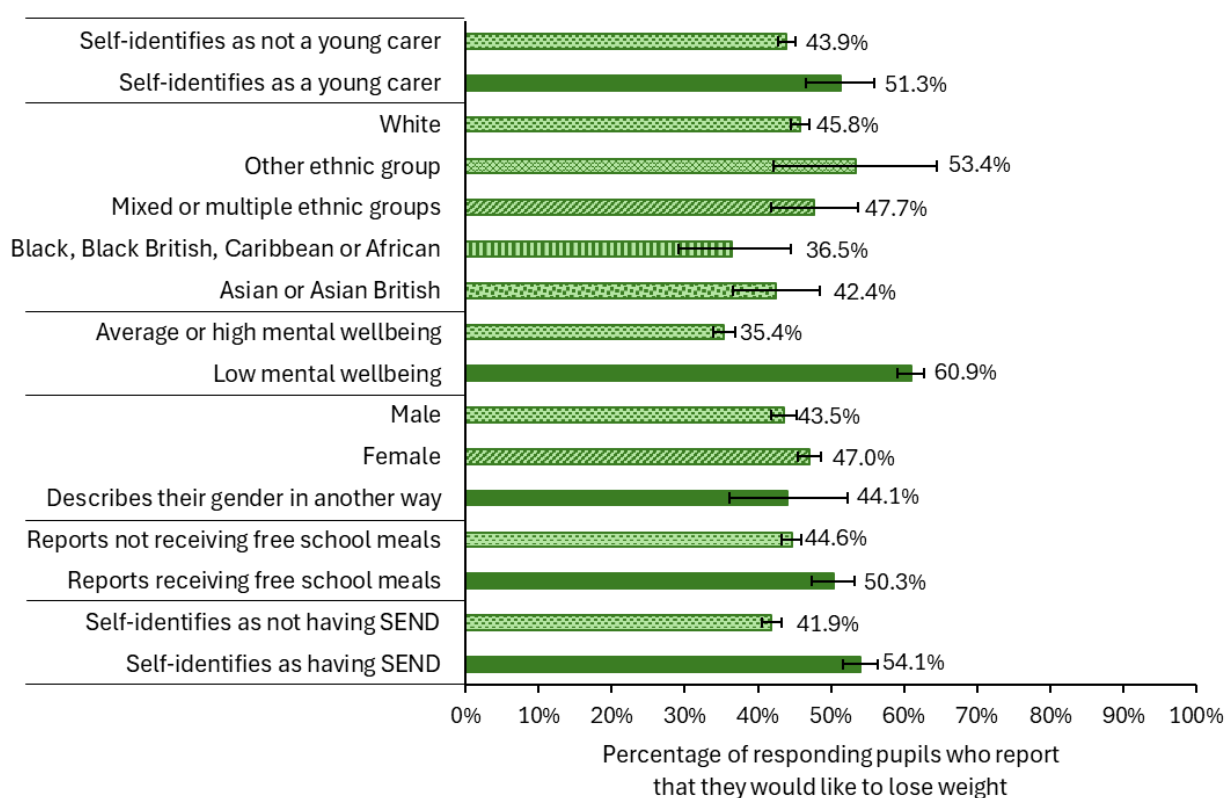
In Figure 2 the results should be read as follows. Each bar reports the percentage within the stated group that reports the desire to lose weight. For example, in Figure 2 54.1% of pupils identifying as having SEND report that they would like to lose weight. Each characteristic described on the previous page is used to split the overall sample of Year 6 to Year 13 into mutually exclusive groups. In the case of those identifying as having SEND, there are two mutually exclusive groups: ‘Self-identifies as having SEND’ and ‘Self-identifies as not having SEND’. The horizontal lines on the vertical axis separate the different cuts of the data, and the statements about statistical significance refer to comparisons between the groups between two of the horizontal lines, e.g. Self-identifies as having SEND vs Self-identifies as not having SEND.

number excludes those answering ‘I prefer not to say’ and represents 1.9% of the sample (when considering Year 4 to Year 13 and excluding non-responses). Primary pupils as well as secondary pupils could identify as a gender other than male or female. The relevant question was framed as asking about gender identity and there was no separate question asking about sex at birth. For most questions in the survey, the number responding will be different as some pupils will choose not to respond.

Variation across groups – results

Figure 2 shows that those identifying as a young carer, identifying as having SEND, reporting low mental wellbeing or reporting receipt of free school meals are more likely to report a desire to lose weight than pupils that do not have these characteristics. Among those who have these characteristics, in each case a small majority of sampled pupils report a desire to lose weight.

Figure 2: Percentage of sampled pupils who report that they would like to lose weight by selected group - 2024 (Year 6 to Year 13 data combined)



The difference for those with low mental wellbeing is particularly stark: 60.9% of those reporting low mental wellbeing state that they would like to lose weight compared to only 35.4% of those reporting average or high mental wellbeing.¹¹ This result may be linked to the finding in the Family, Friendships and Bullying topic report that among sampled Year 4 to Year 13 pupils who report being bullied in the 12 months prior to the survey 32.9% thought they had been bullied due to their size or weight. Indeed, 69.2%

¹¹ This large gap is found in all individual year groups from Year 7 to Year 12/13. However, in Year 6, the difference in the proportion reporting a desire to lose weight between those reporting low mental wellbeing and those reporting average or high mental wellbeing is not statistically significant.

of sampled Year 8 to Year 13 pupils who report being bullied in the 12 months prior to the survey and who view themselves as overweight report that they thought they had been bullied for their size or weight.

Also, female pupils are slightly more likely to report a desire to lose weight than male pupils, while those identifying as Black, Black British, Caribbean or African are less likely to wish to lose weight than those reporting that they are White. 36.5% of those who identify as Black, Black British, Caribbean or African state that they would like to lose weight compared to 45.8% of pupils identifying as White.

Comfort eating

The Flourish Survey also asks Year 6 to Year 13 pupils whether they eat or drink more when they feel worried or stressed. In total, 26.0% of sampled Year 6 to Year 13 pupils report that they usually or always eat or drink more when they feel worried or stressed. This figure is an increase on 2017 when 19.4% of sampled pupils reported that they usually or always ate or drank more when they felt worried or stressed.

In terms of the groups of pupils who are more likely to experience this issue, those reporting low mental wellbeing, receipt of free school meals or who identify as having SEND are all more likely to report usually or always eating or drinking more when feeling worried or stressed than pupils who do not have these characteristics. For example, 31.0% of sampled Year 6 to Year 13 pupils who identify as having SEND report usually or always eating or drinking when they feel worried or stressed compared to 23.9% of those not identifying as having SEND.

