Student Health and Wellbeing in Wales: Key
findings from the 2021 School Health
Research Network Primary School Student Health and Wellbeing Survey

Report prepared by the SHRN Primary expansion sub-team (in alphabetical order): Lianna Angel, Rebecca Anthony, Kelly Buckley, Lauren Copeland, Amy Edwards, Jemma Hawkins, Graham Moore, Kelly Morgan, Simon Murphy, Safia Ouerghi, Bethan Pell, Joan Roberts, Jordan van Godwin
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## EECIPHer

Centre for Development, Evaluation, Complexity and Implementation in Public Health Improvement A Public Hoalih Rosearch Centro of Excellonce

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for Young People's Mental Health
Canolfan Wolfson
ar gyfer lechyd Meddwl Pobll lifanc

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Dadansoddi ar gyfer Polisi


Analysis for Policy

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## Background

- The School Health Research Network (SHRN) ${ }^{1}$ has developed an engaged model of research across all mainstream secondary schools in Wales, with schools as partners.
- This includes student and school-level surveys every two years, capturing a regular snapshot of 11 to 16 year olds' health behaviours and wellbeing.
- However, a focus solely on adolescence is too late for many young people, with our previous work for example showing that a substantial number of young people have clinically significant emotional difficulties by the time they finish primary school ${ }^{2}$.
- Expanding SHRN into primary schools offers an opportunity for joined up working across childhood and adolescence, and an avenue to better understand and support events such as transition to secondary school.
- In August 2020, the Welsh Government provided funding for work to develop a model for expansion of SHRN to primary schools and to evaluate a number of key feasibility related issues.
- This included a national survey of Year 6 pupils, with local authority booster samples, to enable reporting of pupil wellbeing data at school, local authority and national levels.
- Here, we present national data from 2021, with preliminary comparisons to a similar survey from 2019. The surveys used somewhat different methods, with changes made to enable the 2021 survey within COVID-19 social distancing measures (more detailed analyses of change over time are underway for journal articles and will be submitted for peer review in the coming months).


## Research design (1)

## Survey design

- Based on a review of existing measures within SHRN (and their suitability for primary school aged pupils), stakeholder feedback, a consultation with the young people's public involvement group ALPHA, and a review of other wellbeing measures used in UK primary school surveys a survey was developed.
- Where possible, to aid comparability with our secondary school survey, items were the same, or simplified versions of questions asked in the SHRN Student Health and Wellbeing Survey. ${ }^{3}$
- Some questions mirrored those used in a previous primary school survey by DECIPHer ${ }^{2}$ in order to allow a comparison of responses gathered prior to and during the pandemic.


## Research design (2)

## Methods

- A bilingual 36-question online survey was developed
- Pupils in Year 6* (aged 10-11) were invited to participate
- A research protocol was provided to each school to ensure consistent survey administration. The survey was overseen by teachers in a classroom setting
- Data collection took place between April and July in 2021 (postponed from the previous term following closure of schools to most pupils in December 2020)


## Consent

- Schools signed an agreement
- Parents were informed of the study and given the opportunity to opt their child out if they did not want them to participate
- Children provided assent, if they wished to participate

[^0]
## Research design (3)

## Sampling

- Overall 224 schools were invited to take part in the survey, including:
- 73 that had taken part in a similar survey in 2019 (plus one additional school to replace a school who declined immediately).
- 150 from four case-study local authorities with sampling stratified by the proportion of children eligible for free school meals


## Response rates

- 118 schools initially agreed, but following school closure delays, and the rise of the Delta variant, some did not complete the survey within the allotted time
- Overall 76 schools took part , from 19 out of 22 local authorities in Wales (34\%)
- School response rates are lower than previous surveys, which might cause some biases
- Pupil level response rates within participating schools were $80 \%$ (vs $88 \%$ in 2019).
- Median response rate was $88 \%$, with the mean reduced by a small number of schools who achieved low rates.
- 71 schools completed the survey online and 5 in pen and paper format
- Fewer than $1 \%$ of parents opted their child out, while 14 pupils declined to participate in the survey
- 1863 Year 6 pupils completed the survey


## Notes on reporting

- Missingness varied for individual survey items
- We are more confident in estimates with a lower level of missingness
- Base numbers are provided across items reported. A colour code denotes the level of missingness:
- Green - less than 5\% missing data
- Amber - 5-10\%
- Red - >10\%


