



Wave 1 Initial Findings – Briefing No. 4

# Mental Health and Wellbeing

November 2022

Erica Holt-White, Alice De Gennaro

Jake Anders, Carl Cullinane, Erin Early, Rebecca Montacute, Xin Shao & James Yarde

## Highlights

- Over 2 in 5 (44%) 16–17 year olds in England report elevated psychological distress, 9%pts higher than the 35% reporting distress at age 17–18 in the Our Future cohort study (2017) and 21%pts higher than the 23% at age 16–17 in the Next Steps cohort study (2007).
- Higher proportions of elevated psychological distress were seen among those who reported having long COVID, bad/severe long COVID, or who had to shield during the pandemic. For instance, 66% of those with severe long COVID, which largely affected ability to carry out daily activities, reported high psychological distress.
- Those who experienced major life events during the pandemic, such as being seriously ill and suffering from food affordability issues, were also more likely to report elevated psychological distress.
- There are stark patterns in signs of poor mental health by gender:
  - Those who identify as female report elevated psychological distress (54%), self-harm (23%) and suicide attempts (11%), compared to those who identify as male (33% report distress, 11% report self-harm and 5% report attempting suicide).
  - Those who identify as ‘non-binary+’ report high psychological distress (69%) and they are considerably more likely to have self-harmed (61%) or to have attempted suicide

(35%) than their peers who identify as male or female.

- Over 2 in 5 (44%) young people with a parent who has high psychological distress also report high distress, compared to 30% of those with a parent who does not report high distress.
- Half of the pupils from comprehensive or grammar schools rated their school’s mental health support as ‘not very good’ or ‘not at all good’ compared to just a quarter of those attending independent schools.
- Half of young people said that they are now less motivated to study and learn as a result of the pandemic, with those who reported high psychological distress 31%pts more likely to say so (68% compared to 37% of other participants).

### Levels of high psychological distress amongst young people in England over time



Notes. Percentage with GHQ-12 scores of 4 and above in three cohort studies. Sources – Next Steps Wave 4 (age 16/17), Our Future Wave 5 (age 17/18).

Supported by



Partners



## Context

The impact of the pandemic on health and wellbeing goes far beyond the direct effects of someone catching COVID-19 itself. The effects on young people's mental health were non-trivial<sup>1</sup> – increased reports of anxiety, sleep problems and panic attacks were seen across all ages,<sup>2</sup> and concerns about school, college and university also increased.<sup>3</sup>

A record number of children and young people were referred to mental health services in 2021, with referrals increasing by 134% between April and June compared to the same period in 2020 and a 96% increase from 2019.<sup>4</sup> The pandemic also burdened many of those with existing mental health problems: with 67% of 13- and 25-year-olds with a history of mental health needs reporting the pandemic would have a long-term negative impact on their mental health.<sup>5</sup>

### *A record number of children and young people were referred to mental health services in 2021 ... a 96% increase from 2019.*

Experiences also differed across social groups. For example, female students reported lower wellbeing and motivation, greater loneliness and greater anxiety than male students.<sup>6</sup> Pupils with graduate parents had higher wellbeing overall compared to those with non-graduate parents, but were also more likely to report feeling anxious about the future.<sup>7</sup>

This briefing, analysing data from the first wave of the COVID Social Mobility and Opportunities (COSMO) Study, considers the mental health and wellbeing of young people in year 12, mainly focusing on the symptoms of psychological distress as measured by the General Health Questionnaire (GHQ-12).<sup>8</sup> It also looks at bullying and self-harm, as well as how psychological distress during the pandemic has affected motivations and plans for the future. These issues are also looked at by a variety of background characteristics, including gender, ethnicity, socio-economic background and school type. In this particular COSMO research briefing, we also highlight the experiences of young people

who report a gender identity other than male or female ('non-binary+' – just over 2% of participants),<sup>9</sup> given previous evidence of increased psychological distress for this group.<sup>10</sup> The scale of the COSMO study provides sufficient sample size to look at this key marginalised group whose experiences are often not possible to report in studies of a smaller scale. More detail on this can be found in the sample and methods section.

## How is young people's mental health following the pandemic?

### A picture of mental health

The average GHQ-12 score among young people in the COSMO sample as a whole is just below the clinically-defined threshold for 'probable mental ill health' and, worryingly, 44% of young people had scores above this threshold. The figure found in COSMO is considerably higher than the 35% with high psychological distress at age 17-18 in the Our Future cohort study (2017) and the 23% at age 16-17 in the Next Steps cohort study (2007).<sup>11</sup> While the pandemic is unlikely to solely explain this increase given ongoing downward trends in wellbeing among young people over the past decade reported in a variety of studies, it is likely to have exacerbated the situation. Indeed, in a study of all those aged 16 or above using UK Household Longitudinal Study data, GHQ scores were seen to increase from pre-pandemic levels just a month into lockdown (April 2020).<sup>12</sup>

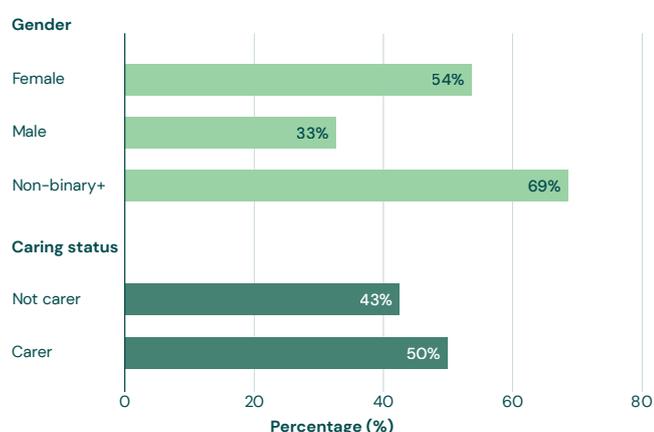
This briefing focuses on the GHQ-12 as our primary measure of interest as it is widely used as a screener for general mental ill health. The analysis is simplified by focusing on proportions above the threshold value of 4 and above. Given the non-clinical context in which this measure is being used, these scores are interpreted as an indicator of 'high psychological distress'.