Diet

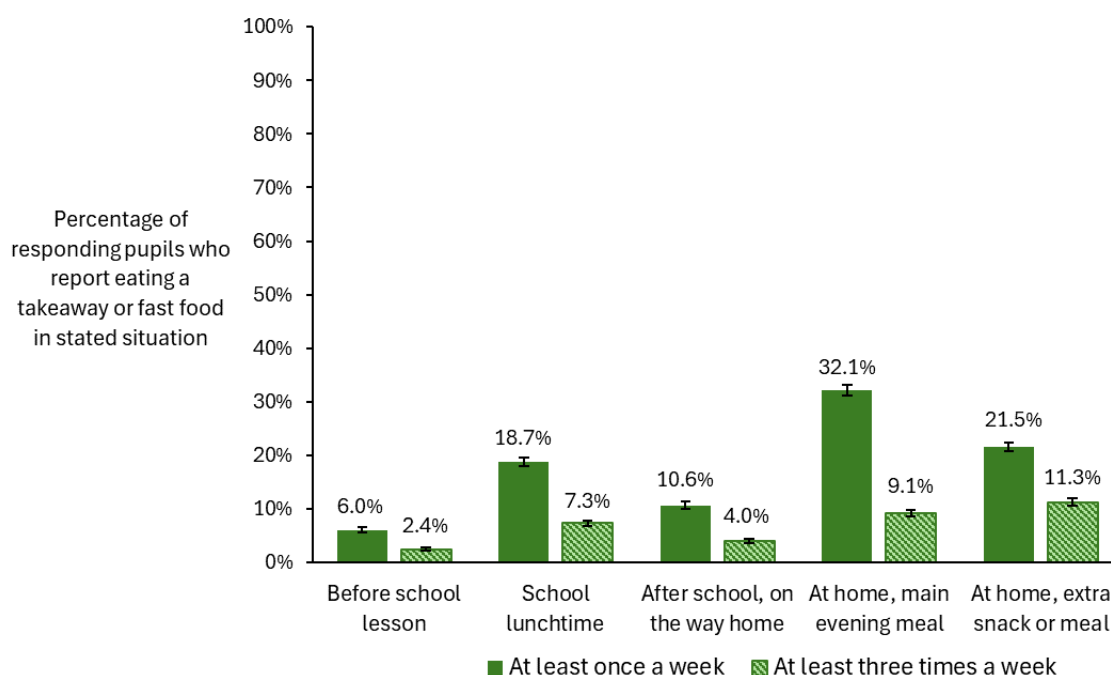
Fast-food consumption

The Flourish Survey provides information for sampled Year 4 to Year 13 pupils about their fast-food consumption based on the following question: “How often do you eat a takeaway or fast food? E.g. chips, fried chicken, burger, pizza, Chinese, curry, pie, pasty?”¹² Pupils can respond by indicating their frequency of consuming this type of food in each of five situations. A potential ambiguity with the question is how pupils respond when they consume one of the foods listed, but it is prepared (and/or heated) at home rather than being a takeaway or fast food.

¹² The particular wording of this question was determined by SHEU and used in their questionnaires in other parts of the country.

Assuming pupils follow the takeaway and fast food emphasis, Figure 3 shows that almost a third of pupils report having a takeaway or fast food as a main evening meal at home at least once a week. More concerning is that 21.5% of pupils report that they consume takeaways or fast food at least once a week as an extra snack or meal at home and 11.3% report this type of fast-food consumption at least three times a week.

Figure 3: Percentage of sampled pupils reporting consumption of takeaway or fast food in different situations by frequency of consumption - 2024 (Year 4 to Year 13 data combined)



That the two situations where pupils are most likely to report consuming takeaway or fast food are in the home suggests the potential importance of family attitudes and behaviours in influencing the diet of pupils. Indeed, when pupils were asked where they would first go for help or information about healthy eating, 49.8% of sampled Year 8 to Year 13 pupils report that they would turn to their family for advice.¹³ The next two most common responses were the Internet (14.0%) and nowhere/ no one (12.8%).

¹³ The data is restricted to Year 8 to Year 13 as the relevant question was only asked in the questionnaire for secondary pupils.

An aggregate indicator

Ideally, we would group pupils according to the total number of times they consumed takeaways or fast food per week. However, the structure of the question and its wording means that it is not straightforward to do this. Instead, we construct an aggregate indicator where a 'high' consumption individual is one who reports consumption of takeaways or fast food at least three times a week in at least one of the five situations detailed in Figure 3.

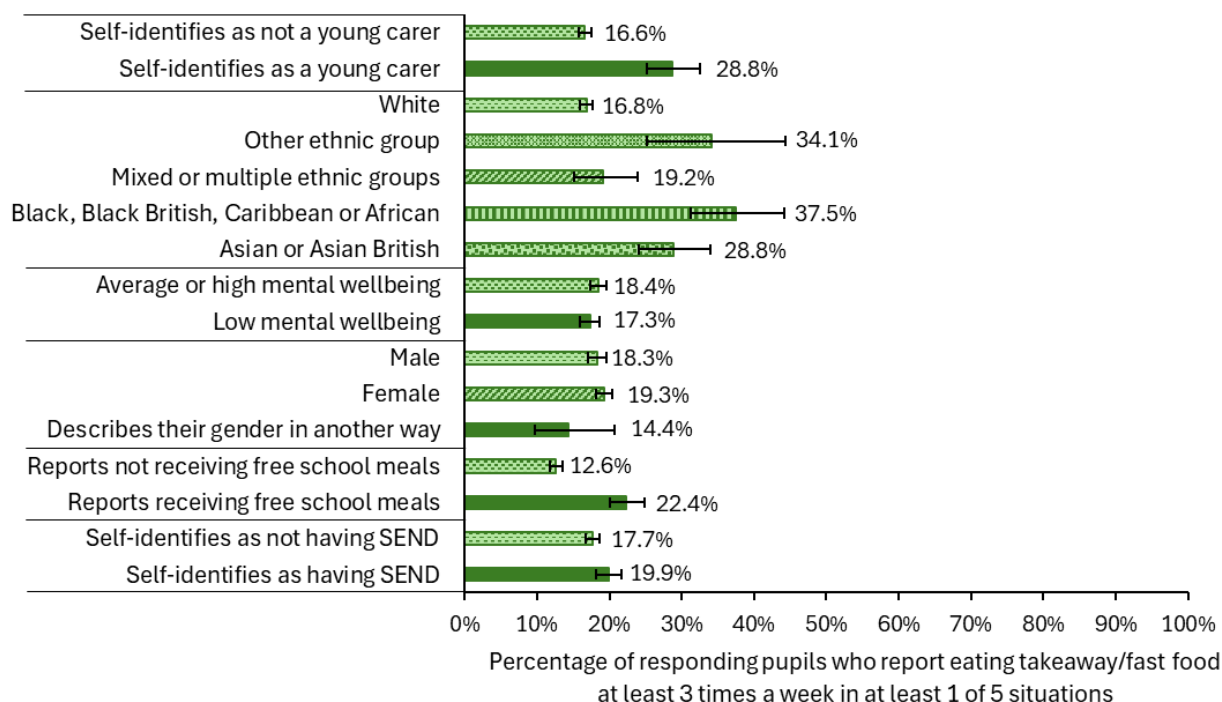
Using this threshold as an indicator of high consumption, 18.9% of sampled Year 4 to Year 13 pupils report high fast food or takeaway consumption. Interestingly, when this aggregate indicator is charted against age, older age groups, who may have greater autonomy over their food consumption choices, are less likely to report high fast-food consumption. 40.9% of sampled Year 4 pupils report that they consume takeaway or fast food at least three times a week in at least one of the situations listed in Figure 3 compared to only 13.2% of Year 8 pupils. After Year 8 the proportion reporting high fast-food consumption remains stable at this lower level through to Year 12/13.

On the face of it, this pattern suggests that older pupils may have a healthier diet than younger pupils, however, it seems important to temper this conclusion with two alternative explanations. First, it could be that younger pupils are focusing more on the types of food listed than on the takeaway or fast-food wording so that they are reporting cases where they consume oven cooked chips etc. Second, it could be that older pupils are consuming fast food in a more diverse array of situations so that they are less likely to reach the three times a week threshold in any one situation.

Variations by group

In Figure 4 one can see that those identifying as young carers and those reporting receipt of free school meals are more likely to report consumption of fast food or takeaways at least three times a week in at least one of the situations listed in Figure 3 than those who do not report these characteristics. Interestingly, despite those with low mental wellbeing being much more likely to report a desire to lose weight in Figure 2, those with low mental wellbeing are not more likely to report high fast-food consumption according to the aggregate indicator than those with average or high mental wellbeing. These statements are based on data for sampled Year 4 to Year 13 pupils, with the exception of those relating to free school meals. Comparisons concerning free school meals are based on data for sampled Year 6 to Year 13 pupils as the relevant free school meals question was only asked to Year 6 to Year 13 pupils in the questionnaire.

Figure 4: Percentage of sampled pupils who report eating a takeaway or fast food at least three times a week in at least one of five situations by selected group - 2024 (Year 4 to Year 13 combined, except free school meals comparison which is Year 6 to Year 13 data combined)



Also, those identifying as Black, Black British, Caribbean or African, Asian or Asian British or Other ethnic group are all more likely to report consuming takeaways or fast food at least three times week in at least one of the five situations in Figure 3 than those who identify as White. For example, 37.5% of pupils who identify as Black, Black British,

Caribbean or African report are classified as having high fast-food consumption according to the aggregate indicator compared to only 16.8% of those identifying as White.

