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Scottish COVID-19 Mental Health Tracker Study: Wave 4 Report

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Scottish COVID-19 Mental Health Tracker Study: Wave 4 Report

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Executive summary

Background

This report presents findings for a range of mental health outcomes for Wave 4 of the Scottish COVID-19 (SCOVID) Mental Health Tracker Study. The tracker study began in May 2020 and looks at the impacts of the pandemic on mental health and wellbeing among a sample of adults in Scotland. It uses an online questionnaire to collect information about depressive symptoms, anxiety, suicidal thoughts, psychological distress, and mental wellbeing. It also includes questions on other factors associated with mental wellbeing, such as loneliness and life satisfaction, as well as other contextual factors. The study has taken place at five points in time (waves) over a twelve month period.

The Wave 4 findings are based on questionnaire data collected between 4th February and 9th March 2021. This period coincided with a UK-wide lockdown that began on 5th January 2021, with a strict stay at home message, limits on household mixing, school closures, and the closing of all non-essential retail and hospitality. Results are compared to previous waves of the study to show changes in mental health during the pandemic as restrictions change. In particular, we compare to Wave 3, which took place between 1st October 2020 and 4th November 2020, and roughly coincided with the increasing of COVID-19 restrictions in Scotland.

Two kinds of findings are reported: cross sectional (the Wave 4 findings) and longitudinal (changes across the waves). These are based on two different samples. The cross-sectional sample is made up of everyone who completed the Wave 4 questionnaire (n=1288). The longitudinal sample comprises respondents who completed all four waves of the study (n=1022). Only statistically significant differences between sub-groups or points in time are reported.

It is important to note that a number of demographic groups – especially young adults (18-29 years) – are under-represented in both samples. Although the sample at Wave 1 was representative of the Scottish population, many younger people have since been lost to follow up. This is a concern as previous waves of the study have shown that younger adults report higher rates of mental health problems than other age groups. To compensate for this attrition (i.e., loss to follow-up), a booster sample of young adults was added at Wave 3. However, respondents in the booster sample and those who have not completed every wave of the study are not included in the longitudinal analysis. Therefore findings for young adults are only reported in the cross-sectional analysis. Data has been weighted (i.e., adjusted to more accurately reflect the population of Scotland), which also has a risk of bias.

Key Findings

Wave 4 cross-sectional findings show:

- 32.3% of the sample reported psychological distress and evidence of a possible psychiatric disorder (based on responses to the GHQ-12),
- 23.5% reported moderate to severe depressive symptoms,
- 16.2% reported moderate to severe anxiety symptoms,
- 10.4% of respondents reported suicidal thoughts within the week prior to completing the Wave 4 survey.

Consistent with the cross-sectional findings from previous reports, particular subgroups within the sample reported higher rates of mental health problems during Wave 4. These groups include:

- young adults (18-29 years),
- women,
- individuals with a mental health condition,
- respondents with a physical health condition,
- individuals in a lower socio-economic group (SEG[1]).

Longitudinal analysis suggests overall poorer mental health during Wave 4 compared to Wave 3, although this was not consistent across all mental health outcomes. Specifically:

- rates of suicidal thoughts increased from Wave 3 to Wave 4,
- rates of moderate to severe depressive symptoms increased from Wave 3 to Wave 4, and were higher than at all the previous waves,
- rates of anxiety symptoms did not change at Wave 4 from previous waves,
- levels of mental wellbeing increased from Wave 3 to Wave 4,
- feelings of loneliness increased from Wave 3 to Wave 4, bringing it to a similar level of that reported at Wave 1,
- defeat increased from Wave 3 to Wave 4,
- life satisfaction decreased from Wave 3 to Wave 4.

[1]SEG measure categories AB-C1-C2-DE. Higher SEG (i.e., top-half): AB = Higher & intermediate managerial, administrative, professional occupations, C1 = Supervisory, clerical & junior managerial, administrative, professional occupations. Lower SEG (i.e., bottom-half): C2 = Skilled manual occupations, DE = Semi-skilled & unskilled manual occupations, unemployed and lowest grade occupations. (ONS, 2001).

Suicidal thoughts

Wave 4 findings:

- Overall, one tenth (10.4%) of respondents reported suicidal thoughts within the week prior to the Wave 4 questionnaire.
- Young adults (18-29 years) reported the highest rates of suicidal thoughts (17.0%), higher than those aged 30-59 years (12.8%) and 60+ years (2.4%).
- There were no statistically significant differences between men and women in rates of suicidal thoughts reported.
- Those with a pre-existing mental health condition were more likely to report suicidal thoughts (25.6%) in the week prior to the questionnaire than those without a pre-existing mental health condition (8.5%).

Changes across the waves:

- For the overall sample, there was an increase in the proportion of respondents reporting suicidal thoughts from Wave 3 (8.6%) to Wave 4 (11.2%).
- The proportion of men aged 30-59 years reporting suicidal thoughts increased from Wave 3 (9.3%) to Wave 4 (14.2%).
- The proportion of those with no pre-existing mental health condition reporting suicidal thoughts in the week prior increased from 5.5% in Wave 3 to 8.5% in Wave 4, whereas those with a pre-existing mental health condition reported no change (Wave 3: 31.9%; Wave 4: 31.1%).
- Rates of suicidal thoughts increased for respondents who were key workers from Wave 3 (9.4%) to Wave 4 (15.0%).

Depressive symptoms[2]

Wave 4 findings:

- Almost a quarter (23.5%) of the sample had moderate to severe depressive symptoms.
- Women (26.1%) were more likely to have depressive symptoms than men (20.8%).
- Young adults (18-29 years) were more likely to report depressive symptoms (35.8%) than those aged 30-59 years (25.3%) and 60+ years (11.9%).

[2] Findings in this category were based on responses to questions on the mental health measure called the Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001), which assesses frequency of depressive symptoms over the previous two weeks. The term ‘depressive symptoms’ is used for those who meet the cut-off for moderate to severe depressive symptoms, which indicates a possible need treatment.

- Individuals with a pre-existing mental health condition (63.5%) were more likely to report depressive symptoms compared to those without a pre-existing mental health condition (17.5%).
- Respondents with a pre-existing physical health condition (34.9%) were more likely to report depressive symptoms compared to those without a pre-existing physical health condition (20.3%).
- Higher rates of depressive symptoms were reported by those from the lower SEG (27.0%) compared to those from higher SEG (21.4%).

Changes across the waves:

- Rates of depressive symptoms increased from Wave 3 (21.1%) to Wave 4 (25.0%). Rates of depressive symptoms at Wave 4 (25.0%) were higher than at all the previous waves (Wave 1: 20.6%; Wave 2: 22.3%).
- Rates of depressive symptoms increased between Waves 3 and 4 for 30-59 year old men (15.6% to 23.6%) and for 60+ year old men (9.6% to 12.8%)
- Those with no pre-existing mental health condition reported higher rates of depressive symptoms at Wave 4 (18.7%) than at Wave 3 (14.0%), compared to those with a pre-existing mental health condition whose rates did not change (Wave 3: 66.6%; Wave 4: 65.7%).
- A higher proportion of the lower SEG reported depressive symptoms at Wave 4 (32.6%) than at Wave 3 (20.8%).
- For respondents with no dependents under 16 years old, rates of depressive symptoms increased from Wave 3 (19.8%) to Wave 4 (24.7%), compared to no change in rates among those with dependents under 16 years (Wave 3: 25.5%; Wave 4: 26.0%).
- Respondents who lived in a rural area reported an increase in the rates of depressive symptoms from Wave 3 (19.5%) to Wave 4 (30.1%), compared to no change in rates among those who lived in urban areas (Wave 3: 21.5%; Wave 4: 23.7%).

Anxiety symptoms[3]

Wave 4 findings:

- Just over one sixth (16.2%) of respondents had moderate to severe anxiety symptoms.
- Women (19.5%) reported higher rates of anxiety symptoms than men (12.8%).
- 18-29 year olds (28.8%) were more likely to report anxiety symptoms than 30-59 year olds (15.5%), and 60+ year olds (8.2%).

[3] Anxiety symptoms were assessed using the mental health measure called the Generalised Anxiety Disorder (GAD-7; Spitzer et al., 2006) scale, which asks about frequency of anxiety symptoms in the last 2 weeks. The term ‘anxiety symptoms’ is used for those who meet the cut-off for moderate to severe anxiety symptoms, which indicates a possible need for treatment.

- Individuals with a pre-existing mental health condition (48.9%) reported higher rates of anxiety symptoms than those without a pre-existing mental health condition (11.3%).
- Those from the lower SEG (21.4%) were more likely to report anxiety symptoms than those from the higher SEG (13.2%).
- Respondents with a pre-existing physical health condition were more likely to report moderate to severe anxiety symptoms (23.9%) than those with no pre-existing physical health condition (14.0%).

Changes across the waves:

- Looking at the sample as a whole, there were no statistically significant changes in rates of moderate to severe anxiety symptoms from Wave 3 (15.0%) to Wave 4 (15.3%).
- Respondents living with dependents aged 16 years or younger reported an increase in their rates of anxiety from Wave 3 (15.1%) to Wave 4 (18.5%), and rates for those with no dependents under 16 years did not change (Wave 3: 15.0%, Wave 4: 14.3%).
- Additionally, those living in rural areas reported a decrease in rates of anxiety symptoms from Wave 3 (17.5%) to Wave 4 (15.1%), compared to those in urban areas (Wave 3: 14.4%; Wave 4: 15.3%).

Psychological Distress / Possible Psychiatric Disorder (GHQ-12)[4]

Wave 4 findings:

- Just under one third (32.2%) of the sample had high GHQ-12 scores, indicating high rates of psychological distress and a possible psychiatric disorder.
- A greater proportion of women (36.8%) reported psychological distress than men (27.3%).
- Half of 18-29 year olds (50.2%) reported psychological distress compared to 31.4% of 30-59 year olds and 20.5% of 60+ year olds.
- Around half of respondents who had a pre-existing mental health condition (52.8%) reported psychological distress compared to just under a third (29.3%) of respondents who did not have any pre-existing mental health condition.
- Individuals with a pre-existing physical health condition (37.7%) were more likely to report psychological distress than those with no pre-existing physical health condition (30.8%).

[4] The General Health Questionnaire (GHQ-12) is a psychological measure that assesses mental distress and mental ill-health in the previous two weeks. GHQ-12 scores of four or more are deemed a high GHQ-12 score and indicates the presence of a possible psychiatric disorder (McLean et al., 2018). The term 'psychological distress' is used for those who have a high GHQ-12 score.

Changes across the waves:

- The proportion of respondents reporting psychological distress did not change from Wave 3 (27.8%) to Wave 4 (26.9%).
- The proportion of respondents with a pre-existing mental health condition that reported psychological distress decreased from Wave 3 (64.2%) to Wave 4 (48.1%).
- The proportion of respondents with a pre-existing physical health condition that reported psychological distress also decreased from Wave 3 (42.9%) to Wave 4 (37.5%).
- The proportion of individuals from the lower SEG that reported psychological distress decreased from Wave 3 (30.8%) to Wave 4 (26.6%).
- The proportion of those living in a rural area reporting psychological distress decreased from Wave 3 (37.2%) to Wave 4 (32.4%).

Mental wellbeing[5]

Wave 4 findings:

- The average score for mental wellbeing was 21.72, out of a maximum of 35.
- Men reported higher mental wellbeing (average score 22.05) than women (average score 21.42).
- Respondents in the older age group (60+ years old) had higher mental wellbeing (average score 23.57) than those aged 30-59 years (average score 21.51) and young adults (18-29 years) (average score 19.61).
- Respondents in the higher SEG had higher (average score 22.28) mental wellbeing than those in the lower SEG (average score 20.75).
- Respondents with no pre-existing mental health condition had higher mental wellbeing (average score 22.36) than those with a pre-existing mental health condition (average score 17.41).
- Individuals with no physical health condition reported higher wellbeing (average score 21.93) than those with a physical health condition (average score 20.98).

Changes across the waves:

- There were no statistically significant changes in average mental wellbeing across Waves 1 to 3 (average score Wave 1: 21.86, Wave 2: 21.78, Wave 3: 21.94), but there was an increase at Wave 4 (average score 22.15).
- Respondents from the higher SEG reported an increase in mental wellbeing from Wave 3 (average score 22.22) to Wave 4 (average score 22.84).

[5] Mental wellbeing was measured using the Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS): respondents are awarded a wellbeing score by adding together 7 questions (range: very low wellbeing =7, very high wellbeing =35). Average scores (means) are used to investigate differences between subgroups.

Loneliness[6] and Social Support[7]

Wave 4 findings:

- The mean score for loneliness at Wave 4 was 5.01 out of a maximum of 9, and the mean score for levels of social support was 14.19 out of a maximum of 20.
- Women reported higher levels of loneliness than men (average score 4.80). There were no significant differences in levels of social support between men and women.
- Young adults (18-29 years) had higher levels of loneliness compared to other age groups. In contrast, young adults (18-29 years) reported the highest levels of social support, followed by individuals aged 60+ years and with 30-59 year olds reporting the lowest levels.
- Respondents in the lower SEG reported higher levels of loneliness and lower levels of social support than those in the higher SEG.
- People with a pre-existing physical health condition and people with a pre-existing mental health condition reported higher loneliness and lower levels of social support than those with no pre-existing health conditions.

Changes across the waves:

- For the whole sample, feelings of loneliness increased from Wave 3 (average score 4.71) to Wave 4 (average score 4.83), which brings it to a similar level of that reported at Wave 1 (average score 4.89).
- Respondents from the lower SEG reported that their loneliness increased from Wave 3 to Wave 4, compared to those in the higher SEG, whose levels of loneliness remained similar.
- Respondents who had caring responsibilities reported that their loneliness had increased from Wave 3 to Wave 4, compared to individuals with no caring responsibilities.
- Respondents who had dependents under 16 years old in their household reported an increase in levels of loneliness from Wave 3 to Wave 4, compared to those with no dependents.
- For the whole sample, social support average scores decreased from Wave 3 (average score 14.62) to Wave 4 (average score 14.41).
- Respondents with a pre-existing mental health condition reported that their social support increased from Wave 3 to Wave 4, while those without a mental health condition reported a decrease in social support.

[6] Loneliness was measured using the 3 item UCLA Loneliness Scale (Hughes et al., 2014). Mean loneliness scores are reported with a range of 3 (no loneliness) to 9 (high loneliness).
[7] Social support was measured using four questions from the ENRICHD Social Support Instrument (ESSI; Mitchel et al., 2003). Mean social support scores are reported, with a range of 4 (low social support) to 20 (high social support).

Distress[8] and life satisfaction[9]

Wave 4 findings:

- The average level of distress (measured on a 10-point scale) was 2.79, indicating mild levels of distress on average.
- The groups reporting higher levels of distress using this scale were similar to those with higher psychological distress using the GHQ-12 measure: women, young adults (18-29 year olds) and people with a pre-existing mental health condition.
- The average life satisfaction for the sample was 5.87, which suggests that overall respondents were moderately satisfied with life.
- Young adults (18-29 year old) reported lower mean life satisfaction scores than the 30-59 year olds and the 60+ year old group.
- Respondents in the higher SEG reported higher mean life satisfaction scores than those in the lower SEG.
- People without a pre-existing physical condition and people with a pre-existing mental health condition reported experiencing higher life satisfaction than those with a pre-existing health condition.

Changes across the waves:

- The average level of distress did not change significantly from Wave 3 (2.62) to Wave 4 (2.71).
- Levels of distress increased from Wave 3 to Wave 4 for women aged 30-59 years and men aged 60+ years.
- Levels of life satisfaction decreased from Wave 3 (6.30) to Wave 4 (5.98).
- Women aged 60+, those without a pre-existing mental health condition and respondents from the lower SEG reported a decrease in their life satisfaction from Wave 3 to Wave 4.

[8] To measure levels of distress, respondents indicated on a 10-point scale how distressed they had felt in the past week, on a range of 0 (no distress) to 10 (extreme distress), mean scores are reported.
[9] Current life satisfaction was assessed with 'All things considered, how satisfied are you with your life as a whole nowadays?' with 0 indicating extremely dissatisfied to 10, indicating extremely satisfied.

1. Background

1.1 Study overview and aims

The Scottish COVID-19 (SCOVID) Mental Health Tracker Study helps us to understand the impacts of the coronavirus pandemic on people's mental health and wellbeing in Scotland[10], particularly the differential impacts on sub-groups of the population. The study surveys a sample of adults (18 and over) in Scotland at five points in time (waves) over a 12 month period, starting in May 2020. This report presents findings from Wave 4, which took place in February and early March 2021. The Wave 4 findings will aid with the tracking of mental health outcomes in the population as we navigate different levels of restrictions.

At each wave of the study, respondents were asked to complete questions on mental health and wellbeing including measures of anxiety, depression, psychological distress, mental wellbeing, loneliness, defeat, entrapment, and life satisfaction. A range of questions were included exploring contextual factors, such as emotional and social support, lifestyle factors, and COVID-19 related questions.

The Scottish survey measures are aligned with the UK COVID-MH study to allow direct comparisons with other regions of the UK[11]. Figure 1.1 below provides an overview of key events/policy decisions for Scotland in relation to the COVID-19 tracker studies.

The Wave 1 survey ran from 28th May to 21st June 2020 which coincided with the Phase 1 easing of lockdown measures in Scotland[12]. Findings from the Wave 1 survey are reported in the Scottish COVID-19 (SCOVID) Mental Health Tracker Study: Wave 1 Report.

The Wave 2 survey ran between 17th July and 17th August 2020, which coincided with the Scottish Government's introduction of Phase 3 of the easing out of lockdown. Phase 3 included an increase in the number of households that could meet indoors and outdoors, and the opening of indoor hospitality. Findings from the Wave 2 survey are reported in the Scottish COVID-19 (SCOVID) Mental Health Tracker Study: Wave 2 Report.

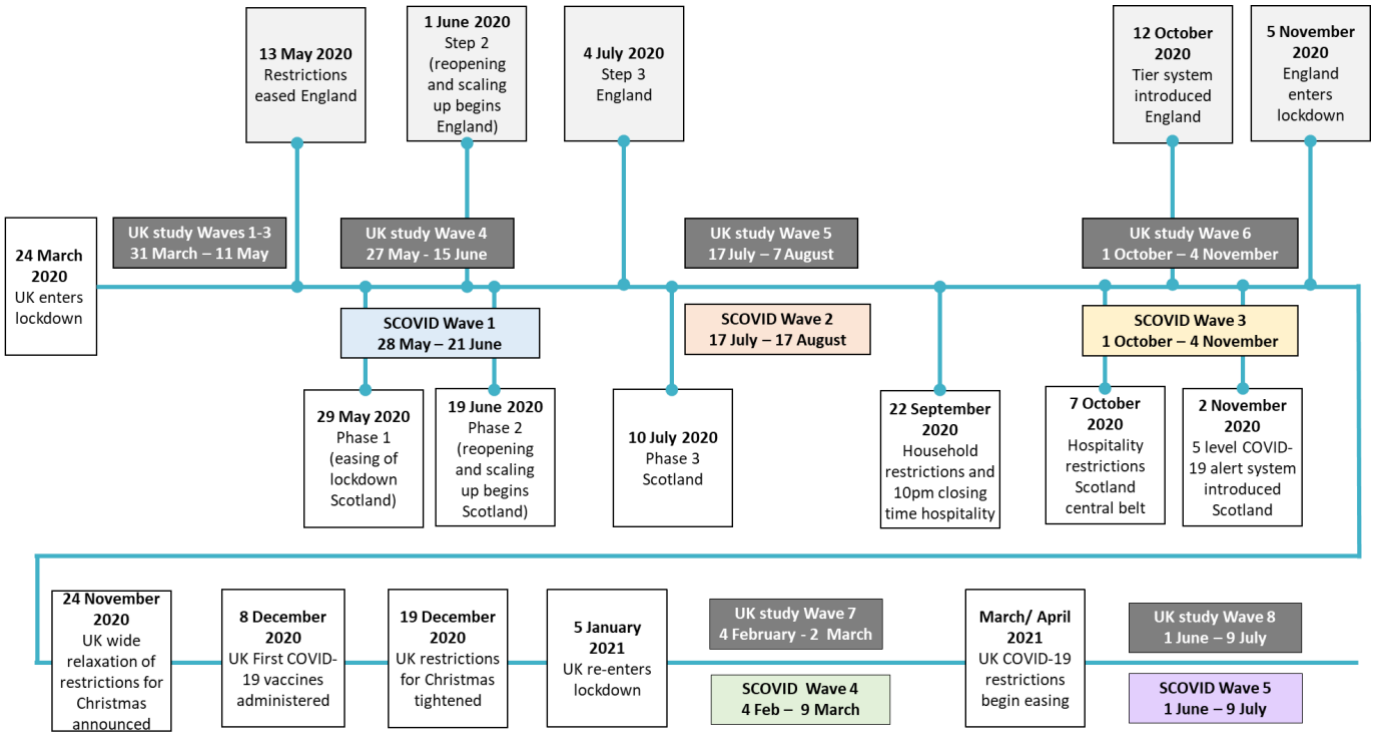
[10] For literature on the mental health and wellbeing impacts of the COVID-19 and SARS pandemics see the background section of the Scottish COVID-19 Mental Health Tracker Study: Wave 3 Report.
[11] Findings from the first three waves of the UK COVID-MH study (O'Connor et al., 2020) are available here
[12] For further information on how Scotland transitioned out of lockdown see: https://www.gov.scot/collections/coronavirus-covid-19-scotlands-route-map/#phase1-routemapthroughandoutofthecrisis

The Wave 3 survey ran from 1st October 2020 and 4th November 2020, which roughly coincided with the increasing of COVID-19 restrictions in Scotland[13]. Specifically, on 1st October people could no longer meet inside people's homes unless they were part of a bubble, and on 7th October restrictions on hospitality were announced. Findings from the Wave 3 survey are reported in the Scottish COVID-19 (SCOVID) Mental Health Tracker Study: Wave 3 Report.

The Wave 4 survey ran from 4th February and 9th March 2021, which coincided with a UK-wide lockdown that had been announced on 4th January 2021. At this point lockdown restrictions included a strict stay at home message, with all non-essential retail and services closing, including hospitality, and stringent restrictions on meeting friends and family indoors and outdoors.

Wave 5 (which took place between 1 June 2021 and 9 July 2021) will be the final wave of the SCOVID study.

Figure 1.1. Timeline of the COVID-19 Mental Health Tracker Studies in UK and Scotland



[13] For further information on COVID-19 restrictions in Scotland: https://www.gov.scot/collections/coronavirus-covid-19-scotlands-route-map/#phase1-routemapthroughandoutofthecrisis

Key research aims for Wave 4 of the SCOVID study

1. To track changes in people's mental health and wellbeing in Scotland during the COVID-19 pandemic and changing of government restrictions. Specifically, changes in mental health and wellbeing from the easing of restrictions (Wave 2: 17th July and 17th August 2020) to the increasing of restrictions (Wave 3: 1st October 2020 and 4th November 2020), to the introduction of a UK-wide lockdown (Wave 4: 4th February and 9th March 2021).
2. To provide an overview of people's mental health and wellbeing during this point in the COVID-19 pandemic that included an increase of government restrictions using a cross-section of the Scottish population.
3. To provide an overview of contextual factors during the COVID-19 pandemic and increasing of government restrictions.

1.2 Sampling and methodology

At Wave 1, members of an existing online UK panel (Panelbase.net) were invited to take part in an online survey on health and wellbeing. These respondents also agreed to be followed up over subsequent waves. A total of 2594 people participated at Wave 1, with quotas for specified population sub-groups (see Tables A-C in the Annex for details). All the respondents who had taken part in Wave 1 of the Scottish COVID-19 Mental Health Tracker study were invited to take part in the Wave 4 survey.

Due to a lower response rate at Wave 2 and Wave 3, particularly among young adults (18-29 years), a booster sample of new participants were recruited at Wave 3 (n=327), and these respondents were also invited to take part in Wave 4.

As with the Wave 3 report, analysis from two samples are reported within this report:

- a cross-sectional sample (n=1288) of all those who completed the Wave 4 survey (including respondents from the booster sample). This is used to report findings from the time of the survey (4th February to 9th March 2021) and for exploring sub-group differences.
- a longitudinal sample (n=1022) of those who have completed the survey at every wave. This is used to show how that particular group of respondents have changed in their mental health over time.

Both the longitudinal and cross-sectional data are not entirely representative of the Scottish population, as there has been a loss of participants to follow-up. This has particularly impacted the longitudinal data, and therefore the cross-sectional findings are more representative of the Scottish population at each time point.

Cross-sectional Wave 4 sample

Of the 1288 people that took part in the Wave 4 survey, 90.8% (n= 1169) were from the original Wave 1 survey (44.8% of the original Wave 1 sample) and 9.2% (n=119) were from the Wave 3 booster sample (see Figure 1.2). Only 36.5% of the Wave 3 booster sample took part in the Wave 4 survey, meaning that younger adults were still under-represented within this sample.

The age and sex profile of the Wave 4 sample compared to the Wave 1 sample is outlined in Table D1, Annex 1. The Wave 4 sample contained similar proportions of men and women as at Wave 1. However, the proportion of younger adults decreased (from 22.4% at Wave 1 to 14.0% at Wave 4), with young men having the highest loss at follow-up. Adults aged 30-59 years made up the same proportion at Wave 4 and Wave 1 (46.4%), and adults aged 60+ years made up a larger proportion of the sample at Wave 4 (39.5%) compared to Wave 1 (31.2%). This suggests that older adults were more likely to remain a part of the study than young adults and may be over-represented in the data.

As several demographic groups were underrepresented in the initial Wave 4 sample, results were weighted to reflect the Scottish population. This allows for the shortfall in particular groups to be adjusted, so that the findings are more representative of the original quota sample. The weighting is based upon age, sex, and socio-economic group (SEG) (as detailed in Table E, Annex 1; also see Tables A-C for details of the original quotas). Consequently, although 1288 people took part, the results are adjusted such that the sample reports on 2500 respondents. The weighting methodology is identical to that employed in the previous two waves for consistency.

Although weighting is widely used there is always risk of bias as the weights may inflate or suppress the data from subgroups in the sample and is dependent upon the representativeness of the data collected. **The weighted sample is used in all analysis in this report**, although non-weighted data is reported in the annex for comparability.

Longitudinal sample

The longitudinal sample includes those who have completed all four waves of the SCOVID study (n=1022, 39.2% of the original Wave 1 sample), and this sample is used to report changes across the waves. Respondents from the booster sample are not included in the longitudinal analysis as they have no previous measures for comparison before Wave 3.

Due to the attrition rate (i.e., loss to follow-up) of the longitudinal sample, a number of demographic groups are under-represented in the findings reporting changes across waves, specifically young adults (aged 18-29 years). Table F in the Annex reports the attrition rates for each of the main subgroups reported on for this study.

As only 56 (5.5%) young adults (aged 18-29 years) from Wave 1 remained in the Wave 4 sample, it was decided that it was not possible to include young adults in the analysis of changes over the waves. This age group will only be reported within the Wave 4 cross-sectional analysis. The 'Change of working status' subgroup was not included in the longitudinal analysis, as this group was based upon responses at the Wave 1 survey (for comparison across waves). As respondents' working status may have changed over time, only the cross-sectional findings for this group are reported here to ensure it is current.