Although our analyses focus on whether young people report high psychological distress, it must be noted that studies have found a mixed impact of the pandemic on mental health, with it improving for some.<sup>13</sup> While changes over time are not tracked in the first wave of the COSMO Study, 20% of young people had a score of 0 (no indicators of mental ill health) on the GHQ-12, consistent with others' findings that mental health did not get worse for all.

This briefing finds large disparities in the proportion of young people reporting high psychological distress by gender identity. The proportion is lowest for males (33%), 10 percentage points lower than the overall sample average (Figure 1). The proportion of females above the threshold is over 1.5 times that of males (54%) and the proportion of non-binary+ individuals at this level is over twice as large (69%). As also seen in Figure 1, young people who are carers were also considerably more likely to report psychological distress (50% vs 43%).

No notable patterns by socio-economic characteristics or ethnicity were found.

**Figure 1: Percentage with high psychological distress by gender and caring status**



Notes. N=11,050. Analysis is weighted for survey design and young person non-response. Sample Ns: Female=6406, Male=5829, Non-binary+=273. Carer N=1545.

Considering other measures (see Table 2 on page 11), 31% of this cohort had a PHQ-2<sup>14</sup> score indicating likely major depressive disorder and 34% had a GAD-2<sup>15</sup> score indicating likely generalised anxiety disorder. The average Rosenberg self-esteem score (a shortened version of the full measure)<sup>16</sup> was 9.27, slightly lower than the score of 10.0 reported by respondents to the Millennium Cohort Study at age 17 in 2019.

The average life satisfaction response of 6.33 was lower than the 2021 fourth quarter estimated mean of 7.58 among 16-19-year-olds – the ONS have tracked this measure across the pandemic, which dipped to a low of 7.42 in the first quarter of 2021.<sup>17</sup> During this period, 25.05% of 16-19s reported a 'very high' life satisfaction, which is 6.35 percentage points lower than the 31.4% reporting this from April 2019 to March 2020, suggesting that life satisfaction decreased after the pandemic began.<sup>18</sup>

Full details of means across all measures of

wellbeing in this study can be found in the sample and methods section at the end of the briefing.

## Self-harm and attempted suicide

17% of participants said they had self-harmed in the past year. 61% of non-binary+ individuals said they had self-harmed (Figure 2). This figure for females was double the figure for males, at 23% compared to 11%. When considering school type and socio-economic background, those from more advantaged backgrounds were more likely to say they had self-harmed: 20% of those with a parent/guardian<sup>19</sup> in a higher managerial/professional occupation reported self-harming in the past year, compared to 18% of those with a parent/guardian in an intermediate occupation and 15% of those with a parent/guardian in a routine/manual occupation (or had never worked).

Those with caring responsibilities are more likely to have self-harmed (25%) than those who are not a carer (17%). White students and students of mixed ethnicity were the most likely to say they had self-harmed (Figure 3).<sup>20</sup>

**Figure 2: Proportion reporting having self-harmed in the past year by gender**



Notes. N= 11,467. Analysis is weighted for survey design and young person non-response.

**Figure 3: Proportion reporting having self-harmed in the past year by ethnicity**



Notes. N= 9,370. Analysis is weighted for sampling design and young person non-response.

8% also reported that they had hurt themselves on purpose in an attempt to end their life. 35% of those who identify as 'non-binary+' said they had attempted to end their life (Figure 4). This compares to 11% of females and 5% of males. These figures are a slight increase from those collected from 17-year-olds in the Millennium Cohort Study in 2018, where 10% of females and 4% of males had said they self-harmed with suicidal intent.<sup>21</sup> There was less of a clear pattern when considering socio-economic background.

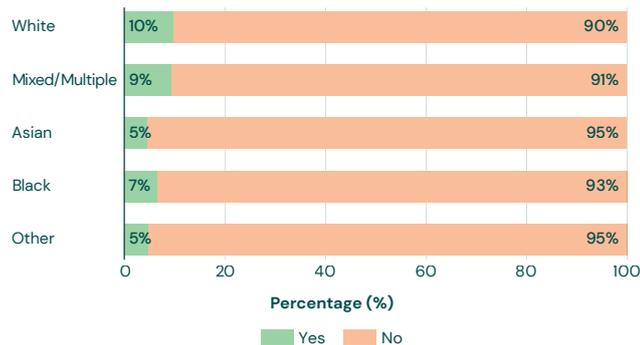
**Figure 4: Proportion reporting self-harm with suicidal intent in the past year by gender**



Notes. N=11,439. Analysis is weighted for survey design and young person non-response

Those who are carers are more likely to have made an attempt to end their life (17%) compared to those who are not (7%). White students and those of mixed ethnicity are the most likely to say they have attempted suicide (Figure 5).

**Figure 5: Proportion reporting self-harm with suicidal intent in the past year by ethnicity**

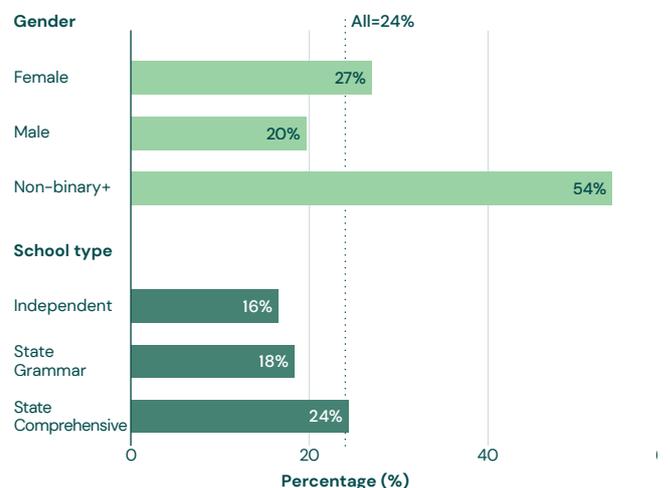


Notes. N= 9,333. Analysis is weighted for sampling design and young person non-response.