Consumption of drinks

The questionnaire also asked about the type of drinks, and the quantity of each, consumed by pupils on the day before the survey. Unsurprisingly, water was consumed by the widest number of pupils with 86.3% of sampled Year 4 to Year 13 pupils reporting that they consumed at least one drink of water on the day before the survey.¹⁴ The next most commonly consumed drinks were: sugar-free squash/flavoured water (41.0% of pupils)¹⁵, fizzy drinks (38.6%) and milk (36.3%). Only a small proportion of sampled pupils, 12.7%, report consuming energy drinks on the day before the survey.

In terms of the quantity consumed of each type of drink, the data is highly skewed: most pupils report a very low number of cans/cups drunk on the day before the survey while a small number of sampled pupils report consuming more than 10 cans or cups. This distribution of data, and that some pupils report consumption figures so high that they seem unlikely to be true, means that a 'simple' average (mean) of the number of cups/cans drunk on the day before the survey would be inappropriate. Instead, we look at the median number of cups/cans drunk. Calculating a median involves lining up all the pupils in order from those with the smallest observed consumption to those with the highest consumption. The median value is then the number of cups/cans reportedly drunk by the pupil exactly halfway along this line; for example, as 8,871 pupils report data on their consumption of water the median reported consumption of water would be the number of cups/cans drunk by the 4,436th pupil. In this case, the median reported consumption of water is 3 cups or cans on the day before the survey.

Overall, reported drinks consumption across pupils appears very diverse: no other type of drink beyond water has a median reported consumption above zero (this is a consequence of no other type of drink being consumed by a majority of pupils). Even if one calculates the median just among pupils who report consuming at least one cup/can of a particular drink, the results continue to suggest a diversity of consumption. Excluding water, all but one of the other types of drinks have median reported

¹⁴ The questionnaire clarified that pupils should count the number of cups or cans of each drink they consumed and not instances where they only had a sip.

¹⁵ One might question how reliably pupils are able to distinguish between sugar-free squash/flavoured water and that which contains sugar. 28.3% of sampled pupils report consuming squash/flavoured water containing sugar.

consumption of one cup/can drunk on the day before the survey after this restriction is imposed. The exception is sugar-free squash/flavoured water where among pupils who report drinking at least one cup/can of sugar-free squash/flavoured water on the day before the survey the median consumption is 2 cups/cans.

Fruit and Vegetables

5-a-day overview

A well-known piece of healthy eating advice is that people should consume at least five portions of fruit and vegetables per day. On the day before the survey, 25.8% of sampled Year 4 to Year 13 pupils report consuming at least five portions of fruit and vegetables. The average (mean) number of portions of fruit and vegetables consumed per pupil was 3.3 on the day before the survey.¹⁶ Of most concern is that 9.3% of sampled pupils report consuming no portions of fruit and vegetables on the day before the survey and 12.2% report consuming only one portion.

Looking at the relationship between meeting the 5-a-day target and age, on average sampled pupils at secondary school (Year 7 to Year 13) are less likely to report meeting the target than those at primary school (Year 4 to Year 6). Across sampled Year 4 to Year 6 pupils 31.4% report meeting the 5-a-day target compared to only 23.6% for sampled Year 7 to Year 13 pupils.

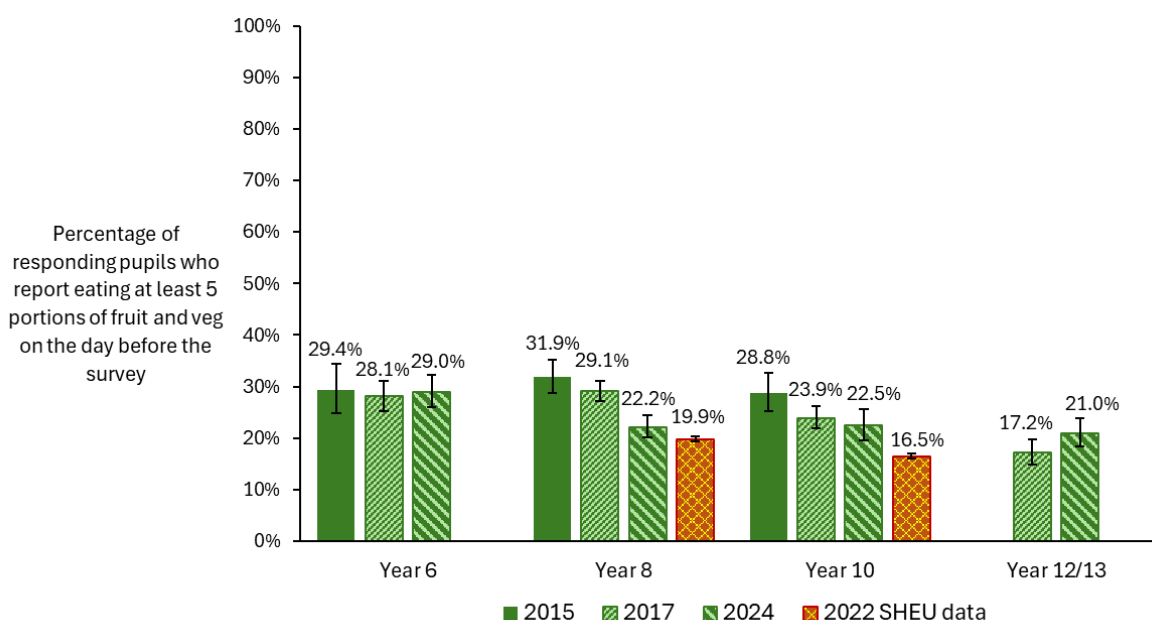
Looking across different groups, sampled Year 4 to Year 13 pupils reporting low mental wellbeing are less likely to meet the 5-a-day target than pupils reporting average or high mental wellbeing (21.6% of those reporting low mental wellbeing report meeting the 5-a-day target). Among sampled Year 6 to Year 13 pupils, those in receipt of free school meals are less likely to meet the 5-a-day target than pupils who do not receive free school meals (20.5% of those reporting receipt of free school meals report meeting the 5-a-day target). However, sampled Year 4 to Year 13 pupils identifying as young carers were more likely to report meeting the 5-a-day target: 29.8% of those identifying as young carers report meeting the target compared to 25.2% among those who do not identify as young carers.

¹⁶ Pupils who consumed over 8 portions of fruit and vegetables on the day before the survey were recorded as consuming 8 portions of fruit and vegetables.

Changes over time

Figure 5 shows a clear decline in the proportion of sampled Year 8 pupils that report meeting the 5-a-day target between 2015 and 2024, with the decline over the same time period for sampled Year 10 pupils also likely to be statistically significant. The proportion of sampled Year 8 pupils reporting that they ate at least five portions of fruit and vegetables on the day before the survey fell from 31.9% in 2015 to 22.2% in 2024. In contrast, the proportion of Year 6 pupils reporting meeting the 5-a-day target remained stable between 2015 and 2024, while the picture for Year 13 is also one of stability once uncertainty is considered.

Figure 5: Percentage of sampled pupils reporting that they ate at least five portions of fruit and vegetables on the day before the survey by selected year group - 2015, 2017, 2024 and SHEU 2022 (Year 6, Year 8, Year 10 and Year 12/13 data separately)¹⁷



Turning to the comparison between the 2024 Norfolk sample and the 2022 SHEU comparator data, a noticeably higher proportion of sampled Year 10 pupils in Norfolk report meeting the 5-a-day target than in the 2022 SHEU comparator data (22.5% vs 16.5%). For Year 8, the proportion of the Norfolk sample meeting the target is higher

¹⁷ The youngest year group included in Figure 5 is Year 6, as the number of Year 4 pupils in the 2015 and 2017 surveys and the number of Year 5 pupils in the 2017 survey answering the relevant question were low enough that one might be concerned about the validity of year-to-year comparisons.

than the 2022 SHEU comparator data by a margin that is likely to be statistically significant.