As with the previous waves and the cross-sectional sample, the longitudinal data was weighted to reflect the Scottish population (based upon age, sex, and socio-economic group), and this helped to adjust for the loss of respondents at follow-up. Table G in the Annex displays the unweighted and weighted sample characteristics for those who took part in all waves of the study and are therefore included in the longitudinal analysis. Among the weighted sample:

- 51.8% were women (sex assigned at birth) and 48.2% were men
- 21.4% were aged 18–29 years, with 47.6% aged 30-59 years, and 31.1% aged 60+ years
- The majority was White (97.9%)
- Over half of the respondents (60.8%) were married or living with a partner, and the majority were heterosexual (91.3%)
- Around half had a HNC/D or degree level education (49.4%), and over half of was in the higher (A, B, C1) socioeconomic groups (SEG)[1] (66.1%)

As noted above, there is a risk of bias when weighting data, as the weights may inflate or suppress the data from subgroups in the sample, and is dependent upon the representativeness of the data collected. (Although it should be noted that unweighted data is also biased as those who dropped out make the findings unrepresentative). The weight adjusts by inflating the findings of those that have remained in the sample, and as the young adult subgroup in particular are underrepresented this may skew some of the findings. Therefore we have not reported findings for young adults (18-29 years) from the longitudinal sample (i.e., for changes over time).

Table G in the annex displays the unweighted and weighted sample characteristics for those who took part in all waves of the study and are included in the longitudinal analysis. Both weighted and unweighted data are provided in the study Annex 2 (Tables H and I). Although overall trends were similar with or without weighting applied, we do note that some findings should be interpreted with caution.

Layout, analysis and terminology

The main body of the report focuses on the core mental health outcomes (suicidal thoughts, depressive symptoms, anxiety, psychological distress, and mental wellbeing), with other indicators (loneliness, defeat and entrapment, resilience, social support, distress, and life satisfaction) reported more briefly. Information on contextual factors is also provided in the main report and Annexes 3 and 4.

As outlined above, this report presents both longitudinal findings (i.e., changes across the waves) and Wave 4 cross-sectional findings (including the Wave 3 booster sample). Therefore, it should be noted that the samples reported changes depending on the type of analysis conducted. The longitudinal sample for each wave changes slightly at each wave report, as the sample is comprised of only those participants which completed the most recent wave. For example, in this Wave 4 report, the Waves 1, 2, and 3 samples are comprised of only those participants who went on to complete the Wave 4 survey.

Inferential statistical[14] tests were used to investigate differences between key subgroups (see Table E in the Annex for sample breakdown). When the report refers to comparison with subgroup counterpoints, it is the subgroups as listed within Table F in the Annex (i.e., men compared to women, young adults compared to middle and older aged adults). The subgroups are:

- age,
- sex,
- socio-economic grouping,
- a pre-existing mental health condition,
- a pre-existing physical health condition,
- additional responsibilities (dependents, carers),
- and occupational circumstances (key worker, change in working status).

Inferential statistical tests[15] were used to investigate changes in mental health and wellbeing from Wave 1, Wave 2, Wave 3 to Wave 4, with a focus on changes from Wave 3 to Wave 4 in this report.

The report focusses on the statistically significant differences across waves (Wave 3 to Wave 4 in particular) and the differences between key subgroups at Wave 4, rather than discussing findings for each of these subgroups according to each study measure. Subgroups in the longitudinal analysis were based upon responses to the Wave 1 survey (for comparability across the waves), and for the

[14] The inferential statistics used to test differences between subgroups include chi square tests and one-way ANOVAs. For all tests a p-value equal to or smaller than 0.05 was used as a cut-off for statistical significance.

[15] The statistical tests to assess changes across the waves included Repeated Measures ANOVAs and General Estimating Equation (GEE) Models. For all tests a p-value equal to or smaller than 0.05 used as a cut-off for statistical significance.

cross-sectional findings were based upon responses to the Wave 4 survey. Therefore, group membership for Wave 4 may differ slightly from previous waves, as people's circumstances may change over time.

This report uses particular terms to describe the mental health outcomes reported by subgroups in the overall sample. The term **'rate'** refers to the proportion of respondents within a named subgroup who have reported a particular outcome; it does not describe the degree of a particular outcome. For example, an increased rate of men reporting moderate to severe depressive symptoms means that a higher proportion of men have reported these symptoms; it does not mean that men as a subgroup are experiencing more severe depressive symptoms. The term **'level'** refers to the degree to which a particular mental health or wellbeing measure is being experienced. For example, stating that older adults reported higher levels of mental wellbeing than younger age groups means that the average mental wellbeing score for older adults was higher than the average score for younger groups.

2. Mental Health Outcomes

This section presents the mental health findings of Wave 4 of the Scottish COVID-19 (SCOVID) Mental Health Tracker Study which ran from 4th February and 9th March 2021.

The main mental health outcomes focused on are: depressive symptoms, anxiety symptoms, suicidal thoughts, psychological distress (as measured by the GHQ-12), and mental wellbeing. The study also included other correlates of mental wellbeing - such as loneliness, defeat, entrapment, social support, resilience, current distress (as measured by a single item), life satisfaction; these findings are reported more briefly. Only statistically significant changes and subgroup differences are reported here.

2.1 Suicidal thoughts

To measure suicidal thoughts, respondents were asked: 'how often have you thought about taking your life in the last week?', and were provided with options that ranged from "Never", "One day", "Several days", "More than half the days", "Nearly every day", and "I would rather not answer". For the purposes of this report, respondents who experienced any suicidal thoughts in the week prior to the Wave 4 questionnaire (i.e., one day or more) were included in the suicidal thoughts findings.

Wave 4 findings

Just over one tenth (10.4%) of respondents experienced suicidal thoughts within the week prior to completing the survey. The subgroups which reported higher rates of suicidal thoughts compared to their subgroup counterpoints were:

- Young adults (age 18-29 years)
- Younger women
- Those with a pre-existing mental health condition

There were some differences in rates of suicidal thoughts by age and sex, illustrated in Table 2.1. In the overall sample, there were no differences between men (10.4%) and women (10.5%) in rates of suicidal thoughts in the week prior to responding to the Wave 4 questionnaire.

The oldest age group (60+ years) reported the lowest rates of suicidal thoughts (2.4%), in contrast, around one sixth (17.0%) of young adults (18-29 years) reported suicidal thoughts, and over a tenth of those aged 30-59 years (12.8%). Across the age and sex subgroups, young women reported the highest rates of suicidal thoughts in the past week (19.9%), higher than that of young men (14.4%). Older women reported the lowest rates of suicidal thoughts (1.0%), lower than that of older

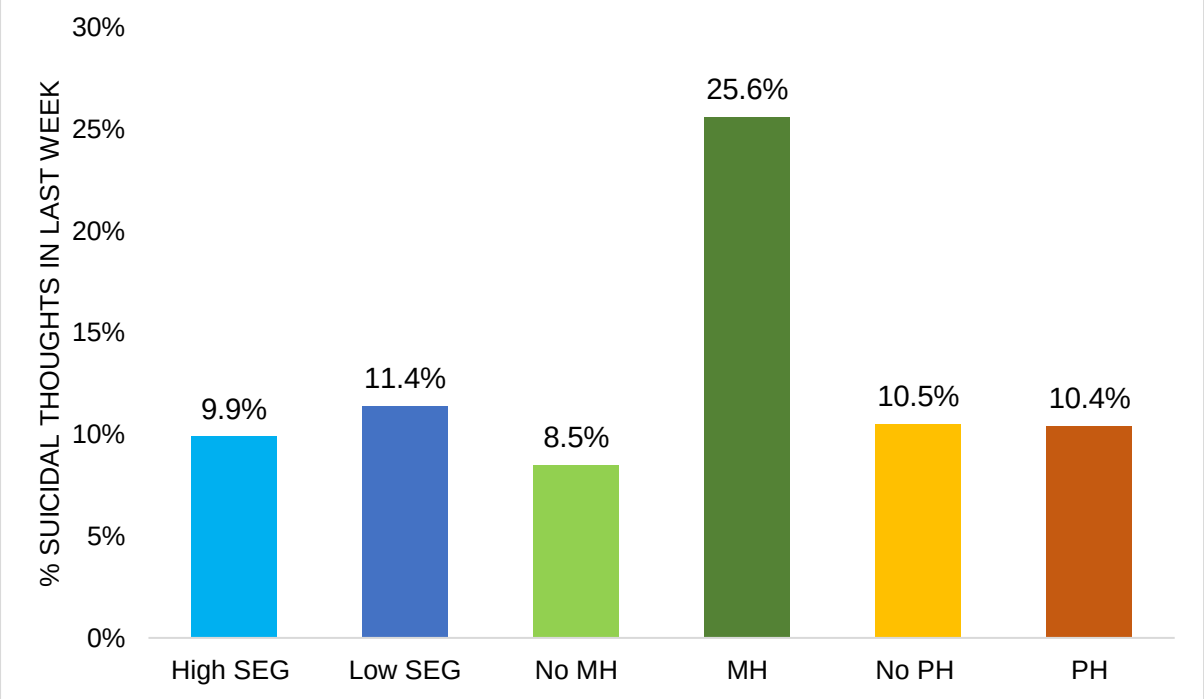
men (4.0%). Findings for young adults should be interpreted with caution due to the small sample size.

Table 2.1. Rates of suicidal thoughts in the last week, by age and sex

Sex	Aged 18 - 29 years (n=557)	Aged 30 - 59 years (n=1177)	Aged 60+ years (n=766)	Total (n=2500)
All adults	17.0%	12.8%	2.4%	10.4%
Men	14.4%	12.9%	4.0%	10.4%
Women	19.9%	12.8%	1.0%	10.5%

Respondents' backgrounds also had a bearing on the rates of suicidal thoughts reported, and some of these are displayed in Figure 2.1. Individuals from the lower SEG reported higher rates of suicidal thoughts in the last week (11.4%) compared to those from the higher SEG (9.9%). There was also a stark difference in the reporting of suicidal thoughts in those with or without a pre-existing mental health condition; those with a pre-existing mental health condition reported higher rates of suicidal thoughts (25.6%) than those without a pre-existing mental health condition (8.5%). There were no differences in suicidal thoughts for those with or without a pre-existing physical health condition.

Figure 2.1. Suicidal thoughts in the last week by socio-economic group (SEG), pre-existing mental health (MH) condition, and pre-existing physical health (PH) condition (%)



Differences in financial and home life circumstances also appear to be associated with varying rates of suicidal thoughts. Respondents who had experienced a change in working status (e.g., working from home, lost job or furloughed) since the COVID-19 pandemic reported higher rates of suicidal thoughts (13.7%) compared to those respondents who had not experienced a change (8.0%). Further, people who lived with someone were more likely to report suicidal thoughts (11.2%) than those who lived alone (7.5%). There were differences reported in rates of suicidal thoughts in carers, as individuals with caring responsibilities (15.2%) were more likely to report suicidal thoughts than those with no caring responsibilities (9.4%).

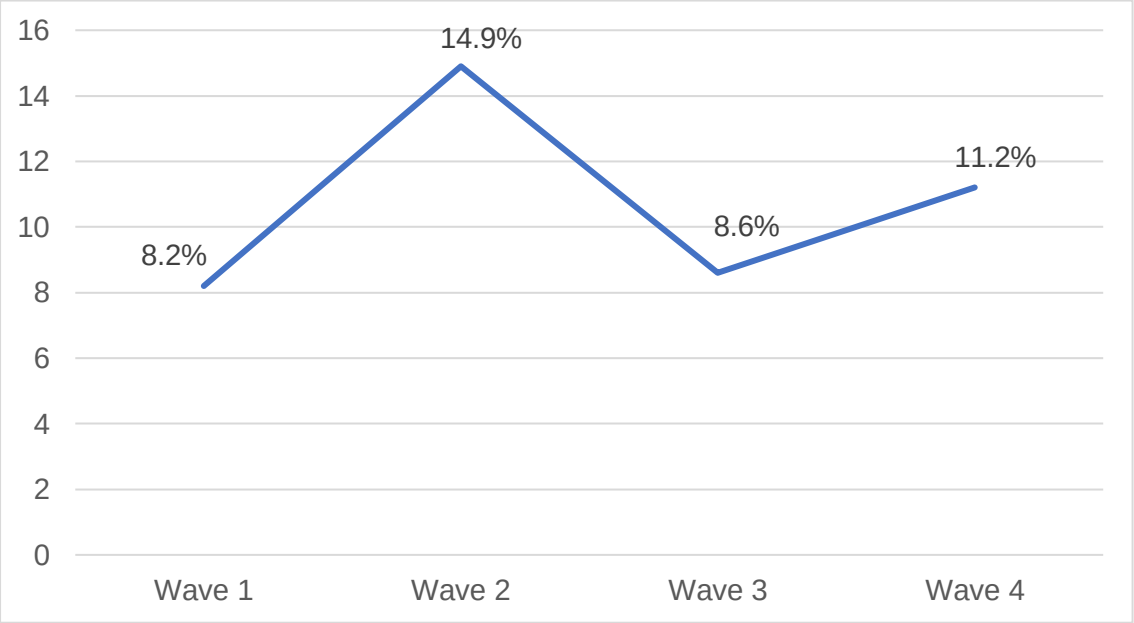
Changes across the waves

Looking at changes across the waves, the proportion of respondents reporting suicidal thoughts increased from Wave 1 (8.2%) to Wave 2 (14.9%), followed by a decrease in the proportion who reported suicidal thoughts at Wave 3 (8.6%), before rising again at Wave 4 (11.2%). This change over time is illustrated in Figure 2.2.

The proportion of several subgroups reporting suicidal thoughts increased from Wave 3 to Wave 4, including:

- 30-59 year old men,
- Individuals with no pre-existing mental health condition,
- Respondents who are key workers.

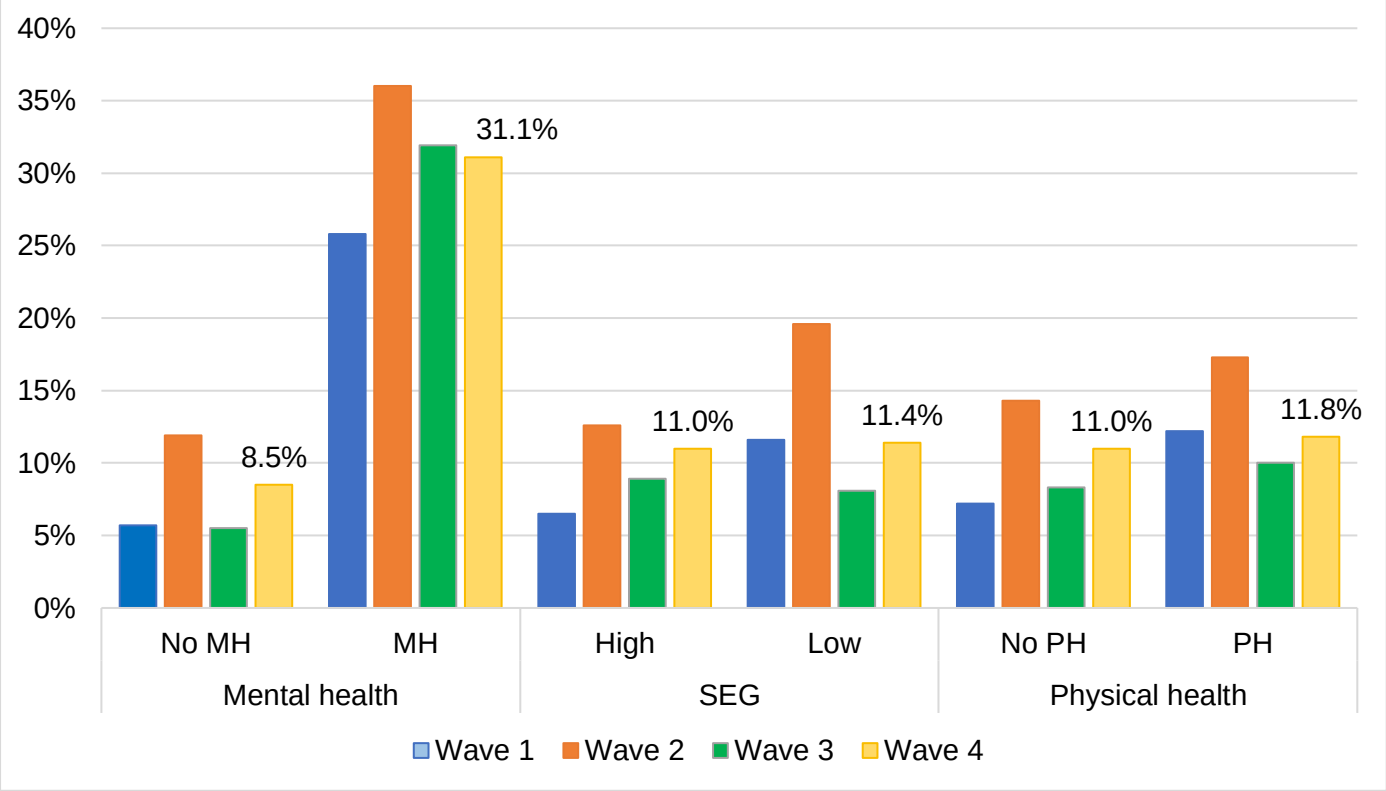
Figure 2.2. Changes in suicidal thoughts across the waves (%)



Looking at age and sex, from Wave 3 to Wave 4, for men aged 30-59 years, there was an increase in suicidal thoughts from Wave 3 (9.3%) to Wave 4 (14.2%). There were no statistically significant changes in rates of suicidal thoughts for women aged 60+ years (Wave 3: 1.0%; Wave 4: 0.7%), for men aged 60+ years (Wave 3: 2.9%; Wave 4: 4.0%), or for woman aged 30-59 years (Wave 3: 12.4%; Wave 4: 13.9%). Due to the loss at follow-up, it is not possible to report the changes for the 18-29 year old age group over the waves.

Looking more closely at the subgroups based on background and health, some differences in suicidal thoughts emerged (Figure 2.3). Specifically, the proportion of those with no pre-existing mental health condition reporting suicidal thoughts in the week prior increased from 5.5% in Wave 3 to 8.5% in Wave 4, whereas those with a pre-existing mental health condition reported no change (Wave 3: 31.9%; Wave 4: 31.1%).

Figure 2.3. Rates of suicidal thoughts in the week prior to Wave 1, Wave 2, Wave 3 and Wave 4 by pre-existing mental health (MH) condition, socio-economic group (SEG), and pre-existing physical health (PH) condition (%).



Findings also suggest that other employment and household factors were associated with changes in rates of suicidal thoughts. Specifically, rates of suicidal thoughts increased for respondents who were key workers from Wave 3 (9.4%) to Wave 4 (15.0%). No other significant subgroup changes were found from Wave 3 to Wave 4.

2.2. Depressive symptoms

This study's findings on moderate to severe depressive symptoms are based on participants' responses to questions on the mental health measure called the Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001), which assesses frequency of depressive symptoms over the previous two weeks.[16]

Wave 4 findings

Wave 4 of the SCOVID Study shows that nearly a quarter (23.5%) of the overall sample met the cut-off for moderate to severe depressive symptoms. The following groups reported higher rates of moderate to severe depressive symptoms than their subgroup counterparts:

- Young adults (age 18-29 years old)
- Women, in particular young women (age 18-29 years old)
- Respondents from the lower SEG
- Those with a pre-existing mental health condition
- Those with a pre-existing physical health condition

There were clear differences in moderate to severe depressive symptoms according to age and sex, illustrated in Table 2.2. For example, in the overall sample, women were more likely to report symptoms that met the cut-off for moderate or severe depressive symptoms (26.1%) than men (20.8%). In addition, just over a third of young adults (18-29 year olds) reported depressive symptoms (35.8%), compared to a quarter of those in the middle age group (30-59 years) (25.3%) and a tenth of the oldest age group (60+ years) (11.9%). Furthermore, young women between 18-29 years old reported higher rates of depressive symptoms at 42.1%, compared to 29.6% of men in the same age group. Findings for young adults should be interpreted with caution due to the small sample size.

[16] For the purposes of this report, scores above the cut-off for moderate to severe depression (score ≥10) are tracked so as to mirror the most commonly used indicator in mental health research, and which suggests that treatment (psychotherapy or medication) may be recommended.

Table 2.2. Rates of moderate to severe depressive symptoms[17] by age and sex

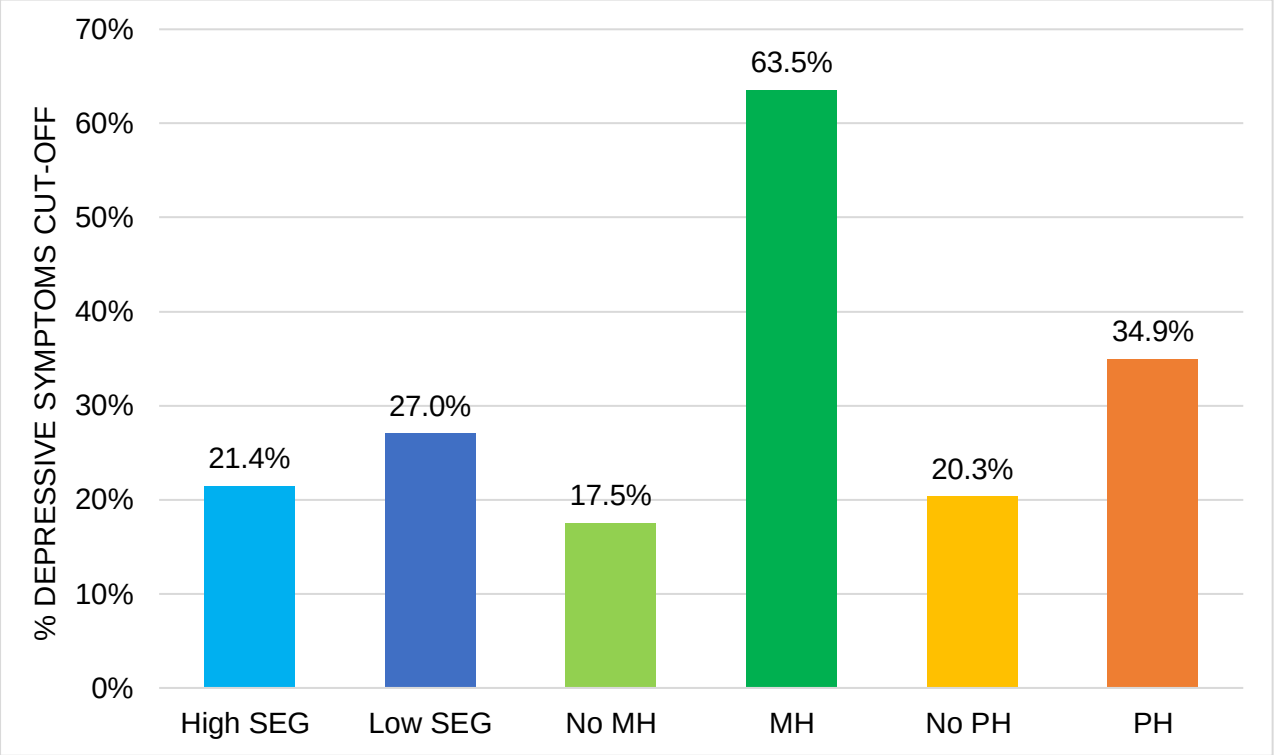
Sex	Aged 18 - 29 years (n=557)	Aged 30 - 59 years (n=1177)	Aged 60+ years (n=766)	Total (n=2500)
All adults	35.8%	25.3%	11.9%	23.5%
Men	29.6%	22.2%	12.0%	20.8%
Women	42.1%	28.1%	11.8%	26.1%

Beyond age and sex, respondents' backgrounds also had a bearing on the likelihood of reported rates of moderate to severe depression, illustrated in Figure 2.4. Respondents in the lower SEG reported higher rates of depressive symptoms (27.0%) compared to those in the higher SEG (21.4%).

An individual's health may be associated with their experience of depressive symptoms. Around two thirds of respondents with a pre-existing mental health condition reported depressive symptoms (63.5%), compared to around one sixth of those without a pre-existing mental health condition (17.5%). Respondents with a pre-existing physical health condition reported higher rates of depressive symptoms (34.9%) than those with no pre-existing physical health condition (20.3%).

[17] Measured using the Patient health questionnaire (PHQ-9) using a cut-off score ≥10 to indicate moderate to severe depression

Figure 2.4. Rates of moderate to severe depressive symptoms, by socio-economic group (SEG), pre-existing mental health (MH) condition, and pre-existing physical health (PH) condition (%)



Differences in financial and home life circumstances also appear to be associated with varying rates of depressive symptoms, and indicate that those living with greater financial uncertainty or added responsibilities at home may be a greater risk for depressive symptoms. For example, respondents who reported a change to their working status (e.g., furloughed, lost job or reduction in pay) since the COVID-19 pandemic experienced higher rates of depressive symptoms (26.8%) than those that had experienced no change in their working status (21.0%). Those with dependents under 5 years old (30.9%) reported higher rates of depressive symptoms compared to those with no dependents under 5 (23.4%). Respondents that had any unpaid caring responsibilities (34.9%) reported higher rates of depressive symptoms than those with no additional caring responsibilities (21.0%). Finally, people with no access to outdoor space in their homes (32.0%) reported higher rates of moderate to severe depressive symptoms than those with access (22.7%).

Changes across the waves

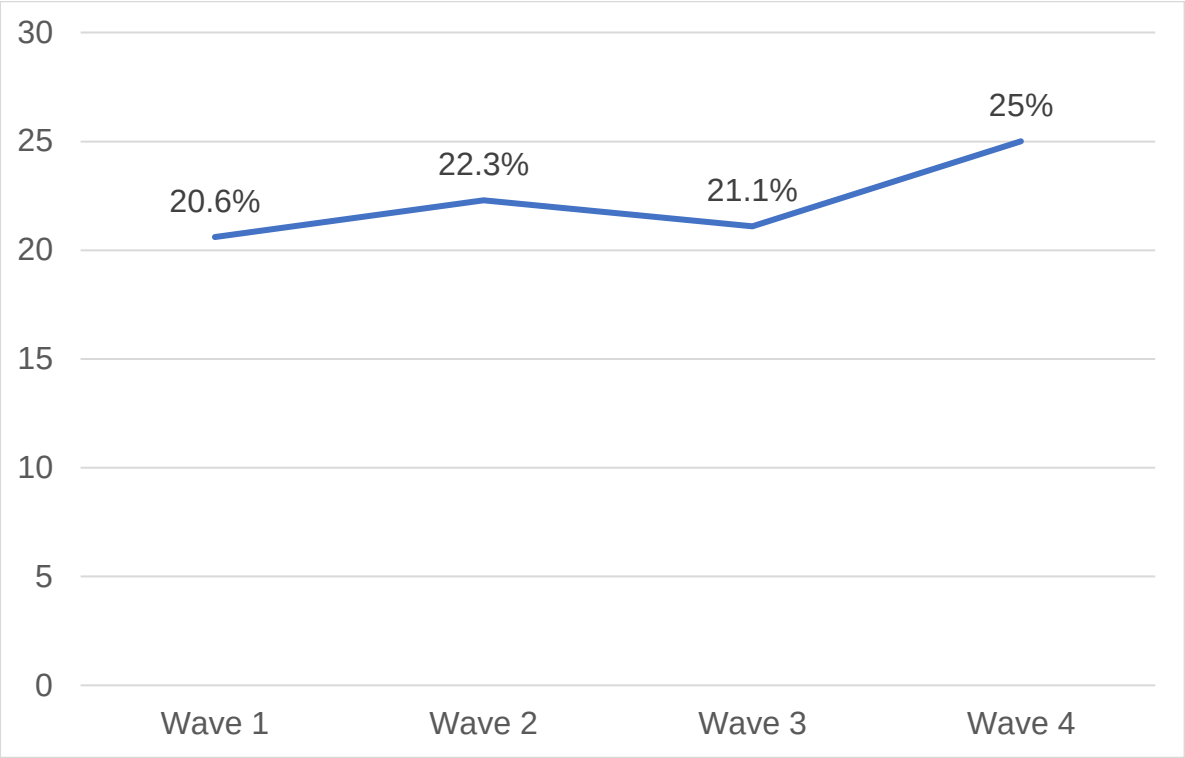
Looking at respondents who had completed every wave, there was an increase in the rates of moderate to severe depressive symptoms from Wave 3 (21.1%) to Wave 4 (25.0%). Looking across the waves, rates of depressive symptoms at Wave 4

(25.0%) were higher than at any of the previous three waves (Wave 1: 20.6%; Wave 2: 22.3%, Wave 3: 21.1%). See Figure 2.5 for changes in depressive symptoms over time.