## Bullying

Participants were asked whether, across their whole time at secondary school and sixth form, they had been a victim of bullying at school or college for any reason. This includes cyber bullying. Just under a quarter (24%) of young people said they experienced bullying at school or college. While comparable figures are difficult to find, in the 'Our Future' cohort 37% of Year 10s (2014) and 30% of Year 11s (2015) reported bullying in the past year, so 24% of the COSMO cohort reporting bullying during their time since the beginning of secondary school appears to show a decline.<sup>22</sup> Evidence from the US also showed a decline in bullying and cyberbullying during the pandemic.<sup>23</sup> As shown in Figure 6, there was a slight difference between males and females, with females more likely to report bullying at 27% compared to 20% of males. Non-binary+ individuals were far more likely to report bullying – just over half (54%) said they had experienced bullying while at school or college. Those at state comprehensive schools were more likely to say they had been bullied (24%) compared to students in other school types (18% for those at state grammars and 16% for those at independent schools).

**Figure 6: Percentage reporting bullying during secondary school by gender and school type**

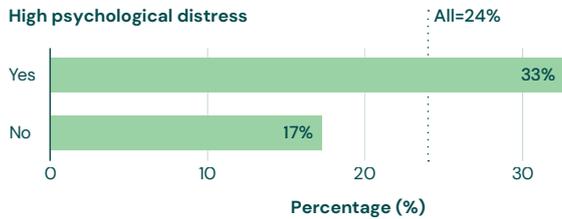


Notes. N=10,779. Analysis is weighted for survey design and young person non-response.

Those who reported high psychological distress were nearly twice as likely to say they had experienced bullying, at 33% compared to 17% of those who did not (Figure 7).

Just under a quarter (24%) of young people said they experienced bullying at school or college.

**Figure 7: Percentage reporting bullying during secondary school by GHQ score**



Notes: N=10,508. Analysis is weighted for survey design and young person non-response. Those with GHQ-12 scores greater than or equal to 4 are classified as experiencing 'high psychological distress'.

White students were the most likely to report having been bullied across this period, at 27%, with figures relatively similar for other ethnicities (for instance, 19% of those of mixed ethnicity, 17% of Black and 16% of Asian students said they had experienced bullying).

### Parental mental health

Young people with a main parent who reported high psychological distress were more likely to be at risk themselves (outlined in Table 1). Over 2 in 5 (44%) young people with a parent who had high psychological distress also reported high distress, compared to 30% of those with a parent who did not report high distress.

**Table 1: Percentage of pupils reporting high psychological distress by whether their parent also reports in this way**

Young person with high psychological distress (%)	Parent with high psychological distress (%)	
	No	Yes
No	70	56
Yes	30	44
All	100	100

Notes: N=8,003. Analysis is weighted for survey design and young person/main-parent non-response. Those with GHQ-12 scores greater than or equal to 4 are classified as experiencing 'high psychological distress'.

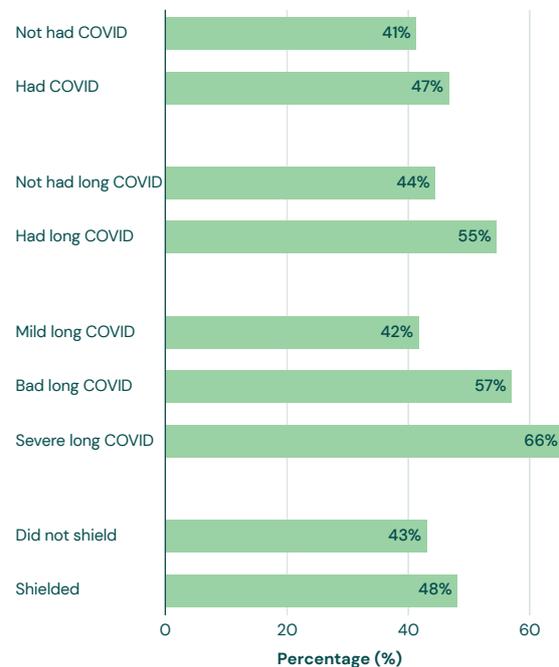
## Is there a link between COVID-19 and pandemic-related experiences and greater psychological distress?

### COVID-19 and long COVID

Young people were more likely to report high psychological distress if they reported having contracted COVID-19 (47% report elevated distress), reported having (or having had but now recovered from) 'long COVID' (55%), or reported having long COVID that severely affected their ability to carry out daily activities (66%), with the risk increasing respectively among each of these groups (Figure 8). One factor in explaining this relationship is that previous research in the US has found a link between psychological distress before the pandemic and increased risk of suffering from long COVID.<sup>24</sup>

Reported shielding was also associated with high psychological distress compared to those who did not report any shielding (48% vs 43%), although the difference is not as large as those with experiences of long COVID.

**Figure 8: Percentage reporting high psychological distress by COVID status**

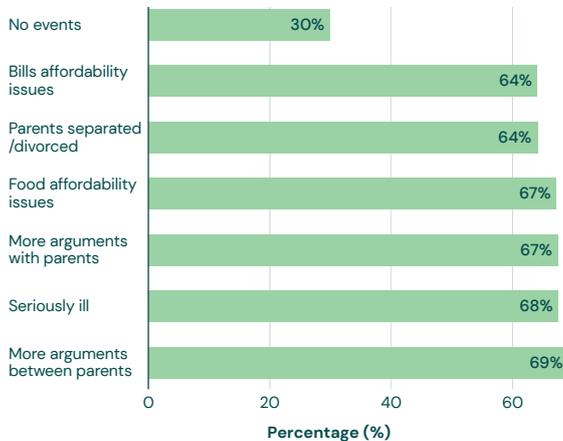


Notes: Had COVID analysis: N=11,351; Long COVID analysis among those who report having had COVID: N=4,970; Long COVID severity analysis among those who report having had long COVID: N=971. 'Severe' indicates ability to carry out daily activities was reduced a lot, 'bad' indicates ability was reduced a little, and 'mild' indicates ability was not reduced at all. Shielding analysis: N=11,256 with 975 of those asked to shield. Analysis is weighted for survey design and young person non-response.

