

Living alone and mental health: parallel analyses in longitudinal population surveys and electronic health records prior to and during the COVID-19 pandemic

Supplementary materials

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Supplementary file 1. Ethics and data availability statements

The most recent sweeps of the Millennium Cohort Study (MCS), Next Steps (NS), the British Cohort Study 1970 (BCS70), the National Child Development Study (NCDS) and the National Survey of Health and Development (NSHD) and have all been granted ethical approval by the National Health Service (NHS) Research Ethics Committee and all participants have given informed consent. Data for MCS (SN 8682), NS (SN 5545), BCS70 (SN 8547), NCDS (SN 6137) and all four COVID-19 surveys (SN 8658) are available through the UK Data Service. NSHD data are available on request to the NSHD Data Sharing Committee. Interested researchers can apply to access the NSHD data via a standard application procedure. Data requests should be submitted to mrclha.swiftinfo@ucl.ac.uk; further details can be found at <http://www.nshd.mrc.ac.uk/data.aspx>. doi:10.5522/NSHD/Q101; doi:10.5522/NSHD/Q10.

Ethical approval was obtained from the Avon Longitudinal Study of Parents and Children (ALSPAC) Ethics and Law Committee and the Local Research Ethics Committees. The study website contains details of all the data that is available through a fully searchable data dictionary and variable search tool: <http://www.bristol.ac.uk/alspac/researchers/our-data>. ALSPAC data is available to researchers through an online proposal system. Information regarding access can be found on the ALSPAC website (http://www.bristol.ac.uk/media-library/sites/alspac/documents/researchers/data-access/ALSPAC_Access_Policy.pdf).

The University of Essex Ethics Committee has approved all data collection for the Understanding Society (USoc) main study and COVID-19 waves. No additional ethical approval was necessary for this secondary data analysis. All data are available through the UK Data Service (SN 6614 and SN 8644).

Waves 1-9 of the English Longitudinal Study of Aging (ELSA) were approved through the National Research Ethics Service, while the COVID-19 Sub-study was approved by the UCL Research Ethics Committee. All participants provided informed consent. All data are available through the UK Data Service (SN 8688 and 5050).

Generation Scotland (GS) obtained ethical approval from the East of Scotland Committee on Medical Research Ethics (on behalf of the National Health Service). Reference number 20/ES/0021. Access to data is approved by the Generation Scotland Access Committee. See <https://www.ed.ac.uk/generation-scotland/for-researchers/access> or email access@generationscotland.org for further details.

All waves of TwinsUK (TwinsUK) have received ethical approval associated with TwinsUK Biobank (19/NW/0187), TwinsUK (EC04/015) or Healthy Ageing Twin Study (H.A.T.S) (07/H0802/84) studies from NHS Research Ethics Committees at the Department of Twin Research and Genetic Epidemiology, King's College London. The TwinsUK Resource Executive Committee (TREC) oversees management, data sharing and collaborations involving the TwinsUK registry (for further details see <https://twinsuk.ac.uk/resources-for-researchers/access-our-data/>).

Supplementary file 2. Funding statements for longitudinal population surveys

ALSPAC: The UK Medical Research Council and Wellcome (Grant Ref: 217065/Z/19/Z) and the University of Bristol provide core support for ALSPAC. A comprehensive list of grants funding is available on the ALSPAC website

(<http://www.bristol.ac.uk/alspac/external/documents/grant-acknowledgements.pdf>). We are extremely grateful to all the families who took part in this study, the midwives for their help in recruiting them, and the whole ALSPAC team, which includes interviewers, computer and laboratory technicians, clerical workers, research scientists, volunteers, managers, receptionists and nurses. Part of this data was collected using REDCap, see the REDCap website for details: <https://projectredcap.org/resources/citations/>). This work was supported by Wellcome through the Wellcome Longitudinal Population Studies COVID-19 Secretariat and Steering Group (UK LPS COVID co-ordination, Grant Ref: 221574/Z/20/Z) and supported by the Elizabeth Blackwell Institute, University of Bristol, Wellcome Trust Institutional Strategic Support Fund and Rosetrees Trust (Grant Ref: 204813/Z/16/Z; R105121). ASFK is funded by an Economics and Social Research Council (ESRC) Postdoctoral Fellowship (ES/V011650/1).