## Sample demographics

## Free School Meal (FSM) tertiles:

- Low: fewer than $12 \%$ of pupils entitled to FSM
- Medium: between $12 \%-22 \%$ of pupils entitled to FSM
- High: More than $22 \%$ of pupils entitled to FSM

|  | \% of pupils eligible for <br> FSM |  |  |
| :--- | :--- | :--- | :--- |
|  | Low | Med | High |
| Participating schools (N) | 27 | 24 | 25 |
| No response (N) | 38 | 53 | 35 |
| Declined/Withdrawn (N) | 8 | 6 | 7 |

Note: One school did not have a FSM\% available

| Family Affluence <br> Score*4 | Low | 31 |
| :--- | :--- | :--- |
|  | Med | 42 |
|  | High | 27 |
| Gender | Boy | 47 |
|  | Girl | 49 |
|  | Other gender identity | 1 |
|  | Missing | 2 |
|  | White British | 84 |
| Ethnicity | White non-British | 6 |
|  | Other | 10 |
|  | Both parents | 68 |
| Live with.. | Step family | 10 |
|  | Single mum | 16 |
|  | Single dad | 1 |
|  |  |  |

Weighting - weights were applied to correct for disproportionately sampled local authorities and variable response by local authority

## Main findings from 2021

The following sections are reported:

1) COVID-19 Worries
2) Mental health and wellbeing
3) Healthy eating and physical activity
4) School connectedness
5) School transition
6) Electronic devices (screen use)
7) Sleep
8) Household smoking
9) Comparisons of measures available from both 2019 and 2021

Use of questions across SHRN surveys

| Primary SHW survey | Secondary SHW survey |
| :--- | :--- |
| Gender | $\checkmark$ (modified version) $^{\prime 2}$ |
| School year | $\checkmark$ |
| Age (month and year of birth) | $\checkmark$ (longer version) |
| Ethnicity | $\checkmark$ (longer version) |
| Family structure (i.e. who you live <br> with) | $\checkmark$ |
| Main language spoken in home | $\checkmark$ |
| Parental education | $\checkmark$ |
| Parental employment |  |
| Family Affluence Scale ${ }^{4}$ | $\checkmark$ |
| Life satisfaction (Cantril Scale) |  |
| Me and My Feelings Questionnaire <br> (modified version; Deighton et al., <br> 2013) |  |
| SHRN internalising symptoms | $\checkmark$ |
| Student life satisfaction scale <br> (Huebner, 1991) |  |
| Covid worries | $\checkmark$ |
| Liking school | $\checkmark$ |
| Relationships with other pupils | $\checkmark$ |
| School involvement |  |
| Relationships with school staff | $\checkmark$ |
| School transition (Rice et al., 2017, <br> 2021),8 | $\checkmark$ |
| Use of technology and social media | $\checkmark$ (longer version) |
| Parental limits on electronic devices |  |
| Smoking habits among family members |  |
| Bedtime | $\checkmark$ |
| Fruit and vegetable consumption | $\checkmark$ |
| Physical activity | $\checkmark$ |

## 1) COVID-19 WORRIES

Figure 1.1 Percentage who reported being worried about a range of issues during the pandemic most or all of the time (\%)


Figure 1.2 Percentage who reported feeling worried about not seeing their friends during the pandemic (\%)


Figure 1.3 Percentage who reported feeling worried about not seeing their friends during the pandemic most or all of the time, by gender and
family affluence (\%)


- $81 \%$ of children reported feeling worried about not seeing their friends at least some of the time, including $47 \%$ who reported worrying most or all of the time
- Girls were marginally more likely than boys to report being worried most or all of the time, with persistent worries most commonly reported among children from the medium family affluence group

Base: All respondents in year 6 who gave an answer $(N=1,809)$

Figure 1.4 Percentage who reported feeling worried about not seeing their family during the pandemic (\%)


- Never ■ Sometimes ■ Most of the time - All of the time

Figure 1.5 Percentage who reported feeling worried about not seeing their family during the pandemic most or all of the time, by gender and family affluence (\%)


- $71 \%$ of children reported feeling worried about not seeing their family at least some of the time, including 42\% who reported worry most or all of the time
- Girls were more likely than boys to report feeling worried most or all of the time, with persistent worries more commonly reported among children from low and medium affluence families

Figure 1.6 Percentage of children who reported feeling worried about their family becoming unwell during the pandemic (\%)