## Significant life events

In order to understand the relationship between significant life events and the risk of psychological distress, we report the rates of high psychological distress among those who reported experiencing a specific set of significant life events during the pandemic. High psychological distress was more likely for those who reported any of the events listed, most notably seeing more arguments between parents/guardians (69%), being seriously ill (68%), struggling to afford food (67%) and arguing more with parents/guardians (67%) (Figure 9). This compares to 30% of those who did not experience the life events listed. 69% of young people who experienced three or more life events (such as being seriously ill) reported high psychological distress, compared to 30% of those who experienced no such events. It is important to note that respondents were asked if any of these events had happened to them since the start of the pandemic. Responses do not indicate that these events were explicitly caused by the pandemic.

**Figure 9: Percentage reporting high psychological distress by whether they experienced specific life events during the pandemic**



Notes. N=7,978. Analysis is weighted for survey design and young person non-response. Other events asked about not displayed on the chart are: a family member/friend was seriously ill (reported by 54% of those with high psychological distress), moving to a new home (54%), a family member/friend passing away (52%) and a parent losing their job/business. (50%)

## Was there variation in mental health support from schools during the pandemic?

### The role of schools

While there was not variation in incidence of high psychological distress by school type, there was clear

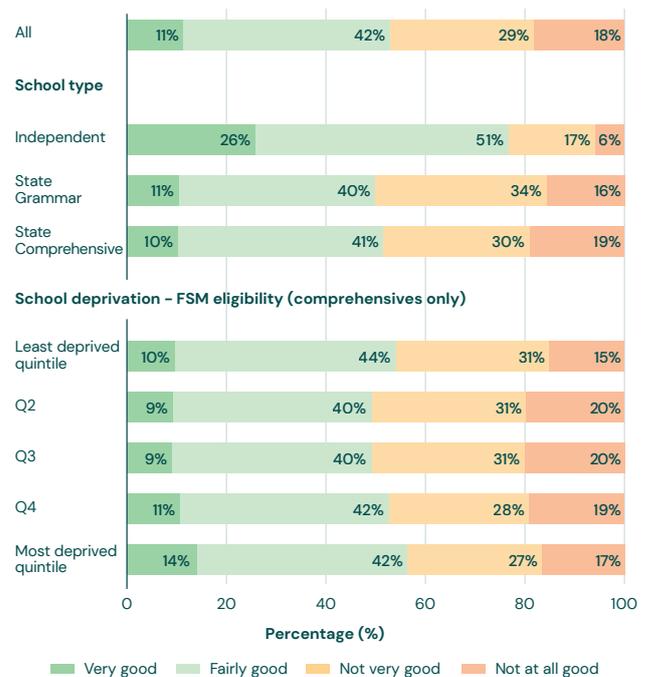
variation in satisfaction with schools' mental health support by school type and other characteristics.

Pupils attending independent schools were more than twice as likely to report that their school mental health support was very good (26% vs 10%) and were also more likely to report the support as fairly good.

Greater proportions in comprehensive schools said support was not at all good (over three times the proportion in independent schools; 19% compared to 6%) (Figure 10).

Among state comprehensive schools, those in the 2<sup>nd</sup> and 3<sup>rd</sup> quintile groups for proportion of Free School Meal (FSM)<sup>25</sup> pupils had the most negative ratings for mental health support. Top and bottom quintile groups had higher proportions of pupils giving positive ratings with the most deprived quintile group having the highest proportion saying support was very good. A similar non-linear pattern is also seen among Income Deprivation Affecting Children Index (IDACI)<sup>26</sup> deprivation quintile groups when grouping both positive and negative ratings, but the proportions rating mental health as 'very good' were highest in the most deprived areas.

**Figure 10: Pupils' rating of school mental health support by school characteristics**



Notes. Main sample = 11,162; Sample for FSM% is 10,056 as this groups only represents comprehensive schools; Bar for those in special schools has not been shown due to small sample sizes. Analysis is weighted for survey design and young person non-response.

Young people with high psychological distress according to their GHQ-12 scores were much more likely to rate their school mental health support poorly, with over double the proportion saying the support was not at all good (26% vs 11%). A further 37% said support was not very good, compared to 23% of those with GHQ scores below the threshold of 4. This raises important questions of whether poor mental health support might lead to worse mental health in pupils, or whether those who already have poor mental health are more likely to notice inadequate support.

### Parental intervention

Parents of pupils who rated their school’s mental health support as not at all good or not very good were more likely to contact their child’s school about their wellbeing. While this might suggest parents are putting pressure on schools, it could also be seen as a reflection of the problem at hand. More parents of pupils from independent schools also contacted schools about their child’s wellbeing, despite these children giving much better ratings of their school’s support.

We acknowledge limitations of this analysis as the question used asked parents if they contacted the school with concerns or queries relating to COVID-19 and their child’s wellbeing, so it may not capture parents contacting schools with wellbeing concerns they saw as unrelated to the pandemic. Furthermore, as the question includes parents contacting schools with queries (as well as concerns), it may have captured contact for clarification of policies or other simple queries that may not indicate contact about the child’s wellbeing, per se.

Furthermore, parents of pupils who identify as female (24%) or non-binary+ (37%), and those who have caring responsibilities (27%) contacted their school about their child’s wellbeing in greater proportions than parents of male pupils (20%) and of those who aren’t carers (22%). This might suggest that the disparities in mental health scores for these groups translate into increased parental engagement with the schools these pupils attend.