USOC: Understanding Society is an initiative funded by the Economic and Social Research Council and various Government Departments, with scientific leadership by the Institute for Social and Economic Research, University of Essex, and survey delivery by NatCen Social Research and Kantar Public. The Understanding Society COVID-19 study is funded by the Economic and Social Research Council (ES/K005146/1) and the Health Foundation (2076161). The research data are distributed by the UK Data Service.

MCS, NS, BCS, NCDS, NSHD: The Millennium Cohort Study, Next Steps, 1970 British Cohort Study and 1958 National Child Development Study are supported by the Centre for Longitudinal Studies, Resource Centre 2015-20 grant (ES/M001660/1) and a host of other co-funders. The 1946 NSHD cohort is hosted by the the MRC Unit for Lifelong Health and Ageing funded by the Medical Research Council (MC_UU_00019/1 Theme 1: Cohorts and Data Collection). The COVID-19 data collections in these five cohorts were funded by the UKRI grant Understanding the economic, social and health impacts of COVID-19 using lifetime data: evidence from 5 nationally representative UK cohorts (ES/V012789/1)

ELSA: The English Longitudinal Study of Ageing was developed by a team of researchers based at University College London, NatCen Social Research, the Institute for Fiscal Studies, the University of Manchester and the University of East Anglia. The data were collected by NatCen Social Research. The funding is currently provided by the National Institute on Aging in the US, and a consortium of UK government departments coordinated by the National Institute for Health Research. Funding has also been received by the Economic and Social Research Council. The English Longitudinal Study of Ageing Covid-19 Substudy was supported by the UK Economic and Social Research Grant (ESRC) ES/V003941/1.

GS: Generation Scotland received core support from the Chief Scientist Office of the Scottish Government Health Directorates [CZD/16/6] and the Scottish Funding Council [HR03006]. Genotyping of the GS:SFHS samples was carried out by the Genetics Core Laboratory at the Wellcome Trust Clinical Research Facility, Edinburgh, Scotland and was funded by the Medical Research Council UK and the Wellcome Trust (Wellcome Trust Strategic Award "STratifying Resilience and Depression Longitudinally" (STRADL)

Reference 104036/Z/14/Z). Generation Scotland is funded by the Wellcome Trust (216767/Z/19/Z).

TwinsUK: TwinsUK receives funding from the Wellcome Trust (WT212904/Z/18/Z), the National Institute for Health Research (NIHR) Biomedical Research Centre based at Guy's and St Thomas' NHS Foundation Trust and King's College London. The TwinsUK COVID-19 personal experience study was funded by the King's Together Rapid COVID-19 Call award, under the projects original title 'Keeping together through coronavirus: The physical and mental health implications of self-isolation due to the Covid-19 TwinsUK is also supported by the Chronic Disease Research Foundation and Zoe Global Ltd. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Supplementary file 3. Further study information - longitudinal population surveys (as required by the host institutions)

ALSPAC: Pregnant women resident in Avon, UK with expected dates of delivery 1st April 1991 to 31st December 1992 were invited to take part in the study. The initial number of pregnancies enrolled is 14,541 (for these at least one questionnaire has been returned or a "Children in Focus" clinic had been attended by 19/07/99). Of these initial pregnancies, there was a total of 14,676 fetuses, resulting in 14,062 live births and 13,988 children who were alive at 1 year of age. When the oldest children were approximately 7 years of age, an attempt was made to bolster the initial sample with eligible cases who had failed to join the study originally. As a result, when considering variables collected from the age of seven onwards (and potentially abstracted from obstetric notes) there are data available for more than the 14,541 pregnancies mentioned above. The number of new pregnancies not in the initial sample (known as Phase I enrolment) that are currently represented on the built files and reflecting enrolment status at the age of 24 is 913 (456, 262 and 195 recruited during Phases II, III and IV respectively), resulting in an additional 913 children being enrolled. The phases of enrolment are described in more detail in the cohort profile paper and its update (see footnote 4 below). The total sample size for analyses using any data collected after the age of seven is therefore 15,454 pregnancies, resulting in 15,589 fetuses. Of these 14,901 were alive at 1 year of age. A 10% sample of the ALSPAC cohort, known as the Children in Focus (CiF) group, attended clinics at the University of Bristol at various time intervals between 4 to 61 months of age. The CiF group were chosen at random from the last 6 months of ALSPAC births (1432 families attended at least one clinic). Excluded were those mothers who had moved out of the area or were lost to follow-up, and those partaking in another study of infant development in Avon.