A number of subgroups saw increases in rates of moderate to severe depressive symptoms from Wave 3 to Wave 4, including:

- Men aged 30-59 and 60+ years
- Respondents with no mental health condition
- Individuals from the lower SEG
- Respondents living in a rural area
- Those who had no dependents aged under 16 years old.

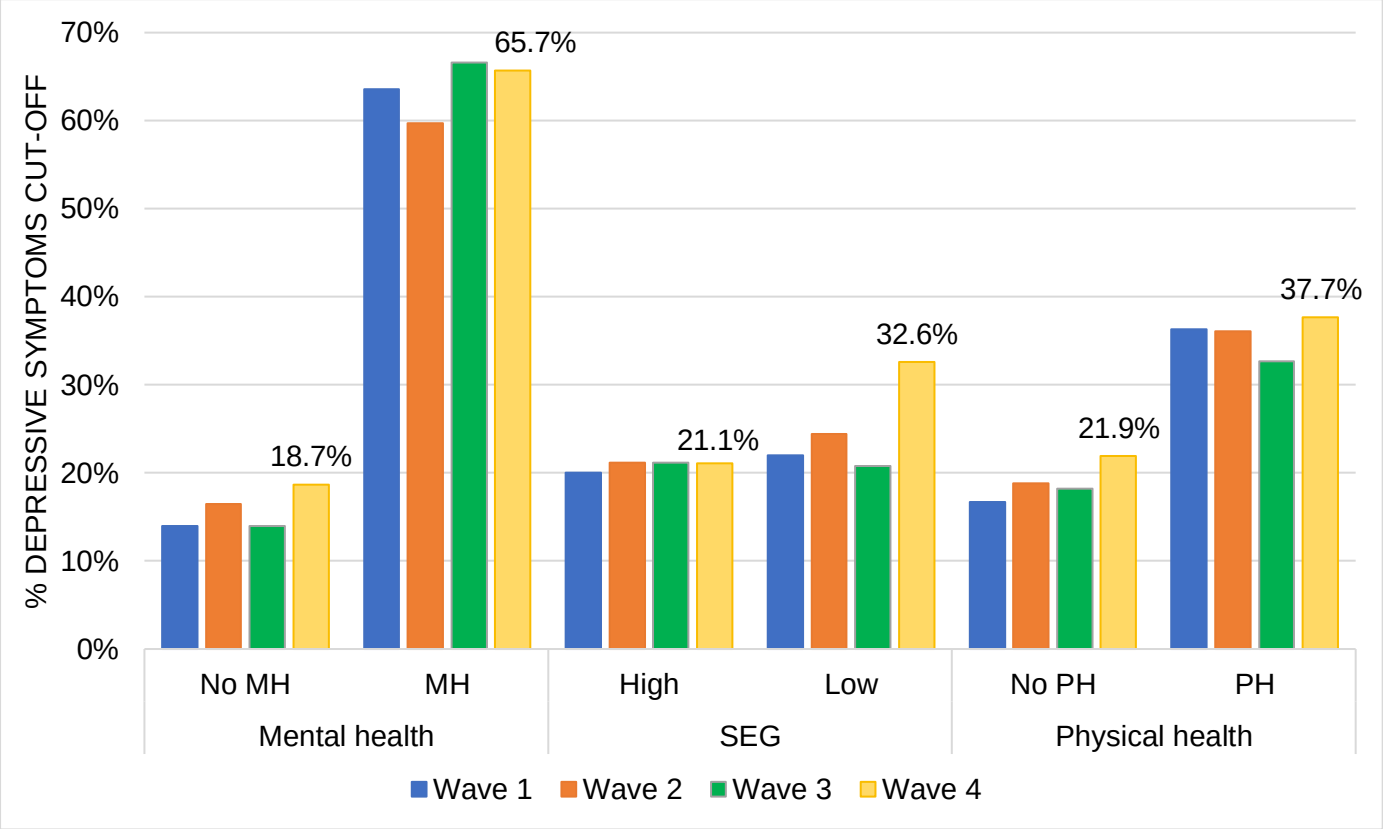
Figure 2.5. Changes in rates of moderate to severe depressive symptoms across the waves (%)



Some differences by age and sex from Wave 3 to Wave 4 were found. There were no statistically significant differences in the changes in rates of depressive symptoms for women aged 30-59 years (Wave 3: 27.1%; Wave 4: 29.9%), nor for women aged 60+ years (Wave 3: 13.9%; Wave 4: 13.2%) compared to the other age and sex subgroups. Rates of depressive symptoms for 30-59 year old men increased from Wave 3 (15.6%) to Wave 4 (23.6%), and increased for 60+ year old men (Wave 3: 9.6%; Wave 4: 12.8%). Due to the loss at follow-up, it is not possible to report the changes for the 18-29 year old age group over the waves.

Looking more closely at changes in moderate to severe depressive symptoms by health and background factors, some differences emerged (see Figure 2.6). Those with no pre-existing mental health condition reported higher rates of depressive symptoms at Wave 4 (18.7%) compared to Wave 3 (14.0%), whereas those with a pre-existing mental health condition reported similar rates at Wave 3 (66.6%) and Wave 4 (65.7%). Additionally, a higher proportion of the lower SEG reported depressive symptoms at Wave 4 (32.6%) than at Wave 3 (20.8%).

Figure 2.6. Rates of moderate to severe depressive symptoms at Wave 1, Wave 2, Wave 3, and Wave 4 by pre-existing mental health (MH) condition, socio-economic group (SEG), and pre-existing physical health (PH) condition (%)



There were some changes between Wave 3 and Wave 4 in rates of moderate to severe depressive symptoms by household factors. For example, for respondents with no dependents under 16 years old, rates of depressive symptoms increased from Wave 3 (19.8%) to Wave 4 (24.7%), compared to those with dependents under 16 years whose rates did not change (Wave 3: 25.5%; Wave 4: 26.0%). Respondents who lived in a rural area reported an increase in the rates of depressive symptoms from Wave 3 (19.5%) to Wave 4 (30.1%), compared to those who lived in urban areas whose rates did not change (Wave 3: 21.5%; Wave 4: 23.7%).

2.3. Anxiety symptoms

Anxiety symptoms were assessed using the mental health measure called the Generalised Anxiety Disorder (GAD-7; Spitzer et al., 2006) scale, which asks about frequency of anxiety symptoms in the last 2 weeks. For the purposes of this report, the clinical cut-off for moderate to severe anxiety (score ≥10) was reported, indicating anxiety symptoms that may require further treatment.

Wave 4 findings

Wave 4 of the SCOVID Study indicated that 16.2% of respondents met the cut-off for moderate to severe anxiety symptoms. A number of subgroups reported higher rates of moderate to severe anxiety symptoms compared to their subgroup counterpoints, specifically:

- Young adults (18-29 years old)
- Women
- Those with a pre-existing mental health condition
- Those with a pre-existing physical health condition
- Those from the lower SEG

Looking more closely at the findings there were differences in moderate to severe anxiety symptoms according to sex and age, displayed in Table 2.3. For example, when comparing sex only, women reported higher rates of anxiety symptoms (19.5%) than men (12.8%). There were also differences by age group: with 28.8% of young adults (18-29 year olds) reporting anxiety, compared to 15.5% of 30-59 year olds and 8.2% of 60+ year olds.

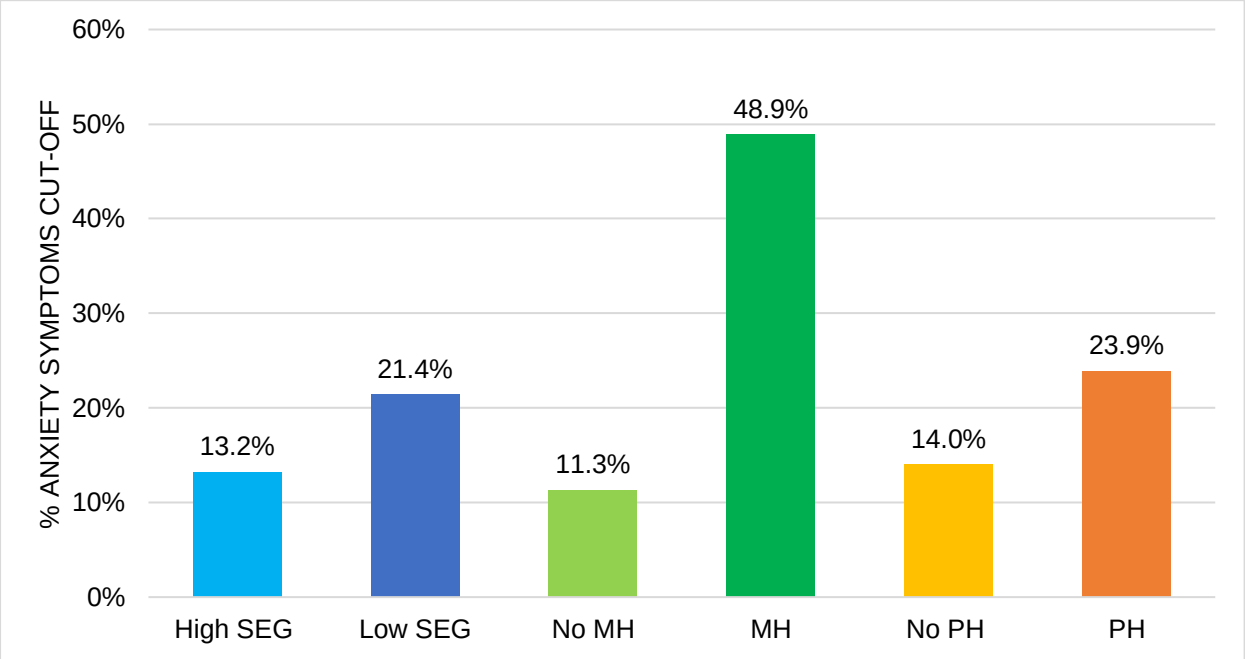
When looking at groups by both age and sex, further differences in the likelihood for experiencing moderate to severe anxiety arise. For example, young women aged between 18-29 years reported markedly higher rates of anxiety symptoms (37.0%) than younger men (20.8%). Findings for young adults should be interpreted with caution due to the small sample size. Older women reported the lowest rates of anxiety symptoms (7.8%) of the sample, followed by the rate of older men who reported these symptoms (8.7%).

Table 2.3. Rates of moderate to severe anxiety symptoms[18] by age and sex

Sex	Aged 18 - 29 years (n=557)	Aged 30 - 59 years (n=1177)	Aged 60+ years (n=766)	Total (n=2500)
All adults	28.8%	15.5%	8.2%	16.2%
Men	20.8%	11.4%	8.7%	12.8%
Women	37.0%	19.3%	7.8%	19.5%

Beyond age and sex, respondents' health and financial circumstances also had a bearing on the likelihood of reported rates of moderate to severe anxiety, illustrated in Figure 2.7. More respondents in the lower SEG (21.4%) experienced anxiety symptoms than those in the higher SEG (13.2%). Additionally, around half (48.9%) of those with a mental health condition reported anxiety symptoms, compared to only 11.3% of those with no mental health condition. Respondents with a physical health condition experienced higher rates of anxiety symptoms (23.9%) than those with no physical health condition (14.0%).

Figure 2.7. Rates of moderate to severe anxiety symptoms, by socio-economic group (SEG), pre-existing mental health (MH) condition, and pre-existing physical health (PH) condition (%)



[18] Measured using the Generalised Anxiety Disorder (GAD-7) scale, using a cut-off score ≥10 to indicate moderate to severe anxiety

Differences in working life, home life, and carer circumstances appeared to be associated with rates of moderate to severe anxiety symptoms. For example, respondents whose working situation had changed during the COVID-19 pandemic (e.g., furloughed, lost job) reported higher rates of moderate to severe anxiety (20.7%) than those with no change (12.9%). Shifting focus to home-life circumstances, respondents who had caring responsibilities had a higher likelihood of anxiety symptoms (23.3%) than those who did not have any caring responsibilities (14.7%). Finally, people with no access to outdoor space in their homes (26.6%) reported higher rates of moderate to severe anxiety symptoms than those with access (15.3%).

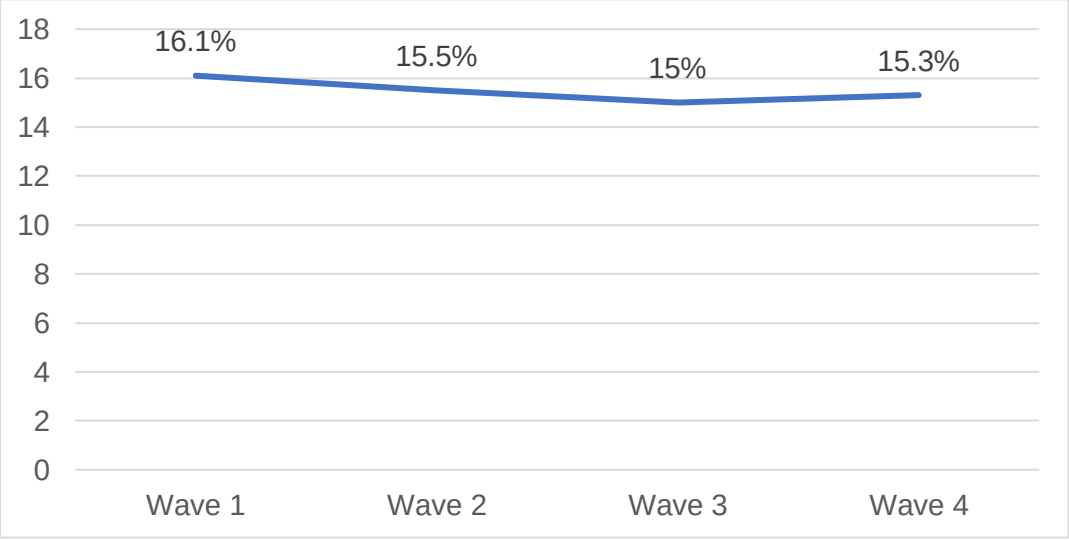
Changes across the waves

Looking at the sample as a whole, there were no statistically significant changes in rates of moderate to severe anxiety symptoms from Wave 3 (15.0%) to Wave 4 (15.3%), or from Wave 4 to any previous wave. See Figure 2.8 for rates of anxiety symptoms across the waves.

Between Waves 3 and 4 there was a change in the proportion of the following subgroups reporting moderate to severe anxiety symptoms:

- Individuals living with dependents under 16 years old reported an increase in anxiety symptoms
- Respondents living in rural areas reported a decrease in anxiety symptoms

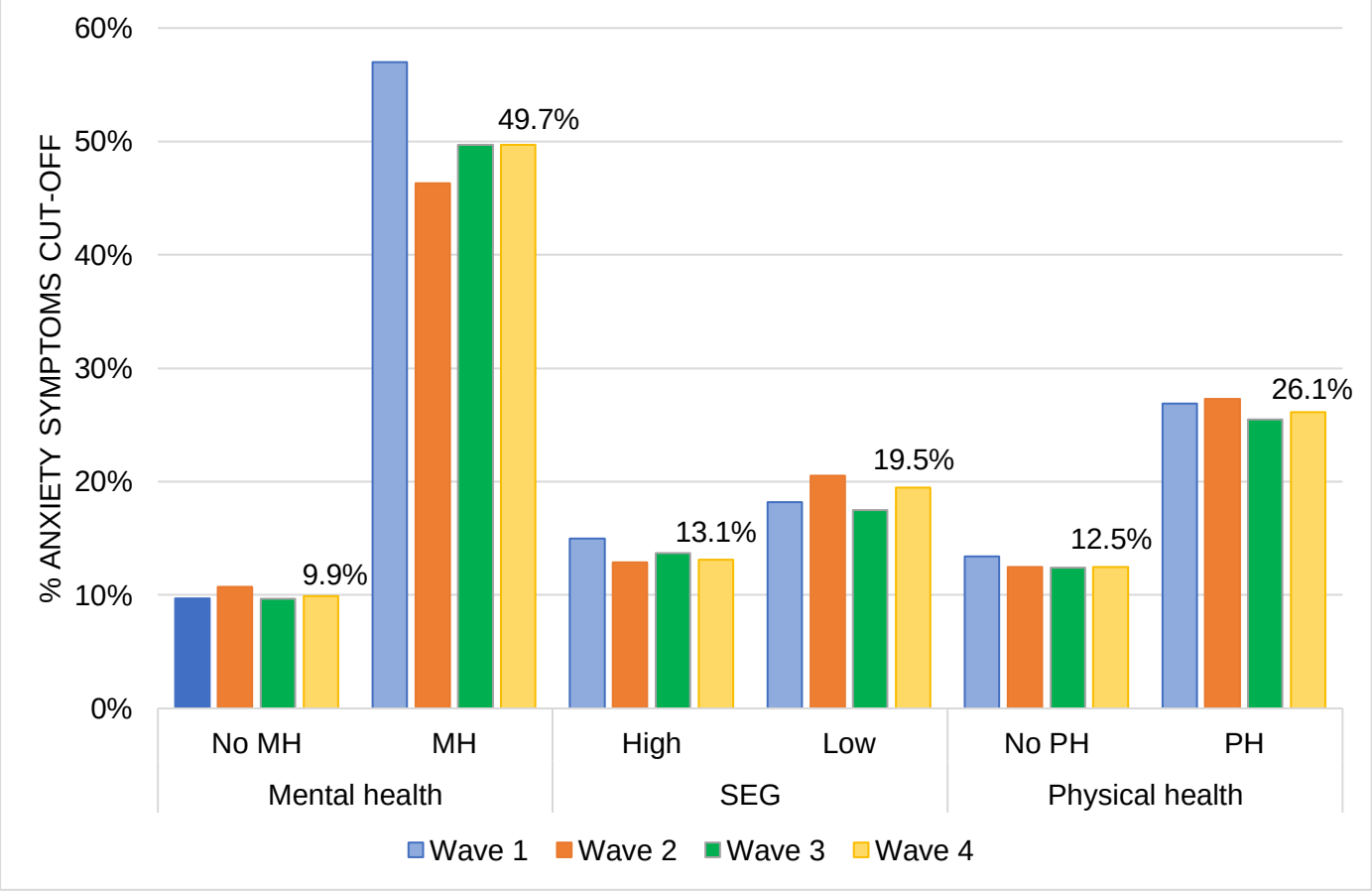
Figure 2.8. Changes in rates of moderate to severe anxiety symptoms across the waves (%)



Looking at age and sex, there were no statistically significant differences in the changes in rates of anxiety symptoms by age and sex subgroups. Rates of anxiety symptoms did not change for women aged 30-59 years from Wave 3 (22.8%) to Wave 4 (19.4%). Men aged 30-59 years reported similar rates of anxiety symptoms at Wave 3 (10.0%) and Wave 4 (10.9%). For the 60+ age group, both men (Wave 3: 10.1%; Wave 4: 9.5%) and women (Wave 3: 8.8%; Wave 4: 8.5%) reported similar rates of moderate to severe anxiety symptoms across the waves. Due to the loss at follow-up, it is not possible to report the changes for the 18-29 year old age group over the waves.

Changes in rates of moderate to severe anxiety by background factors and health of respondents are illustrated in Figure 2.9. There were no statistically significant changes in moderate to severe anxiety symptoms across the pre-existing mental health condition, SEG, or pre-existing physical health condition subgroups.

Figure 2.9. Rates of moderate to severe anxiety symptoms at Wave 1, Wave 2, Wave 3 and Wave 4 by pre-existing mental health (MH) condition, socio-economic group (SEG), and pre-existing physical health (PH) condition (%)



Looking at household subgroups, respondents living with dependents aged 16 years or younger reported an increase in their rates of anxiety from Wave 3 (15.1%) to Wave 4 (18.5%), and rates for those with no dependents under 16 years were similar

from Wave 3 to 4 (Wave 3: 15.0%, Wave 4: 14.3%). Additionally, those living in rural areas reported a decrease in rates of moderate to severe anxiety symptoms from Wave 3 (17.5%) to Wave 4 (15.1%), compared to those in urban areas (Wave 3: 14.4%; Wave 4: 15.3%).

2.4. Psychological Distress (General Health Questionnaire)

The General Health Questionnaire (GHQ-12) is a psychological measure that assesses psychological distress and mental ill-health in the previous two weeks, including sleep, self-esteem, stress, despair, depression, and confidence. In this report, as consistent with other mental health research studies (McLean et al., 2018), GHQ-12 scores of four or more are reported because this cut-off is deemed a high GHQ-12 score and indicates the presence of a possible psychiatric disorder.

Wave 4 findings

Nearly one third (32.2%) of the sample recorded a high GHQ-12 score. Particular groups had elevated rates of high GHQ-12 scores compared to their subgroup counterpoints:

- Young adults (age 18-29 years)
- Women, specifically young women (18-29 years)
- Those with a pre-existing mental health condition

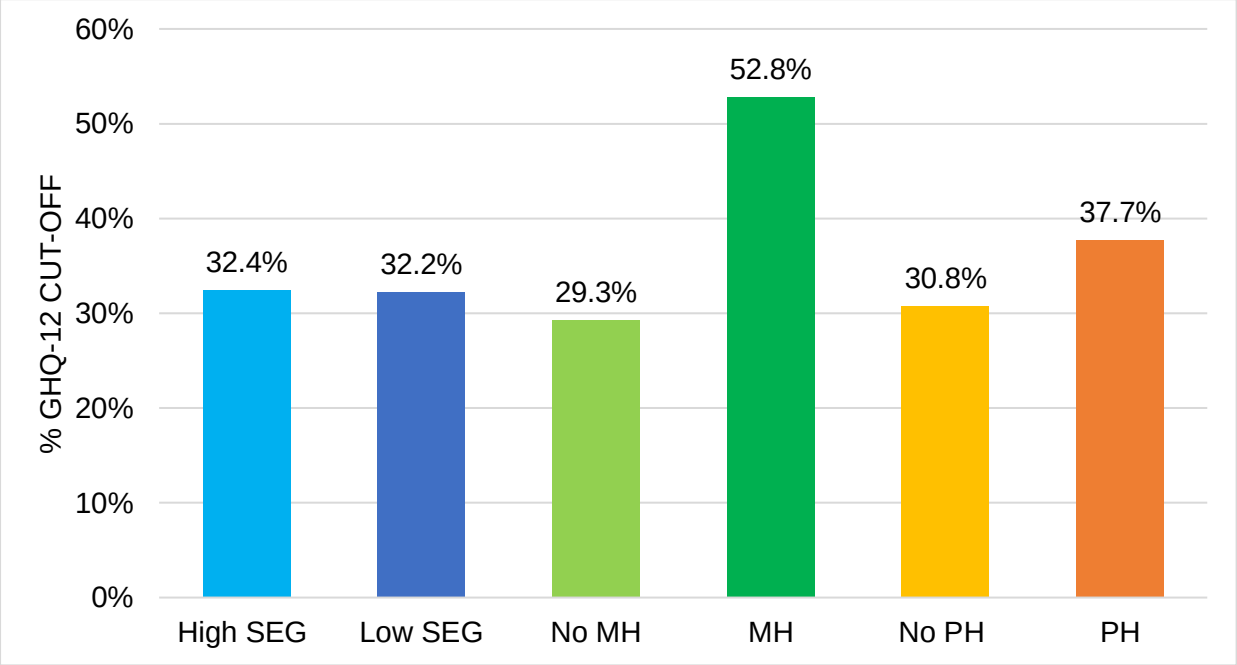
There were clear differences in rates of high GHQ-12 scores by sex and age, as presented in Table 2.4. Specifically, women were more likely to have a high GHQ-12 score (36.8%) than men (27.3%). Additionally, 50.2% of the younger age group (18-29 year olds) reported a high GHQ-12 score, compared to 31.4% of 30-59 year olds and 20.5% of 60+ year olds. Additionally, young women were also more likely to have a high GHQ-12 score (59.0%) compared to young men (41.6%). Findings for young adults should be interpreted with caution due to the small sample size. Across all the age and sex subgroups, older men reported the lowest rates of high GHQ-12 scores (17.4%), followed by older women (23.4%).

Table 2.4. Rates of high psychological distress (high GHQ-12 score) by age and sex

Sex	**Aged 18 - 29 years (n=557)**	**Aged 30 - 59 years (n=1177)**	**Aged 60+ years (n=766)**	**Total (n=2500)**
All adults	50.2%	31.4%	20.5%	32.2%
Men	41.6%	26.7%	17.4%	27.3%
Women	59.0%	35.6%	23.4%	36.8%

Beyond age and sex, respondents' backgrounds and health also had a bearing on the likelihood of reporting a high GHQ-12 score (Figure 2.10). Specifically, over half (52.8%) of those with a pre-existing mental health condition recorded a high GHQ-12 score, compared to just under a third of those with no pre-existing mental health condition (29.3%). Additionally, those with a pre-existing physical health condition reported higher rates of high GHQ-12 (37.7%) than those with no pre-existing physical health condition (30.8%).

Figure 2.10. Rates of high psychological distress by socio-economic group (SEG), pre-existing mental health (MH) condition, and pre-existing physical health (PH) condition (%)



Differences in home life and carer circumstances also appear to be associated with varying rates of high GHQ-12 scores. For example, respondents whose household had dependents under 5 years old were more likely to have high GHQ-12 scores (40.4%) than those with none under 5 years (32.8%). Further, people who lived with others reported higher rates of high GHQ-12 (33.6%) compared to those who lived alone (27.8). In addition, just under half (46.3%) of respondents with caring responsibilities recorded a high GHQ-12 score, which was higher than those with no caring responsibilities (29.3%). Additionally, people whose working status had changed during the COVID-19 pandemic (i.e., lost job, furloughed) reported higher rates of high GHQ-12 (44.5%) than those with no change (23.3%).