## How has the pandemic affected academic motivation and plans for the future?

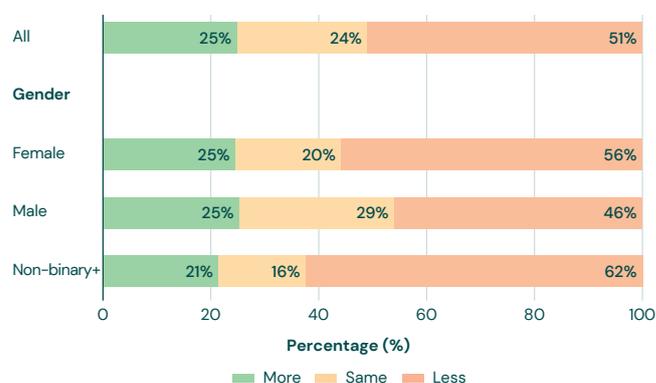
To understand how the pandemic affected attitudes to education, participants also answered questions on their motivations to study and learn, as well as their progress in school and plans for the future (which are covered in more detail in other COSMO briefings on [Education Recovery and Catch Up](#)<sup>27</sup> and [Future Plans and Aspirations](#)).<sup>28</sup>

### Motivation to study

Just over half of young people (51%) said that they are now less motivated to study and learn as a result of the pandemic, with a quarter saying they feel a lot less motivated.

Those who identify as non-binary+ were the most likely to say their motivation has been negatively affected by the pandemic, at 62%, when compared to females (56%) and males (46%) (Figure 11). However, given the small sample size for those identifying as non-binary+, we acknowledge the increased risk of this difference appearing by chance.

**Figure 11: Proportion reporting change in academic motivation by gender**



Notes. N=11,918. Analysis is weighted for survey design and young person non-response.

It also seems that young people’s wellbeing is an important factor in these changes in motivation. 68% of those with high psychological distress said they felt that the pandemic’s disruption has made them less motivated to learn, compared to only 37% of other respondents (Figure 12). Those with high psychological distress were also more than three times as likely to say they feel a lot less motivated (39% compared to 12%).

**Figure 12: Proportion reporting change in academic motivation by psychological distress**



Notes. N=11,482. Analysis is weighted for survey design and young person non-response. Those with GHQ-12 scores greater than or equal to 4 are classified as experiencing 'high psychological distress'.

*68% of those with high psychological distress said they felt that the pandemic's disruption has made them less motivated to learn.*

## Progress and future plans

Those with high psychological distress were also more likely to report negative views on their academic progress due to the pandemic and that their post-pandemic plans have changed:

- 86% said their progress in year 11 had suffered, compared to 76% of those below the GHQ-12 threshold.
- 45% said they had fallen behind their classmates, compared to 27% of those below the threshold.
- 76% said their education plans have changed in some way, compared to 54% of those with a score below the threshold. Those with high psychological distress were just over twice as likely to say their plans had changed completely, at 12% compared to 5% of those with scores below the threshold.
- 71% said their career plans had changed in some way, compared to 50% for those below the threshold.

## Conclusions and policy implications

- A significant proportion of young people are experiencing poor wellbeing and mental health, with 44% reporting high psychological distress – a notable increase compared to previous cohorts over the past 15 years. These findings once again highlight the need for sustainable and well-funded support for young people experiencing mental health issues, including preventative and early intervention services to prevent future cohorts from experiencing such issues. Support should recognise and deal with major life events that a young person may have experienced during the pandemic, such as having long COVID, spending a long time away from society when shielding, or losing a loved one. Young people should be consulted when designing services to guarantee services are accessible and meet their needs
- This research also finds that those in state comprehensive schools were far less likely to

be satisfied with the mental health support offered by their school during the pandemic, compared to those both at grammar and independent schools. This inconsistency should be tackled by ring-fenced funding for mental health support in all schools that adequately recognises the scale of support required by students following the pandemic. Funding should go towards:

- Implementation of a 'whole-school approach' to wellbeing, whereby a culture and environment exists that both promotes and protects the mental health and wellbeing of both students and staff alike.<sup>29</sup>
- Having access to an independent counsellor for students.
- Introducing Mental Health Support teams into every school.

- Mental health and wellbeing support should be added to catch-up activities in schools and colleges for all students, with specific interventions for those with existing mental health issues who feel that the pandemic has affected their academic progress. A proportion of funding for education-related catch up should also be added to funding allocations and ringfenced for mental health support.

*These findings once again highlight the need for sustainable and well-funded support for young people experiencing mental health issues.*

- Our findings indicate poorer mental health and wellbeing for those identifying outside the gender binary. More targeted support for non-binary+ and trans students is required that is delivered by professionals who have been trained to understand the needs of these young people. Furthermore, measures to reduce the risks faced by these groups should be included in both new national self-harm and suicide prevention plans as well as local plans, with a national framework setting out how to do so.
- Nearly a quarter of participants say they have been bullied at school. Local and national strategies continue to be needed to tackle this, particularly dealing with cyber-bullying on social media. All schools should implement a well-evidenced anti-bullying programme.
- There is an association between a young person's mental health and the mental health of their parents. This suggests a need for wellbeing of children to be considered where mental health risks are identified in parents. Appropriate services run by local authorities, such as Integrated Care Partnerships, should support families where psychological distress is common and work with schools to ensure

support offered is well coordinated. Services should be easy for families and young people to identify and access, recognising cultural and social differences in the families accessing them.

*Mental health and wellbeing support should be added to 'catch-up' activities in schools and colleges for all students.*

- This briefing has mostly presented findings that indicate poor mental health and wellbeing. But this does not mean that the pandemic's impact has been universally negative. Other research indicates that, for some young people, the pandemic's impact was actually positive – for instance, some students were able to spend more time with family and less time in difficult social situations in the school environment.<sup>30</sup> Wellbeing may also have improved for some young people during school closures but worsened again when they returned to school. Future pieces of work using COSMO data could look into this in more detail, to understand who were the most likely to experience improvements in their mental health and wellbeing during the COVID-19 pandemic and why. Additional data from future COSMO waves as well as other sources may be gathered to see whether these changes in mental health are sustained.