Supplementary file 4. Details of measures used in longitudinal population surveys

MCS: The K-61 is a 6-item measure of psychological distress (i.e., general anxiety and depression). Responses are rated on a 5-point Likert-type scale, and capture distress over a period of four weeks prior to administration of the scale. Scores range from 0 to 24, with a conservative cut-off of 13+ applied to indicate probable psychological distress.

ALSPAC: Self-reported depressive symptoms were measured using the short mood and feelings questionnaire (SMFQ).⁵ The SMFQ is a 13-item questionnaire that measures the presence of depression symptoms in the previous two weeks and was administered via postal questionnaire or in research clinics. Each item is scored between 0-2, resulting in a summed score between 0-26. Scores of ≥ 11 on the SMFQ have good specificity and sensitivity for probable depression. In ALSPAC-G0, pre-pandemic depressive symptoms were measured using the Edinburgh Postnatal Depression Scale or EPDS, between 2011-2013. The EPDS consists of 10 items probing depressive symptoms in the last two weeks with scores ranging between 0-30 and higher scores indicating greater depression. Scores ≥ 12 have been validated against probable major depression. The SMFQ was used for pandemic measures of depressive symptoms in ALSPAC-G0.

NS: The 12-item General Health Questionnaire (GHQ)³ was used to detect symptoms of psychological distress in NS and USoc. The GHQ is a screening instrument designed to detect symptoms of psychological distress (i.e., general anxiety and depression). Each item is scored 0-3 resulting in scores ranging from 0-36. For classifying participants into high/low psychological distress, we used the common approach of scoring each item as 0-0-1-1, summing the results, and considering scores of 4+ as above the threshold for high psychological distress.

BCS70, NCDS: The 9-item version of the Malaise Inventory² was used to assess general psychological distress. Items are scored using a simple 'Yes/No' response, meaning continuous scores range from 0-9. Scores of four or more are indicative of probable psychiatric distress.

NSHD: The General Health Questionnaire (GHQ)³ was also used to detect symptoms of psychological distress in NSHD. For the pre-pandemic sweep, the 28-item GHQ was used, though the 12-item GHQ was used for the subsequent 3 sweeps. A common set of 6 GHQ questions were identified and used in these analyses. For continuous analyses, each item is scored 0-3 resulting in scores ranging from 0-18. For binary analyses, each item is scored as 0-0-1-1, resulting in scores ranging from 0-6 with a threshold of 2. Sensitivity analyses were conducted to confirm the validity of the 6-item GHQ.

USoc: The 12-item General Health Questionnaire (GHQ)³ was used, as described for NS.

ELSA: Depressive symptoms were measured using an abbreviated 8-item version of the validated Center for Epidemiologic Studies Depression Scale (CES-D).⁸ Respondents were asked whether they had experienced any depressive symptoms, such as feeling sad or having restless sleep, in the week prior to interview. For the binary classification, we considered respondents who reported four or more depressive symptoms on the CES-D scale as having elevated depressive symptoms.

TwinsUK: The Hospital Anxiety and Depression Scale (HADS)9 is a 14-item scale used to measure levels of psychiatric distress in non-psychiatric patient populations. Responses are indicated on a 4-point ordinal Likert scale.