Changes across the waves

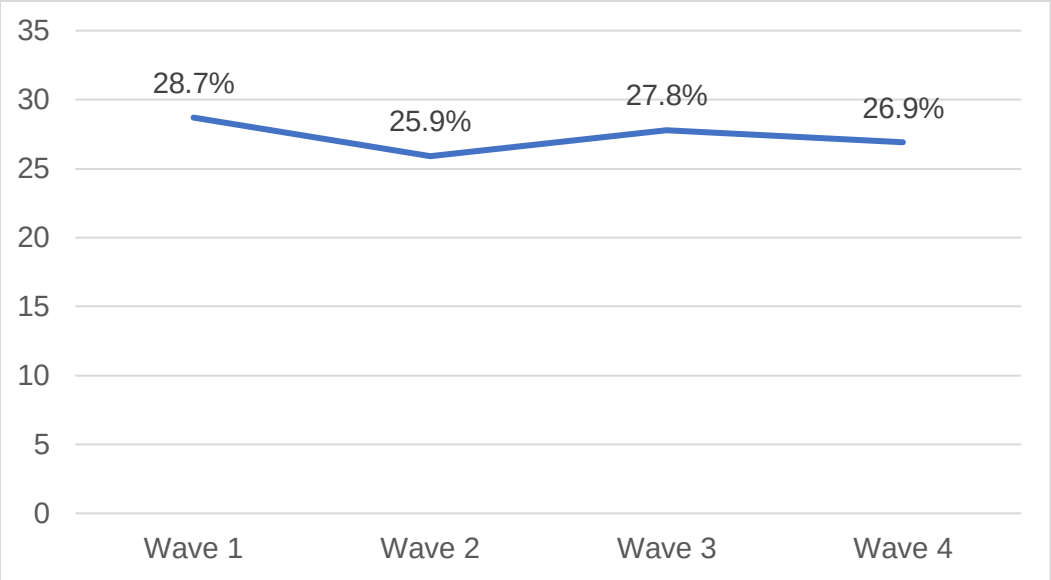
Analysis suggests that the proportion of respondents who met the GHQ-12 cut-off for a possible psychiatric disorder did not change from Wave 3 (27.8%) to Wave 4

(26.9%). Although respondents reported a reduction in high GHQ-12 from Wave 1 (28.7%) to Wave 2 (25.9%), rates at Wave 4 were not statistically different from any previous wave (illustrated in Figure 2.11).

A decrease in rates of high GHQ-12 from Wave 3 to Wave 4 were found for particular subgroups:

- Respondents with a pre-existing mental health condition
- Individuals from the lower SEG
- Those with a pre-existing physical health condition
- People living in a rural area

Figure 2.11. Changes in rates of GHQ-12 cut-off scores across the waves (%)

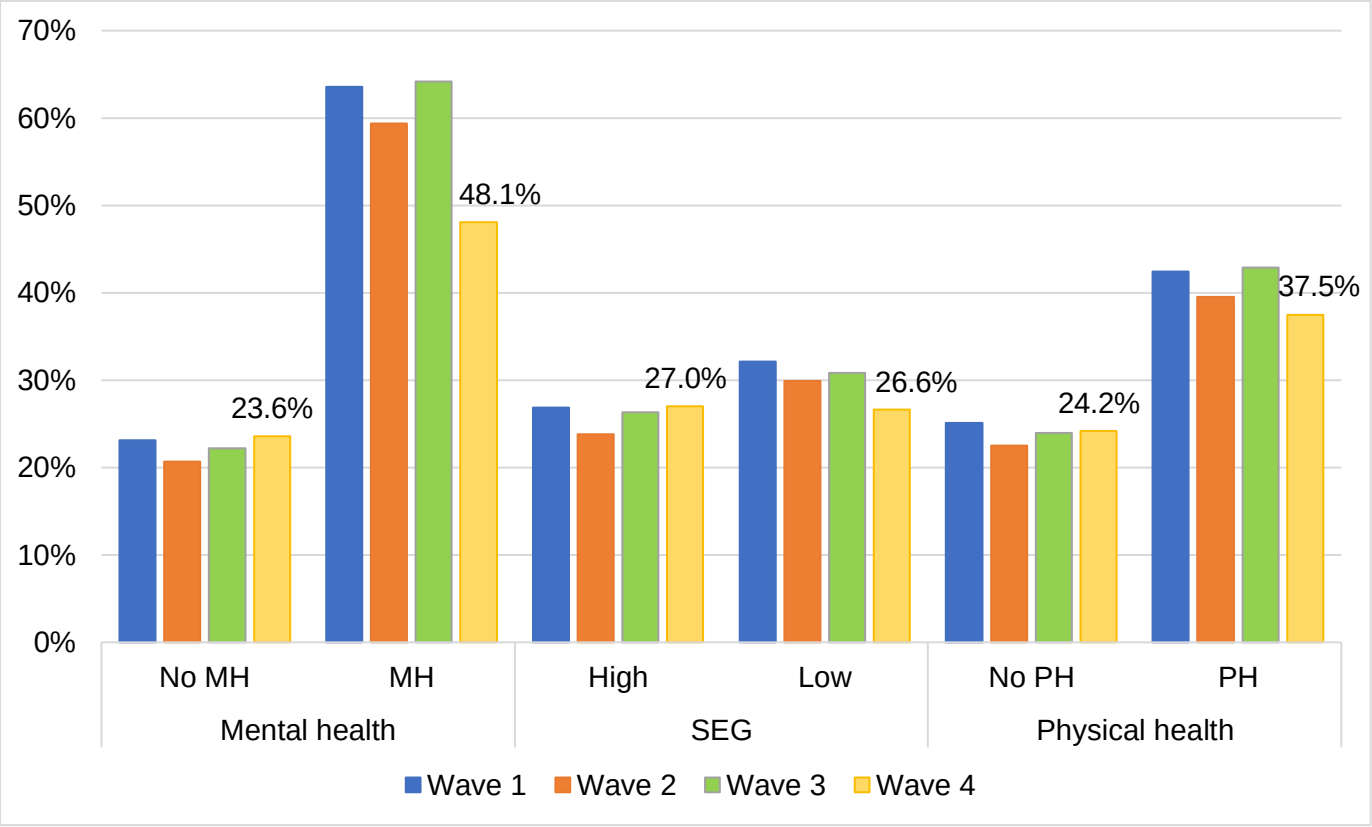


Looking more closely at rates of high GHQ-12 by age and sex, there were no statistically significant differences in the changes across these subgroups from Wave 3 to Wave 4. Within the 30-59 year age group, both women (Wave 3: 37.3%; Wave 4: 35.5%) and men (Wave 3: 29.1%; Wave 4: 24.9%) reported similar rates across these waves, although women still reported higher rates than men. Similarly, for those aged 60+ years, women (Wave 3: 21.0%; Wave 4: 21.7%) and men (Wave 3: 18.3%; Wave 4: 18.3%) reported similar rates across these waves. Due to the loss at follow-up, it is not possible to report the changes for the 18-29 year old age group over the waves.

Additionally, there were some changes in rates of high GHQ-12 scores by health and background factors, as displayed in Figure 2.12. Between Wave 3 and Wave 4, rates of high GHQ-12 scores decreased among respondents with a pre-existing mental health condition (Wave 3: 64.2% to Wave 4:48.1%), respondents with a pre-existing physical health condition (Wave 3: 42.9% to Wave 4: 37.5%), individuals from the

lower SEG (Wave 3: 30.8% to Wave 4:26.6%), and those living in a rural area (Wave 3: 37.2% to Wave 4: 32.4%). No further statistically significant changes in rates of high GHQ-12 were reported from Wave 3 to Wave 4.

Figure 2.12. Rates of high GHQ-12 scores at Wave 1, Wave 2, Wave 3, and Wave 4 by pre-existing mental health (MH) condition, socio-economic group (SEG), and pre-existing physical health (PH) condition (%)



2.5. Mental wellbeing

Mental wellbeing is an important indicator of mental health and can indicate how protected an individual may be from mental health problems such as depression and anxiety. The SCOVID Study measured respondents mental wellbeing using the Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS). This scale measures the frequency of thoughts and feelings of mental wellbeing over the past two weeks; includes items such as feelings of optimism, feelings of being useful, and feeling that one is thinking clearly.

For the Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS)[19], a score is created for each individual by adding together their responses to each question. The scores range from 7 (indicating very low wellbeing) to 35 (indicating very high

[19] Short Warwick Edinburgh Mental Wellbeing Scale (SWEMWBS) © NHS Health Scotland, University of Warwick and University of Edinburgh, 2008, all rights reserved. As suggested by the scale authors, the scores underwent a Rasch transformation.

wellbeing), therefore a higher score suggests better mental wellbeing. Throughout this section average mean scores are reported for each of the subgroups to compare levels of mental wellbeing between groups.

Wave 4 findings

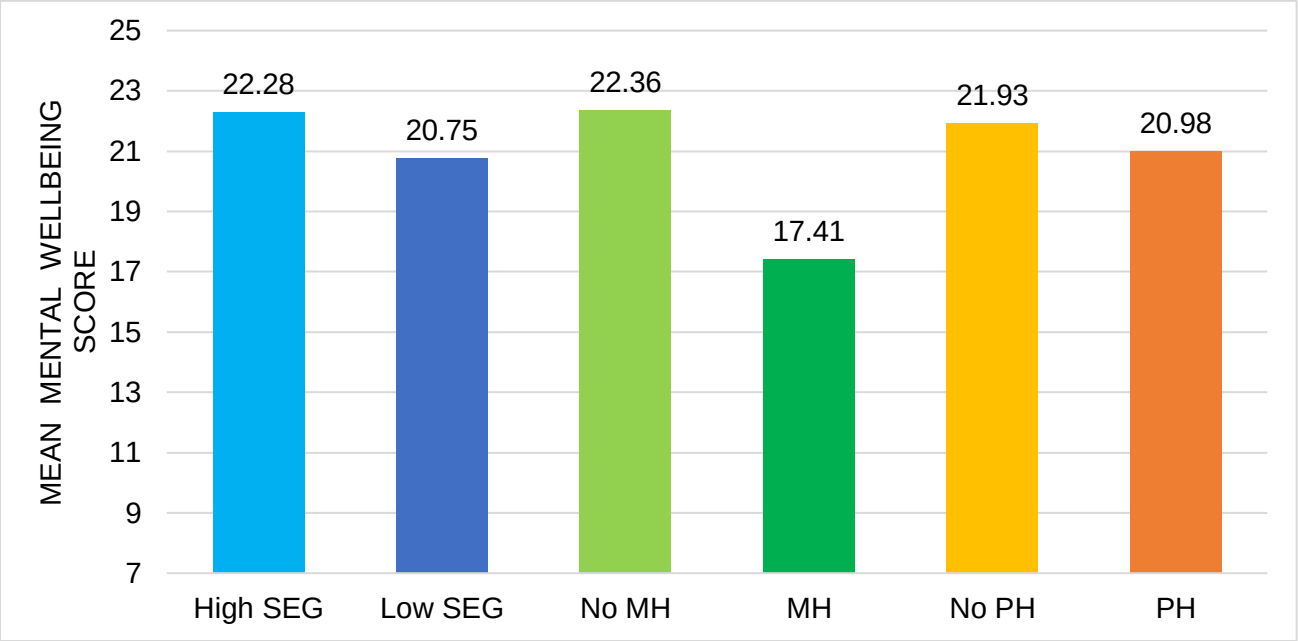
The average mean score for mental wellbeing was 21.72, out of 35. In looking more closely at the data, some differences on mental wellbeing by age and sex emerge (see Table 2.5). Mean mental wellbeing among men was higher (22.05) than women (21.42). The data suggests that older adults reported higher mental wellbeing than young adults. More specifically, respondents in the older age group (60+ years old) reported a higher mental wellbeing mean (23.57) than those aged 30-59 years (21.51) and compared to the younger age group (18-29 years), who scored the lowest (19.61). Although findings for young adults should be interpreted with caution due to the small sample size.

Table 2.5. Mean mental wellbeing scores by age and sex

Sex	**Aged 18 - 29 years (n=557)**	**Aged 30 - 59 years (n=1177)**	**Aged 60+ years (n=766)**	**Total (n=2500)**
All adults	19.61	21.51	23.57	21.72
Men	20.16	21.93	23.66	22.05
Women	19.03	21.14	23.49	21.42

Beyond age and sex, differences in respondents' backgrounds and health were associated with different mean SWEMWBS scores, as illustrated in Figure 2.13. For example, respondents in the higher SEG scored significantly higher (22.28) on the mental wellbeing scale than those in the lower SEG (20.75). Additionally, respondents who indicated having no pre-existing mental health conditions scored higher on average on the mental wellbeing scale (22.36) than those with a pre-existing mental health condition (17.41), who scored the lowest of all the subgroups. Additionally, those with no pre-existing physical health condition recorded higher mental wellbeing scores (21.93) than those with a pre-existing physical health condition (20.98).

Figure 2.13. Mean mental wellbeing scores for SEG, pre-existing mental health (MH) condition, and pre-existing physical health (PH) condition.



Differences in financial and home life circumstances also appear to be associated with mental wellbeing scores and indicate that those who have fewer responsibilities and more financial security have higher mental wellbeing. For example, people with no unpaid caring responsibilities had higher mean mental wellbeing scores (22.01) than those who are carers (20.40). Furthermore, those who did not experience any change in their working status during the COVID-19 pandemic reported higher mental wellbeing (22.44) than those who did experience change in their working status (20.75), such as being furloughed or losing one's job. Finally, those with access to outdoor space at home reported higher mental wellbeing (21.89) than those with no access to outdoor space (19.82).

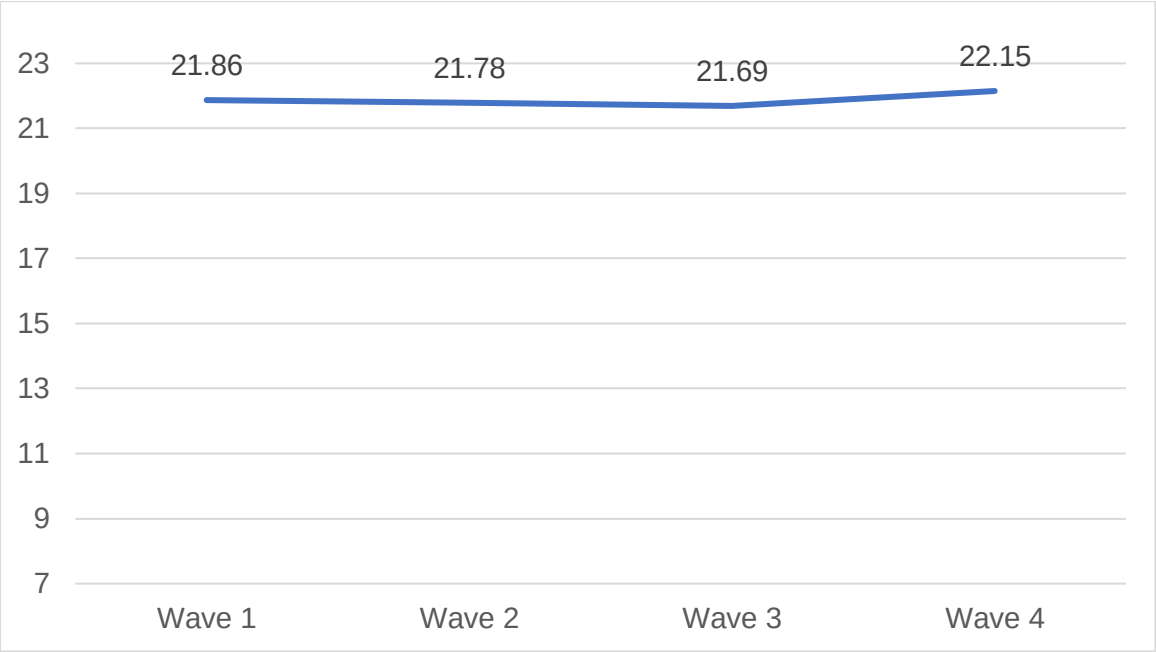
Changes across the waves

Analysis suggests that levels of average mental wellbeing for the overall sample increased from Wave 3 (21.69) to Wave 4 (22.15), and levels of mental wellbeing at Wave 4 (22.15) were higher than Wave 1 (21.86) and Wave 2 (21.78), as illustrated in Figure 2.14.

An increase in levels of mental wellbeing from Wave 3 to Wave 4 was found for the following subgroup:

- Respondents in the higher SEG

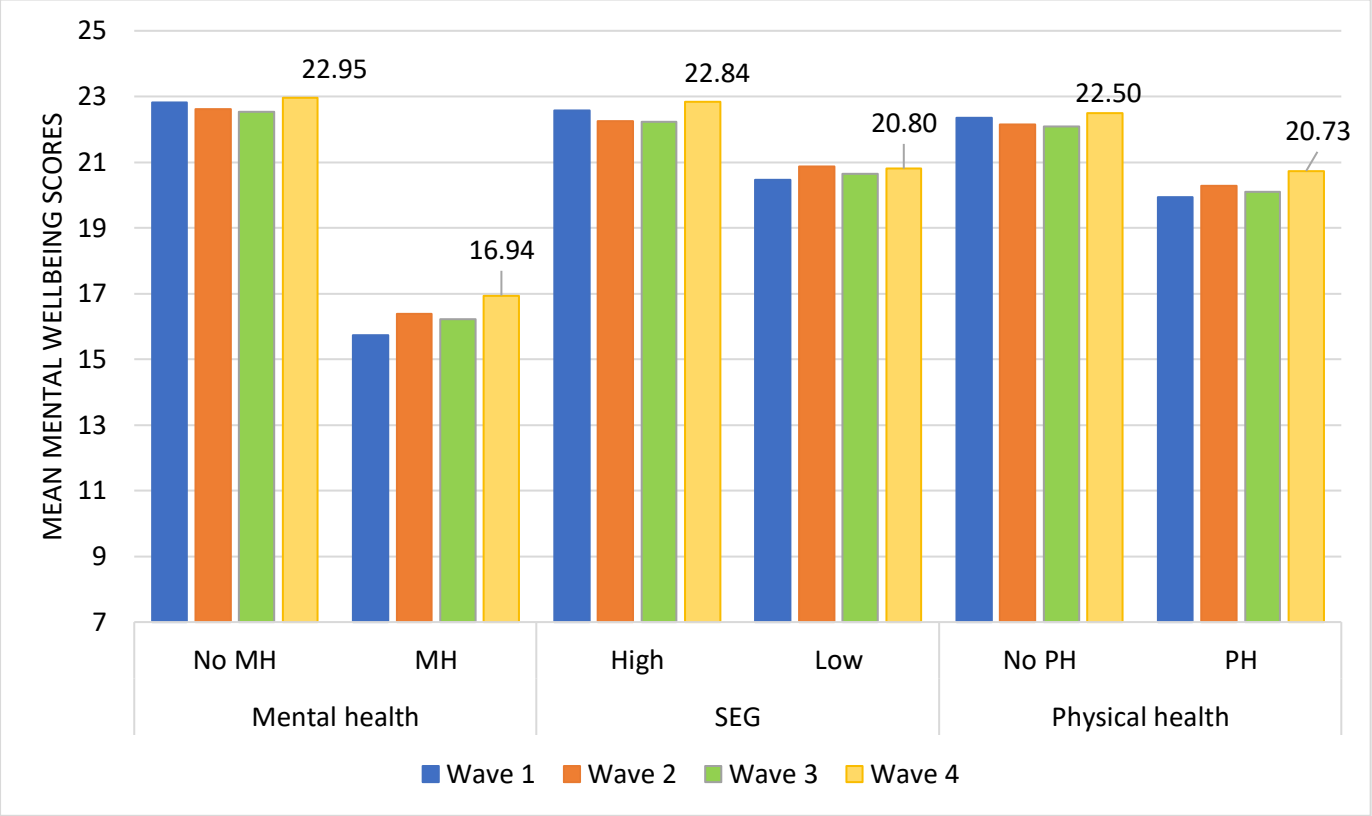
Figure 2.14. Mean mental wellbeing scores across the waves



There were no statistically significant differences in the changes across the waves in mental wellbeing by age and sex. Specifically, mental wellbeing for those aged 30-59 years for both women (Wave 3: 20.33; Wave 4: 21.23) and men (Wave 3: 21.68; Wave 4: 22.05) did not change. Additionally, levels of mental wellbeing remained similar for both women (Wave 3: 23.28; Wave 4: 23.37) and men (Wave 3: 23.26; Wave 4: 23.64) aged 60+ years. Due to the loss at follow-up, it is not possible to report the changes for the 18-29 year old age group over the waves.

There were some changes in levels of mental wellbeing over the waves by background and health factors, which are displayed in Figure 2.15. Specifically, respondents from the higher SEG had an increase in mental wellbeing from Wave 3 (22.22) to Wave 4 (22.84). As most subgroups increased in mental wellbeing in similar levels from Wave 3 to Wave 4, no further subgroup differences were reported.

Figure 2.15. Mean mental wellbeing scores at Wave 1, Wave 2, Wave 3, and Wave 4 by pre-existing mental health (MH) condition, socio-economic group (SEG), and pre-existing physical health (PH) condition (%)



2.6. Other mental wellbeing outcomes

Wave 4 of the SCOVID Mental Health Tracker Study assessed a range of other indicators and correlates of mental health and wellbeing. These included feelings of defeat, entrapment, loneliness, life satisfaction, and distress. This section provides a brief overview of these measures, and findings suggest that the subgroups most at risk of poor mental health and wellbeing (compared to their subgroup counterpoints) are:

- Women
- Young adults (18-29 years)
- Those with a pre-existing mental health condition
- Those in the lower SEG

2.6.1 Loneliness

We measured loneliness using the UCLA Loneliness Scale (Hughes et al., 2014), which assesses 3 aspects of loneliness, namely: lacking companionship, feeling left out, and feeling isolated from others. We asked people how often they felt each of

these aspects of loneliness in the week prior to responding to the Wave 4 questionnaire.

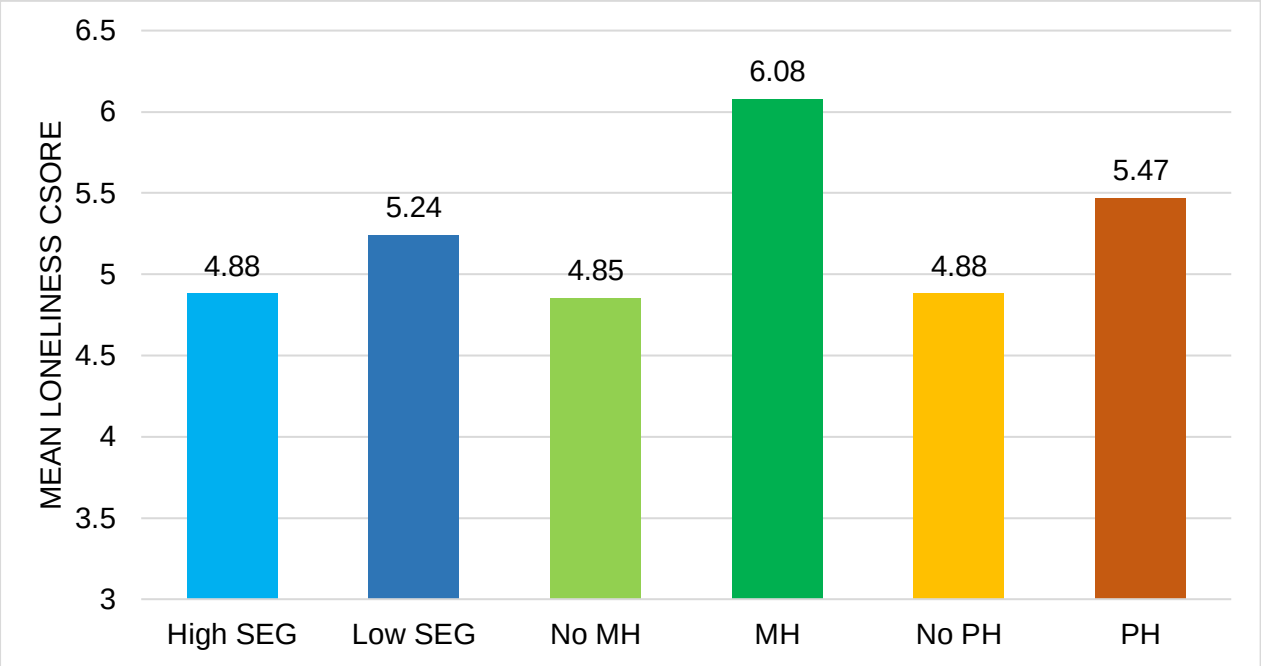
A total loneliness score was created by adding the responses to each question together, creating a score between 3, indicating no loneliness, and 9, indicating high levels of loneliness. As there is no cut-off score demarcating high and low levels of loneliness, mean scores were reported when comparing the different subgroups in terms of perceived levels of loneliness.

Wave 4 findings

The mean score for loneliness for the whole sample at Wave 4 was 5.01 out of a maximum of 9 (where a higher score means higher loneliness). There were a number of clear differences in terms of levels of loneliness by age and sex. For example, women reported being lonelier (5.21) than men (4.80). Additionally, young adults (18-29 years) had the highest levels of loneliness (5.42), compared to 30-59 year olds (5.01) and 60+ year olds (4.72).

Subgroup analyses indicated that respondents' background and health may also be associated with higher levels of loneliness (see Figure 2.16). Specifically, respondents in the lower SEG reported higher mean loneliness scores (5.24) than those in the higher SEG (4.88). Additionally, people with a pre-existing physical health condition reported experiencing higher loneliness (5.47) than those with no pre-existing physical health condition (4.88). Individuals with a pre-existing mental health condition reported higher loneliness (6.08) compared to those with no pre-existing mental health conditions (4.85).

Figure 2.16. Mean loneliness scores for SEG, pre-existing mental health (MH) condition, and pre-existing physical health (PH) condition.



Changes across the waves

For the whole sample, feelings of loneliness increased from Wave 3 (4.71) to Wave 4 (4.83), which brings it to a similar level of that reported at Wave 1 (4.89).

Some subgroups reported an increase in loneliness from Wave 3 to Wave 4, including:

- Respondents from the lower SEG
- People with caring responsibilities
- Respondents who had dependents under 16 years old in their household

Looking at age and sex, as loneliness increased for all subgroups, there were no statistically significant differences between the subgroups in changes in levels of loneliness from Wave 3 to Wave 4.

Some differences in changes in levels of loneliness over time were reported for background and household subgroups. Respondents from the lower SEG reported that their loneliness increased from Wave 3 (4.96) to Wave 4 (5.21), compared to those in the higher SEG, whose levels of loneliness remained similar (Wave 3: 4.57; Wave 4: 4.64). Additionally, people who had caring responsibilities reported that their loneliness had increased from Wave 3 (4.40) to Wave 4 (4.90), compared to individuals with no caring responsibilities (Wave 3: 4.75; Wave 4: 4.83). Finally, respondents who had dependents under 16 years old in their household reported an

increase in levels of loneliness from Wave 3 (4.56) to Wave 4 (4.81), compared to those with no dependents (Wave 3: 4.75; Wave 4: 4.84).