## About The COVID Social Mobility and Opportunities (COSMO) study

The COVID Social Mobility & Opportunities (COSMO) study is a new national cohort study generating high-quality evidence about how the COVID-19 pandemic has affected socio-economic inequalities in life chances, both in terms of short- and long-term effects on education, wellbeing, and career outcomes. A representative sample of young people in England who were in Year 11 in the 2021/2022 academic year were invited to take part in the survey, with the aim of following them as they progress through the final stages of education and into the labour market. A sample of more than 13,000 cohort members was recruited in Wave 1.

This work was supported by UK Research and Innovation Economic and Social Research Council as part of their COVID-19 response fund [grant number ES/W001756/1]. COSMO is a collaboration between the UCL Centre for Education Policy & Equalising Opportunities (CEPEO), the Sutton Trust, and the UCL Centre for Longitudinal Studies (CLS). Our principal fieldwork partner is Kantar Public.

Researchers can access data from Wave 1 of the study through the [UK Data Service](#).<sup>31</sup>

## Citing this briefing

Holt-White, E., De Gennaro, A., Anders, J., Cullinane, C., Early, E., Montacute, R., Shao, X., & Yarde, J. (2022). *Wave 1 Initial Findings – Mental Wellbeing*. COVID Social Mobility & Opportunities (COSMO) study Briefing No. 4. London: UCL Centre for Education Policy and Equalising Opportunities & Sutton Trust. Available at: <https://cosmostudy.uk/publications/mental-health-and-wellbeing>

## Acknowledgments

The authors would like to thank the Mental Health Foundation and Young Minds for sharing their expertise and giving feedback on the report's conclusions and policy recommendations.

The authors would also like to thank the COSMO Study scientific team, particularly Professor Praveetha Patalay, for their input into this report.

## Sample and methods

The data for this briefing come from Wave 1 of the COVID Social Mobility & Opportunities (COSMO) study. COSMO is based on a probability sample drawn from the Department for Education's National Pupil Database (plus additional recruitment from pupils at private schools), with clustering within schools (for practicality reasons) and oversampling of certain groups using stratification.

Our analysis in this briefing is primarily based on descriptive statistics reporting averages, distributions and differences between groups. Analyses use weights to take into account the over-sampling inherent in the study design, as well as initial non-response by young people and, where relevant, their parents. Differences are only highlighted where these are found to be statistically significant at the  $p < 0.05$  level. Any statistical inference testing reported also accounts for the clustering and stratification in the study design.

While our full sample of young people has  $N=12,828$ , the parents of participants were not as likely to respond, reducing analyses involving parents to at most  $N=9,330$ . As noted above, young person and parental non-response have been modelled separately, with different weights to ensure (insofar as is possible) representativeness of our analysis sample to the intended population. Item-level nonresponse also results in some further variation to the analysis sample, which is minimised within analyses to ensure consistency. Analyses of some groups, for example those who attended special schools or who identify as non-binary/in another way, have not been able to be reported due to small sample sizes.

Aspects of the analysis use administrative data from the Department for Education (DfE)'s National Pupil Database (NPD), where consent was gained for this linkage (73% of young people), with additional weighting carried out to ensure (insofar as is possible) representativeness of analysis using linked administrative data. This work was produced using statistical data from the DfE processed in the Office for National Statistics' (ONS) Secure Research Service (SRS). The use of the DfE statistical data in this work does not imply the endorsement of the DfE or ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets, which may not exactly reproduce National Statistics aggregates.

The General Health Questionnaire (GHQ) involves 12 questions that indicate whether a person is experiencing psychological distress. Each question is asked on a 4-point scale, with responses for each question coded from 0 to 1. This binary measure for each question can then be used to calculate a total score out of 12. A threshold of 4 and above has been used to indicate high psychological distress. Other measures of wellbeing available in the COSMO dataset are outlined in the table below:

Young people’s gender is based on a report of their self-identity, providing options of ‘male’ (N=5829), ‘female’ (N=6406), ‘non-binary’ or allowing respondents to choose to identify in another way. Transgender participants were included in their preferred gender category.

Statistical disclosure/identifiability risks are present when analysing small numbers of cases, meaning it is not always possible to safely report all groups. However, in order to balance this risk with seeking to report on all groups’ experiences, young people who identified themselves as ‘non-binary’ or in another way have been grouped as ‘non-binary+’ (N=273), while recognising that this may not fully capture everyone’s preferred gender identity. This is also the reason that we are unable to report separate figures for those who identify as a gender different from how they were identified at birth (i.e., are trans). However, patterns for a combined trans and non-binary+ group are similar to just those who identify as non-binary+.

**Table 2: Wellbeing measures and means**

Measure	Range & cut-offs	Mean	Proportion above threshold	Sample
<b>General Health Questionnaire – 12 (GHQ-12)</b>	Range: 0-12 Threshold indicating “probable mental ill health”: 4+. <sup>32</sup>	3.88	44%	11,803
<b>Patient Health Questionnaire – 2 (PHQ-2)</b>	Range: 0-6 Threshold indicating “likely major depressive disorder”: 3+. <sup>33</sup>	1.84	31%	10,751
<b>Generalised Anxiety Disorder –2 (GAD-2)<sup>34</sup></b>	Range 0-6 Threshold indicating “likely generalised anxiety disorder”: 3 and above. <sup>35</sup>	2.14	34%	10,933
<b>Shortened Rosenberg self-esteem scale<sup>36</sup></b>	Range: 0-15. <sup>37</sup>	9.27	N/A	11,464
<b>Life satisfaction<sup>38</sup></b>	Range: 0 – “not at all”, 10 – “completely satisfied”	6.33	N/A	11,946

Notes. Analysis is weighted for survey design and young person non-response.