GS: Depression and anxiety were assessed during the pandemic sweeps using the GAD-7 and the Patient Health Questionnaire (PHQ-9)4. The PHQ-9 is a nine-item, validated tool for the assessment of depressive symptoms experienced in the previous two weeks. Participants are asked to indicate how often they have been bothered by problems such as “Little interest or pleasure in doing things?” on a four-point Likert scale from 0 “Not at all” to 3 “Nearly every day”. The score is the sum of the nine items, to a total of 27. A score of 10 or more indicates major depression. The 28-item GHQ3 was used to assess pre-pandemic psychological distress, and so a comparable composite measure was created from the GAD-7 and the PHQ-9 scales to enable evaluation of change over time. Correlations between each GHQ-28 item and items of the GAD-7 and PHQ-9 scales were examined, and the text of the most highly correlated ($r > 0.25$) questions was then reviewed and sense-checked; matched items are presented in table S1.2.T1 below. Cut-off scores were determined using ROC curves, which found a general cut-off of >4 , a depression cut-off of >5 and an anxiety cut-off of >2 . The latter matched the general “proportion” of PHQ-9/GAD-7 scores required for a cut-off.

Pre-pandemic				Pandemic			
Measure	Subscale	Item	Question	Measure	Subscale	Item	Question
GHQ-28	Somatic	3	Been feeling run down and out of sorts	PHQ-9	-	4	Feeling tired or having little energy
GHQ-28	Anxiety	2	Had difficulty in staying asleep once you are off	PHQ-9	-	3	Trouble falling or staying asleep, or sleeping too much
GHQ-28	Anxiety	4	Been getting edgy and bad-tempered	GAD-7	-	6	Becoming easily annoyed or irritable
GHQ-28	Anxiety	5	Been getting scared or panicky for no good reason	GAD-7	-	1	Feeling nervous, anxious or on edge
GHQ-28	Depression	1	Been thinking of yourself as a worthless person	PHQ-9	-	6	Feeling bad about yourself - or that you are a failure or have let yourself or your family down
GHQ-28	Depression	4	Thought of the possibility that you might make away with yourself	PHQ-9	-	9	Thoughts that you would be better off dead or of hurting yourself in some way
GHQ-28	Depression	5	Found at times you couldn't do anything because your nerves were too bad	PHQ-9	-	7	Trouble concentrating on things, such as reading the newspaper or watching television

Supplementary file 5. Variable coding

<i>Variables</i>	<i>Study</i>	<i>Question(s)</i>	<i>Recoding if needed</i>	<i>Notes</i>
* Lone household * 0=Non-lone household; 1=Lives alone				
	NS BCS 70 NCDS NSHD	How many people do you currently live with? Please include yourself.	1= 1 (lives alone); 0 = 2+ (non-lone household)	Reference period: T1 = Apr'20
	USOC	Thinking about the people who live in your household. Without counting yourself, how many are...? Aged 0-4; Aged 5-15; Aged 16-18; Aged 19-69; Aged 70+	0= 1 (lives alone) 1+ =0 (lives with others)	Used first valid data from either April, May or June Surveys.
	ELSA	[If living at usual home or at someone else's home] How many people (including you) are currently living in the residence you are staying in?	1= 1 (lives alone); 0 = 2+ (non-lone household)	Current situation in Jun/July 2020
	GS	1. Do you currently live alone? 2. Including yourself, how many people live in your household?	1. Yes = 1 (lives alone) No = 0 (does not live alone) Prefer not to answer = NA (excluded) 2. 1 - 12 plus (2-10 = 0; 11+ = excluded)	
	TWINS UK	Who do you live with?	0 I live with other people 1==0 0 I live by myself 2==1	
	ALSPAC	Number of people the participant lives with?	0 = Live alone; 1 = Live with at least one person	
* Loneliness * 0=Not lonely; 1=Lonely				
	NS BCS 70 NCDS NSHD USOC ELSA	How often do you feel lonely? 1= Hardly ever; 2= Some of the time; 3= Often	1+2=0; 3=1	

GS	How often have you felt lonely during the past week? 1 = None, or almost none of the time; 2 = Some of the time; 3 = Most of the time; 4 = All, or almost all of the time; 99 = Don't know; 98 = Prefer not to answer	1+2=0; 3+4=1, 98+99 = NA
TWINS UK	How often do you feel like this NOW? How often do you feel alone? 1= Hardly ever; 2= Some of the time; 3= Often	1+2=0; 3=1
ALSPAC	Not Available	