Dental hygiene

Frequency of brushing teeth

The situation regarding how frequently pupils brush their teeth appears reasonably positive. 76.9% of sampled Year 4 to Year 13 pupils report that they brush their teeth twice a day, with 4.7% reporting that they brush their teeth at least three times a day and only 2.8% reporting that they brush their teeth less than once per day.

In terms of comparison with earlier years, the situation appears broadly stable. Looking across all sampled Year 4 to Year 13 pupils, in both 2015 and 2017 75.2% of pupils reported brushing their teeth at least twice per day. Also, looking specifically at sampled Year 8 and Year 10 pupils, the 2024 Norfolk sample is in line with the SHEU 2022 comparator data once uncertainty is considered. For example, in Year 8, 81.8% of sampled Norfolk pupils in 2024 report brushing their teeth at least twice per day compared to 82.1% in the SHEU 2022 comparator data.

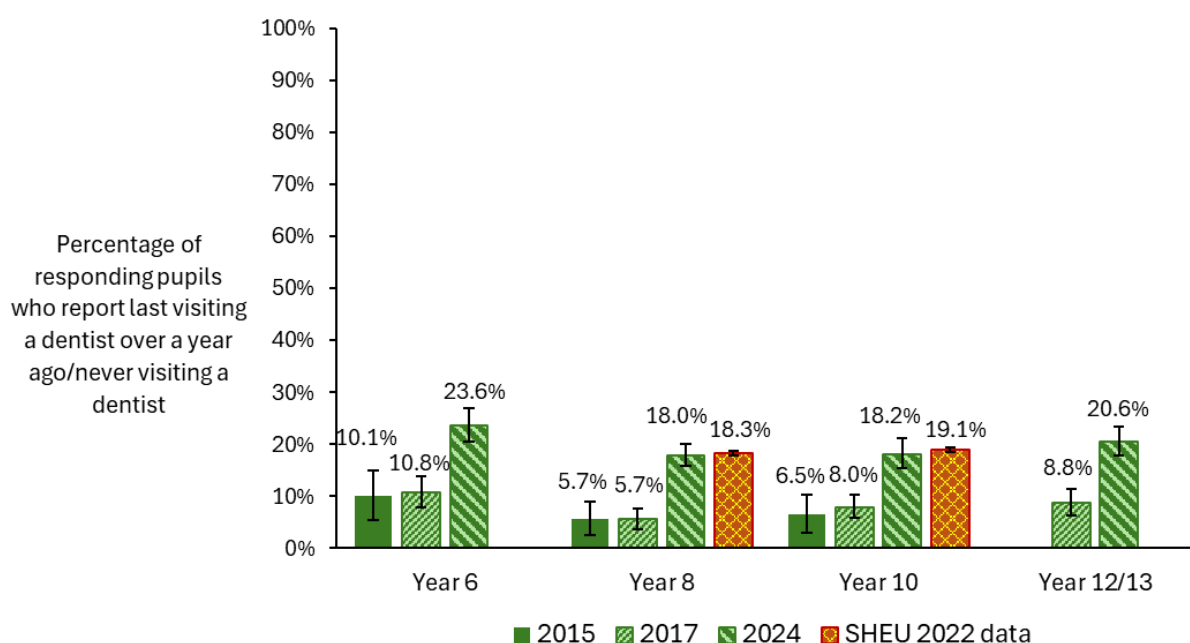
Dental treatment

Overall, 14.2% of sampled Year 4 to Year 13 pupils report that they last saw a dentist more than year before the survey, while an additional 5.0% report that they have never visited a dentist.

These figures represent a marked increase over those in 2017. Figure 6 shows that while the percentage of sampled pupils reporting that they had not seen a dentist in over a year or had never seen one remained stable between 2015 and 2017, the percentage reporting this issue more than doubled for each year group considered between 2017 and 2024. Indeed, for sampled Year 8 pupils it more than trebled from 5.7% in 2017 to 18.0% in 2024. Also, almost a quarter of sampled Year 6 pupils in 2024 report not visiting a dentist for at least a year or never visiting one.

For Year 8 and Year 10, the percentage of sampled pupils who report having not seen a dentist for over a year or never seeing one in Norfolk in 2024 is in line with the SHEU 2022 comparator data.

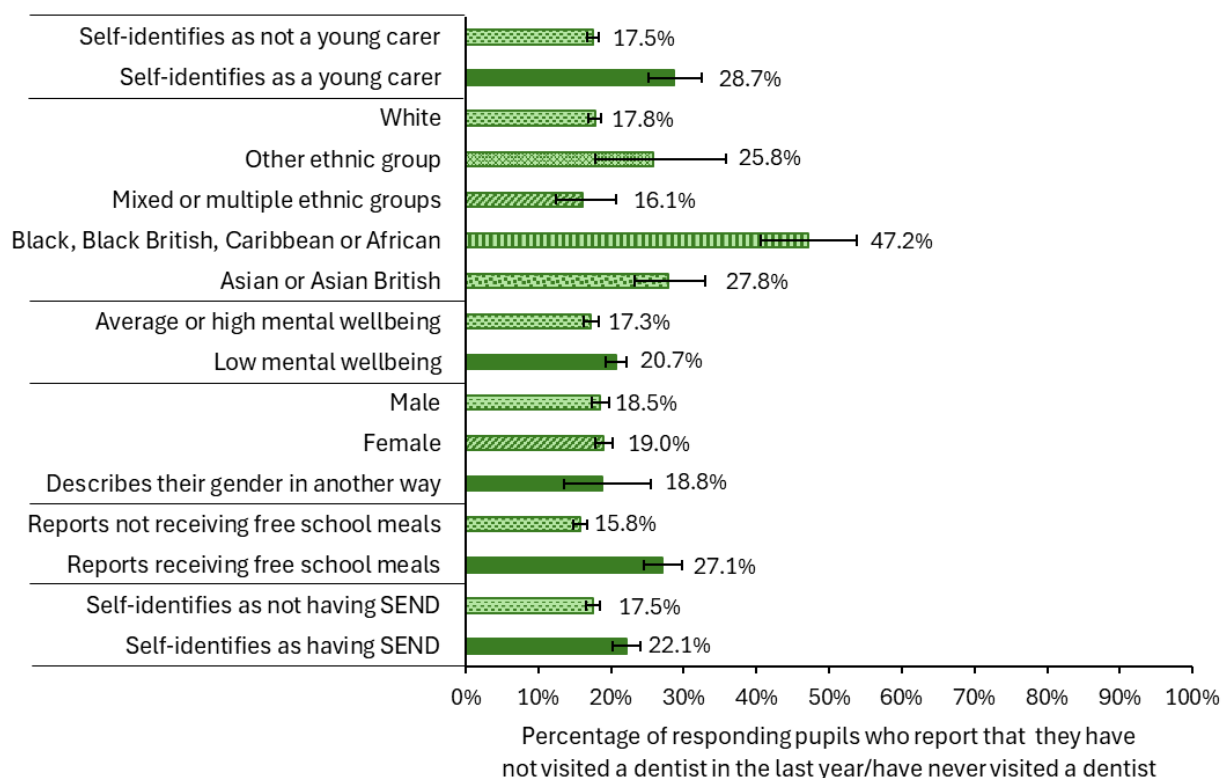
Figure 6: Percentage of sampled pupils reporting that they have not visited a dentist for over a year or have never visited a dentist by selected year group - 2015, 2017, 2024 and SHEU 2022 (Year 6, Year 8, Year 10 and Year 12/13 data separately)



Variations across groups

Looking across different groups in Figure 7, those identifying as a young carer, reporting low mental wellbeing, receipt of free school meals or identifying as having SEND are more likely to report that they have not visited a dentist in the last year or have never visited a dentist than those pupils who do not have these characteristics. Additionally, those identifying as Black, Black British, Caribbean or African or Asian or Asian British are more likely to report not visiting a dentist in the last year or never visiting a dentist than those identifying as White. These statements relate to sampled Year 4 to Year 13 pupils, with the exception of those relating to receipt of free school meals which concern sampled Year 6 to Year 13 pupils.