- Never - Sometimes ■ Most of the time - All of the time

Figure 1.7 Percentage who reported feeling worried about their family becoming unwell during the pandemic most or all of the time, by gender and family affluence (\%)


- $77 \%$ of children reported feeling worried about their family becoming unwell at least some of the time, including $33 \%$ all or most of the time
- Girls were more likely than boys to report being worried most or all of the time, with persistent worries more commonly reported among children from the lower and medium family affluence groups

Figure 1.8 Percentage who reported feeling worried about going back to school during the pandemic (\%)


Figure 1.9 Percentage who reported feeling worried about going back to school during the pandemic most or all of the time, by gender and family affluence (\%)


- $67 \%$ of children reported feeling worried about going back to school at least some of the time, including $32 \%$ who reported being worried most or all of the time
- Children from the least affluent families were most likely to report being worried most or all of the time about going back to school

Figure 1.10 Percentage of children who reported feeling worried about going outside during the pandemic (\%)

Figure 1.11 Percentage who reported feeling worried about going outside during the pandemic most or all of the time, by gender and family affluence (\%)


- $59 \%$ of children reported that they worried about going outside at least some of the time, including $29 \%$ who reported being worried most or all of the time
- Boys were more likely to report being worried about going outside most or all of the time, with persistent worries slightly more commonly reported among children from less affluent families

Figure 1.12 Percentage of children who reported feeling worried about being away from school during the pandemic (\%)

Figure 1.13 Percentage of children who reported feeling worried about being away from school during the pandemic most or all of the time, by gender and family affluence (\%)


- $62 \%$ of children reported feeling worried about being away from school at least some of the time, including 25\% who reported worry most or all of the time
- Girls were more likely than boys to report being worried most or all of the time, with persistent worries slightly more commonly reported among children from less affluent families

Figure 1.14 Percentage of children who reported feeling worried about becoming unwell themselves during the pandemic (\%)


- Never - Sometimes - Most of the time - All of the time

Figure 1.15 Percentage who reported feeling worried about becoming unwell themselves during the pandemic most or all of the time, by gender and family affluence (\%)


- $60 \%$ of children reported feeling worried about becoming unwell themselves at least some of the time, including $14 \%$ who reported worry most or all of the time
- Girls were more likely than boys to report being worried most or all of the time

Figure 1.16 Percentage who reported feeling worried about not having enough food to eat (\%)

Figure 1.17 Percentage who reported feeling worried about having enough food to eat during the


- Never ■ Sometimes ■ Most of the time ■ All of the time
pandemic most or all of the time, by gender and family affluence (\%)

- $24 \%$ of children reported feeling worried about not having enough to eat at least some of the time, including 9\% who reported worrying most or all of the time
- Children from the least affluent families were most likely to report feeling worried most or all of the time about not having enough to eat

Base: All respondents in year 6 who gave an answer $(N=1,780)$

## 2) MENTAL HEALTH AND WELLBEING

Figure 2.1 Mean emotional difficulties score on the Me and My Feelings
Questionnaire ${ }^{5 *}$, overall and by gender and family affluence


- A higher score on this scale (range=0-20) reflects higher emotional difficulties
- Girls had a higher average emotional difficulties score in comparison to boys (i.e. greater emotional difficulties)
- There was a clear socioeconomic gradient, with a higher mean score among students from less affluent families
*Scale scores are 'pro-rated' (i.e. based on the average of completed items) so long as $>50 \%$ of individual items are completed. Only marginally different estimates were obtained where limited to 'complete cases' (mean=6.8)

Base: All respondents in year 6 who gave an answer $(N=1,850)$

Figure 2.2 Percentage who met the threshold for elevated or clinically significant emotional difficulties, overall and by gender and family affluence (\%) ${ }^{5}$

*Scale scores are 'pro-rated' so long as >50\% of individual items are completed. Where limited to complete cases, $25 \%$ report elevated or clinically significant emotional difficulties

Base: All respondents in year 6 who gave an answer $(N=1,850)$

- Over a quarter of children reported elevated (>=10/20) emotional difficulties, with $13 \%$ reporting clinically significant difficulties ( $>=12 / 20$ )*
- More girls than boys reported significant emotional difficulties
- There was a clear social gradient, with children from the least affluent families most likely to report emotional difficulties.