* Sex * 0=Male; 1=Female

All	0=Male; 1=Female
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* Ethnicity * 0=White; 1=Ethnic Minority

	Note: Ethnicity is self-reported in these studies	
NS	1=White; 2=Mixed; 3=Indian; 4=Pakistani; 5=Bangladeshi; 6=Black Caribbean; 7=Black African; 8=Other	1=0; 2/8=1
BCS70	Not Available	
NCDS	Not Available	
NSHD	Not Available	
ALSPAC	G0 (Parents) 1=White; 2=Black caribbean; 3=Black african; 4=Other black; 5=Indian; 6=Pakistani; 7=Bangladeshi; 8=Chinese; 9=Other G1 (Children) 1=White; 2=Mixed/Multiple Ethnic group; 3=Asian; 4=Black/African/Caribbean/Black British; 5=Arab or Other	1=0; 2/9=1
USOC	1=White British; 2=Irish (White); 3=Gypsy or Irish Traveller (white); 4=Any other white background; 5=White and black caribbean (mixed); 6=White and black african (mixed); 7=White and Asian (mixed); 8=Any other mixed background; 9=Indian (Asian or Asian British); 10=Pakistani (Asian or Asian British); 11=Bangladeshi (Asian or Asian British); 12=Chinese (Asian or Asian British); 13=Any other Asian background (Asian or Asian British); 14=Caribbean (Black or Black British); 15=African (Black or Black British); 16=Any other Black background (Black or Black British); 17=Arab (other Ethnic group); 97=Any other ethnic group	1-4=0; 5-97=1
ELSA	1.White; 2=Mixed ethnic group; 3=Black; 4=Black British; 5=Asian; 6=Asian British	1=0; 2/6=1

GS	1=White Scottish; 2=White English; 3=White Welsh; 4=White N. Irish; 5=White Irish; 6=White Gypsy/Irish traveller; 7=White Polish; 8=Any other white; 9=Asian/British Asian - Indian; 10=Asian/British Asian - Pakistani; 11=Asian/British Asian - Bangladeshi; 12=Asian/British Asian - Chinese; 13=Any other Asian background; 14=Black or Black British - African; 15=Black or Black British - Caribbean; 16=Any other Black/African/Caribbean background; 17=Arab or Arab British; 18=Mixed - White and Black Caribbean; 19=Mixed - White and Black African; 20=Mixed - White and Asian; 21=Any other Mixed/Multiple ethnic background; 22=Any other ethnic group	1-8=0; 9-22=1
TWINS UK	1=White- English, Welsh, Scottish, Northern Irish, Irish; 2=White- Other white background; 3=Mixed/multiple ethnic groups - White and Black Caribbean; 4=Mixed/multiple ethnic groups - White and Black African; 5=Mixed/multiple ethnic groups - White and Asian; 6=Mixed/multiple ethnic groups - Other mixed/ multiple ethnic background; 7=Asian/Asian British- Indian; 8=Asian/Asian British - Pakistani; 9=Asian/Asian British - Bangladeshi; 10=Asian/Asian British - Chinese; 11=Asian/Asian British - Other Asian background; 12=Black/Black British - African; 13=Black/Black British - Caribbean; 14=Black/Black British - Other Black Background; 15=Middle-Eastern; 16=Other ethnic group	1/2=0; 3/16=1
Note: Ethnicity is self-reported in these studies		
* Education * 0=No Degree; 1=Degree		
NS BCS 70 NCDS	0=None; 1=Nvq1; 2=Nvq2; 3=Nvq3; 4=Nvq4; 5=Nvq5 *parent's education for MCS	1/3=0; 4/5=1
NSHD	0=None attempted; 1.=Vocational course, proficiency only; 2=Sub GCE or sub Burnham C; 3=GCE 'O' level or Burnham C; 4=GCE 'A' Level or Burnham B; 5=Burnham A2; 6= 1st Degree or graduate equivalent; 7= Higher degree, Masters; 8= Higher degree, doctorate; 9=Unknown	0/5 OR 9=0; 6/8=1
ALSPAC	1=Degree; 2=A levels/AS levels or equivalent; 3=O levels; 4=Vocational; 5=CSE *parent's education for G1 (Children)	1=1; 2/5=0