Figure 7: Percentage of sampled pupils reporting that they have not visited the dentist in the last year or have never visited one by selected group - 2024 (Year 4 to Year 13 data combined, except free school meals comparison which is Year 6 to Year 13 data combined)



The difference for pupils identifying as Black, Black British, Caribbean or African is particularly large with 47.2% of these pupils reporting that they have not visited a dentist in the last year or have never visited a dentist compared to 17.8% for pupils identifying as White. As such, pupils identifying as Black, Black British, Caribbean or African

appear more than two and half times more likely to report a lack of recent contact with a dentist than pupils identifying as White.

Physical Activity

The Flourish Survey first asked about the total number of days in the week before the survey that pupils exercised sufficiently for them to breathe harder or faster. 39.4% of sampled Year 4 to Year 13 pupils report this level of exercise on at least four days in the week prior to the survey, while 12.4% report this level of exercise on only one day in the week prior to the survey and 8.8% report no days when they exercised sufficiently to breathe harder or faster. The wording of the question means that a pupil's response is likely to depend on: (i) the amount of physical exercise included in their school's curriculum (the question did not specify whether the exercise occurred inside or outside school), and (ii) the underlying physical fitness of the pupil.¹⁸

Once uncertainty is considered, there is no obvious pattern between the age of pupils and their likelihood of reporting exercise that made them breathe harder or faster in the week before the survey.

As with healthy eating, when asked who they would use as their first source of help and information about physical activity, the most common response by a large margin was that pupils would turn to their family for advice. 45.5% of sampled Year 8 to Year 13 pupils report that their family would be their first source of information regarding physical activity.¹⁹

Physical activity in free time

Pupils were also asked about whether in the four weeks prior to the survey they had engaged in any sport or physical activity in their free time outside of school. This was sub-divided between organised sport and physical activity, such as in clubs, and informal sport and physical activity. The question wording indicated that simply going for a walk would enable a pupil to report that they had engaged in the latter category of sport and physical activity.

In total, 16.1% of sampled Year 4 to Year 13 pupils report that they had not engaged in either organised or informal sport or physical activity in their free time in the four weeks prior to the survey. Once uncertainty is considered, there is no clear pattern between

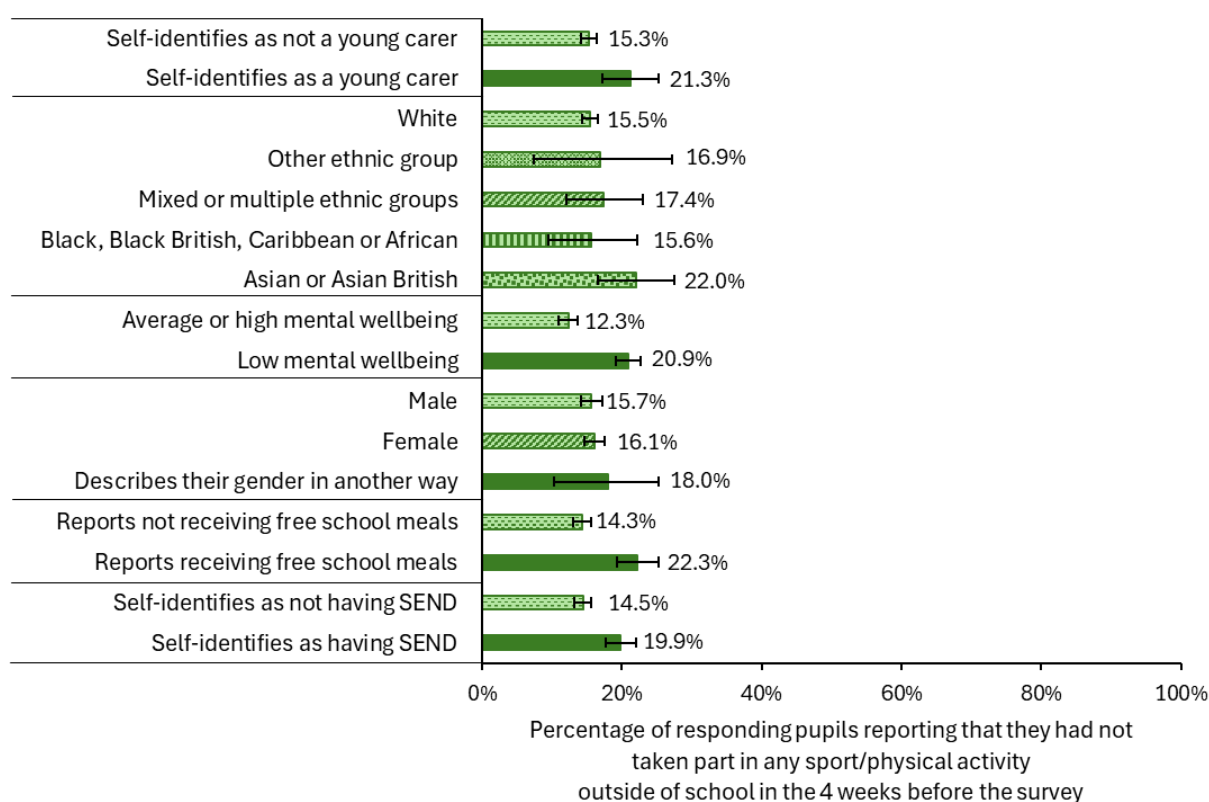
¹⁸ Assuming that pupils who are less physically fit will breathe harder and faster after a smaller amount of physical activity than those who are more physically fit.

¹⁹ The relevant question was only asked in the questionnaire for secondary pupils, hence, the restriction to Year 8 to Year 13.

the age of pupils and their likelihood of reporting that they did not take part in organised or informal sport or physical activity outside of school in the four weeks prior to the survey.

Figure 8 shows that those who identify as a young carer, identify as having SEND, report low mental wellbeing or report receipt of free school meals are more likely to report undertaking no physical activity outside of school in the four weeks prior to the survey than those without these characteristics. Around one in five of pupils in each of these groups report that they did not undertake any physical activity outside of school in the four weeks prior to the survey. Also, those identifying as Asian or Asian British are more likely to report that they have not engaged in physical activity than pupils identifying as White. These statements relate to sampled Year 4 to Year 13 pupils, with the exception to those related receipt of free school meals which are based on sampled Year 6 to Year 13 pupils

Figure 8: Percentage of sampled pupils reporting that they had not engaged in any sport or physical activity outside of school in the four weeks prior to the survey by selected group - 2024 (Year 4 to Year 13 data combined, except free school meals comparison which is Year 6 to Year 13 data combined)



Organised sport

Looking across sampled Year 4 to Year 13 pupils, 39.2% report that they did not take part in any organised sport or physical activity outside of school in the four weeks prior to the survey. In comparison, 28.6% of sampled Year 4 to Year 13 pupils report that they did not engage in any informal sport or physical activity outside of school in the four weeks prior to the survey.²⁰ As such, fewer pupils report engage in organised sport or physical activity than in informal sport or physical activity. Also, 6.7% state that they would like to take part in organised sport or physical activity but that it is not available.

Those identifying as a young carer, reporting low mental wellbeing, reporting receipt of free school meals or identifying as having SEND are more likely to report that they had not taken part in any organised sport or physical activity outside of school in the four weeks prior to the survey. For example, 50.8% of sampled Year 6 to Year 13 pupils reporting receipt of free school meals report not taking part in organised sport or physical activity outside of school compared to 37.2% of those who report not receiving free school meals. The statements for the other groups are based on sampled Year 4 to Year 6 pupils. Also, Asian or Asian British pupils are more likely to report not taking part in organised sport outside of school than those identifying as White.

Obstacles to participation

While the Flourish Survey did not ask pupils about the specific reasons for why they did not engage in sport or physical activity outside of school, it did ask pupils a more general question about factors stopping them from doing the activities they would like to do. Overall, 40.1% of pupils report that they face no barriers to doing the activities that they would like to do. The obstacles indicated by sampled Year 4 to Year 13 pupils are diverse, with the most common reason of not having enough time only being reported by 33.3% of pupils.²¹ The next two most common obstacles to participating in activities are being shy in front of other people (17.7% of sampled pupils) and not knowing what to do (15.2% of sampled pupils).