Figure 2.3 Mean behavioural difficulties score on the Me and My Feelings Questionnaire ${ }^{5}$, overall and by gender and family affluence

- A higher score on this scale (012) reflects higher behavioural difficulties

- Boys reported more behavioural difficulties on average in comparison to girls (i.e. greater behavioural difficulties)
- Children from the least affluent families reported the highest behavioural difficulties score, with those from the most affluent families reporting the lowest
*Scale scores are 'pro-rated' so long as $>50 \%$ of individual items are completed. Similar estimates obtained where limited to 'complete cases' (full sample mean=3.0)

Base: All respondents in year 6 who gave an answer ( $N=1,838$ )

Figure 2.4 Percentage who met the threshold for elevated or clinically significant behavioural difficulties, overall and by gender and family affluence (\%) ${ }^{5}$


- $15 \%$ of children met the threshold for elevated $(6 / 12)$ or clinically significant (>6/12) behavioural difficulties
- More boys reported elevated difficulties compared to girls
- Children from the least affluent families were most likely to report elevated behavioural difficulties
*Scale scores are 'pro-rated' so long as $>50 \%$ of individual items are completed. Where limited to complete cases, $14 \%$
report elevated or clinically significant emotional difficulties
Base: All respondents in year 6 who gave an answer ( $N=1,838$ )

Figure 2.5 Life satisfaction scale (\%) ${ }^{6}$


Figure 2.6 Percentage who rated their life satisfaction as 8 or more, overall and by gender and family affluence (\%) ${ }^{6}$


- $64 \%$ of children reported a high degree of life satisfaction (i.e $>=8 / 10$ ), with a slightly higher proportion of boys reporting high life satisfaction
- There is some evidence of a social gradient, with fewer children from less affluent families reporting high life satisfaction


## 3) HEALTHY EATING AND PHYSICAL ACTIVITY

Figure 3.1 Frequency of fruit consumption (\%)
Figure 3.2 Percentage who eat fruit at least daily, overall and by gender and family affluence (\%)


- $47 \%$ of children reported eating fruit at least once per day. Girls were more likely to report eating fruit daily than were boys
- $50 \%$ of children from more affluent families reported eating fruit daily, compared to $43 \%$ of children from the least affluent families

Base: All respondents in year 6 who gave an answer $(N=1,806)$

Figure 3.3 Frequency of vegetable consumption (\%)


- More than once per day

Figure 3.4 Percentage who eat vegetables at least daily, overall and by gender and family affluence (\%)


- $41 \%$ reported eating vegetables at least once per day. Girls were more likely to report eating vegetables daily than were boys
- $52 \%$ of children from the most affluent families reporting eating vegetables daily, compared to $35 \%$ from the least affluent families

Base: All respondents in year 6 who gave an answer ( $N=1,793$ )

Figure 3.5 Percentage who reported exercising at least 4 times a week (\%)


- Everyday
- Once a week

> ■ 4-6 times a week

- Once a month
- 2-3 times a week
- Less than once a month

Figure 3.6 Percentage who reported exercising at least 4 times a week, overall and by gender and family affluence (\%)


- Never
- $51 \%$ of children reported exercising in their free time (so much that they get out of breath and sweat) 4 times or more a week, with substantially higher reports among boys
- Children from more affluent families were more likely to report exercise 4 or more times a week


## 4) SCHOOL CONNECTEDNESS

Figure 4.1 Feelings about school (\%)


- l like it a lot - I like it a bit - I don't like it very much - I don't like it at all

Figure 4.2 Percentage who like school a lot, overall and by gender and family affluence (\%)


- $81 \%$ of children reported liking school at least a bit, and $36 \%$ reported liking school a lot.
- Girls and children from more affluent families were more likely to report that they liked school a lot

Figure 4.3 Feel that teachers care about them as a person (\%)


- Strongly agree ■ Agree ■ Neither agree or disagree $\quad$ - Disagree ■ Strongly disagree

Figure 4.4 Percentage who agree that their teachers care about them as a person, overall and by gender and family affluence (\%)


- $90 \%$ of children agreed that their teachers cared about them, with girls slightly more likely than boys to report that teachers cared about them
- Similar reports were found between family affluence groups

Base: All respondents in year 6 who gave an answer ( $N=1,794$ )

Figure 4.5 Feel that teachers accept them as they are (\%)


- Strongly agree ■ Agree ■ Neither agree or disagree | Disagree - Strongly disagree

Figure 4.6 Percentage who agree that teachers accept them as they are, overall and by gender and family affluence (\%)