USOC	1.Higher degree 2. 1st degree or equivalent 3. Diploma in Higher Education 4. Teaching qualification (not PGCE) 5. Nursing or other medical qualification 6. Other higher degree 7. A-Level 8. Welsh baccalaureate 9. International baccalaureate 10. AS Level 11. Scottish Highers 12. Certificate of 6th year studies 13. GCSE/O-Level 14. Certificate of secondary education 15. Standard or lower 16. Other school certificate 96. No qualifications	1/6=1; 7/96=0
ELSA	1=Nvq4/nvq5/degree or equivalent; 2=Higher Education below degree; 3=Nvq3/GCE A level equivalent; 4=Nvq2/GCE O level equivalent; 5=Nvq1/CSE other grade equivalent; 6=Foreign/other; 7=No qualification	1=1; 2/7=0
GS	1=No qualifications; 2=Other (please specify); 3=School leavers certificate; 4=CSEs or equivalent; 5=Standard grade, National 4 or 5, O levels, GCSEs or equivalent; 6=Higher grade, A levels, AS levels or equivalent; 7=NVQ or HND or HNC or equivalent; 8=Other professional or technical qualification; 9=Undergraduate degree; 10=Postgraduate degree	1/8=0; 9 OR 10=1
TWINS UK	1=No qualification; 2=NVQ1/SVQ1; 3=O-level/GCSE/NVQ2/SVQ2/Scottish intermediate; 4=Scottish Higher, NVQ3, City and Guilds, Pitman; 5=A-level, Scottish Advanced Higher; 6=Higher vocational training (e.g. Diploma, NVQ4, SVQ4); 7=Undergraduate degree; 8=Postgraduate degree (e.g. Masters or PhD), NVQ5, SVQ5	1/6=0; 7 OR 8=1

*** Occupational Social Class ***
1=Managerial/Admin/Professional;
2=Intermediate; 3=Manual/routine;
4=Other/Missing

NS-SEC: National Statistics Socioeconomic Classification.
RGSC: Registrar General's Social Class
ONS SOC: Office of National Statistics Standard Occupational Classification

NS BCS 70 NCDS	[NS-SEC] 1=Higher managerial and professional; 2=Lower managerial and professional; 3=Intermediate occupations; 4=Small employers and own account workers; 5=Lower supervisory and technical; 6=Semi-routine occupations; 7=Routine occupations; 8=Never worked and long-term unemployed *parent's occupational social class for MCS	2=1; 3-4=2; 5-7=3; 8=4
NSHD	[RGSC] 1=I Professional; 2=II Managerial and Technical; 3=IIINM Skilled non-manual; 4=IIIM Skilled manual; 5=IV Partly skilled; 6=V Unskilled; 7=Missing	2=1; 3/5=2; 6=3; 7=4
ALSPAC	[RGSC] 1=I Professional; 2=II Managerial and Technical; 3=IIINM Skilled non-manual; 4=IIIM Skilled manual; 5=IV Partly skilled; 6=V Unskilled; 7=Armed Forces *parent's occupational social class for G1 (Children)	2=1; 3/5=2; 6=3; 7=4
USOC	[NS-SEC] 1=Higher managerial and professional; 2=Lower managerial and professional; 3=Intermediate occupations; 4=Small employers and own account workers; 5=Lower supervisory and technical; 6=Semi-routine occupations; 7=Routine occupations; 8=Never worked or long-term unemployed	2=1; 3-4=2; 5-7=3; 8=4
ELSA	[NS-SEC] 1=Higher managerial and professional; 2=Lower managerial and professional; 3=Intermediate occupations; 4=Small employers and own account workers; 5=Lower supervisory and technical; 6=Semi-routine occupations; 7=Routine occupations; 8=Never worked or long-term unemployed	2=1; 3-4=2; 5-7=3; 8=4
GS	[ONS SOC] 1=Managers, directors, senior officials; 2=Associate professional and technical occupations; 3=Administrative and secretarial occupations; 4=Skilled trades occupations; 5=Sales and customer service occupations; 6=Process, plant and machine operatives; 7=Elementary (unskilled) occupations; 8=Never worked	1/3=1; 4/5=2; 6/7=3; 8=4
TWINS UK	Not Available	