9.7% of sampled pupils stated that the cost of travel or taking part was a barrier to participation and 9.0% viewed transport to the activity as a problem. The proportion of

²⁰ These percentages combined those who state they had not undertaken organised sport or physical activity outside of school with those who report that they would like to take part in organised sport or physical activity but it is not available.

²¹ Pupils selected from a list of potential obstacles listed in the questionnaire.

sampled pupils that report transport to activities as a problem that stops them doing the activities that they want to do increases after Year 7. For example, 16.5% of sampled Year 12/13 pupils report that transport problems stop them from doing the activities that they want to do compared to only 5.3% in Year 7.

Also, even among groups who might be thought of being more vulnerable to particular barriers, the proportion of pupils reporting that the particular barrier stops them from doing activities seem relatively low. For example, among pupils who report receipt of free school meals 14.3% report that the cost of travel or the activity itself is a barrier to them doing the activities they want to do. Similarly, only 2.8% of pupils identifying as having SEND report that they are stopped from doing the activities that they want to do by facilities that do not cater for their special needs.²²

While still experienced by only a minority of pupils reporting low mental wellbeing, it is possibly notable that 27.5% of pupils reporting low mental wellbeing report that they are stopped from taking part in the activities they would like to do by being shy in front of other people. This compares to 11.9% of pupils who report average or high mental wellbeing that state this issue as a barrier to taking part in activities.

²² Although, as one would expect, both of these percentages are higher than for those reporting that they do not receive free school meals or they do not have SEND respectively.

Active Travel

One way an individual can increase their level of physical activity is by engaging 'active travel' e.g. by walking or cycling. However, the extent to which pupils engage in active travel will be influenced by a range of factors. The Flourish Survey provides evidence relating to three potential factors: (i) perceptions about the safety of travel, (ii) parents' willingness to allow pupils to use different transport modes, and (iii) the level of confidence pupils have in using different transport modes.

In terms of general road safety, 59.1% of sampled Year 6 to Year 13 pupils report that people drive too fast, while 48.3% report that roads are too busy, 42.9% report that there are not enough safe crossing places and 37.6% report that too often there is no pavement or poor pavement. However, overall, only 8.8% of sampled Year 6 to Year 13 pupils rate their safety on local roads as poor or very poor.²³

The proportion of sampled pupils rating their safety on local roads as poor or very poor is stable between Year 6 and Year 13. This is also true of three of the more specific road safety indicators, however, the percentage of sampled pupils reporting that too often there is no pavement or poor pavement increases with age. 45.6% of sampled Year 12/13 pupils report this issue, compared to 29.9% of sampled Year 6 pupils.

While the most common source of advice for road safety skills given by sampled Year 8 to Year 13 pupils²⁴ would be their family (46.3% of pupils report that their family would be their first source of help and information about road safety), unlike for healthy eating and physical activity, teachers/lessons would be the next most common source of advice. 19.8% of sampled Year 8 to Year 13 pupils report that teachers/lessons would be their first source of help and information about road safety skills compared to only 9.6% of pupils who report that school teachers/lessons have a similar role for health eating and 12.1% who indicate school teachers/lessons would be their first source of help and information about physical activity. 15.2% of sampled pupils report that they have nowhere or no one to go to for help and information about road safety skills.

²³ The questions on safety in different community settings were only asked of pupils from Year 6 to Year 13. For consistency, the data for the different aspects of road safety is also restricted to Year 6 to Year 13.

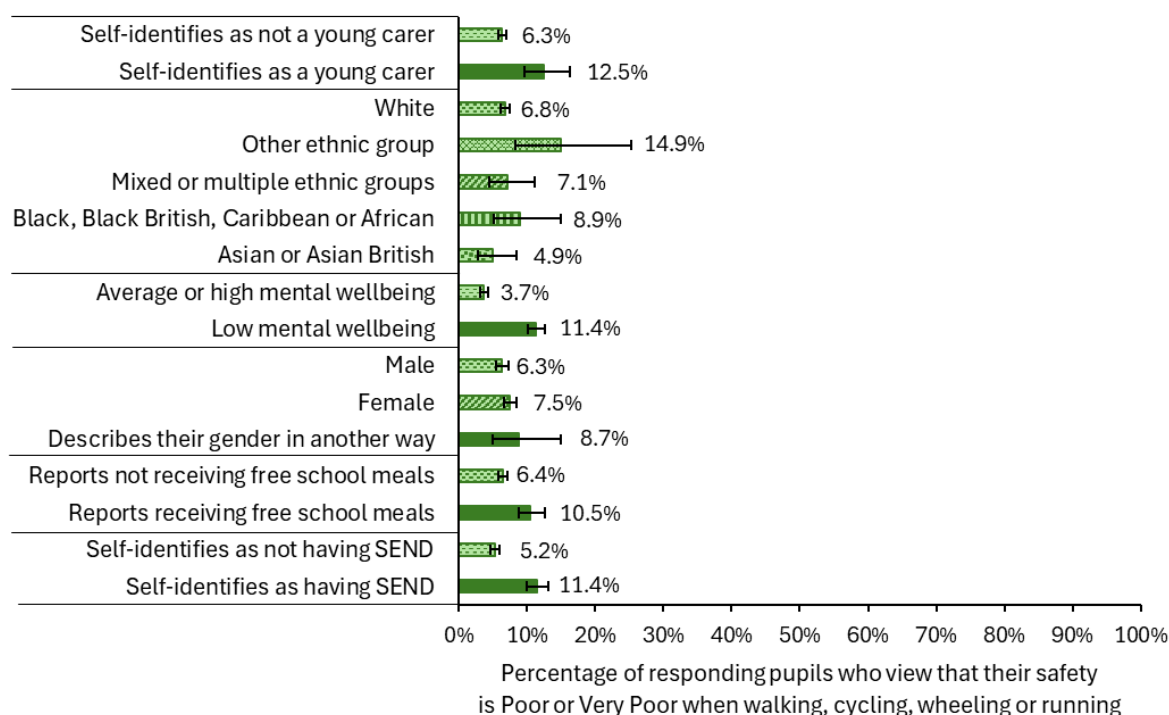
²⁴ The relevant question was only asked in the questionnaire for secondary pupils, hence, the restriction to Year 8 to Year 13.

Safety when walking or cycling

While the vast majority of sampled Year 6 to Year 13 pupils view their safety when walking, cycling, wheeling or running as OK, good or very good, 7.0% report that they feel their safety is poor or very poor when engaging in these activities. For comparison, 12.1% of sampled pupils rate their safety on public transport as poor or very poor, although, after uncertainty is considered, we cannot be sure that pupils rate the safety of walking and cycling differently to that of public transport.

Although the percentages remain low, Figure 9 shows that sampled pupils who identify as young carers, report low mental wellbeing, report receipt of free school meals or identify as having SEND are more likely to view their safety when walking, cycling, wheeling or running as poor or very poor than pupils who do not have these characteristics.