2.6.2 Defeat and entrapment

Feelings of defeat and entrapment are important indicators of mental health, and have been associated with depression, anxiety, and suicidal thoughts. Defeat is a feeling of powerlessness in life and entrapment is a feeling of being trapped by circumstances or your own thoughts. Defeat was assessed using the short form of the Defeat Scale (Gilbert & Allan, 1998; Griffiths et al., 2015) and entrapment using the short form of the Entrapment Scale (Gilbert & Allan, 1998; De Beurs et al., 2020). All respondents are given a score for each measure by adding together each question response, with 0 indicating no feelings of defeat or entrapment and 16 indicating a very high level of feelings of defeat and entrapment. There are no cut-off scores for defeat and entrapment measures to demarcate high or low levels of defeat and entrapment, therefore an average mean score is used to compare differences between the subgroups.

Wave 4 findings

The overall mean score for the sample was 3.87 for defeat and 3.52 for entrapment.

Investigating the subgroups, there were some differences in relation to age and sex on feelings of defeat and entrapment. Findings suggests that young adults and women were at higher risk for feeling defeated and entrapped. For example, young adults' (18-29 years) mean scores on defeat (4.72) were higher than those aged 30-59 years (4.30) and those aged 60+ (2.61). Similarly, for feelings of entrapment, young adults (18-29 years) scored higher on entrapment (4.57) than those aged 30-59 years (3.92), which was higher than those aged 60+ years (2.14). Regarding the differences by sex, women reported higher mean scores on defeat (4.25) than men (3.47), and women reported higher levels of feeling entrapped (3.88) than men (3.13).

Other background and health factors appear to be associated with differences in feelings of defeat and entrapment. Respondents in the lower SEG felt more defeated (4.23) than those in the higher SEG (3.67). In addition, those in the lower SEG scored higher on entrapment (3.91) than those in the higher SEG (3.30). Moreover, respondents who indicated having a mental health condition scored higher on defeat (7.99) than those with no pre-existing mental health condition (3.26). Similarly, the entrapment mean score among those with a mental health condition was higher (8.06) than of those with no pre-existing mental health diagnosis (2.84).

Changes across the waves

For the whole sample, average defeat scores were higher at Wave 4 (3.95) than both Wave 2 (3.74) and Wave 3 (3.76), but similar to Wave 1 (3.86). Average entrapment scores at Wave 4 (3.70) were similar to Wave 3 (3.59), but were higher than those at Wave 1 (3.38) and Wave 2 (3.27).

The following groups reported that their average defeat and entrapment scores had changed from Wave 3 to Wave 4:

- Men aged 30-59 and 60+ years reported an increase in defeat
- Those with no pre-existing mental health condition reported an increase in defeat, while those with a pre-existing mental health condition reported a decrease in entrapment
- Respondents from the lower SEG reported an increase in levels of entrapment
- Respondents who had caring responsibilities reported an increase in defeat and entrapment
- Individuals who are key workers reported an increase in defeat and entrapment

Looking more closely at subgroup changes in defeat and entrapment by age and sex, differences emerge. For men aged 30-59 years, defeat scores increased from Wave 3 (3.43) to Wave 4 (3.90), as well as for men aged 60+ years (Wave 3: 2.34; Wave 4: 2.59). There were no statistically significant changes for entrapment for age and sex subgroups.

There were also some changes over the waves by background and health factors. People without a pre-existing mental health condition reported that their defeat increased from Wave 3 (2.96) to Wave 4 (3.19) but reported no change in entrapment scores (Wave 3: 2.71; Wave 4: 2.88). This is compared to those with a pre-existing mental health condition, who reported no change in defeat scores (Wave 3: 8.95: Wave 4: 8.84), however a decrease in entrapment scores (Wave 3:9.25 to Wave 4:9.00). Despite these changes, those with a pre-existing mental health condition reported higher defeat and entrapment at all waves compared to those without.

Respondents from the lower SEG reported an increase in levels of entrapment from Wave 3 (3.48) to Wave 4 (3.93), compared to the higher SEG who reported similar levels at both waves (Wave 3: 3.65; Wave 4: 3.59). Those who were carers' reported an increase in levels of defeat (Wave 3: 4.38; Wave 4: 5.21) and entrapment (Wave 3: 3.63; Wave 4: 4.56). Additionally, respondents who were key workers reported in increase in their levels of defeat (Wave 3: 3.29; Wave 4: 4.08) and entrapment (Wave 3: 3.31; Wave 4: 3.76).

2.6.3 Resilience

How resilient a person is can be important for understanding their capacity to cope with difficulties and recover from hardship and stress. Being resilient can be protective for mental health problems, including depression, anxiety, and suicidal thoughts. Resilience was assessed using 4 questions from the Brief Resilience Scale (BRS; Smith et al., 2008).

Respondents received a total score by summing the responses to each question, and this ranges from 0, indicating very low resilience to 16, indicating very high resilience. As there are no cut-off scores to demarcate levels of high and low resilience, mean scores were used to compare the different subgroups on resilience. Respondents were asked to rate their perceptions of their resilience in the 7 days prior to responding to the Wave 4 questionnaire.

Wave 4 findings

Across the whole sample, the mean resilience score was 10.64, out of a possible 16.

The subgroup analyses revealed some differences in mean resilience scores by age and sex. Specifically, mean resilience scores were higher for men (10.99) compared to women (10.33). Levels of resilience varied by age group, with the older age group (60+ years) reporting the highest levels of resilience (12.16), followed by 30-59 year olds (10.08), and young adults reported the lowest levels of resilience (9.72).

Respondents' perceptions of their resilience and ability to cope with stress varied by background and health status. For example, levels of resilience were higher for those in a higher SEG (10.92), compared to the lower SEG (10.16). Individuals with a pre-existing mental health condition also reported less resilience (6.68) compared to those with no mental health condition (11.23).

Changes across Waves

Across the whole sample, levels of resilience decreased from Wave 2 (10.63) and Wave 3 (10.52) to Wave 4 (10.37), although resilience scores at Wave 4 were not different from Wave 1 (10.48). Analysis suggests that levels of resilience decreased for women aged 30-59 years from Wave 3 (9.85) to Wave 4 (9.48), as well as for men aged 30-59 years from Wave 3 (10.70) to Wave 4 (10.43), compared to the other age and sex subgroups. For those with a pre-existing mental health condition, levels of resilience increased from Wave 3 (5.83) to Wave 4 (6.14), compared to the decrease seen among those with no mental health condition (Wave 3: 11.25. Wave 4: 11.02), who still remained higher overall.

2.6.4 Social support

Questions assessed sources of emotional and physical support and feelings of connection to those around the respondents. Good support networks are important to protect against poor mental health, including against depression, anxiety, and suicidal thoughts. Social support was measured using four questions from the ENRICHD Social Support Instrument (ESSI; Mitchel et al., 2003) that assess how often an individual feels they currently have emotional and physical support.

Responses are summed into a total score, with a potential range from 4, indicating low social support, to 20, indicating very high social support. Therefore, higher scores represent higher levels of social support.

Wave 4 findings

For the whole sample, the mean score for levels of social support was 14.19. There were some differences in perceptions of social support by age and sex. Interestingly, at Wave 4 young adults (18-29 years) reported the highest levels of social support (14.75), higher than individuals aged 60+ years (14.38). The lowest social support was seen in the 30-59 year olds (13.80). There were no statistically significant differences in social support between men (14.22) and women (14.15).

Respondents' background and health status also were associated with different levels of social support, with those most at risk of negative outcomes such as depression and anxiety reporting lower social support. Specifically, individuals in the higher SEG reported more social support (14.73) than those in the lower SEG (13.25). Respondents with no pre-existing physical health condition reported higher levels of social support (14.46) than those without a pre-existing physical health condition (13.22). Additionally, individuals with no pre-existing mental health condition reported higher levels of social support (14.44) compared to those with a pre-existing mental health condition (12.50). This suggests that those with a pre-existing mental health condition, in particular, have less sources of social support, a key protective factor for poor mental health.

Changes across Waves

For the whole sample, social support average scores decreased from Wave 3 (14.62) to Wave 4 (14.42), and were similar at Wave 4 to Wave 1 (14.37) and Wave 2 (14.42). Analysis suggests that there were no statistically significant changes in levels of social support between the age and sex subgroups from Wave 3 to Wave 4.

Respondents with a pre-existing mental health condition reported that their social support increased from Wave 3 (12.15) to Wave 4 (12.65), and those without a pre-

existing mental health condition reported a decrease in social support from Wave 3 (15.01) to Wave 4 (14.69).

2.6.5 Distress and life satisfaction

Distress is a feeling of acute anxiety and pain, and it is a correlate of current and future mental wellbeing. To measure levels of distress, we asked respondents to indicate on a 10-point scale how distressed they had felt in the past week, on a range of 0, indicating feeling no distress, to 10, indicating feeling extreme distress.

Respondents were also asked about their current life satisfaction with the question 'All things considered, how satisfied are you with your life as a whole nowadays?' They were asked to rate their life satisfaction on a scale from 0, indicating extremely dissatisfied to 10, indicating extremely satisfied. As there is no cut-off for high and low distress, the subgroups are compared on their average mean scores.

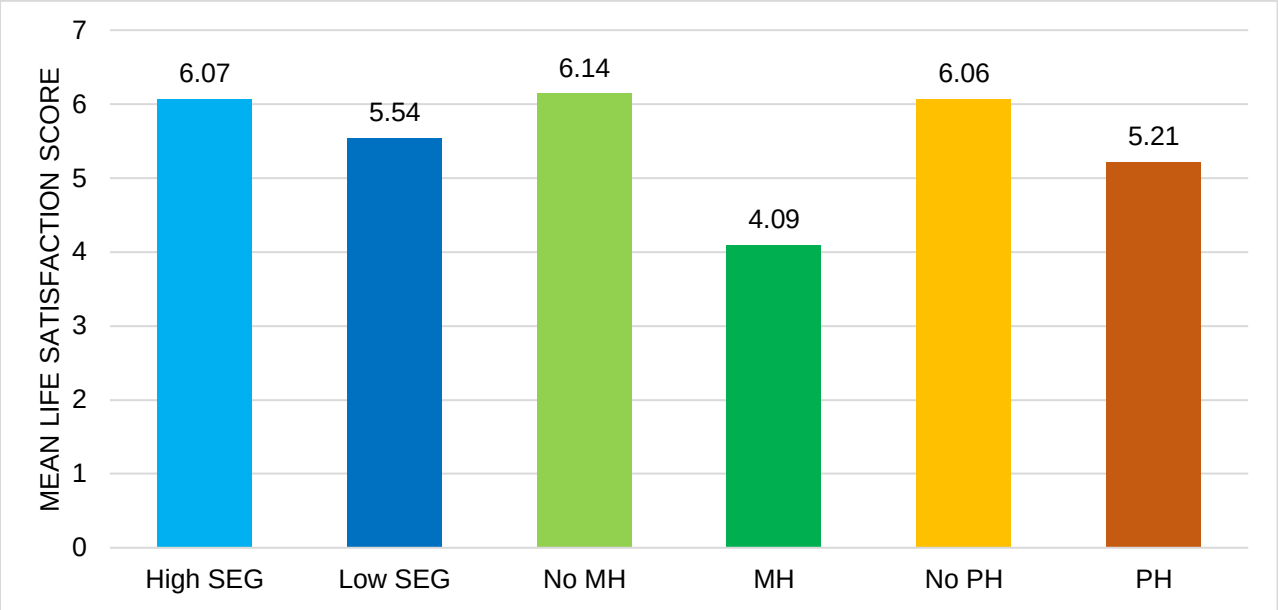
Wave 4 findings

For the whole sample the average level of distress was 2.79, which suggests mild levels of distress. Different levels of distress were found for age and sex. Specifically, women reported higher levels of distress in the week prior to the Wave 4 questionnaire (3.18) than men (2.37). Additionally, levels of distress varied across the different age groups, with young adults (18-29 year olds) reporting the highest levels of distress (3.90), followed by 30-59 year olds (2.86) and the 60+ group (1.88). Findings from young adults should be treated with caution due to the small sample size.

Levels of distress varied according to respondents' health. Of all the subgroups, the highest levels of distress were seen in those with a pre-existing mental health condition (4.61), higher than those with no previous mental health diagnosis (2.52). Respondents in the lower SEG reported a greater level of distress (3.03) than those in the higher SEG (2.66). Respondents with a pre-existing physical health condition reported higher levels of distress (3.01) than those without a pre-existing physical health condition (2.73).

The average mean life satisfaction for the sample was 5.87, which suggests that overall, respondents were moderately satisfied with life. Looking at life satisfaction by age, young adults (18-29 year old) had the lowest life satisfaction scores (5.43), compared to the 30-59 year olds (5.69) and the 60+ year old group (6.48). Findings from young adults should be treated with caution due to the small sample size.

Figure 2.17. Mean life satisfaction scores for SEG, pre-existing mental health (MH) condition, and pre-existing physical health (PH) condition.



Subgroup analyses indicated that respondents' background and health may also be associated with higher levels of life satisfaction, as illustrated in Figure 2.17. Specifically, respondents in the higher SEG reported higher mean life satisfaction scores (6.07) than those in the lower SEG (5.54). Additionally, people without a pre-existing physical health condition reported experiencing higher life satisfaction (6.06) than those with a pre-existing physical health condition (5.21). Individuals with no pre-existing mental health condition reported higher life satisfaction during Wave 4 (6.14) compared to those with a pre-existing mental health condition (4.09).

3. Wave 4 COVID-19 Contextual Factors

This section provides a summary of respondents' experiences of, and views on COVID-19 between the 4th February and 9th March 2021 during a UK-wide lockdown. This section assesses people's experiences during this phase of lockdown restrictions in order to provide an understanding of the context in which respondents were living while they responded to the mental health and wellbeing focussed questions in the Wave 4 SCOVID questionnaire. Tracking these contextual factors is useful in understanding whether particular factors are correlated with certain mental health outcomes as findings from subsequent waves of this tracker study are gathered. Comparison to previous waves will not be made in this section, however corresponding data can be found in section 4 of the previous reports (Wave 1, Wave 2, Wave 3).

3.1 COVID-19 related experiences

Of the Wave 4 sample, 2.6% of respondents reported that they had been diagnosed with COVID-19, and 6.7% reported that they had not been diagnosed but suspected they had contracted COVID-19. Over three quarters of this group (81.2%) reported self-isolating as a result of their symptoms. The majority of respondents who were either diagnosed with or suspected they had COVID-19 reported having it over 6 months ago (64.8%). Around a quarter (26.9%) of respondents who have had COVID-19 reported experiencing 'Long COVID'. A third (33.2%) of respondents reported that they knew someone diagnosed with COVID-19 and 5.5% of respondents reported having lost friends or family members to COVID-19.

Attitudes to COVID-19 vaccination

At the time of the Wave 4 survey, just under a third (30.7%) of respondents reported having been offered a vaccine, and over half of those offered (66.4%) had received at least a first vaccine dose.

Respondents were asked to indicate up to three reasons for taking a COVID-19 vaccine. Of respondents who planned to take a vaccine, the most frequently reported reasons to take the vaccine were:

- 'to stop me catching COVID-19 or getting very ill from it' (74.5%),
- 'to allow my social and family life to get back to normal' (45.9%),
- 'to protect other people from catching COVID-19' (44.4%).

A tenth (10%) of respondents reported not planning to take a COVID-19 vaccine. Within this group, the main reasons for not taking the vaccine were:

- 'I am worried about unknown future effects of the vaccine' (55.2%),
- 'I am worried about side effects' (29.4%),

- ‘I am concerned about how quickly the vaccines have been developed’ (23.4%).

See Figures i and ii in Annex 3 for full breakdown of the reasons.

3.1.1 Summary of views on COVID-19

Respondents were asked a series of questions about their views and experiences of COVID-19 and the related restrictions. Responses for each question were recorded on a 0 to 10 scale, with 0 indicating ‘Not at all’ and 10 indicating ‘Very much’, with no definition ascribed to the points in between. The average scores for the whole Wave 4 sample are reported in this section. See Annex 3 and 4 for more detail.

- Respondents indicated the higher end of the scale, 8.0/10, on average to indicate how necessary they felt social distancing and lockdown measures to be in helping prevent the spread of COVID-19.
- When asked how concerned they felt about COVID-19, respondents averaged above the middle of the scale 6.7/10
- Overall, respondents on average indicated above middle of the scale for the effect of COVID-19 on their lives more generally as 6.3/10.
- Respondents on average indicated the middle of the scale (5.5/10) to indicate the impact COVID-19 had on how they felt emotionally (e.g., scared, upset, angry, depressed).
- When asked about how much control society had over COVID-19, they scored on average at the lower end of the scale (4.1/10).

Respondents were also asked how often they had followed the Government’s COVID-19 prevention guidelines in the two weeks before the Wave 4 survey:

- Overall, over eighty percent (86.3%) of respondents reported that they had ‘always or often’ followed Government guidelines.
- Respondents with pre-existing physical health (92.8%) and those who lived alone (91.1%) were most likely to report following Government guidelines ‘always or often’.

Wave 4 specific items

Respondents were asked to indicate the extent to which they agreed statements about COVID-19 risk, with response options ranging from strongly disagree to strongly agree. The items assessed included: concerns that their own or loved one’s risk of catching COVID-19 had increased, concerns around other people’s ability/willingness to follow COVID-19 restriction guidelines, and their overall feelings of safety to go out in the two weeks before the wave 4 survey.

- Those most likely to report feeling concerned that their risk of catching COVID-19 had increased were respondents with pre-existing mental health conditions (52.5%) and those with caring responsibilities (48.3%)
- The most likely to report feeling concerned that the risk of a loved one getting COVID had increased were respondents with a pre-existing mental (64.6%) or physical (56.9%) health condition and women aged 30-59 (55.6%).
- Those most likely to report concerns around other people's ability/willingness to follow COVID-19 restriction guidelines were respondents with a pre-existing physical (89.3%) or mental (86.2%) health condition.
- Those most likely to report not feeling safe to go out due to COVID-19 were respondents with a pre-existing physical (60.2%) or mental (57.8%) health condition.

Support seeking

Respondents were asked how willing they currently felt to contact healthcare services for a physical or mental health concern. Responses for each question were recorded on a 0 to 10 scale with 0 indicating 'Not at all willing' to 10 'Extremely willing'. No definition was ascribed to the points in between.

- At Wave 4, respondents recorded 7/10 as the average score to mark their willingness to contact their GP about a non-COVID-19 related health concern. Respondents in the 60+ age group (7.6/10) and men (7.2/10) were the most willing to contact the GP.
- On average, respondents recorded 6.3/10 to mark their willingness to seek professional help for their mental health. Respondents in the 60+ age group (6.6/10) and those with dependents under 16 years old (6.6/10) being most willing to seek help for their mental health.

3.2 General health and lifestyle factors during COVID-19

This section presents a brief breakdown of physical health, sleep, activity levels, and other lifestyle factors at Wave 4, which help to contextualise the mental health findings. Specifically, physical health and healthy lifestyle factors (e.g., good sleep, healthy eating) can have a positive influence upon mental health and wellbeing. Evidence suggests that the more healthy lifestyle choices an individual makes, the higher life satisfaction and lower psychological distress he or she tends to have (Velten, et al., 2014). Due to the restrictions during the COVID-19 pandemic, there is a risk that these general health and lifestyle factors will be negatively impacted, so that people are more likely to make unhealthy lifestyle choices, which may then have an effect on mental health and wellbeing.

3.2.1 Perceptions of overall health

Findings suggest that overall, respondents felt that their overall health was reasonably good. Respondents with a pre-existing mental or physical health condition reported worse perceptions of their health compared to those without pre-existing mental or physical health conditions.

At the time of the Wave 4 survey, most respondents (63.7%) reported that their health was 'very good' (15.6%) or 'good' (48.1%). Over a quarter (27.7%) reported their health as 'fair', and fewer than one in ten felt their health was either 'poor' (6.8%) or 'very poor' (1.7%).

Looking at the data more closely, there were some differences in reports on reporting of 'poor' or 'very poor' perceived health according to groups categorised by background factors:

- Respondents in the youngest age group (18-29 years) were least likely to report feeling their health was poor or very poor (3.4%) compared to 30-59 year olds (9.3%) and the 60+ years group (11.0%).
- Respondents from lower SEG (13.9%) were more likely to report poor or very poor general health than those in the higher SEG (5.3%).
- Respondents living in rural areas (9.4%) were more likely to report poor or very poor general health than those living in urban areas (8.2%).
- Respondents with caring responsibilities (12.6%) were more likely to report poor or very poor general health than those with no caring responsibilities (7.8%).
- Respondents with who were not keyworkers (9.6%) were more likely to report poor or very poor general health than those who were keyworkers (4.4%).
- Respondents living alone (13.3%) were more likely to report poor or very poor general health than those living with others (7.1%).
- Respondents who had not experienced a change in working status were more likely to report poor or very poor general health (12.2%) than those who had experienced a change in working status (4.3%).
- Around a third of respondents with pre-existing mental (31.1%) or physical health conditions (30.1%) reported poor or very poor general health compared to those without a pre-existing mental (5.1%) or physical health (3.3%) conditions.

3.2.2 Sleep

This section presents a brief overview of respondents' sleep quality in the week prior to Wave 4. Disturbances in sleep have been shown to be related to poor mental health and wellbeing, including associations with suicidal thoughts and self-harm

(Russell et al., 2017). Due to the lockdown restrictions people may lose their normal routines, and this can lead to poorer or less structured sleep. The data indicated that the highest proportion of respondents (44.6%) rated their sleep as 'average', over a quarter of respondents rated their sleep as good or very good (30.0%), while a quarter felt their sleep had been poor or very poor (25.3%).

A more detailed analysis of the sleep data shows that there were some subgroup differences by background:

- Respondents in the middle age group (30-59 year olds) were more likely to report experiencing poor or very poor (28.5%) sleep compared to around a quarter of the youngest age group (24.7%) and a fifth of respondents in the 60+ years age group (21.2%).
- Men were more likely to report good or very good (34.5%) sleep compared to women (25.9%).
- Respondents from the lower SEG were more likely to report poor or very poor (27.8%) sleep compared to the higher SEG (24.0%).

Sleep quality differed among respondents with or without pre-existing mental health conditions:

- Just under half of respondents with a pre-existing mental health condition reported poor or very poor sleep quality (46.6%) in the past week, compared to around a fifth (22.2%) of those with no mental health condition.
- Over a third of those with a pre-existing physical health condition reported poor or very poor sleep quality (34.8%) compared to under a quarter (23.1%) of those with no condition.

3.2.3 Lifestyle factors

This section presents a brief breakdown of respondents' lifestyle factors at Wave 4. Lifestyle factors can be important factors in an individual's mental and physical wellbeing. Behaviours such as taking part in regular physical activity, limiting alcohol intake and drug use (other than prescription or over the counter medicines) can help maintain physical and mental wellbeing (WHO, 2004). Maintaining a healthy lifestyle can be difficult at times of uncertainty and increased stress, such as during the COVID-19 pandemic. Respondents were asked to indicate whether, in comparison to their usual behaviours, they felt that they had done various activities 'Less than usual', 'About the same' or 'More than usual' in the week prior to the questionnaire. The lifestyle factors and behaviours included alcohol use, smoking, drug use (other than prescription or over the counter medicines), online gambling, and physical activity. The following section provides a brief overview of these lifestyle factors, noting statistically significant differences by subgroups.

Alcohol

Around a third of respondents (29.2%) reported not drinking alcohol in the past week. Around two fifths (41.9%) reported no changes in their drinking in the past week, a fifth (20.8%) reported drinking less than usual while 8.1% of respondents felt they had drunk more than usual.

Smoking

The majority of the sample (80.6%) reported not smoking during the previous week. Under 10% of the sample reported changes in smoking behaviour with 2.6% of respondents reporting having smoked less than usual, while 4.6% felt they had smoked more than usual.

Drugs

The majority of the sample (86.7%) reported not using drugs, 2.6% of the sample reported increased drug use in the previous week prior compared to their usual usage, while 1.0% reported decreased use.

Gambling

The majority of the sample reported not engaging in online gambling (77.5%) in the week prior. Under 10% of the sample reported changes in gambling behaviour with 4.3% of respondents reporting gambling less than usual, while 2.7% felt they had gambled more than usual.

Physical Activity

This section reports on how many days in the last week respondents had engaged in moderate or vigorous physical activity for 15 minutes or more. Overall, respondents reported engaging in exercise for an average of two and a half days per week (mean= 2.6 days).

- Respondents in the 18-29 year old age group reported higher levels of vigorous physical activity (mean= 2.7 days) compared to the 30-59 year olds (mean= 2.6 days) and the 60+ age group (mean= 2.5 days).
- Men reported higher levels of vigorous physical activity (mean= 2.6 days) compared to women (mean= 2.5 days).
- Respondents from higher SEGs (mean= 2.8) reported engaging in more vigorous physical activity compared to those from lower SEGs (mean= 2.2).

There were also differences in levels of physical activities among respondents with or without a pre-existing mental health condition:

- Respondents with a pre-existing mental health condition reported lower levels of vigorous physical activity (mean= 2.1 days) compared to those with no mental health condition (mean= 2.6 days).
- Lowest levels of vigorous physical activity were reported by respondents with pre-existing physical health conditions (mean= 1.7 days) compared to those with no physical health conditions (mean= 2.8 days).

3.3 Support network and emotional support

This section presents an overview of respondents' emotional and social support at Wave 4. The availability of help and assurance from friends, relatives, and colleagues has previously been found to improve individuals' capability to deal with stressful life events and to protect against mental distress and mental health problems (Saltzman, Hansel, & Bordnick, 2020). Given the possibility that people would be isolated from their usual support networks due to the COVID-19 pandemic, Wave 4 asked respondents how connected they felt to friends, family, colleagues, and their community during the COVID-19 lockdown. For the purposes of this report, those who reported being quite a bit, moderately or extremely connected were grouped in the category of 'Connected', and those who reported feeling not or a little bit connected were grouped as being 'Not connected'.

On average, those that felt the most connected included:

- A higher proportion of young adults (18-29 years) felt connected to friends and colleagues than the other age groups.
- More women felt connected to family than men, whereas more men felt connected to colleagues.
- Those in the higher SEG were more likely to feel connected to friends and colleagues than those in the lower SEG
- A higher proportion of respondents with no pre-existing mental or physical health condition felt connected to family, friends, colleagues, and community than those with a pre-existing mental or physical health condition.

3.3.1 Support Network

Family and Friends

Around two thirds of the sample (64.3%) felt connected to family, while under half the sample felt connected to friends (40.9%), and under a fifth (16.1%) felt connected to their community. Of respondents who worked, 38.5% felt connected to their colleagues.