* Shielding Status * 1=Shielding;
0=Not shielding

All studies except ALSPAC and MCS (given their age)

NS BCS 70 NCDS NSHD	[SHIELD] Did you at any time receive a letter or text message from the NHS or Chief Medical Officer saying that you have been identified as someone at risk of severe illness if you catch Coronavirus, because you have an underlying disease or health condition 1. Yes 2. No	2=0
USOC	Have you received a letter from the NHS or Chief Medical Officer saying that you have been identified as someone at risk of severe illness if you catch coronavirus, because you have an underlying disease or health condition? 1=Yes, 2=No	2=0
ELSA	"Have you been contacted by the NHS or your GP and advised that you are vulnerable and at risk of severe illness if you catch coronavirus (Covid-19), and should stay at home at all times and avoid any face-to-face contact?" 1=Yes, 2=No	2=0
GS	Have you been contacted by letter or text message to say you are at severe risk from COVID-19 due to an underlying health condition and should be shielding? 1 = Yes; 2= No.	2=0
TWINS UK	Wave 2 (July/August 2020) Have you received a letter or text message over the past few months to say you are at high risk from COVID-19 due to an underlying health condition, and should be 'shielding'? 1 = Yes; 2= No Wave 4 (March/April 2021): Were you contacted by letter or text message to say you are at severe risk from COVID-19 due to an underlying health condition and should be shielding? 1 = Yes; 2= No	
ALSPAC	Not Available	

* Home ownership * 1=Home Owner; 0=Not Home Owner

NS BCS 70 NCDS NSHD	TENURE Do you (or your household) own or rent your home or have some other arrangement? 1. Own - outright 2. Own - buying with help of a mortgage / loan 3. Pay part rent and part mortgage (shared / equity ownership) 4. Rent it 5. Live here rent-free, including rent-free in relative's / friend's / employer's property; exclude squatting 6. Squatting 7. Other arrangement	1/2=1; 3/7=0
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USOC	Derived from a series of questions: 1=Owned outright; 2=Owned with mortgage; 3=Local authority rent; 4=Housing association rent; 5=Rented from employer; 6=Rented private unfurnished; 7=Rented private furnished; 8=Other	1/2=1; 3/8=0
ELSA	In which of these ways do you occupy this accommodation? 1=Own it outright; 2=Buying it with the help of a mortgage or loan; 3=Pay part rent and part mortgage shared ownership; 4=Rent it; 5=Live here rent free (including rent free in relative's / friend's property; excluding squatting); 6=Squatting	1/3=1; 4/6=0
ALSPAC	Not Available	
GS	What is the status of the accommodation in which you and your household live? 1=Own outright; 2=Own with mortgage; 3=Rent from local authority/housing association; 4=Rent from private landlord or agency; 5=Pay part rent and part mortgage; 6=Live rent free; 7=Other; 8=Don't know; 9=Prefer not to answer	1/2=1; 3/9=0
TWINS UK	Which describes the home you live in? Owned outright (1); Owned with the help of a mortgage (2); Shared ownership (part owned, part rented) (3); Rented (4); Living rent free (5); Other (Please specify below) (6)	1:3 = home owner; 4, 5 = non-home owner

*** Pre-Pandemic Physical Chronic Condition/Illness ***

NCDS	Whether CM has physical/mental health conditions/illnesses expected to last 12+mths. 1=Yes; 2=No	2=0
BCS70	Any physical/mental health conditions lasting or expected to last 12 months. 1=Yes; 2=No	2=0
NS	Has longstanding illness. 1=Yes; 2=No	2=0
NSHD	CM suffering from a longstanding illness. 1=Yes; 2=No	2=0
USOC	Do you have any long-standing physical or mental impairment, illness or disability? By 'long-standing' I mean anything that has troubled you over a period of at least 12 months or that is likely to trouble you over a period of at least 12 months. 1=Yes, 2=No	2=0
	I also have a variable derived from a list of physical chronic conditions, let me know if you'd rather I used that	