- $90 \%$ of children agreed that teachers accept them as they are, with girls slightly more likely than boys to report feeling accepted by teachers
- Differences between family affluence groups were small

Base: All respondents in year 6 who gave an answer $(N=1,795)$

Figure 4.7 Trust teachers (\%)


- Strongly agree ■ Agree - Neither agree or disagree - Disagree - Strongly disagree
(Stye

Figure 4.8 Percentage who agree that they trust their teachers, overall and by gender and family affluence (\%)


- $85 \%$ of children agreed that they trust their teachers
- Differences by gender and socioeconomic status were small

Base: All respondents in year 6 who gave an answer ( $N=1,799$ )

Figure 4.9 Member of staff to confide in (\%)


- Strongly agree - Agree - Neither agree or disagree - Disagree - Strongly disagree

Figure 4.10 Percentage who agree that there is at least one adult at school they can confide in, overall and by gender and family affluence (\%)


- $82 \%$ of children agreed that there is at least one adult in school they can talk to about things that worry them, with girls slightly more likely than boys to report this
- Children from less affluent families were slightly more likely to report having an adult they could talk to than those from more affluent families

Figure 4.11 Pupils enjoy being together (\%)


■ Strongly agree ■ Agree ■ Neither agree or disagree ■ Disagree ■ Strongly disagree

Figure 4.12 Percentage who agree or strongly agree that pupils enjoy being together, overall and by gender and family affluence (\%)


- $80 \%$ of children reported that pupils in their school enjoy being together
- Boys and children from more affluent families were more likely to report that pupils at their school enjoy being together

Figure 4.13 Most pupils are kind and helpful (\%)
Figure 4.14 Percentage who agree or strongly agree that most pupils are kind and helpful, overall and by gender and family affluence (\%)


- Strongly agree ■ Agree ■ Neither agree or disagree ■ Disagree ■ Strongly disagree

- $72 \%$ of children reported that most pupils at their school are kind and helpful. Boys were more likely to agree than girls
- Children from more affluent families were slightly more likely to agree that pupils were kind and helpful

Figure 4.15 Most pupils accept me as I am (\%)
Figure 4.16 Percentage who agree or strongly agree that most pupils accept them as they are, overall and by gender and family affluence (\%)


- Strongly agree - Agree - Neither agree or disagree - Disagree - Strongly disagree

- $75 \%$ of children agreed that most pupils accept them as they are
- Boys and children from more affluent families were most likely to agree that pupils accept them as they are

Figure 4.17 Students have a say in planning and organising school activities and events (\%)


- Strongly agree - Agree ■ Neither agree or disagree - Disagree ■ Strongly disagree

Figure 4.18 Percentage who agree that students have a say in planning and organising school activities and events, overall and by gender and family affluence (\%)


- $71 \%$ of children agreed students have a say in planning school activities
- Girls and children from more affluent families were slightly more likely to report that students have a say in planning activities

Figure 4.19 Students have a lot of chances to help decide and plan school projects (\%)

Figure 4.20 Percentage who agree that students have a lot of chances to help decide and plan school projects, overall and by gender and family affluence (\%)


- Strongly agree - Agree ■ Neither agree or disagree ■ Disagree ■ Strongly disagree
- $72 \%$ of children agreed students have a chance to help plan school projects
- Children from more affluent families were slightly more likely to agree that students have a chance to help plan school projects

Figure 4.21 Students' ideas are treated seriously at school (\%)


Figure 4.22 Percentage who agree that students' ideas are treated seriously at school, overall and by gender and family affluence (\%)


- $72 \%$ of children agreed that pupils' ideas are treated seriously in their school
- Girls and children from more affluent families were slightly more likely to agree that pupils' ideas are treated seriously

Figure 4.23 Percentage who feel bullied by others (\%)


Figure 4.24 Percentage feeling bullied by others, overall and by gender and family affluence (\%)


- $28 \%$ of children reported feeling bullied by others at least some of the time
- Girls and children from the least affluent families were most likely to report feeling bullied


## 5) SCHOOL TRANSITION

Figure 5.1 Worried about the transition to secondary school (\%) 7,8


■ Not at all ■ Very little ■ Some ■ Quite a bit ■ Very much

Figure 5.2 Percentage quite or very worried about the transition to secondary school, overall and by gender and family affluence (\%) ${ }^{7,8}$


- Half of children reported feeling worried about school transition at least to some extent, with $36 \%$ reporting being worried quite a bit or very much
- Girls were more likely than boys to report feeling worried about transition. There was a clear social gradient, with reports of worry highest among children from the least affluent families