Differences in feelings of social connectedness to friends or family were found for different groups based on age, sex and background:

- Young adults (18-29 year olds) were most likely to report feeling connected to their family (68.3%), followed by the middle age (30-59 years old) group (64.0%), and then the older (60+) age group (61.7%).
- Young adults (18-29 year olds) were more likely to report feeling connected to their friends (53.2%) than the older age groups (30-59 years: 37.7%; 60+ years: 37.0%).
- Respondents from the higher SEG were more likely to feel connected to family (66.2%) compared to those from the lower SEG (60.9%).
- Respondents from the higher SEG were more likely to feel connected to friends (44.3%) compared to those from the lower SEG (35.0%).
- Respondents who lived alone were less likely to feel connected to family (53.5%) than those living with others (67.3%).
- Respondents with caring responsibilities were less likely to feel connected to friends (34.4%) than those without caring responsibilities (42.1%).
- Respondents who had experienced a change to their working status were more likely to feel connected to family (66.4%) and friends (45.6%) than those who's working status hadn't changed (family: 62.4%, friends: 36.8%)

Living with an illness was also associated with different reports of connectedness:

- Respondents with a pre-existing mental (48.8%) or physical health (40.0%) condition were more likely to report not feeling connected to family compared to respondents without a pre-existing mental (32.7%) or physical (33.6%) health condition.
- The majority of respondents with a pre-existing mental (76.4%) or physical (69.5%) health condition did not feel connected to friends compared to around half of those without a pre-existing mental (54.7%) or physical (54.6%) health condition.

Colleagues and Community

Under a fifth (16.1%) of the overall sample reported feeling connected to their community. Around a quarter (26.8%) of respondents responded that the item assessing connectivity to colleagues was not applicable to them (e.g., respondents who may not work or had been furloughed) and they have been excluded from analysis of this item. Differences arose across subgroups such as age, sex, background and health status:

- Just under half of 30-59 year olds (45.2%) and 18-29 year olds (44.2%) reported feeling connected to their colleagues, compared to under a fifth (14.9%) of the 60+ age group.
- 20.4%) of 30-59 year olds felt connected to their community compared to 18.0% of 18-29 year olds, and 16.6% of the 60+ age group.

- Men were more likely to report feeling connected to their community (19.0%) than women (13.2%).
- Respondents from the higher SEG were more likely to feel connected to colleagues (42.6%) than those from the lower SEG (30.5%). Respondents from higher SEG were also more likely to feel connected to their community (18.5%) than those from lower SEG (11.9%).
- Respondents with a pre-existing mental health condition were less likely to feel connected to colleagues (20.5%) compared to respondents without a pre-existing condition (40.7%). Respondents with a pre-existing mental health condition reported feeling less connected to their community (8.0%) than those with no pre-existing mental health condition (17.3%).
- Respondents with a pre-existing physical health condition were less likely to feel connected to colleagues (15.7%) than those without a pre-existing physical health condition (42.2%). A tenth (9.8%) of respondents with a pre-existing physical health condition felt connected to their community compared to around a fifth (17.6%) without a pre-existing physical health.
- Respondents who had caring responsibilities were less likely to feel connected to colleagues (31.1%) than those without caring responsibilities (40.1%).
- Over half of respondents who were fulfilling keyworker roles (55.8%) felt connected to colleagues compared to a third of those who were not keyworkers (31.4%). Additionally, just around a quarter of keyworkers (22.5%) felt connected to their community compared to 14.3% of those who were not keyworkers.
- Respondents who had experienced a change to their working status were more likely to feel connected to colleagues (45.6%) than those who's working status hadn't changed (28.3%).

3.3.2 Emotional support

This section presents a breakdown of sources of emotional support respondents used in the month prior to Wave 4. Sources of emotional support included family, counsellors, GP, and NHS services. The findings for the whole sample are displayed in Table 3.1 below, with the percentage of people who had made contact with a particular source at least once in the month before the Wave 4 survey.

Friends and family were the most used source of support and NHS 24 was least used. Young adults (18-29 years old) were most likely to make use of the supports available. Women were more likely to have sought support from friends and family, while men were more likely to access resources online or by telephone.

Table 3.1. Percentage of respondents who used sources of emotional support at least once in the month before Wave 4 survey

Source of support	Respondents accessing in month prior to Wave 4 survey (%)
Friends or family	37.4
Professional counselling or therapy (via telephone, online or face-to-face)	5.8
GP or community health worker (e.g. health visitor, midwife, pharmacist)	6.7
NHS 24 111 telephone service	2.3
NHS Inform/Shielding support telephone line	4.3

Differences in use of support

- Women were more likely to have contacted friends and family for emotional support (44.0%) than men (30.1%).
- Men were more likely (3.2%) to have contacted NHS 24 than women (1.4%).
- Respondents in the youngest age group (18-29 years) were the most likely to have contacted community based emotional support compared to the other age groups whereas the 30-59 year age group were more likely to use NHS information services (e.g., NHS 24). Specifically:
    - The 18-29 year olds were more likely to have contacted friends and family for emotional support (63.9%) than the 30-59 year olds (36.2%) and the 60+ group (20.0%).
    - Respondents in the 18-29 year old age group were also more likely to have used professional counselling or therapy services (9.6%) than the other age groups (30-59 years: 7.3%, 60+ years: 0.9%).
    - The youngest age group were also more likely to report having contact with a GP or community health worker (9.5%) than the 30-59 year olds (6.9%) and the 60+ group (4.2%).
    - Respondents in the middle age group (30-59 years old) were more likely to report using NHS 24 (3.5%) than the 18-29 year olds (2.5%) or the 60+ group (0.3%).
    - The 30-59 years old age group were also more likely to report using NHS Inform/Shielding support telephone line (6.5%) than the 18-29 year olds (4.9%) and the 60+ group (0.7%).

- Respondents with a pre-existing mental health condition were more likely (52.6%) to have contacted friends and family for emotional support than those with no pre-existing condition (35.1%).

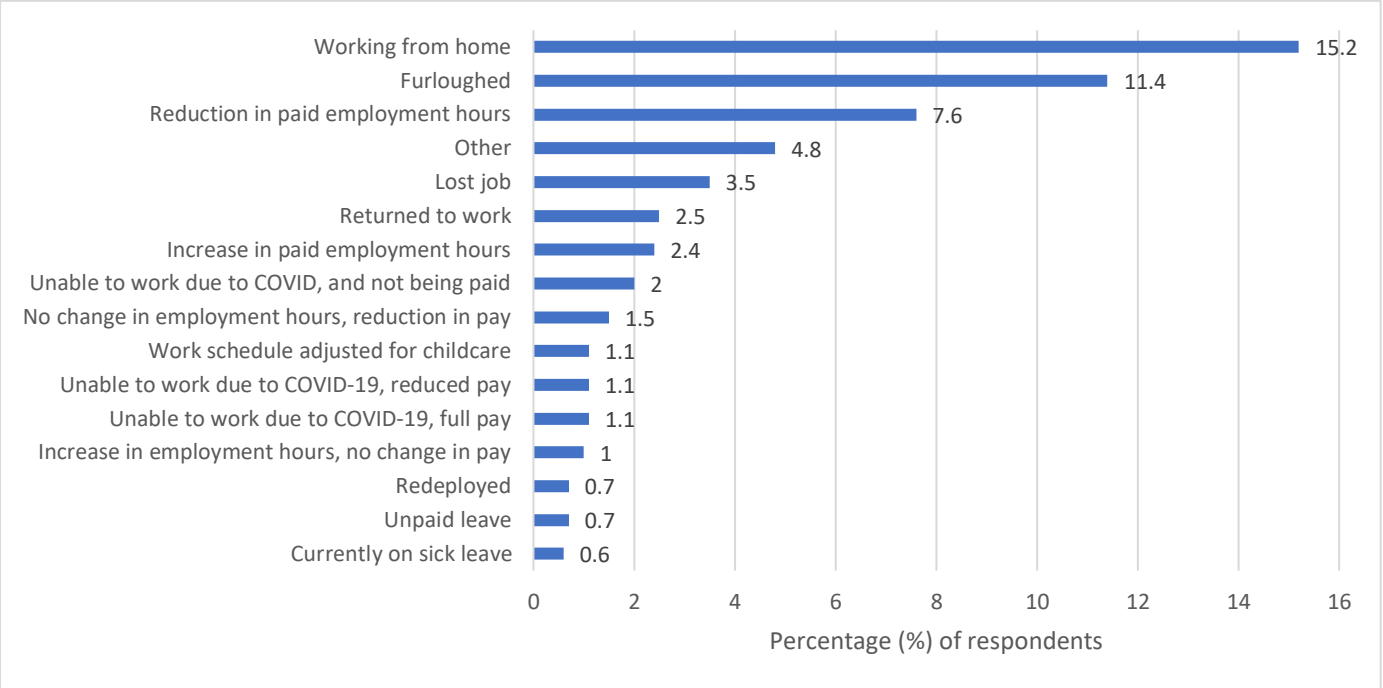
- Those with a pre-existing mental health condition were also more likely to have used professional counselling or therapy services (14.2%) compared to those with no pre-existing condition (4.6%).
- Respondents with a pre-existing mental health condition were more likely to report contact with GP or community health worker (14.4%) than those with no pre-existing mental health condition (5.5%).
- Respondents with a pre-existing mental health condition were also more likely (7.4%) to have used NHS Inform/Shielding support telephone line than those with no pre-existing physical health condition (3.9%).
- Respondents with a pre-existing physical health condition were less likely (32.0%) to have contacted friends and family for emotional support than those with no pre-existing condition (38.7%).
- Respondents with a pre-existing physical health condition were more likely to report contact with GP or community health worker (9.4%) than those with no pre-existing physical health condition (6.0%).
- Those with a pre-existing physical health condition were also less likely (0.6%) to have used NHS 24 than those with no pre-existing physical health condition (2.7%).

3.4. Finances during easing of lockdown

Financial difficulties, especially financial debts, have previously been found to be associated with mental health issues within the UK population (Jenkins et al., 2008). Additionally, different financial crises have been linked to increased prevalence rates of mental disorders and substance use (Van Hal, 2015) Considering links between finances and mental health, respondents were asked questions around work status and financial security during the Wave 4 survey period, and were able to select multiple options to reflect more than one change which may have occurred. Overall, just under half of respondents (42.5%) reported that their job had changed in some way during the COVID-19 pandemic. As displayed in Figure 3.2, at Wave 4 the most commonly reported changes were:

- 15.2% of the sample were working from home,
- 11.4% were furloughed,
- 7.6% of respondents had a reduction in paid employment hours.

Figure 3.2. Changes to job role experienced during COVID-19 pandemic (% of respondents)



To assess perceived financial coping during COVID-19 in Wave 4 of the SCOVID study, respondents were asked: “How well would you say you are managing financially these days?”. Responses ranged from ‘living comfortably' to ‘doing alright’, to ‘just about getting by’, to ‘finding it quite difficult’ to ‘finding it very difficult’. For this report we have grouped responses to reflect respondents reporting financial coping (living comfortably, doing alright, and just about getting by) and those who were experiencing difficulties (finding it quite difficult, and finding it very difficult). At the time of the Wave 4 survey the majority of respondents (90.1%) reported no financial difficulties.

Particular groups within the sample reported experiencing financial difficulties. These include respondents in the younger age groups, those in the lower SEG, carers, those living in rural areas, and respondents with a pre-existing mental health condition.

- Young adults (10.5%) and those aged 30-59 years (13.6%) were more likely to report financial difficulties than the 60+ age group (3.8%).
- Women were more likely to report financial difficulties (11.9%) than men (7.7%).
- Respondents with caring responsibilities were more likely (18.3%) to report financial difficulties than those without caring responsibilities (8.3%).
- Respondents from the lower SEG were more likely (14.4%) to report financial difficulties than those from higher SEG (7.2%).

- Respondents with a pre-existing mental health condition were more likely to report financial difficulties (23.9%) compared to those with no pre-existing mental health condition (7.8%).
- Respondents with a pre-existing physical health condition were more likely to report financial difficulties (12.7%) compared to those with no pre-existing condition (9.2%).

At Wave 4 respondents were asked if they had received financial or other material help from charities (e.g. used foodbanks) since the start of the COVID-19 pandemic.

Overall, 3.4% respondents said they had received financial or other material help from charities since the start of the COVID-19 pandemic. Particular groups within the sample reported receiving financial or other material help from charities:

- Respondents from the lower SEG were more likely (5.4%) to report receiving financial or other material help from charities than those from higher SEG (2.3%).
- Respondents aged 30-59 (5.4%) were the most likely of the age groups (18-29 years: 2.2%, 60+ years: 1.2%) to report having received financial or other material help from charities.
- Women (4.9%) were more likely to report having received financial or other material help from charities than men (1.8%).
- Respondents with a pre-existing physical health condition (5.7%) were more likely to report having received financial or other material help from charities than respondents without a pre-existing physical health condition (2.8%).
- Of all the groups, respondents with a pre-existing mental health condition (8.3%) were most likely to report having received financial or other material help from charities, compared to respondents with no pre-existing mental health condition (2.7%).

3.5 Interpersonal harm

Experiences of psychological and physical violence have short-term as well as long-lasting effects on individuals' mental health (Lindert & Levav, 2015). For example, intimate partner violence has been associated with subsequent symptoms of posttraumatic stress disorder, anxiety, and general psychological distress (Lagdon, Armour & Stringer, 2014). Given these links, respondents were asked questions about recent experiences of physical harm and bullying or psychological harm in the 2 weeks before the Wave 4 survey.

Overall, 6.2% of respondents reported that they had been physically harmed by another person in the prior 2 weeks. Additionally, 7.7% of respondents reported experiences of being bullied, controlled, intimidated or psychologically hurt by somebody else.

Particular groups within the sample reported higher rates of interpersonal harm than their subgroup counterpoints:

- Younger ages groups (18-29 years: 7.0%, 30-59 years: 7.3%) reported higher rates of more physical harm than the 60+ age group (3.8%)
- Respondents in the 30-59 year old age group were most likely (11.0%) to report psychological harm compared to the other age groups (18-29 years: 5.2%, 60+ years: 4.3%).
- Those with a pre-existing mental health condition were more likely to report physical (10.4%) and psychological harm (12.0%) than those without a pre-existing condition (physical harm: 5.6%, psychological harm: 7.0%).
- Those with a pre-existing physical health condition were more likely to report physical (9.6%) and psychological harm (12.0%) than those without a pre-existing physical health condition (physical harm: 5.4%, psychological harm: 6.8%).

3.6 Finding positives during the COVID-19 pandemic

Experiencing adversity can sometimes have positive effects for individuals. At Wave 4, a modified version of the Benefit Finding Scale (Tomich & Helgeson, 2004) was included, to assess if living through the COVID-19 pandemic had had any positives for respondents.

The three most endorsed items were:

- “Living through the COVID-19 pandemic has taught me how to adjust to things I cannot change” (34.0%)
- “Living through the COVID-19 pandemic made me more grateful for each day” (31.9%)
- “Living through the COVID-19 pandemic made me realize the importance of planning for my family’s future” (31.8%)

A total score for the measure is calculated by adding together each question response, with 14 indicating no positive effects of the COVID-19 pandemic and 70 indicating very high positive effects from the COVID-19 pandemic.

There are no cut-off scores for this scale showing high or low levels of benefit finding, therefore an average mean score is used to compare differences between the subgroups. The mean score for the sample was 36 (out of a possible 70). There were some differences between particular subgroups:

- Women (37.8) reported a higher average score than men (33.9), indicating that women were more likely to find benefits from experience of the COVID-19 pandemic.
- Respondents without a pre-existing mental health condition (36.4) reported higher levels of benefit finding than those with a pre-existing mental health condition (32.7)

- Respondents without a pre-existing physical health condition (36.2) reported higher levels of benefit finding than those with a pre-existing physical health condition (34.6)

3.7. Trust in authorities

Trust is an important indicator of how confident people are in society more widely. During COVID-19, public trust in the authorities is important as various public health rules and restrictions have been introduced to mitigate the spread of the virus. There is evidence that high public trust in the government regarding COVID-19 was correlated with lower psychological distress and higher physical well-being (Olagoke et al., 2020). In Wave 4 of the SCOVID study, trust in the authorities (police, NHS, UK, and Scottish governments) was assessed. Differences in levels of trust by groups can be found in Annex 4.

Police
Around two thirds of respondents (68.6%) said that they trusted the police to some extent and around a third of these respondents reported trusting the police completely.

NHS
The majority of respondents (87.7%) reported trusting the NHS to some extent and around half (47.2%) of these respondents endorsed trusting the NHS completely.

Trust in government
Respondents were asked to what extent they felt the UK and Scottish governments could be trusted.

- Just under a third of respondents (28.9%) said that they felt the UK government could be trusted to some extent while 60.8% said they did not trust it at all or did not trust it very much.
- Over half of all respondents (56.9%) said that they felt the Scottish government could be trusted to some extent while a third (34.0%) said they did not trust it at all or did not trust it very much.

Conclusions

Tracking the mental health and wellbeing of the Scottish population during the COVID-19 pandemic is important to understand the wider implications of the pandemic and lockdown, beyond those who have been directly impacted by the virus. This report outlines the findings from Wave 4 of the Scottish COVID-19 Tracker Study (4th February to 9th March 2021), which is the fourth of five waves in a longitudinal study spanning one year. The aim of this wave of the study is to better understand the mental health and wellbeing of the Scottish population during this period of the COVID-19 pandemic, specifically during a UK-wide lockdown.

Consistent with the cross-sectional findings from the three previous waves, the Wave 4 findings suggest there are particular groups within society that may be at elevated risk for more negative mental health and wellbeing outcomes such as depressive symptoms, anxiety symptoms, suicidal thoughts, and mental wellbeing. The highest rates of negative mental health outcomes in Wave 4 were reported among:

- young adults
- women
- respondents with a pre-existing mental health condition
- respondents with a pre-existing physical health condition
- respondents from the lower SEG.

As data collection for Wave 1 began in May 2020, after COVID-19 pandemic restrictions had already been put into place, this report is unable to identify how mental health and wellbeing has changed from before the pandemic. However, comparison between the Wave 1, Wave 2, Wave 3, and Wave 4 longitudinal data suggests an overall increase in mental ill-health during this time, although some findings were more mixed.

Specifically, rates of depressive symptoms increased from Wave 3 to Wave 4, and at Wave 4 depressive symptoms were the highest reported across the previous waves. Of further concern was the increase in suicidal thoughts from Wave 3 to Wave 4, which is consistent with a recent review suggesting there has been an increase in rates of suicidal thoughts during the COVID-19 pandemic compared to pre-pandemic rates globally (Dubé et al., 2021), although this is yet to be evidenced in suicide rates (Pirkis et al., 2021). Additionally, levels of loneliness and defeat increased from Wave 3 to Wave 4 and levels of life satisfaction decreased between these waves. In contrast, average levels of mental wellbeing increased from Wave 3 to Wave 4, and was higher than at all previous waves.

Overall, evidence from Wave 4 suggests there have been mixed findings relating to the mental health and wellbeing of respondents in the Scottish COVID-19 Tracker Study. It is important to note that mental health scales overlap in terms of the outcomes being measured while also indicating different findings. The overall pattern

of findings is mixed; there is some indication that mental health has deteriorated on several markers from Wave 1, Wave 2, and Wave 3 to Wave 4, specifically depressive symptoms and suicidal ideation, yet on other markers, such as mental wellbeing, there has been an improvement. As Wave 4 coincided with a UK-wide lockdown, including restrictions on many freedoms, this implies that lockdown restrictions may have impacted upon people's mental health, although that impact may not be consistent depending upon the mental health measure used. This effect will be monitored closely in the final wave of the SCOVID study (ran between 1 June 2021 and 9 July 2021), which coincided with the easing of restrictions.

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Annex

Annex 1. SCOVID Tracker study quotas and sample information

Table A. Wave 1 - Sample in each age by sex quota

Age	Target	Achieved
18 to 24 male	200	176
18 to 24 female	200	221
25 to 34 male	200	186
25 to 34 female	200	226
35 to 54 male	374	373
35 to 54 female	395	399
55 to 69 male	264	305
55 to 69 female	280	290
70+ male	168	235
70+ female	219	193
Total	2,500	2604

Table B. Wave 1 - Sample in each tenure quota

Tenure	Target	Achieved
Owned Outright or Mortgaged	1553	1651
Social Rent	585	525
Private Rent	362	428

Table C. Wave 1 - Sample in each highest qualification quota

Highest Qualification	Target	Achieved
No Qualifications	388	144
Level 1 Standards or 2 Highers	877	900
Level 3 HNC/D or Level 4 Degree/prof or other	1235	1560

Table D - Sex and age breakdown of Wave 4 sample, unweighted

Wave 4 Sample

Age group	**Men** (n, %)	**Women** (n, %)	**All** adults (n, %)
18-29	75 (5.8%)	104 (8.1%)	180 (14.0%)
30-59	289 (22.5%)	310 (24.1%)	598 (46.5%)
60+	306 (23.8%)	201 (15.6%)	508 (39.5%)
All adults	670 (52.1%)	615 (47.9%)	1286[a] (100%)

[a] In the Wave 4 survey, n=2 people did not indicate their sex assigned at birth

Table D1 - Sex and age breakdown of Wave 1 sample, unweighted

Wave 1 sample

Age group	**Men** (n, %)	**Women** (n, %)	**All** adults (n, %)
18-29	264 (10.2%)	316 (12.2%)	580 (22.4%)
30-59	553 (21.3%)	615 (25.1%)	1204 (46.4%)
60+	448 (17.3%)	362 (14.0%)	810 (31.2%)
All adults	1265 (48.8%)	1329 (51.2%)	2594 (100%)

Table E - Wave 4 breakdown of sample by the different grouping variables used in the main analysis, with weights on and off

Group		**Weighted (n=2500) %**	**Unweighted (n=1288) %**
Sex [a]			
	Men	48.1	47.9
	Women	51.9	52.1
Age			
	18-29 years	22.3	14.1
	30-59 years	47.1	46.4
	60+ years	30.6	39.5
Socioeconomic group [b]			
	Lower half	36.7	32.6
	Higher half	63.3	67.4
Pre-existing mental health condition [c]	No MH	87.0	89.0
	Yes MH	13.0	11.0
Pre-existing physical health condition [d]	No PH	78.1	77.2
	Yes PH	21.9	22.8
Access to outside space			
	No access	8.1	6.8
	Access	91.9	93.2
Unpaid carer [e]			
	No	82.1	81.1
	Yes	17.9	18.9
Key worker			
	No	76.1	78.0
	Yes	23.9	22.0
Change of working status [f]			
	No	57.4	60.2
	Yes	42.6	39.8
Dependents under 5 years			
	No	90.2	91.8
	Yes	9.8	8.2

Note:*data are weighted to more accurately reflect the Scottish population [a] Sex assigned at birth, [b] SEG categories A, B, C1= higher SEG; categories C2, D, E= lower SEG, [c] No MH = no pre-existing long-standing (>12 months) mental health condition; Yes MH = pre-existing long-standing (>12 months) mental health condition, [d] No PH = no pre-existing long-standing (>12 months) physical health condition; Yes PH = pre-existing long-standing (>12 months) physical health condition, [e] Unpaid caring responsibilities, [f] working from home, furloughed, reduction in paid employment

Table F - Rates of attrition from Wave 1 to Wave 4 for the subgroups within the longitudinal sample

Group	Wave 1 sample (n= 2604), n (%)	Wave 4 sample (n= 1022), n (%)	% of original sample completed Wave 4
Age group			
18-29	586 (22.5%)	56 (5.5%)	9.6%
30-59	1206 (46.3%)	506 (49.5%)	42.0%
60+	812 (31.2%)	460 (45.0)	56.7%
Sex [a]			
Women	1329 (51.2%)	471 (46.1%)	35.4%
Men	1265 (48.8%)	550 (53.9%)	43.5%
Ethnicity [b]			
White	2483 (95.4%)	1002 (98.0%)	40.4%
Ethnic minority[c]	121 (4.6%)	20 (2.0%)	16.5%
Socioeconomic grouping			
Higher half	1673 (64.2%)	710 (69.5%)	42.4%
Lower half	931 (35.8%)	312 (30.5%)	33.1%
Pre-existing mental health condition			
No MH	2281 (87.6%)	915 (89.5%)	40.1%
Yes MH	323 (12.4%)	107 (10.5%)	33.1%
Rural vs. Urban			
Rural	562 (21.6%)	255 (25.0%)	45.4%
Urban	2042 (78.4%)	767 (75.0%)	37.6%
Unpaid carer: any			
No	2140 (82.2)	847 (83.6%)	39.6%
Yes	448 (17.2)	166 (16.4%)	37.1%
Key worker			
No	2084 (80.0%)	830 (81.2%)	39.8%
Yes	520 (20.0%)	192 (18.8%)	36.9%
Dependents under 16 years			
No	1978 (76.0%)	821 (80.3%)	41.5%
Yes	626 (24.0%)	201 (19.7%)	32.1%
Pre-existing physical health condition			
No	2088 (80.2%)	796 (77.9%)	38.1%
Yes	516 (19.8%)	226 (22.1%)	43.8%

[a] At Wave 1 n=10 respondents did not indicate their sex; [b] Ethnicity was dropped from the analysis due to attrition; [c] In previous wave reports, the term BAME was used, however this terminology has been changed to reflect current Scottish Government guidelines.

Table G - Weighted and unweighted demographic characteristics of the sample who have completed all waves of data (Wave 1 to Wave 4)

Characteristic	Weighted* (n=2500) %	Unweighted (n=1022) %
Sex[a]		
Men	48.2%	53.9%
Women	51.8%	46.1%
Age		
18-29 years	21.4%	5.5%
30-59 years	47.6%	49.5%
60+ years	31.1%	45.0%
Ethnicity		
White	97.9%	98.0%
Asian	1.3%	1.2%
Black	0.0%	0.0%
Mixed	0.6%	0.5%
Other/prefer not to say	0.2%	0.3%
Relationship status		
Married/living with partner	60.8%	65.3%
Single	25.9%	20.3%
Separated/ divorced/widowed	12.9%	14.1%
Other/prefer not to say	0.4%	0.4%
Sexuality		
Heterosexual	91.3%	93.0%
Gay or bisexual	7.8%	6.0%
Other/prefer not to say	0.9%	1.0%

Table G continued - Weighted and unweighted demographic characteristics of the sample who have completed all waves of data (Wave 1 to Wave 4)

Characteristic	Weighted* (n=2500) %	Unweighted (n=1022) %
Highest Qualification		
No Qualifications	15.5%	6.5%
Secondary school education	35.1%	33.7%
HNC/D or Degree/ other	49.4%	59.8%
Key worker role	23.5%	18.8%
Carer role[b]	15.2%	16.4%
Socioeconomic group (SEG)[c]		
High	66.1%	69.5%
Low	33.9%	30.5%
Housing tenure		
Own (including mortgage)	62.1%	74.1%
Private rent	14.5%	10.2%
Council rent	19.0%	13.2%
Other	4.4%	2.5%
Property type		
House	72.5%	76.9%
Apartment or flat in block	26.1%	22.1%
Shared house/ Student Halls	0.0%	0.0%
Residential home	0.7%	0.4%
Other	0.7%	0.6%

Note:*data are weighted to more accurately reflect the Scottish population [a] Sex assigned at birth, [b] Unpaid caring responsibilities, [c] SEG categories A, B, C1= higher SEG; categories C2, D, E= lower SEG

Table H1: Wave 4 sample weighting compared to NRS Scottish Population 2019 data covering people aged 18+[20]

Characteristic	Weighted* (n=2500) %	Unweighted (n=1022) %	NRS data
Sex[a]			
Men	48.1%	47.9%	48.2%
Women	51.9%	52.1%	51.8%
Age			
18-29 years	22.3%	14.1%	19.1%
30-59 years	47.1%	46.4%	49.5%
60+ years	30.6%	39.5%	31.3%

Note:*data are weighted to more accurately reflect the Scottish population

Table E3: Wave 4 sample weighting compared to NRS Scottish Population 2011 data covering people aged 16 to 64 living in households in Scotland[21]

Socioeconomic group (SEG)	Weighted* (n=2500) %	Unweighted (n=1703) %	ONS data
High	63.3%	67.4%	50%
Low	36.7%	32.6%	50%

Note: *data are weighted to more accurately reflect the Scottish population, SEG measure categories AB-C1-C2-DE. Higher SEG (i.e., top-half): AB = Higher & intermediate managerial, administrative, professional occupations, C1 = Supervisory, clerical & junior managerial, administrative, professional occupations. Lower SEG (i.e., bottom-half): C2 = Skilled manual occupations, DE = Semi-skilled & unskilled manual occupations, unemployed and lowest grade occupations (ONS, 2001).