Figure 9: The percentage of sampled pupils rating their safety as poor or very poor when walking, cycling, wheeling or running by selected group - 2024 (Year 6 to Year 13 data combined)

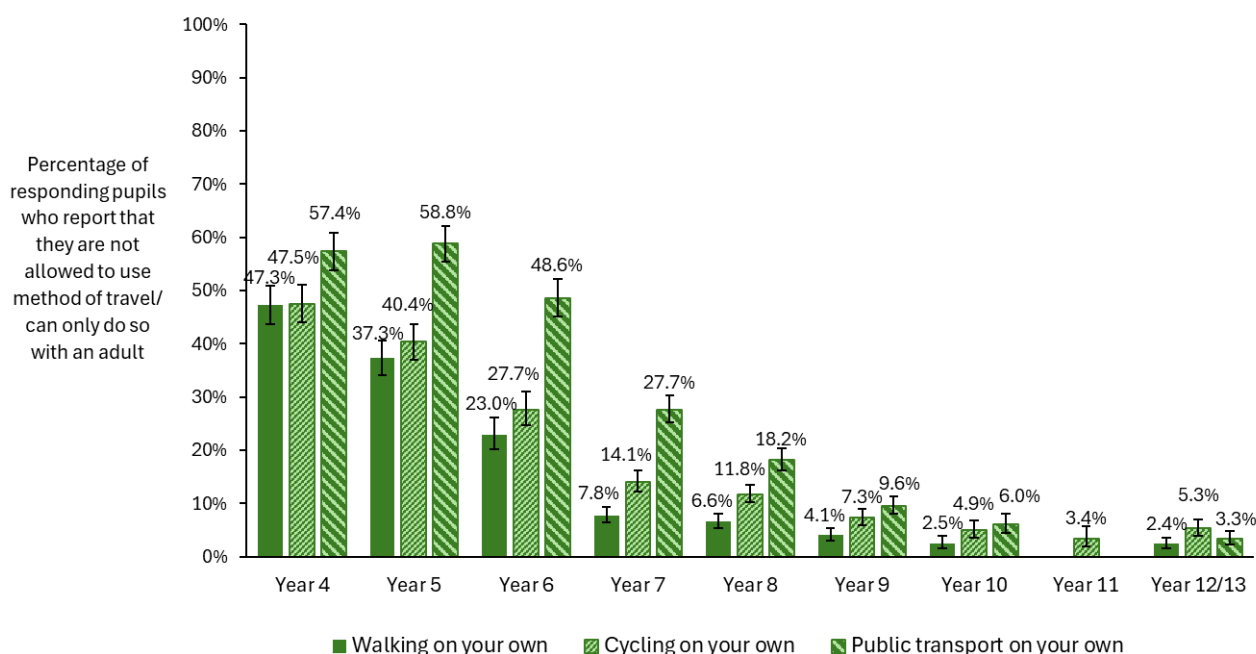


Often the proportionate difference in the percentage reporting a poor or very poor safety rating is large between those with and without a characteristic. For example, the proportion of pupils who identify as having SEND that rate the safety of walking, cycling, wheeling or running as poor or very poor is double the proportion among pupils who did not identify as having SEND (11.4% vs 5.2%). Furthermore, those identifying as Other ethnic group have a higher likelihood of rating their safety when walking, cycling, wheeling or running as poor or very poor than those identifying as White (14.9% vs 6.8%).

Permission to use travel modes

Another aspect of whether a pupil uses active travel or not is whether adults allow the travel mode to be used by the pupil either on their own or with their friends. Figure 10 shows how as pupils grow older restrictions on the types of travel they can use fall away. For example, while 47.3% of sampled Year 4 pupils report not being allowed to walk by themselves or can only do so with an adult, by Year 7 only 7.8% of sampled pupils report the same restrictions. Nevertheless, a small percentage of Year 12/13 pupils report not being allowed to walk, cycle and/or use public transport alone.

Figure 10: Percentages of sampled pupils reporting that they are not allowed to walk, cycle or use public transport on their own or can only do so with an adult by year group - 2024 (Year 4 to Year 12/13 data used separately)²⁵



In terms of the other patterns in Figure 10, it seems notable that a greater proportion of pupils in most year groups report restrictions on their use of public transport than on their use of walking or cycling. For example, 48.6% of sampled Year 6 pupils report that they are not allowed to travel by themselves on public transport or can only do so with an adult compared to only 27.7% of sampled Year 6 pupils who report the same restrictions in relation to cycling by themselves. There is also evidence that in Year 7 to

²⁵ In Year 11 data is only reported for 'Cycling on your own' as there are fewer than 10 observations each for pupils who are not allowed to walk or use public transport on their own or can only do so with an adult. To preserve anonymity and robustness statistics based on fewer than 10 observations are not reported.

Year 9 fewer pupils report restrictions on walking alone than on cycling alone. However, the larger picture is that the differences in reported restrictions across the three travel modes become much smaller as pupils grow older.

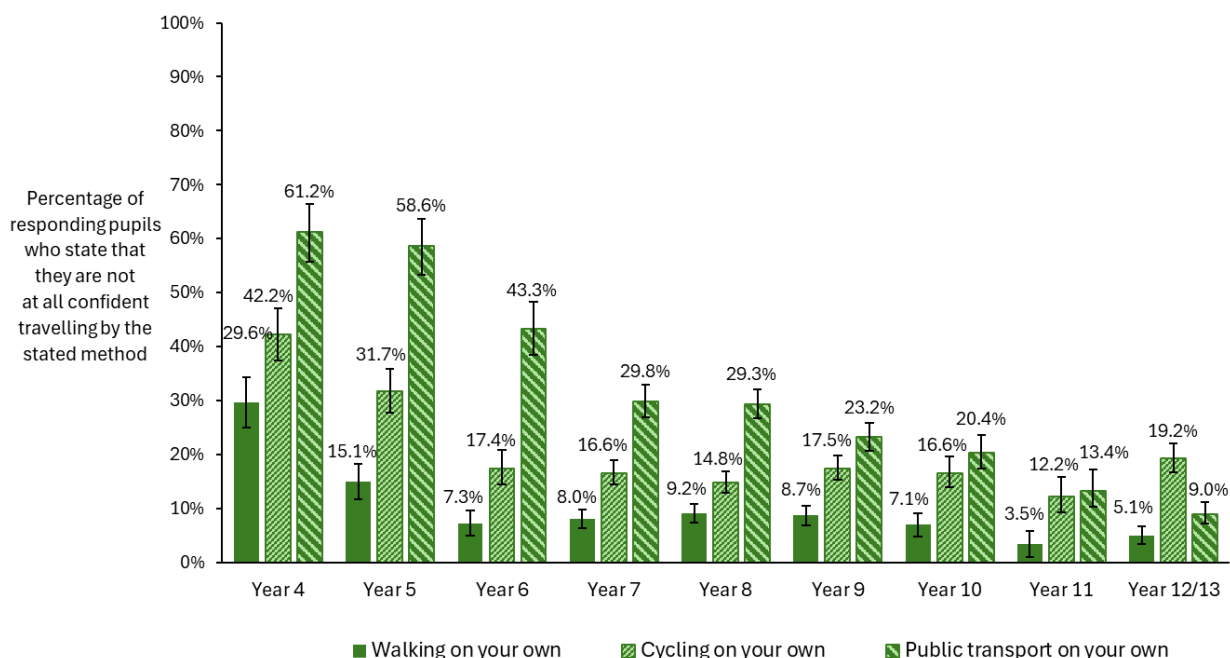
The Flourish Survey also repeats the question for each travel mode but with reference to travelling with friends rather than alone. As one would expect, being with friends rather than travelling alone appears to be considered a protective factor; in many year groups, a higher percentage report being allowed to walk or go on public transport without adult supervision when they are with friends than when they are alone. For example, in Year 6 23.0% of sampled pupils report that they are not allowed to walk alone or without adult supervision, but only 16.3% of report that they are not allowed to walk with friends without adult supervision. Interestingly, once uncertainty is considered, being with friends does not alter the percentage of pupils reporting that they are not allowed to cycle without adult supervision in each year group.

Confidence when travelling

Even when pupils are allowed to walk, cycle or use public transport by themselves, they may not feel confident doing so, something which may deter them from using these travel modes. As with not being allowed to travel without adult supervision in Figure 10, Figure 11 also shows a negative relationship with age, so that fewer pupils in older year groups report that they feel not at all confident travelling alone by walking, cycling or public transport respectively. However, it is noticeable that even in Year 12/13 some pupils still report feeling not at all confident travelling alone.

Figure 11 shows that most of the change in confidence for pupils travelling alone by walking and cycling occurs by Year 6. For example, for travelling alone by cycle the proportion of pupils who report being allowed to cycle alone but who feel not at all confident about doing so falls from 42.2% in Year 4 to 17.4% in Year 6. After Year 6, the proportion of pupils who report being allowed to cycle alone but who feel not at all confident about doing so remains fairly stable with 19.2% of Year 12/13 pupils reporting this feeling about cycling by themselves.