Figure 5.3 Looking forward to the transition to secondary school (\%) ${ }^{7,8}$


- Not at all ■ Very little - Some ■ Quite a bit ■ Very much

Figure 5.4 Percentage looking forward to the transition to secondary school, overall and by gender and family affluence (\%) ${ }^{7,8}$


- More than two-thirds of children reported looking forward to transition quite a bit or very much
- There was some evidence of social gradient, but this was less clear than for worries about transition

6) ELECTRONIC DEVICES
(SCREEN USE)

Figure 6.1 Percentage who reported owning a smartphone (\%)


- Most children reported owning a smartphone with more girls than boys reporting owning a smartphone
- Reported smartphone ownership was slightly higher among children from medium or high affluence families

Figure 6.2 Percentage who reported with their own computer or laptop (\%)


- Two thirds of children reported owning their own computer or laptop
- Ownership was highest among children from more affluent families

Figure 6.3 Percentage who report owning a tablet (\%)


- Almost two thirds of children reported owning a tablet, with girls more likely than boys to report owning a tablet
- There was some evidence of a social gradient, with children from more affluent families more likely to report owning a tablet

Figure 6.4 Regular use of electronic devices (\%)


Base (variation per item): All respondents in year 6 who gave an answer ( $N=1,656$ to 1,823)

## 7) SLEEP

Figure 7.1 Bedtime (\%)
Figure 7.2 Percentage that report a bedtime of 10pm or later, overall and by gender and family affluence (\%)


- $79 \%$ of children reported a bedtime of $9 p m$ or later with $43 \%$ reporting a bedtime of 10 pm or later
- More boys than girls, and more children from less affluent families, reported a later bedtime

Figure 7.3 Parental limits on using electronic devices before bedtime (\%)


- Never $\quad$ Sometimes $\quad$ Most of the time $\quad$ All the time ■ Don't know

Figure 7.4 Parental limits on using electronic devices before bedtime (\%)


- More than two thirds of children (68\%) reported that a parent limits their use of electronic devices before bedtime
- There was little gender difference. Children in the medium affluence group were most likely to report that parents limited screen use before bedtime


## 8) HOUSEHOLD SMOKING

Figure 8.1 Percentage that have a parent figure who smokes, overall and by gender and family affluence (\%)


- $37 \%$ of children report having a parent figure who smokes
- More than twice as many children from less affluent families reported having a parent figure smoked compared to children from the most affluent families

Figure 8.2 Percentage that have a parent who smokes in the family home, overall and by gender and family affluence (\%)


- $14 \%$ of children reported that a parent figure smokes in their home
- There was a strong social gradient in reports of parental smoking in the home


## Summary of findings - child health and wellbeing in 2021

- Children's most commonly reported worries about COVID-19 related to social relationships, followed by worries about a family member becoming ill. Some worries tended to be slightly more common among children from poorer families.
- Almost 1 in 7 children reported clinically significant emotional difficulties, while approximately 1 in 14 reported clinically significant behavioural difficulties. Many more reported elevated but sub-clinical difficulties. Almost two-thirds gave a score of 8 out of 10 or higher for how satisfied they were with their life. Mental health symptoms tended to be more common, and life satisfaction lower, among children from less affluent families.
- Fewer than half of children reported eating fruits or eating vegetables daily, with approximately half reporting exercising in their free time at least 4 times a week. Girls and children from more affluent families reported more fruit and vegetable consumption, while boys and children from more affluent families reported more exercise.
- Most children rated their relationships with school staff positively, with most also positive about pupil relationships within school and pupil involvement in school life.
- Most Year 6 children were looking forward to transition to secondary school. Feeling worried about transition to secondary school was strongly patterned by socioeconomic status, with more children from less affluent reporting they felt worried.
- Most children reported owning a number of electronic devices, used mostly for entertainment and social connectedness, but also for education purposes. Ownership of devices tended to be more common in more affluent families.
- Most children reported a bedtime between 9 and 10 pm , with boys and children from less affluent families more likely to report a later bedtime.
- Just over a third of pupils reported that a parent figure smokes, with 1 in 8 reporting that a parent figure smokes in their home; both parental smoking and parental smoking in the home are less common in more affluent families.