[20] Data available: Mid-Year Population Estimates | National Records of Scotland (nrscotland.gov.uk)
[21] Data available: Census 2011: Release 3I | National Records of Scotland (nrscotland.gov.uk)

Annex 2. Descriptive analysis of data with weights on and weights off

Table H1: Weights on percentages of cut-offs for mental health and wellbeing indicators for each subgroup for Waves 1 to Wave 4

Characteristic	Depressive symptoms	Anxiety symptoms	GHQ-12 cut off	Suicidal thoughts
Sex*Age				
Women 18-29	Wave 1: 50.2% Wave 2: 40.8% Wave 3: 40.1% Wave 4: 53.6%	Wave 1: 44.2% Wave 2: 41.6% Wave 3: 37.5% Wave 4: 45.3%	Wave 1: 51.0% Wave 2: 49.4% Wave 3: 49.1% Wave 4: 50.6%	Wave 1: 14.9% Wave 2: 17.9% Wave 3: 22.5% Wave 4: 32.9%
Women 30-59	Wave 1: 30.1% Wave 2: 27.3% Wave 3: 27.1% Wave 4: 29.9%	Wave 1: 24.6% Wave 2: 22.8% Wave 3: 22.8% Wave 4: 19.4%	Wave 1: 39.5% Wave 2: 35.8% Wave 3: 37.3% Wave 4: 35.5%	Wave 1: 13.4% Wave 2: 15.3% Wave 3: 12.4% Wave 4: 13.9%
Women 60+	Wave 1: 11.2% Wave 2: 11.0% Wave 3: 13.9% Wave 4: 13.2%	Wave 1: 5.9% Wave 2: 7.6% Wave 3: 8.8% Wave 4: 8.5%	Wave 1: 26.9% Wave 2: 21.0% Wave 3: 21.0% Wave 4: 21.7%	Wave 1: 1.5% Wave 2: 3.0% Wave 3: 1.0% Wave 4: 0.7%
Men 18-29	Wave 1: 5.6% Wave 2: 26.6% Wave 3: 26.6% Wave 4: 23.3%	Wave 1: 1.5% Wave 2: 3.4% Wave 3: 1.5% Wave 4: 3.4%	Wave 1: 7.2% Wave 2: 4.1% Wave 3: 5.6% Wave 4: 7.5%	Wave 1: 41.6% Wave 2: 4.3% Wave 3: 3.4% Wave 4: 4.1%
Men 30-59	Wave 1: 16.1% Wave 2: 20.1% Wave 3: 15.6% Wave 4: 23.6%	Wave 1: 10.7% Wave 2: 11.2% Wave 3: 10.0% Wave 4: 10.9%	Wave 1: 23.5% Wave 2: 24.5% Wave 3: 29.1% Wave 4: 24.9%	Wave 1: 10.3% Wave 2: 15.3% Wave 3: 9.3% Wave 4: 14.2%
Men 60+	Wave 1: 11.7% Wave 2: 13.1% Wave 3: 9.6% Wave 4: 12.8%	Wave 1: 11.7% Wave 2: 8.7% Wave 3: 10.1% Wave 4: 9.5%	Wave 1: 17.8% Wave 2: 15.3% Wave 3: 18.3% Wave 4: 18.3%	Wave 1: 2.2% Wave 2: 5.3% Wave 3: 2.9% Wave 4: 4.0%
Mental health condition				
No	Wave 1: 14.0% Wave 2: 16.5% Wave 3: 14.0% Wave 4: 18.7%	Wave 1: 9.7% Wave 2: 10.7% Wave 3: 9.7% Wave 4: 9.9%	Wave 1: 23.1% Wave 2: 20.7% Wave 3: 22.2% Wave 4: 23.6%	Wave 1: 5.7% Wave 2: 11.9% Wave 3: 5.5% Wave 4: 8.5%
Yes	Wave 1: 63.6% Wave 2: 59.7% Wave 3: 66.6% Wave 4: 65.7%	Wave 1: 57% Wave 2: 46.3% Wave 3: 49.7% Wave 4: 49.7%	Wave 1: 63.6% Wave 2: 59.4% Wave 3: 64.2% Wave 4: 48.1%	Wave 1: 25.8% Wave 2: 36.0% Wave 3: 31.9% Wave 4: 31.1%

Table H1 continued: Weights on percentages of cut-offs for mental health and wellbeing indicators for each subgroup for Waves 1 to Wave 4

Characteristic	Depressive symptoms	Anxiety symptoms	GHQ-12 cut off	Suicidal thoughts
SEG				
High	Wave 1: 20.0% Wave 2: 21.2% Wave 3: 21.2% Wave 4: 21.1%	Wave 1: 15.0% Wave 2: 12.9% Wave 3: 13.7% Wave 4: 13.1%	Wave 1: 26.9% Wave 2: 23.8% Wave 3: 26.3% Wave 4: 27.0%	Wave 1: 6.5% Wave 2: 12.6% Wave 3: 8.9% Wave 4: 11.0%
Low	Wave 1: 22.0% Wave 2: 24.4% Wave 3: 20.8% Wave 4: 32.6%	Wave 1: 18.2% Wave 2: 20.5% Wave 3: 17.5% Wave 4: 19.5%	Wave 1: 32.1% Wave 2: 29.9% Wave 3: 30.8% Wave 4: 26.6%	Wave 1: 11.6% Wave 1: 19.6% Wave 2: 8.1% Wave 3: 11.4%
Rural v urban				
Rural	Wave 1: 22.6% Wave 2: 24.9% Wave 3: 19.5% Wave 4: 30.1%	Wave 1: 18.4% Wave 2: 18.0% Wave 3: 17.5% Wave 4: 15.1%	Wave 1: 32.9% Wave 2: 29.7% Wave 3: 37.2% Wave 4: 32.4%	Wave 1: 6.8% Wave 2: 10.9% Wave 3: 5.2% Wave 4: 7.7%
Urban	Wave 1: 20.1% Wave 2: 21.6% Wave 3: 21.5% Wave 4: 23.7%	Wave 1: 15.5% Wave 2: 14.8% Wave 3: 14.4% Wave 4: 15.3%	Wave 1: 27.6% Wave 2: 24.9% Wave 3: 25.4% Wave 4: 25.4%	Wave 1: 8.6% Wave 2: 16% Wave 3: 9.5% Wave 4: 12.0%
Physical health Condition				
No	Wave 1: 16.7% Wave 2: 18.8% Wave 3: 18.2% Wave 4: 21.9%	Wave 1: 13.4% Wave 2: 12.5% Wave 3: 12.4% Wave 4: 12.5%	Wave 1: 25.1% Wave 2: 22.5% Wave 3: 24.0% Wave 4: 24.2%	Wave 1: 7.2% Wave 2: 14.3% Wave 3: 8.3% Wave 4: 11.0%
Yes	Wave 1: 36.3% Wave 2: 36.1% Wave 3: 32.7% Wave 4: 37.7%	Wave 1: 26.9% Wave 2: 27.3% Wave 3: 25.5% Wave 4: 26.1%	Wave 1: 42.4% Wave 2: 39.5% Wave 3: 42.9% Wave 4: 37.5%	Wave 1: 12.2% Wave 2: 17.3% Wave 3: 10.0% Wave 4: 11.8%
Carer				
Not a carer	Wave 1: 18.9% Wave 2: 21.3% Wave 3: 21.0% Wave 4: 24.3%	Wave 1: 14.7% Wave 2: 14.5% Wave 3: 13.6% Wave 4: 14.7%	Wave 1: 25.5% Wave 2: 23.2% Wave 3: 26.2% Wave 4: 25.3%	Wave 1: 8.1% Wave 2: 15.4% Wave 3: 8.4% Wave 4: 11.3%
Carer	Wave 1: 30.2% Wave 2: 28.4% Wave 3: 22.5% Wave 4: 28.4%	Wave 1: 23.9% Wave 2: 21.8% Wave 3: 21.8% Wave 4: 18.9%	Wave 1: 46.8% Wave 2: 41.4% Wave 3: 37.2% Wave 4: 36.2%	Wave 1: 8.6% Wave 2: 13% Wave 3: 10.5% Wave 4: 10.5%

Table H1 continued: Weights on percentages of cut-offs for mental health and wellbeing indicators for each subgroup for Waves 1 to Wave 4

Characteristic	Depressive symptoms	Anxiety symptoms	GHQ-12 cut off	Suicidal thoughts
Key worker				
Not a key worker	Wave 1: 20.2% Wave 2: 19.2% Wave 3: 19.1% Wave 4: 24.9%	Wave 1: 15.4% Wave 2: 15.0% Wave 3: 14.8% Wave 4: 14.9%	Wave 1: 28.5% Wave 2: 26.5% Wave 3: 27.9% Wave 4: 26.9%	Wave 1: 7.7% Wave 2: 12.8% Wave 3: 8.4% Wave 4: 10.0%
Key worker	Wave 1: 22.0% Wave 2: 32.3% Wave 3: 27.4% Wave 4: 25.4%	Wave 1: 18.2% Wave 2: 17.0% Wave 3: 15.6% Wave 4: 16.5%	Wave 1: 29.4% Wave 2: 24.0% Wave 3: 27.6% Wave 4: 26.9%	Wave 1: 10.1% Wave 2: 21.8% Wave 3: 9.4% Wave 4: 15.0%
Live alone				
Don't live alone	Wave 1: 21.5% Wave 2: 22.9% Wave 3: 22.5% Wave 4: 25.9%	Wave 1: 16.9% Wave 2: 16.4% Wave 3: 15.3% Wave 4: 15.9%	Wave 1: 30.3% Wave 2: 27.9% Wave 3: 28.5% Wave 4: 27.4%	Wave 1: 8.1% Wave 2: 17.3% Wave 3: 9.2% Wave 4: 12.1%
Live alone	Wave 1: 17.9% Wave 2: 20.4% Wave 3: 16.6% Wave 4: 22.4%	Wave 1: 13.8% Wave 2: 12.7% Wave 3: 14.1% Wave 4: 13.3%	Wave 1: 24.2% Wave 2: 19.7% Wave 3: 25.7% Wave 4: 25.3%	Wave 1: 8.5% Wave 2: 7.6% Wave 3: 6.9% Wave 4: 8.1%
Dependents				
No dependents <16	Wave 1: 19.6% Wave 2: 23.0% Wave 3: 19.8% Wave 4: 24.7%	Wave 1: 15.8% Wave 2: 15.3% Wave 3: 15.0% Wave 4: 14.3%	Wave 1: 28.4% Wave 2: 25.5% Wave 3: 26.2% Wave 4: 25.4%	Wave 1: 7.6% Wave 2: 15.9% Wave 3: 6.9% Wave 4: 9.6%
Dependents <16	Wave 1: 24.1% Wave 2: 19.9% Wave 3: 25.5% Wave 4: 26.0%	Wave 1: 16.9% Wave 2: 16% Wave 3: 15.1% Wave 4: 18.5%	Wave 1: 29.8% Wave 2: 27.1% Wave 3: 33.1% Wave 4: 31.8%	Wave 1: 10.5% Wave 2: 11.6% Wave 3: 14.3% Wave 4: 16.4%

Table H2: Weights off percentages of cut-offs for mental health and wellbeing indicators for each subgroup for Wave 1 to Wave 4

Characteristic	Depressive symptoms	Anxiety symptoms	GHQ-12 cut off	Suicidal thoughts
Sex*Age				
Women 18-29	Wave 1: 47.4% Wave 2: 44.7% Wave 3: 44.7% Wave 4: 50.0%	Wave 1: 39.5% Wave 2: 34.2% Wave 3: 36.8% Wave 4: 36.8%	Wave 1: 51.4% Wave 2: 44.7% Wave 3: 44.7% Wave 4: 47.4%	Wave 1: 17.6% Wave 2: 17.1% Wave 3: 22.2% Wave 4: 27.0%
Women 30-59	Wave 1: 26.8% Wave 2: 24.8% Wave 3: 24.8% Wave 4: 28.3%	Wave 1: 21.3% Wave 2: 18.5% Wave 3: 20.1% Wave 4: 16.9%	Wave 1: 37.9% Wave 2: 32.7% Wave 3: 36.6% Wave 4: 34.3%	Wave 1: 8.9% Wave 2: 11% Wave 3: 11.6% Wave 4: 11.6%
Women 60+	Wave 1: 12.3% Wave 2: 14.0% Wave 3: 16.2% Wave 4: 13.4%	Wave 1: 5.6% Wave 2: 8.4% Wave 3: 8.4% Wave 4: 6.1%	Wave 1: 28.3% Wave 2: 23.5% Wave 3: 25.1% Wave 4: 22.3%	Wave 1: 2.3% Wave 2: 4.6% Wave 3: 1.7% Wave 4: 1.1%
Men 18-29	Wave 1: 16.7% Wave 2: 22.2% Wave 3: 22.2% Wave 4: 22.2%	Wave 1: 5.6% Wave 2: 11.1% Wave 3: 5.6% Wave 4: 11.1%	Wave 1: 18.8% Wave 2: 11.1% Wave 3: 16.7% Wave 4: 22.2%	Wave 1: 11.8% Wave 2: 22.2% Wave 3: 11.8% Wave 4: 11.8%
Men 30-59	Wave 1: 14.7% Wave 2: 16.7% Wave 3: 15.9% Wave 4: 19.8%	Wave 1: 9.5% Wave 2: 12.3% Wave 3: 10.3% Wave 4: 10.7%	Wave 1: 23.2% Wave 2: 23.0% Wave 3: 26.2% Wave 4: 25.0%	Wave 1: 8.1% Wave 2: 13.4% Wave 3: 9.7% Wave 4: 11.8%
Men 60+	Wave 1: 7.9% Wave 2: 8.6% Wave 3: 6.8% Wave 4: 8.9%	Wave 1: 7.1% Wave 2: 5.4% Wave 3: 6.4% Wave 4: 5.7%	Wave 1: 15.6% Wave 2: 15.7% Wave 3: 16.4% Wave 4: 18.2%	Wave 1: 1.8% Wave 2: 3.3% Wave 3: 2.6% Wave 4: 1.8%

Table H2 continued: Weights off percentages of cut-offs for mental health and wellbeing indicators for each subgroup for Wave 1 to Wave 4

Characteristic	Depressive symptoms	Anxiety symptoms	GHQ-12 cut off	Suicidal thoughts
Mental health condition				
No	Wave 1: 11.6% Wave 2: 12.2% Wave 3: 11.9% Wave 4: 14.1%	Wave 1: 7.5% Wave 2: 8.7% Wave 3: 8.5% Wave 4: 7.7%	Wave 1: 22.3% Wave 2: 20.2% Wave 3: 22.4% Wave 4: 23.1%	Wave 1: 4.4% Wave 2: 6.4% Wave 3: 5.7% Wave 4: 6.3%
Yes	Wave 1: 59.8% Wave 2: 58.9% Wave 3: 58.9% Wave 4: 60.7%	Wave 1: 51.4% Wave 2: 40.2% Wave 3: 43.9% Wave 4: 40.2%	Wave 1: 62.6% Wave 2: 57.0% Wave 3: 60.7% Wave 4: 48.6%	Wave 1: 19.6% Wave 2: 30.3% Wave 3: 22.8% Wave 4: 20.6%
SEG				
High	Wave 1: 15.4% Wave 2: 15.2% Wave 3: 15.4% Wave 4: 17.3%	Wave 1: 11.1% Wave 2: 10.8% Wave 3: 11.5% Wave 4: 9.9%	Wave 1: 25.8% Wave 2: 23.4% Wave 3: 25.2% Wave 4: 24.9%	Wave 1: 4.7% Wave 2: 7.5% Wave 3: 6.9% Wave 4: 7.3%
Low	Wave 1: 19.6% Wave 2: 21.5% Wave 3: 20.2% Wave 4: 22.8%	Wave 1: 14.4% Wave 2: 14.7% Wave 3: 13.8% Wave 4: 13.8%	Wave 1: 28.0% Wave 2: 25.6% Wave 3: 29.2% Wave 4: 27.6%	Wave 1: 8.6% Wave 2: 11.7% Wave 3: 8.2% Wave 4: 8.4%
Rural v urban				
Rural	Wave 1: 14.1% Wave 2: 16.5% Wave 3: 14.1% Wave 4: 19.2%	Wave 1: 11.0% Wave 2: 11.0% Wave 3: 11.4% Wave 4: 8.6%	Wave 1: 24.8% Wave 2: 22.7% Wave 3: 28.6% Wave 4: 24.3%	Wave 1: 4.4% Wave 2: 7.6% Wave 3: 4.5% Wave 4: 4.5%
Urban	Wave 1: 17.5% Wave 2: 17.3% Wave 3: 17.7% Wave 4: 18.9%	Wave 1: 12.5% Wave 2: 12.4% Wave 3: 12.5% Wave 4: 11.9%	Wave 1: 27.1% Wave 2: 24.5% Wave 3: 25.7% Wave 4: 26.2%	Wave 1: 6.4% Wave 2: 9.1% Wave 3: 8.2% Wave 4: 8.7%
Physical health Condition				
No	Wave 1: 13.3% Wave 2: 13.8% Wave 3: 14.2% Wave 4: 16.0%	Wave 1: 10.3% Wave 2: 9.9% Wave 3: 10.7% Wave 4: 9.4%	Wave 1: 24.2% Wave 2: 21.6% Wave 3: 23.5% Wave 4: 23.2%	Wave 1: 5.5% Wave 2: 7.9% Wave 3: 7.3% Wave 4: 7.7%
Yes	Wave 1: 28.3% Wave 2: 28.8% Wave 3: 26.1% Wave 4: 29.6%	Wave 1: 18.6% Wave 2: 19.5% Wave 3: 17.7% Wave 4: 16.8%	Wave 1: 34.3% Wave 2: 32.7% Wave 3: 36.7% Wave 4: 34.5%	Wave 1: 7.2% Wave 2: 11.8% Wave 3: 7.1% Wave 4: 7.4%

Table H2 continued: Weights off percentages of cut-offs for mental health and wellbeing indicators for each subgroup for Wave 1 to Wave 4

Characteristic	Depressive symptoms	Anxiety symptoms	GHQ-12 cut off	Suicidal thoughts
Carer				
Not a carer	Wave 1: 15.5% Wave 2: 15.5% Wave 3: 16.3% Wave 4: 17.7%	Wave 1: 11.2% Wave 2: 10.9% Wave 3: 11.2% Wave 4: 10.0%	Wave 1: 24.4% Wave 2: 22.4% Wave 3: 25.1% Wave 4: 24.6%	Wave 1: 5.5% Wave 2: 8.1% Wave 3: 6.9% Wave 4: 7.4%
Carer	Wave 1: 22.9% Wave 2: 25.9% Wave 3: 20.5% Wave 4: 25.3%	Wave 1: 16.9% Wave 2: 18.1% Wave 3: 16.9% Wave 4: 16.3%	Wave 1: 37.8% Wave 2: 33.1% Wave 3: 33.1% Wave 4: 31.9%	Wave 1: 7.5% Wave 2: 12.4% Wave 3: 9.9% Wave 4: 9.4%
Key worker				
Not a key worker	Wave 1: 15.1% Wave 2: 15.4% Wave 3: 15.3% Wave 4: 17.2%	Wave 1: 11.1% Wave 2: 11.0% Wave 3: 11.1% Wave 4: 9.8%	Wave 1: 25.8% Wave 2: 22.8% Wave 3: 24.8% Wave 4: 24.3%	Wave 1: 5.1% Wave 2: 7.4% Wave 3: 6.6% Wave 4: 5.9%
Key worker	Wave 1: 23.4% Wave 2: 24.5% Wave 3: 23.4% Wave 4: 26.6%	Wave 1: 16.7% Wave 2: 16.7% Wave 3: 17.2% Wave 4: 16.7%	Wave 1: 29.7% Wave 2: 29.7% Wave 3: 33.3% Wave 4: 31.8%	Wave 1: 9.5% Wave 2: 14.4% Wave 3: 10.2% Wave 4: 15.4%
Live alone				
Don't live alone	Wave 1: 16.3% Wave 2: 16.7% Wave 3: 16.5% Wave 4: 18.7%	Wave 1: 12.7% Wave 2: 12.6% Wave 3: 12.6% Wave 4: 11.5%	Wave 1: 27.4% Wave 2: 24.8% Wave 3: 26.6% Wave 4: 25.7%	Wave 1: 5.4% Wave 2: 9.1% Wave 3: 7.2% Wave 4: 7.9%
Live alone	Wave 1: 17.6% Wave 2: 18.4% Wave 3: 18.0% Wave 4: 20.0%	Wave 1: 10.2% Wave 2: 10.2% Wave 3: 11.0% Wave 4: 9.8%	Wave 1: 23.8% Wave 2: 21.6% Wave 3: 25.7% Wave 4: 25.7%	Wave 1: 7.5% Wave 2: 7.5% Wave 3: 7.6% Wave 4: 6.7%
Dependents				
No dependents <16	Wave 1: 15.3% Wave 2: 16.3% Wave 3: 15.3% Wave 4: 17.4%	Wave 1: 11.2% Wave 2: 10.8% Wave 3: 11.3% Wave 4: 9.6%	Wave 1: 24.9% Wave 2: 22.9% Wave 3: 24.6% Wave 4: 24.0%	Wave 1: 5.1% Wave 2: 7.6% Wave 3: 5.9% Wave 4: 6.0%
Dependents <16	Wave 1: 21.9% Wave 2: 20.4% Wave 3: 22.9% Wave 4: 25.4%	Wave 1: 15.9% Wave 2: 16.9% Wave 3: 15.9% Wave 4: 16.9%	Wave 1: 33.3% Wave 2: 28.9% Wave 3: 33.8% Wave 4: 32.8%	Wave 1: 9.3% Wave 2: 13.4% Wave 3: 13.0% Wave 4: 14.7%

Table I1: Weights on means for primary mental health and wellbeing variables for each subgroup for Wave 1 to Wave 4

Characteristic	Wellbeing	Loneliness	Defeat	Entrapment
Sex*Age				
Women 18-29	Wave 1: 19.21 Wave 2: 19.88 Wave 3: 18.62 Wave 4: 18.60	Wave 1: 5.74 Wave 2: 5.69 Wave 3: 5.35 Wave 4: 5.42	Wave 1: 5.9 Wave 2: 5.91 Wave 3: 5.97 Wave 4: 6.97	Wave 1: 6.03 Wave 2: 5.21 Wave 3: 5.77 Wave 4: 7.40
Women 30-59	Wave 1: 20.51 Wave 2: 20.95 Wave 3: 20.33 Wave 4: 21.23	Wave 1: 5.23 Wave 2: 4.90 Wave 3: 5.03 Wave 4: 5.08	Wave 1: 4.98 Wave 2: 4.88 Wave 3: 50 Wave 4: 4.98	Wave 1: 4.60 Wave 2: 4.12 Wave 3: 4.66 Wave 4: 4.55
Women 60+	Wave 1: 23.53 Wave 2: 23.64 Wave 3: 23.28 Wave 4: 23.37	Wave 1: 4.74 Wave 2: 4.45 Wave 3: 4.76 Wave 4: 4.99	Wave 1: 2.72 Wave 2: 2.61 Wave 3: 2.75 Wave 4: 2.65	Wave 1: 2.11 Wave 2: 2.07 Wave 3: 2.25 Wave 4: 2.25
Men 18-29	Wave 1: 23.09 Wave 2: 19.98 Wave 3: 23.30 Wave 4: 24.11	Wave 1: 4.18 Wave 2: 3.75 Wave 3: 3.78 Wave 4: 3.78	Wave 1: 4.15 Wave 2: 3.59 Wave 3: 2.93 Wave 4: 2.54	Wave 1: 1.76 Wave 2: 2.87 Wave 3: 3.93 Wave 4: 2.47
Men 30-59	Wave 1: 21.74 Wave 2: 21.72 Wave 3: 21.68 Wave 4: 22.05	Wave 1: 4.85 Wave 2: 4.71 Wave 3: 4.76 Wave 4: 4.95	Wave 1: 3.38 Wave 2: 3.43 Wave 3: 3.43 Wave 4: 3.90	Wave 1: 4.77 Wave 2: 4.59 Wave 3: 4.76 Wave 4: 4.59
Men 60+	Wave 1: 23.53 Wave 2: 23.88 Wave 3: 23.26 Wave 4: 23.64	Wave 1: 4.51 Wave 2: 4.14 Wave 3: 4.23 Wave 4: 4.40	Wave 1: 2.31 Wave 2: 2.08 Wave 3: 2.34 Wave 4: 2.59	Wave 1: 2.01 Wave 2: 2.12 Wave 3: 2.06 Wave 4: 2.14
Mental health condition				
No	Wave 1: 22.81 Wave 2: 22.62 Wave 3: 22.53 Wave 4: 22.95	Wave 1: 4.66 Wave 2: 4.44 Wave 3: 4.50 Wave 4: 4.64	Wave 1: 30 Wave 2: 2.99 Wave 3: 2.96 Wave 4: 3.19	Wave 1: 2.49 Wave 2: 2.53 Wave 3: 2.71 Wave 4: 2.88
Yes	Wave 1: 15.74 Wave 2: 16.37 Wave 3: 16.21 Wave 4: 16.94	Wave 1: 6.40 Wave 2: 5.87 Wave 3: 6.06 Wave 4: 6.07	Wave 1: 9.43 Wave 2: 8.60 Wave 3: 8.95 Wave 4: 8.84	Wave 1: 9.11 Wave 2: 8.07 Wave 3: 9.25 Wave 4: 9.00

Table I1 continued: Weights on means for primary mental health and wellbeing variables for each subgroup for Wave 1 to Wave 4