## References

- 1 Mansfield, R., Santos, J., Deighton, J., Hayes, D., Velikonja, T., Boehnke, J.R., and Patalay, P. (2022) The impact of the COVID-19 pandemic on adolescent mental health: a natural experiment. *R. Soc. open sci*, 9 (4). Available at: <https://royalsocietypublishing.org/doi/10.1098/rsos.211114>
- 2 Burkey, S. (2021). *I Want To Do Well: A literature review of existing research on pupils and young people's experiences of COVID-19*. Achievement for All (3As) Ltd. Newbury: Achievement For All
- 3 YoungMinds. (2021). *Coronavirus: Impact on young people with mental health needs. Survey 4: February 2021*. London: YoungMinds. Available at: <https://www.youngminds.org.uk/media/esifqn3z/youngminds-coronavirus-report-jan-2021.pdf>
- 4 Royal College of Psychiatrists (2021). *Record number of children and young people referred to mental health services as pandemic takes its toll*. Available at: <https://www.rcpsych.ac.uk/news-and-features/latest-news/detail/2021/09/23/record-number-of-children-and-young-people-referred-to-mental-health-services-as-pandemic-takes-its-toll>
- 5 YoungMinds. (2021). *Coronavirus: Impact on young people with mental health needs. Survey 4: February 2021*. London: YoungMinds. Available at: <https://www.youngminds.org.uk/media/esifqn3z/youngminds-coronavirus-report-jan-2021.pdf>
- 6 Anders, J., Macmillan, L., Sturgis, P. and Wyness, G. (2021). *Inequalities in young peoples' educational experiences and wellbeing during the COVID-19 pandemic (CEPEO Working Paper No. 21-08)*. Centre for Education Policy and Equalising Opportunities, UCL. Available at: <https://econpapers.repec.org/paper/uclcepeow/21-08.htm>
- And ImpactEd (2021). *Pupil learning and wellbeing during the COVID-19 pandemic*. ImpactEd. Available at: <https://drive.google.com/file/d/19tcaSSfyxzTXWjBlj8LsgtJM-frrfbXu/view>
- 7 Anders, J., Macmillan, L., Sturgis, P. and Wyness, G. (2021). *Inequalities in young peoples' educational experiences and wellbeing during the COVID-19 pandemic (CEPEO Working Paper No. 21-08)*. Centre for Education Policy and Equalising Opportunities, UCL. Available at: <https://econpapers.repec.org/paper/uclcepeow/21-08.htm>
- 8 The General Health Questionnaire (GHQ) involves 12 questions that indicate whether a person is experiencing psychological distress. More information about the measure can be found at: <https://www.gi-assessment.co.uk/assessments/products/general-health-questionnaire/>
- 9 Young people who identified themselves as 'non-binary' or in another way have been grouped as 'non-binary+' (N=273), while recognising that this may not fully capture everyone's preferred gender identity. More detail can be found in the 'sample and methods' section.
- 10 Bachmann, C.L. and Gooch, B. (2018) *LGBT in Britain: Health Report*. YouGov and Stonewall. Available at: [https://www.stonewall.org.uk/system/files/lgbt\\_in\\_britain\\_health.pdf](https://www.stonewall.org.uk/system/files/lgbt_in_britain_health.pdf)  
and  
McGowan, V.J., Lowther, H.J., Meads, C. (2021) Life under COVID-19 for LGBT+ people in the UK: systematic review of UK research on the impact of COVID-19 on sexual and gender minority populations. *BMJ Open*, 11 (7). Available at: <https://bmjopen.bmj.com/content/11/7/e050092.info>

11 Figure for the 'Next Steps' Cohort has been calculated by the authors (Wave 4 of the Longitudinal Study of Young People in England (LYSPE), conducted in 2007).

Figure for the 'Our Future' Cohort (Wave 5 of the LSYPE cohort 2, conducted in 2017) is derived from:

Department for Education (2019) State of the nation 2019: Children and Young People's Wellbeing. Government Social Research. Available at: <https://www.gov.uk/government/publications/state-of-the-nation-2019-children-and-young-peoples-wellbeing>

Wave 4 data (age 16/17) was not available at time of publication.

12 Pierce, M., Hope, H., Ford, T., Hatch, S.T., Hotopf, M., John, A., Kontopantelis, E., Webb, R., Wessely, S., McManus, S. and Abel, K.M. (2020) Mental health before and during the COVID-19 pandemic: a longitudinal probability sample survey of the UK population. *Lancet Psychiatry* 2020, 7 (10): 883-892. Available at: [https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366\(20\)30308-4/fulltext](https://www.thelancet.com/journals/lanpsy/article/PIIS2215-0366(20)30308-4/fulltext)

13 Burkey, S. (2021). *I Want To Do Well: A literature review of existing research on pupils and young people's experiences of COVID-19*. Achievement for All (3As) Ltd. Newbury: Achievement For All

14 Patient Health Questionnaire 2 item measure

15 Generalised Anxiety Disorder 2 item measure

16 Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

17 Personal well-being by age group, non-seasonally adjusted quarterly estimates – Office for National Statistics. (2022). Retrieved 24 October 2022, from <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/datasets/quarterlypersonalwellbeingestimatesnonseasonallyadjusted>

18 Young people's well-being measures – Office for National Statistics. (2020). Retrieved 24 October 2022, from <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/datasets/youngpeopleswellbeingmeasures>

19 Questions were asked to one parent or guardian in the household of each child. Throughout this briefing, this group is referred to as a 'parent'.