# 9) Preliminary analyses of CHETS 2019 and SHRN 2021 data 

## Methods and caveats

- This section provides preliminary comparisons of a number of outcomes measured in 2021 with a previous similar survey in 2019
- More detailed analyses of change over time overall and by subgroups is underway
- There are some key differences in methods to consider when interpreting comparisons
- 2019 survey (Moore et al. 2021, CRUK funding)
- Researcher supervised pen and paper survey
- Nationally representative sample of 73 schools
- Sample size 2,218
- School response rate 37\%; eligible pupils within schools who participated $88 \%$
- Data collection from Feb to June 2019
- 2021 survey - some differences in mode, sampling and time of year
- Mode - mostly electronic, teacher led survey.
- Sampling - boost sampling in a number of local authorities
- Time of year - April to July 2021


## Considering implications of changes in method, when comparing across survey years

## - The switch from pen and paper and teacher led survey

- Many social surveys are moving to online modes. Survey mode effects tend to be small ${ }^{9}$ and may diminish when a method is no longer 'novel' ${ }^{10}$. The survey occurred after a year in which online working had become the norm, which may have mitigated this.
- It is possible that the survey being teacher rather than researcher led may impact how some pupils respond, due to pre-existing relationships with teachers.
- Time of year
- The 2021 survey was slightly later in the year. Mental health outcomes may be seasonal and measuring these closer to summer in 2021 might underestimate differences between surveys. Feelings about transition to secondary school may change as this nears
- We found no correlation between date of interview and mental health scale scores, indicating these estimates remained stable through the survey period.
- But we found a small correlation between date of survey and looking forward to transition ( $r=0.15$; $p<0.001$ ) which supports a hypothesis that these do become more positive as the transition nears - this might explain why feelings about transition were marginally more positive in 2021 than in 2019 (see Figure 9.6).


## - Sampling differences may have impacted differences between survey years

- We address this issue using a sensitivity analysis which harmonises the sample by restricting comparisons to 31 schools who participated at both time points (slide 71)
- This sub-sample is not nationally representative and is smaller and less precise, so absolute estimates change slightly
- But where differences or similarities between survey years remain consistent, this increases confidence that these are not simply due to sampling differences. Overall, this analysis is highly comparable to our main analysis.


## Comparability of samples on key demographics

|  |  | 2019 | 2021 |
| :--- | :--- | :--- | :--- |
| Family Affluence <br> Scale - category | Low affluence | 35 | 31 |
|  | Medium affluence | 40 | 42 |
|  | High affluence | 25 | 27 |
|  | Boy | 50 | 47 |
|  | Girl | 50 | 49 |
|  | Other gender identity | $<1 \%$ | 2 |
|  | missing | $<1 \%$ | 1 |
|  | Both parents | $67 \%$ | $68 \%$ |
|  | Step family | $9 \%$ | $10 \%$ |
|  | Single mum | $16 \%$ | $16 \%$ |
|  | Single dad | $1 \%$ | $1 \%$ |
|  |  |  |  |

- Overall good comparability by demographics (gender, SES and living arrangements)
- Weighting was used to account for variability in sampling and response by local authority

Figure 9.1 Percentage scoring above threshold for elevated or clinically significant emotional and behavioural difficulties (left) and scale means (right) in 2019 and $2021^{5}$


Base: All respondents in year 6 who answered ( $N=3,943$ emotional difficulties/3,928
behavioural difficulties). *Scale scores are 'pro-rated' so long as $>50 \%$ of individual items are completed.
Differences in analysis restricted to complete cases was similar.

Large increases in clinically significant emotional difficulties. Clear increase in 'average scores' for emotional difficulties.

Slight increase in 'borderline' behavioural difficulties, but small reduction in clinically significant difficulties, and little change in average behavioural difficulties score

Figure 9.2 Percentage scoring above 7 on Cantrill ladder life satisfaction measure in 2019 and 2021


- Most reported a high degree of life satisfaction in both surveys
- But, 2021 estimates appear slightly lower than in 2019

Figure 9.3 Percentage reporting agreement with each statement on quality of relationships with teachers, and liking school, in 2019 and 2021


Base: All respondents in year 6 who gave an answer (Ns range from 3,700 to 3,792)

Figure 9.4 Percentage reporting agreement with each statement on pupil relationships in school in 2019 and 2021


- Most pupils agreed with each statement on pupil relationships in school
- Slight tendency toward slightly lower estimates in 2021 for some items
- However, marginally fewer reported feeling bullied by others in 2021