Characteristic	Wellbeing	Loneliness	Defeat	Entrapment
SEG				
High	Wave 1: 22.58 Wave 2: 22.25 Wave 3: 22.22 Wave 4: 22.84	Wave 1: 4.76 Wave 2: 4.45 Wave 3: 4.57 Wave 4: 4.64	Wave 1: 3.52 Wave 2: 3.34 Wave 3: 3.66 Wave 4: 3.83	Wave 1: 3.20 Wave 2: 2.93 Wave 3: 3.65 Wave 4: 3.59
Low	Wave 1: 20.47 Wave 2: 20.87 Wave 3: 20.64 Wave 4: 20.80	Wave 1: 5.16 Wave 2: 4.99 Wave 3: 4.96 Wave 4: 5.21	Wave 1: 4.53 Wave 2: 4.52 Wave 3: 3.98 Wave 4: 4.19	Wave 1: 3.73 Wave 2: 3.95 Wave 3: 3.48 Wave 4: 3.93
Rural v urban				
Rural	Wave 1: 21.87 Wave 2: 21.76 Wave 3: 21.22 Wave 4: 21.74	Wave 1: 5.04 Wave 2: 4.90 Wave 3: 4.92 Wave 4: 5.03	Wave 1: 3.91 Wave 2: 3.80 Wave 3: 4.13 Wave 4: 4.08	Wave 1: 3.99 Wave 2: 3.26 Wave 3: 4.12 Wave 4: 4.01
Urban	Wave 1: 21.86 Wave 2: 21.79 Wave 3: 21.81 Wave 4: 22.25	Wave 1: 4.86 Wave 2: 4.56 Wave 3: 4.65 Wave 4: 4.78	Wave 1: 3.85 Wave 2: 3.72 Wave 3: 3.67 Wave 4: 3.91	Wave 1: 3.22 Wave 2: 3.28 Wave 3: 3.45 Wave 4: 3.62
Physical health Condition				
No	Wave 1: 22.34 Wave 2: 22.16 Wave 3: 22.08 Wave 4: 22.50	Wave 1: 4.74 Wave 2: 4.50 Wave 3: 4.54 Wave 4: 4.67	Wave 1: 3.54 Wave 2: 3.39 Wave 3: 3.41 Wave 4: 3.56	Wave 1: 3.00 Wave 2: 2.80 Wave 3: 3.21 Wave 4: 3.32
Yes	Wave 1: 19.94 Wave 2: 20.28 Wave 3: 20.10 Wave 4: 20.73	Wave 1: 5.5 Wave 2: 5.18 Wave 3: 5.36 Wave 4: 5.5	Wave 1: 5.14 Wave 2: 5.13 Wave 3: 5.20 Wave 4: 5.49	Wave 1: 4.90 Wave 2: 5.15 Wave 3: 5.11 Wave 4: 5.25
Carer				
Not a carer	Wave 1: 22.01 Wave 2: 21.81 Wave 3: 21.78 Wave 4: 22.28	Wave 1: 4.89 Wave 2: 4.66 Wave 3: 4.75 Wave 4: 4.83	Wave 1: 3.75 Wave 2: 3.69 Wave 3: 3.71 Wave 4: 3.83	Wave 1: 3.28 Wave 2: 3.24 Wave 3: 3.60 Wave 4: 3.63
Carer	Wave 1: 20.72 Wave 2: 21.34 Wave 3: 20.86 Wave 4: 21.15	Wave 1: 4.95 Wave 2: 4.47 Wave 3: 4.40 Wave 4: 4.90	Wave 1: 4.94 Wave 2: 4.29 Wave 3: 4.38 Wave 4: 5.21	Wave 1: 4.30 Wave 2: 3.58 Wave 3: 3.63 Wave 4: 4.56

Table I1 continued: Weights on means for primary mental health and wellbeing variables for each subgroup for Wave 1 to Wave 4

Characteristic	Wellbeing	Loneliness	Defeat	Entrapment
Key worker				
Not a key worker	Wave 1: 21.65 Wave 2: 21.95 Wave 3: 21.48 Wave 4: 22.01	Wave 1: 4.95 Wave 2: 4.64 Wave 3: 4.75 Wave 4: 4.88	Wave 1: 3.95 Wave 2: 3.99 Wave 3: 3.91 Wave 4: 3.91	Wave 1: 3.41 Wave 2: 3.43 Wave 3: 3.68 Wave 4: 3.69
Key worker	Wave 1: 22.56 Wave 2: 21.24 Wave 3: 22.37 Wave 4: 22.61	Wave 1: 4.72 Wave 2: 4.61 Wave 3: 4.57 Wave 4: 4.69	Wave 1: 3.58 Wave 2: 2.92 Wave 3: 3.29 Wave 4: 4.08	Wave 1: 3.29 Wave 2: 2.76 Wave 3: 3.31 Wave 4: 3.76
Live alone				
Don't live alone	Wave 1: 21.88 Wave 2: 21.70 Wave 3: 21.73 Wave 4: 22.27	Wave 1: 4.76 Wave 2: 4.51 Wave 3: 4.56 Wave 4: 4.69	Wave 1: 3.92 Wave 2: 3.78 Wave 3: 3.64 Wave 4: 3.93	Wave 1: 3.38 Wave 2: 3.21 Wave 3: 3.38 Wave 4: 3.76
Live alone	Wave 1: 21.83 Wave 2: 22.03 Wave 3: 21.55 Wave 4: 21.77	Wave 1: 5.33 Wave 2: 5.01 Wave 3: 5.15 Wave 4: 5.28	Wave 1: 3.68 Wave 2: 3.6 Wave 3: 4.15 Wave 4: 3.99	Wave 1: 3.39 Wave 2: 3.46 Wave 3: 4.24 Wave 4: 3.54
Dependents				
No dependents <16	Wave 1: 21.76 Wave 2: 21.69 Wave 3: 21.61 Wave 4: 22.02	Wave 1: 4.96 Wave 2: 4.70 Wave 3: 4.75 Wave 4: 4.84	Wave 1: 3.84 Wave 2: 3.84 Wave 3: 3.75 Wave 4: 3.90	Wave 1: 3.34 Wave 2: 3.30 Wave 3: 3.57 Wave 4: 3.64
Dependents <16	Wave 1: 22.23 Wave 2: 22.11 Wave 3: 21.95 Wave 4: 22.59	Wave 1: 4.66 Wave 2: 4.41 Wave 3: 4.56 Wave 4: 4.81	Wave 1: 3.94 Wave 2: 3.39 Wave 3: 3.81 Wave 4: 4.12	Wave 1: 3.53 Wave 2: 3.17 Wave 3: 3.65 Wave 4: 3.91

Table I2: Weights off means for primary mental health and wellbeing variables for each subgroup for Wave 1 to Wave 4

Characteristic	Wellbeing	Loneliness	Defeat	Entrapment
Sex*Age				
Women 18-29	Wave 1: 19.21 Wave 2: 19.85 Wave 3: 18.85 Wave 4: 18.44	Wave 1: 5.97 Wave 2: 5.58 Wave 3: 5.45 Wave 4: 5.50	Wave 1: 5.21 Wave 2: 5.32 Wave 3: 5.45 Wave 4: 6.39	Wave 1: 5.92 Wave 2: 5.11 Wave 3: 5.37 Wave 4: 6.55
Women 30-59	Wave 1: 21.21 Wave 2: 21.38 Wave 3: 20.8 Wave 4: 21.48	Wave 1: 5.14 Wave 2: 4.78 Wave 3: 4.88 Wave 4: 4.98	Wave 1: 4.63 Wave 2: 4.36 Wave 3: 4.74 Wave 4: 4.71	Wave 1: 4.16 Wave 2: 3.82 Wave 3: 4.29 Wave 4: 4.22
Women 60+	Wave 1: 23.53 Wave 2: 23.29 Wave 3: 22.82 Wave 4: 23.55	Wave 1: 4.75 Wave 2: 4.40 Wave 3: 4.64 Wave 4: 4.80	Wave 1: 2.80 Wave 2: 2.92 Wave 3: 3.01 Wave 4: 2.83	Wave 1: 2.20 Wave 2: 2.22 Wave 3: 2.39 Wave 4: 2.27
Men 18-29	Wave 1: 22.15 Wave 2: 21.17 Wave 3: 21.43 Wave 4: 22.77	Wave 1: 4.67 Wave 2: 3.89 Wave 3: 4.22 Wave 4: 3.94	Wave 1: 4.44 Wave 2: 3.89 Wave 3: 3.61 Wave 4: 3.33	Wave 1: 3.72 Wave 2: 4.17 Wave 3: 4.33 Wave 4: 3.61
Men 30-59	Wave 1: 22.11 Wave 2: 21.98 Wave 3: 21.99 Wave 4: 22.39	Wave 1: 4.72 Wave 2: 4.51 Wave 3: 4.59 Wave 4: 4.82	Wave 1: 3.07 Wave 2: 3.23 Wave 3: 3.17 Wave 4: 3.58	Wave 1: 2.88 Wave 2: 2.98 Wave 3: 2.91 Wave 4: 3.31
Men 60+	Wave 1: 23.88 Wave 2: 24.27 Wave 3: 23.80 Wave 4: 24.13	Wave 1: 4.36 Wave 2: 4.09 Wave 3: 4.13 Wave 4: 4.34	Wave 1: 2.07 Wave 2: 1.91 Wave 3: 2.17 Wave 4: 2.32	Wave 1: 1.75 Wave 2: 1.77 Wave 3: 1.70 Wave 4: 1.80
Mental health condition				
No	Wave 1: 23.17 Wave 2: 23.26 Wave 3: 22.81 Wave 4: 23.28	Wave 1: 4.59 Wave 2: 4.30 Wave 3: 4.41 Wave 4: 4.58	Wave 1: 2.64 Wave 2: 2.64 Wave 3: 2.79 Wave 4: 2.96	Wave 1: 2.30 Wave 2: 2.27 Wave 3: 2.35 Wave 4: 2.49
Yes	Wave 1: 16.92 Wave 2: 17.01 Wave 3: 17.12 Wave 4: 17.76	Wave 1: 6.37 Wave 2: 5.88 Wave 3: 5.87 Wave 4: 6.04	Wave 1: 8.41 Wave 2: 7.83 Wave 3: 8.15 Wave 4: 7.95	Wave 1: 8.02 Wave 2: 7.54 Wave 3: 8.02 Wave 4: 7.97

Table I2 continued: Weights off means for primary mental health and wellbeing variables for each subgroup for Wave 1 to Wave 4

Characteristic	Wellbeing	Loneliness	Defeat	Entrapment
SEG				
High	Wave 1: 23.01 Wave 2: 23.05 Wave 3: 22.65 Wave 4: 23.16	Wave 1: 4.67 Wave 2: 4.35 Wave 3: 4.46 Wave 4: 4.61	Wave 1: 3.02 Wave 2: 2.92 Wave 3: 3.18 Wave 4: 3.28	Wave 1: 2.70 Wave 2: 2.54 Wave 3: 2.81 Wave 4: 2.88
Low	Wave 1: 21.39 Wave 2: 21.58 Wave 3: 21.21 Wave 4: 21.68	Wave 1: 5.03 Wave 2: 4.74 Wave 3: 4.80 Wave 4: 5.02	Wave 1: 3.75 Wave 2: 3.77 Wave 3: 3.74 Wave 4: 3.94	Wave 1: 3.33 Wave 2: 3.48 Wave 3: 3.25 Wave 4: 3.48
Rural v urban				
Rural	Wave 1: 22.97 Wave 2: 22.96 Wave 3: 22.41 Wave 4: 22.80	Wave 1: 4.77 Wave 2: 4.50 Wave 3: 4.58 Wave 4: 4.70	Wave 1: 3.16 Wave 2: 3.06 Wave 3: 3.35 Wave 4: 3.27	Wave 1: 2.85 Wave 2: 2.6 Wave 3: 3.00 Wave 4: 2.89
Urban	Wave 1: 22.36 Wave 2: 22.48 Wave 3: 22.15 Wave 4: 22.67	Wave 1: 4.78 Wave 2: 4.46 Wave 3: 4.56 Wave 4: 4.74	Wave 1: 3.27 Wave 2: 3.22 Wave 3: 3.35 Wave 4: 3.55	Wave 1: 2.91 Wave 2: 2.90 Wave 3: 2.93 Wave 4: 3.12
Physical health Condition				
No	Wave 1: 22.80 Wave 2: 22.91 Wave 3: 22.47 Wave 4: 22.92	Wave 1: 4.65 Wave 2: 4.35 Wave 3: 4.44 Wave 4: 4.59	Wave 1: 3.02 Wave 2: 2.92 Wave 3: 3.08 Wave 4: 3.19	Wave 1: 2.66 Wave 2: 2.48 Wave 3: 2.66 Wave 4: 2.76
Yes	Wave 1: 21.51 Wave 2: 21.52 Wave 3: 21.29 Wave 4: 21.96	Wave 1: 5.24 Wave 2: 4.9 Wave 3: 5.00 Wave 4: 5.23	Wave 1: 4.03 Wave 2: 4.11 Wave 3: 4.30 Wave 4: 4.49	Wave 1: 3.73 Wave 2: 4.02 Wave 3: 3.95 Wave 4: 4.15
Carer				
Not a carer	Wave 1: 22.67 Wave 2: 22.65 Wave 3: 22.31 Wave 4: 22.85	Wave 1: 4.80 Wave 2: 4.51 Wave 3: 4.61 Wave 4: 4.74	Wave 1: 3.12 Wave 2: 3.06 Wave 3: 3.24 Wave 4: 3.3	Wave 1: 2.79 Wave 2: 2.74 Wave 3: 2.88 Wave 4: 2.94
Carer	Wave 1: 21.90 Wave 2: 22.33 Wave 3: 21.76 Wave 4: 22.12	Wave 1: 4.66 Wave 2: 4.29 Wave 3: 4.41 Wave 4: 4.76	Wave 1: 3.87 Wave 2: 3.82 Wave 3: 3.98 Wave 4: 4.48	Wave 1: 3.46 Wave 2: 3.27 Wave 3: 3.32 Wave 4: 3.77

Table I2 continued: Weights off means for primary mental health and wellbeing variables for each subgroup for Wave 1 to Wave 4

Characteristic	Wellbeing	Loneliness	Defeat	Entrapment
Key worker				
Not a key worker	Wave 1: 22.77 Wave 2: 22.84 Wave 3: 22.42 Wave 4: 23.02	Wave 1: 4.75 Wave 2: 4.41 Wave 3: 4.55 Wave 4: 4.69	Wave 1: 3.17 Wave 2: 3.07 Wave 3: 3.21 Wave 4: 3.25	Wave 1: 2.74 Wave 2: 2.74 Wave 3: 2.84 Wave 4: 2.90
Key worker	Wave 1: 21.40 Wave 2: 21.58 Wave 3: 21.31 Wave 4: 21.34	Wave 1: 4.90 Wave 2: 4.71 Wave 3: 4.63 Wave 4: 4.92	Wave 1: 3.57 Wave 2: 3.65 Wave 3: 3.97 Wave 4: 4.45	Wave 1: 3.55 Wave 2: 3.20 Wave 3: 3.40 Wave 4: 3.80
Live alone				
Don't live alone	Wave 1: 22.63 Wave 2: 22.77 Wave 3: 22.35 Wave 4: 22.88	Wave 1: 4.59 Wave 2: 4.27 Wave 3: 4.38 Wave 4: 4.55	Wave 1: 3.14 Wave 2: 3.11 Wave 3: 3.24 Wave 4: 3.41	Wave 1: 2.84 Wave 2: 2.75 Wave 3: 2.84 Wave 4: 3.07
Live alone	Wave 1: 22.13 Wave 2: 22.07 Wave 3: 21.79 Wave 4: 22.15	Wave 1: 5.39 Wave 2: 5.09 Wave 3: 5.15 Wave 4: 5.32	Wave 1: 3.56 Wave 2: 3.42 Wave 3: 3.70 Wave 4: 3.70	Wave 1: 3.06 Wave 2: 3.07 Wave 3: 3.27 Wave 4: 3.04
Dependents				
No dependents <16	Wave 1: 22.73 Wave 2: 22.78 Wave 3: 22.45 Wave 4: 22.93	Wave 1: 4.79 Wave 2: 4.46 Wave 3: 4.55 Wave 4: 4.69	Wave 1: 3.12 Wave 2: 3.08 Wave 3: 3.24 Wave 4: 3.31	Wave 1: 2.76 Wave 2: 2.67 Wave 3: 2.80 Wave 4: 2.86
Dependents <16	Wave 1: 21.62 Wave 2: 21.89 Wave 3: 21.26 Wave 4: 21.79	Wave 1: 4.74 Wave 2: 4.53 Wave 3: 4.62 Wave 4: 4.93	Wave 1: 3.72 Wave 2: 3.58 Wave 3: 3.79 Wave 4: 4.17	Wave 1: 3.47 Wave 2: 3.45 Wave 3: 3.55 Wave 4: 3.92

Annex 3. COVID-19 Contextual factors

Attitudes to COVID-19 vaccine

Figure i. Reasons to not take COVID-19 vaccine (%)

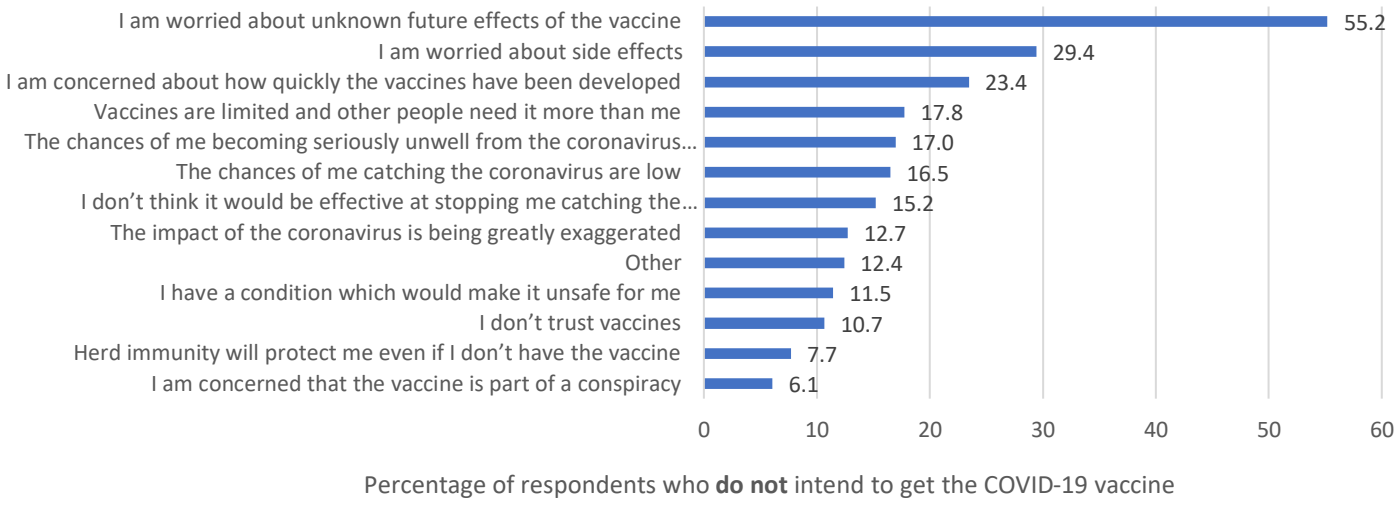
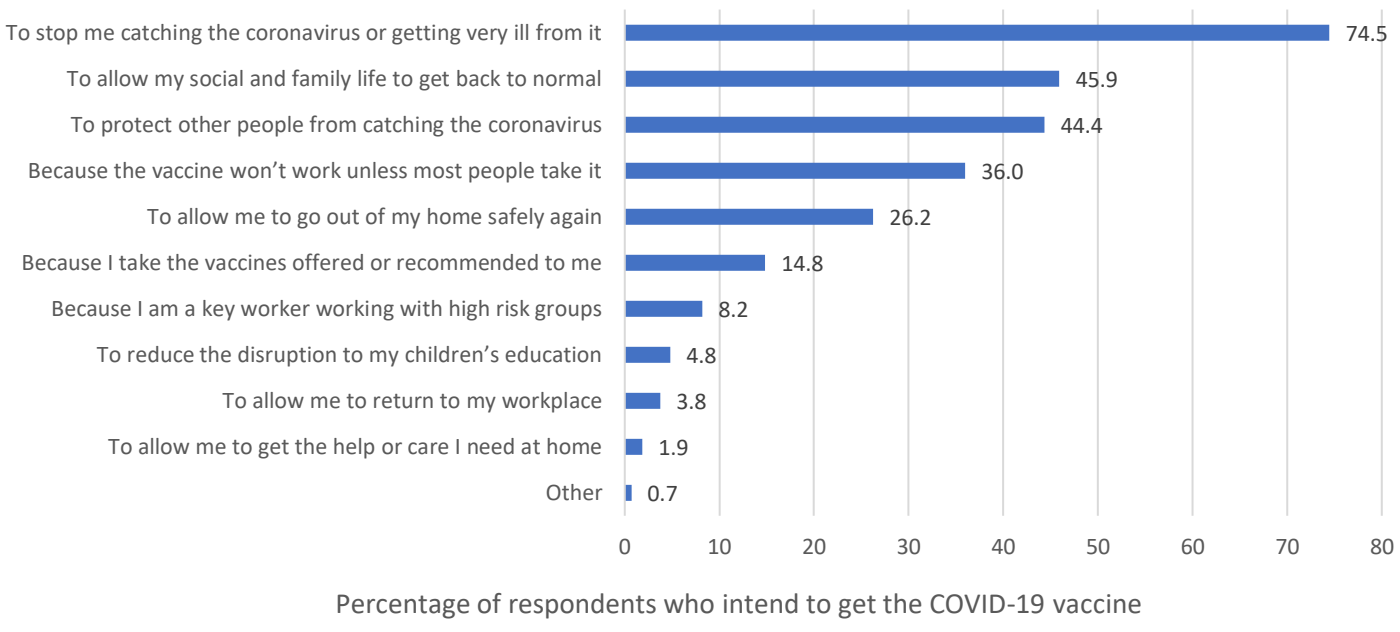


Figure ii. Reasons to take COVID-19 vaccine (%)



Effects of COVID-19

Respondents were asked: How much does Covid-19 affect your life? (On a scale from No effect at all to Severely affects my life).

- The older age group (60+ years) reported that COVID-19 affected their life less severely. The youngest age group (18-29 years) reported the highest impact of COVID-19.
- Women reported feeling that their life had been more severely affected by COVID-19 than men did.
- Respondents with a pre-existing physical health condition reported feeling that their life had been more severely affected by COVID-19 than respondents with no physical health condition.

How much does COVID-19 affect you emotionally? e.g. does it make you angry, scared, upset or depressed? (On a scale from Not at all affected emotionally to Extremely affected emotionally)

- The older age group (60+ years) were less emotionally affected compared to the younger age groups.
- Women reported higher rates of being emotionally affected than men did.
- Respondents in higher SEG reported being more emotionally affected by COVID-19 than respondents in the lower SEG.
- Respondents with a pre-existing mental health condition reported being more emotionally affected by COVID-19 than respondents with no physical health condition.

Concerns about COVID-19

Respondents were asked: How concerned are you about COVID-19? (on a scale from Not concerned at all to Extremely concerned)

- Older adults (60+ years) were most concerned about COVID-19 followed by the age group of 30-59 year olds. Young adults (18-29 year olds) were least concerned about COVID-19.
- Women were more concerned about COVID-19 than men.
- Respondents with a pre-existing mental health condition were more concerned about COVID-19 than those with no mental health condition.
- Respondents with a pre-existing physical health condition were more concerned about COVID-19 than those with no physical health condition.

Understanding of COVID-19

Respondents were asked: How well do you feel you understand COVID-19? (On a scale from Don't understand at all to Understand very clearly)

- Rates of reported understanding of COVID-19 increased with age, as older adults indicated higher scores than middle-aged adults, who, in turn, scored higher than younger adults.
- Women reported higher rates of feeling they understood COVID-19 than men did.
- Respondents in the higher SEG reported higher levels of understanding COVID-19 than respondents from the lower SEG.
- Respondents without a pre-existing mental health condition reported higher levels of understanding COVID-19 than respondents with a pre-existing mental health condition.
- Respondents with a pre-existing physical health condition reported higher levels of understanding COVID-19 than those with no physical health condition.

Control over COVID-19

Respondents were asked: How much control do you feel we have over COVID-19? (On a scale from Absolutely no control to Extreme amount of control)

- The 60+ age group reported feeling higher levels of control over COVID-19 than either of the younger age groups.
- More respondents with a pre-existing mental health condition reported feeling that they had lower control over COVID-19 than did those with no pre-existing mental health condition.
- Respondents with a pre-existing physical health condition reported feeling that they had higher control over COVID-19 than did those with no pre-existing physical health condition.

Willingness to contact GP for a non-COVID-19 related health concern

Respondents were asked:

How willing would you be to contact your GP about a non-COVID-19 related health concern e.g. a new or changing symptom, if you felt you needed to right now? (On a scale from Not willing at all to Extremely willing)

- The following groups were less likely to contact their GP about a non-COVID-19 related symptom than the sample average:
    - Adults aged 18-29 years and 30-59 years;
    - Respondents from the lower SEG;
    - Female respondents;
    - Respondents with a pre-existing mental health condition.

Annex 4. Trust in authorities

Trust is an important indicator of how confident people are in society more widely. In Wave 4 of the SCOVID study, trust in the authorities (police, NHS, UK, and Scottish governments) was assessed.

Police

Around two thirds of respondents (68.6%) said that they trusted the police to some extent and around a third of these respondents reported trusting the police completely.

- The majority of respondents in the 60+ age group (79.5%) trusted the police compared to 67.9% of 30-59 year olds and around half of the youngest age group (55.0%).
- Around three quarters of women in the sample reported trusting the police (71.5%) compared to 65.7% of men.
- Just under three quarters (71.2%) of respondents from the higher SEG reported trusting the police compared to 63.9% of those from the lower SEG.
- Just over half of respondents with a pre-existing mental health condition felt the police were at least somewhat trustworthy (57.5%) compared to 70.2% of those without a pre-existing mental health condition.

NHS

The majority of respondents (88.2%) reported trusting the NHS to some extent and around half (47.2%) of these respondents endorsed trusting the NHS completely.

Trust in government

Respondents were asked to what extent they felt the UK and Scottish governments could be trusted.

Just under a third of respondents (28.9%) said that they felt the UK government could be trusted to some extent while 60.8% said they did not trust it at all or did not trust it very much.

- The 60+ age group were more likely to report trusting the UK government to some extent (39.5%) than respondents in either of the other age groups (30-59 year olds 28.5%, 18-29 year olds 15.0%).
- Respondents from the higher SEG were more likely to report trusting the UK government to some extent (30.0%) compared to respondents from lower SEG (26.9%).
- Around three quarters of respondents with a pre-existing mental health condition reported not trusting the UK government (73.9%) compared to 58.8% of those without a pre-existing mental health condition.

Over half of all respondents (56.9%) said that they felt the Scottish government could be trusted to some extent while a third (34.0%) said they did not trust it at all or did not trust it very much.

- The youngest age group were more likely to report trusting the Scottish government to some extent (58.4%) than respondents in either of the other age groups (30-59 year olds 55.8%, 60+ year olds 57.4%).
- Women were more likely to report trusting the Scottish government to some extent (60.3%) compared to men (53.5%).
- Respondents from the higher SEG were more likely to report not trusting the Scottish government (35.7%) compared to respondents from lower SEG (31.2%).

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