20 All analysis looking at ethnicity throughout this briefing is from the following: Anders, J., De Gennaro, A., Shao, X., & Yarde, J. (2022). Differences by ethnicity in young people's educational experiences and wellbeing in the aftermath of COVID-19. COSMO Technical Note 1. London: UCL Centre for Education Policy and Equalising Opportunities & Sutton Trust Available at: <https://cosmostudy.uk/publications/differences-in-experience-by-ethnicity>

21 Patalay, P. and Fitzsimons, E. (2020). *Mental ill-health at age 17 in the UK: Prevalence of and inequalities in psychological distress, self-harm and attempted suicide*. London: Centre for Longitudinal Studies. Available at: <https://cls.ucl.ac.uk/wp-content/uploads/2020/11/Mental-ill-health-at-age-17-%E2%80%93-CLS-briefing-paper-%E2%80%93-website.pdf>

22 Department for Education (2018). *Bullying: Evidence from LSYPE, wave 3*. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/715469/Bullying-Evidence\\_from\\_LSYPE2\\_\\_wave\\_3.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/715469/Bullying-Evidence_from_LSYPE2__wave_3.pdf)

23 Bacher-Hicks, A., Goodman, J., Green J.G., Holt, M. K. (2022). The COVID-19 Pandemic Disrupted Both School Bullying and Cyberbullying. *American Economic Review: Insights*. 4(3), pp.353-370. Available at: <https://www.aeaweb.org/articles?id=10.1257/aeri.20210456>

- 24 Sample, I. and Davis, N. (2022) Study finds link between poor mental health and long COVID. *The Guardian*, 7<sup>th</sup> September. Accessed 20<sup>th</sup> September 2022. Available at: <https://www.theguardian.com/society/2022/sep/07/study-finds-link-between-poor-mental-health-and-long-covid>
- 25 FSM: Free School Meals. Eligibility for FSM is widely used as an administrative indicator of low family income.
- 26 IDACI: Income Deprivation Affecting Children Index. The IDACI (a constituent part of the Index of Multiple Deprivation/IMD) is an area-level measure that uses census data to quantify and rank neighbourhoods according to the proportion of children under the age of 16 living in low-income households. It serves as an important proxy for neighbourhood-level income deprivation affecting young people.
- 27 Montacute, R., Holt-White, E., Anders, J., Cullinane, C., De Gennaro, A., Early, E., Shao, X., & Yarde, J. (2022). *Wave 1 Initial Findings – Education Recovery and Catch Up*. COVID Social Mobility & Opportunities study (COSMO) Briefing No. 2. London: UCL Centre for Education Policy and Equalising Opportunities & Sutton Trust. Available at: <https://cosmostudy.uk/publications/education-recovery-and-catch-up>
- 28 Yarde, J., Shao, X., Anders, J., Cullinane, C., De Gennaro, A., Early, E., Holt-White, E., & Montacute, R. (2022). *Wave 1 Initial Findings – Future plans and aspirations*. COVID Social Mobility & Opportunities (COSMO) study Briefing No. 3. London: UCL Centre for Education Policy and Equalising Opportunities & Sutton Trust. Available at: <https://cosmostudy.uk/publications/future-plans-and-aspirations>
- 29 More information on this approach can be found at: HM Govt and Children and Young People’s Mental Health Coalition (2021). *Promoting children and young people’s mental health and wellbeing – A whole school or college approach*. Public Health England. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1020249/Promoting\\_children\\_and\\_young\\_people\\_s\\_mental\\_health\\_and\\_wellbeing.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1020249/Promoting_children_and_young_people_s_mental_health_and_wellbeing.pdf)
- 30 Burkey, S. (2021). *I Want To Do Well: A literature review of existing research on pupils and young people’s experiences of COVID-19*. Achievement for All (3As) Ltd. Newbury: Achievement For All
- 31 Anders, J., Calderwood, L., Crawford, C., Cullinane, C., Goodman, A., Macmillan, L., Patalay, P. & Wyness, G. (2022). *COVID Social Mobility and Opportunities Study: Wave 1, 2021-2022*. [data collection]. UK Data Service. SN: 9000, DOI: 10.5255/UKDA-SN-9000-1
- 32 Health Survey for England. (2017). Retrieved 30 August 2022, from <http://healthsurvey.hscic.gov.uk/support-guidance/public-health/health-survey-for-england-2016/well-being-and-mental-health.aspx>
- 33 Kroenke, K., Spitzer, R. L., & Williams, J. B. (2003). The Patient Health Questionnaire-2: validity of a two-item depression screener. *Medical care*, 41(11), 1284–1292. <https://doi.org/10.1097/01.MLR.0000093487.78664.3C>
- 34 The GAD-2 was based on the GAD-7, which was developed by Drs. Robert L. Spitzer, Janet B.W. Williams, Kurt Kroenke and colleagues, with an educational grant from Pfizer Inc.
- 35 Kroenke, K., Spitzer, R. L., Williams, J. B., Monahan, P. O., & Löwe, B. (2007). Anxiety disorders in primary care: prevalence, impairment, comorbidity, and detection. *Annals of internal medicine*, 146(5), 317–325. <https://doi.org/10.7326/0003-4819-146-5-200703060-00004>
- 36 *Millennium Cohort Study – Psychological, Developmental and Health inventories*. (2015). [Ebook] (3rd ed., p. 67). Retrieved from <https://cls.ucl.ac.uk/wp-content/uploads/2018/08/Guide-to-Psychological-Inventories-in-MCS3.pdf>
- 37 The original measure is scored out of 30. The measure has been adapted to fit half the questions resulting in a maximum score of 15.
- 38 OECD Better Life Index. Retrieved 30 August 2022, from <https://www.oecdbetterlifeindex.org/topics/life-satisfaction/>

# COSMO

COVID Social Mobility  
& Opportunities Study

Copyright © 2022 The authors &  
the Sutton Trust. All rights reserved.  
Please cite UCL & the Sutton Trust  
when using material from this research.

**Website:** <https://cosmostudy.uk>

**Twitter:** [@CosmoStudy](https://twitter.com/CosmoStudy)

Supported by



UK Research  
and Innovation

Partners



CENTRE FOR  
LONGITUDINAL  
STUDIES



Centre for  
Education Policy &  
Equalising Opportunities