Figure 11: Percentages of sampled pupils who report that they are not at all confident walking, cycling or travelling by public transport alone by year group - 2024 (Year 4 to Year 12/13 data separately, based only on those pupils that report that they can use the travel mode by themselves without adult supervision)



In contrast, the proportion of pupils that report that they are allowed to travel on public transport but are not all confident doing so continues to decline for secondary age groups. For example, the proportion of pupils who report feeling this way falls from 29.8% in Year 7 to 9.0% in Year 12/13. Until Year 10, a noticeably higher proportion of pupils that report being allowed to travel alone feel not at all confident about travelling alone by public transport than by cycling. Indeed, Figure 11 shows that in Year 4 and Year 5 a majority of pupils who report being allowed to travel alone on public transport also report feeling not at all confident about doing so. Also, in all year groups, a greater proportion of pupils who report being allowed to travel alone report not being at all confident about cycling alone than about walking alone.

As with permission to travel without adult supervision, travelling with friends appears to ease concerns in terms of pupils reporting a lack of confidence. For each mode of travel, in almost all year groups, travelling with friends rather than alone reduces the percentage of pupils allowed to travel without adult supervision who feel not at all confident about doing so. The significance of travelling with friends is particularly stark for public transport. For example, among Year 9 pupils who report being allowed to travel by public transport without adult supervision, 23.2% report not being at all confident about doing so when travelling alone compared to only 3.1% when travelling with friends.

Community safety

Beyond safety in different types of travel situation, pupils were also asked to rate their general safety when out and about. For all the community safety questions the vast majority of sampled pupils rated their safety as OK, good or very good. Of the safety related questions, the greatest proportion of sampled Year 6 to Year 13 pupils rate their safety as poor or very poor when the question referred to going out after dark. 21.4% of sampled Year 6 to Year 13 pupils rate their safety when going out after dark as poor or very poor compared to only 3.7% who feel the same way about going out during the day. Also, 11.5% of sampled Year 6 to Year 13 pupils rate the ability of the police to keep them safe as poor or very poor.

The proportion of sampled pupils rating their safety when going out after dark as poor or very poor is stable across year groups once uncertainty is considered. Any association between age and the percentage of sampled pupils reporting that the ability of the police to keep them safe is poor or very poor is also unclear.

Variations by group

Looking across different groups, pupils identifying as young carers, reporting low mental wellbeing, reporting receipt of free school meals or identifying as having SEND are more likely to rate their safety when going out after dark as poor or very poor than those pupils without these characteristics. Indeed, more than a quarter of sampled Year 6 to Year 13 pupils in each of these groups rate their safety after dark as poor or very poor. For example, 26.7% of sampled Year 6 to Year 13 pupils who identify as having SEND rate their safety when going out after dark as poor or very poor compared to only 19.0% of sampled pupils who do not identify as having SEND.

Sampled pupils in each of these four groups are also more likely to rate the ability of the police to keep them safe as poor or very poor compared to those who are not in these groups. The difference is largest for pupils who identify as having SEND; 18.8% of sampled Year 6 to Year 13 pupils who identify as having SEND rate the ability of the police to keep them safe as poor or very poor compared to 8.8% of sampled pupils who do not identify as having SEND. There are also large differences by ethnicity; 20.9% of pupils identifying as Other ethnic group and 17.3% of pupils identifying as Black, Black British, Caribbean or African rate the ability of the police to keep them safe as poor or very poor compared to only 11.0% of pupils identifying as White.

Appendix 1: Assessing the representativeness of the sample

A separate topic report provides a detailed comparison of the 2024 Flourish sample with data for the population of schools and pupils in Norfolk. While the sample data is broadly in line with the population data for some characteristics, such as ethnicity, for other characteristics there are differences to the population data. These differences are clearest in terms of the age distribution of responding pupils and the geographic distribution of schools taking part in the survey.

Regarding age, the data is concentrated in Year 7 to Year 10 (pupils aged 11 to 15) rather than being evenly distributed across year groups. To avoid differences in age distributions impacting comparisons between years, and with the wider SHEU comparator data for 2022, we generally make these comparisons according to individual year groups.

Regarding the geographic distribution of the 2024 data, only primary schools chose to take part in the Borough of Great Yarmouth and in Norwich none of the Year 7 to Year 11 data comes from state-funded schools. Furthermore, pupils from King's Lynn and West Norfolk are over-represented in the data for secondary schools and colleges, while pupils from Norwich are over-represented in the primary data and pupils from Breckland are under-represented in the primary data. This uneven geographic distribution of data means that we do not break out results by district.

Also, it appears that the sample probably under-represents pupils who are eligible for free school meals. This, combined with the geographic distribution of the data, means that the sample may under-represent children from deprived backgrounds. However, this does not mean the data should be ignored, rather thought should be given to whether a particular variable is more or less likely to be observed among pupils from deprived backgrounds. For example, where a behaviour is thought to be more common among pupils from a deprived background, the results in this report are likely to be a minimum for the true prevalence of the behaviour among the full population of Norfolk pupils.

In terms of the validity of comparisons between 2015, 2017 and 2024, as noted previously, we control for differences in the age distribution of pupils.²⁶ Nevertheless, there are other differences in the compositions of the samples between years. The slightly greater ethnic diversity of the sample and the large increase in the proportion of pupils reporting receipt of free school meals between 2017 and 2024 are broadly mirrored by changes in population data between 2016-17 and 2023-24. In other words, for these two characteristics, the population of pupils in Norfolk is changing rather than it being a clear issue with the sample's representativeness. Regarding the gender breakdown of the sample and the proportion of pupils identifying as having SEND, it is possible that there are changes in the sample composition between years that do not match the population data; although, in both instances, methodological issues cloud the picture.²⁷

Overall, the analysis is representative of the subset of pupils who are educated within schools with management that might consider undertaking a pupil health survey worthwhile. The Norfolk population data indicates that the sample under-represents pupils taught in schools rated by Ofsted as Requires Improvement. We cannot rule out the possibility that differences in results between years, and with SHEU data from other parts of the country, result from differences in the characteristics of pupils being sampled. The results in this and the other topic reports are all unweighted.

²⁶ The size of the Flourish sample has also varied considerably between years being 3,155 in 2015 and 11,417 in 2017; however, these changes in sample size are reflected in the size of the confidence intervals reported in figures and they should not have a clear impact on the sample's representativeness.

²⁷ For gender, the sample appears to becoming less representative over time with the proportion of females in the sample increasing. However, drawing firm conclusions is complicated by the population data being about sex rather than gender identity; in other words, the population data only records pupils as male or female. For SEND status, the increase in the proportion of the sample self-identifying as having SEND exceeds the increase observed in the population data between 2016-17 and 2023-24 by some margin; the large increase in the Flourish data probably relates to the question wording in the Flourish questionnaire changing between 2017 and 2024.

Appendix 2: Mapping year groups to age

Generally, the topic reports based on the Flourish Survey break data out by school year group rather than age for two reasons: (i) key events in pupils' lives are determined by school year group, e.g. the switch from primary to secondary school and GCSE exams, and (ii) SHEU reports comparator data from other parts of the country for selected year groups.

For readers who are unfamiliar with school year groups Table 1 provides a mapping to the age of pupils. Year 6 marks the end of primary school, while Year 7 marks the start of secondary school. GCSE exams are taken in Year 11 with pupils moving to sixth form or further education providers for Year 12/13. As discussed in the first section of the report, the questions pupils see in the Flourish Survey vary to some extent by the year group they are in.

Table 1: Age of pupils in school year groups included in the Flourish Survey

School year group	Age of pupils
Year 4	8-9
Year 5	9-10
Year 6	10-11
Year 7	11-12
Year 8	12-13
Year 9	13-14
Year 10	14-15
Year 11	15-16
Year 12/13	16-18

The Flourish Survey questionnaire does not enable pupils in Year 12 and Year 13 to be separated. Also, in rare circumstances individual pupils of a particular age may be in a different year group if they have been moved up or down a year.