Figure 9.5 Percentage reporting agreement with each statement on involvement in school life in 2019 and 2021


Figure 9.6 Percentage reporting looking forward to transition to secondary school, worrying about transition, both or neither, in 2019 and 2021


- Most children reported looking forward to transition to secondary school
- A slightly higher percentage reported looking forward to transition, without also reporting being worried about it, in 2021 than in 2019
- Slightly fewer reported that they were neither worried about or looking forward to transition in 2021

Figure 9.7 Percentage reporting exercise at least 4 times per week, and eating fruit or vegetables daily, in 2019 and 2021


- For diet and exercise, 2021 estimates are consistently less healthy than 2019
- The percentage of children reporting eating fruit and vegetables daily, and exercise at least 4 times a week in their free time fall
- These items had a relatively high degree of missingness

Figure 9.8 Percentage reporting that parent figures smoke, or smoke in the home, in 2019 and 2021


- There was little change in the percentage who said their parents smoke
- But there is some evidence of a reduction in children's reports that parents smoke inside their home


## Sensitivity analysis

- Sensitivity analysis was limited to schools ( $n=31$ schools from 18 local authorities) who participated in both surveys ( $\mathrm{n}=1645$ )
- There is high consistency with the whole sample analysis
- Marked increase in emotional difficulties (from 18\% to 27\% elevated or clinically significant), but not behavioural difficulties ( $14 \%$ to $13 \%$ )
- Small decrease in life satisfaction
- Most school connectedness estimates similar across timepoints, with some slightly more positive in 2019 and others vice versa
- Fruit and vegetable consumption and exercise are lower in 2021, as in the main analysis
- A slightly higher number of pupils in 2021 are either worried or looking forward to transition, with slightly fewer saying neither
- One discrepancy is a small potential decline in parental smoking which was not evident in the main analysis
- Smoking in the home appears to fall by a similar amount as the main analysis

|  |  | 2019 | 2021 |
| :---: | :---: | :---: | :---: |
| Emotional difficulties | Elevated | 10 | 16 |
|  | Clinically significant | 8 | 11 |
| Behavioural difficulties | Elevated | 5 | 6 |
|  | Clinically significant | 9 | 7 |
| Life satisfaction | >/10 | 68 | 65 |
| Teacher care | Agree | 89 | 91 |
| Teacher accept | Agree | 90 | 91 |
| Teacher trust | Agree | 86 | 83 |
| Adult can confide in | Agree | 87 | 83 |
| Pupils enjoy being together | Agree | 81 | 79 |
| Pupils kind and helpful | Agree | 79 | 73 |
| Pupils accept me | Agree | 78 | 75 |
| Like school | A lot | 41 | 37 |
| Bullied by others | At least sometimes | 31 | 29 |
| Pupils involved in activities | Agree | 73 | 71 |
| Pupils involved in planning | Agree | 76 | 72 |
| Pupils ideas taken seriously | Agree | 72 | 73 |
| Fruit | Daily | 57 | 49 |
| Vegetables | Daily | 50 | 42 |
| Exercise | At least 4 times a week | 54 | 48 |
| School transition | Neither | 15 | 11 |
|  | Worried | 16 | 19 |
|  | Looking forward | 50 | 52 |
|  | Both | 18 | 18 |
| Parent smokes | Yes | 37 | 33 |
| Parent smokes in home | Yes | 18 | 13 |

## Summary findings - comparison to 2019 data

- These data indicate that just over a year into the COVID-19 pandemic
- There was a notable increase in the proportion of children reporting elevated or clinically significant emotional difficulties since COVID-19.
- Estimates of the proportion with elevated or clinically significant behavioural difficulties however differ little across the 2019 and 2021 surveys.
- Life satisfaction appears marginally lower in our 2021 survey than in 2019
- Children's diet and exercise behaviours were less healthy in 2021 than in our 2019 survey, suggestive of a decline in health behaviours.
- Most children remain positive about relationships with teachers and pupils in the school environment, with little evidence of change in school connectedness
- Most also reported looking forward to transition, despite this cohort having missed a substantial proportion of face-to-face teaching in Key Stage 2.
- The percentage of children whose parents smoke remained stable, but our 2021 estimates of the percentage who say parents smoke in their home is lower than in 2019


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[^0]:    *In 27 schools with smaller or joint year groups, Year 5 pupils also participated but given the small non-representative sample ( $N=419$ ) data are not included within this report.