ELSA	Q1: Do you have any long-standing illness, disability or infirmity? By long-standing I mean anything that has troubled you over a period of time, or that is likely to affect you over a period of time. 1=Yes; 2=No Q2: (If Yes in Q1) (Does this / Do these) illness(es) or disability(ies) limit your activities in any way? 1=Yes; 2=No	If Q1=1 & Q2=1
ALSPAC	Participant has a history of diabetes, heart disease, hypertension, is overweight, kidney disease, liver disease, anaemia, other lung conditions, cancer, condition affecting the brain and nerves or weakened immune system	0 = None; 1 = at least 1
GS	Not Available	
TWINS UK	Not Available	

*** Pre-Pandemic Disability * 1=If respondent disabled/has disability that limits their activity/work; 0=No Disabilities**

All studies except GS and ALSPAC

NCDS BCS70 NS	(Derived) Disability classification Equality act (2010). 0 = Not disabled; 1 = Disabled	
NSHD	Do you have any long-term illness, health problem or disability that limits the activities/work you can do?	0 = No; 1 = Yes
USOC	How much difficulty do you have with [separate items for: Mobility; Lifting, carrying or moving objects; Manual dexterity; Continence; Hearing; Sight; Physical Coordination]? Would you say... 1=Some difficulty; 2=A lot of difficulty; 3=Unable to do this	2/3 on any item=1; else=0
ELSA	Please tell me if you have any difficulty with these everyday activities because of a physical, mental, emotional or memory problem. Exclude any difficulties you expect to last less than three months. 1-15=List of activities; 96=None of the everyday activities listed	1 if !=96
ALSPAC	Not Available	
GS	Not Available	

TWINS UK Do you currently have a long-term disability that seriously restricts your activities? 0 = no; 1 = yes

* Urban/rural * 1=rural; 0=urban

Prioritising T1

**NCDS
BCS70
NS**

Not Available

NSHD

Not Available

USOC

Binary indicator classifying the address as falling into an (1) urban or (2) rural area. This is derived from the Office for National Statistics Rural and Urban Classification of Output Areas 2001 (UKDS Study Number 7454). The indicator assumes a value of (1) if the address falls within urban settlements with a population of 10,000 or more, or (2) otherwise.

ELSA

Binary indicator classifying the address as falling into an (1) urban or (2) rural area. This is derived from the Office for National Statistics Rural and Urban Classification of Output Areas 2011. The indicator assumes a value of (1) if the address falls within urban settlements with a population of 10,000 or more, or (2) otherwise.

2=0

ALSPAC

Not Available

GS

Based on the Scottish Government Urban-Rural Classification 2016. 1 = urban; 2 = rural

2=0

TWINS UK

Binary indicator classifying the address as falling into an (1) urban or (2) rural area. This is derived from the Office for National Statistics Rural and Urban Classification of Output Areas 2011. The indicator assumes a value of (1) if the address falls within urban settlements with a population of 10,000 or more, or (2) otherwise.

Supplementary file 6. Further details on Open SAFELY

DATA SHARING

All data were linked, stored and analysed securely within the OpenSAFELY platform <https://opensafely.org/>. Data include pseudonymized data such as coded diagnoses, medications and physiological parameters. No free text data are included. All code is shared openly for review and re-use under MIT open license (https://github.com/opensafely/lone_households). Detailed pseudonymised patient data is potentially re-identifiable and therefore not shared. We rapidly delivered the OpenSAFELY data analysis platform without prior funding to deliver timely analyses on urgent research questions in the context of the global Covid-19 health emergency: now that the platform is established we are developing a formal process for external users to request access in collaboration with NHS England; details of this process are available at [OpenSAFELY.org](https://opensafely.org).

SOFTWARE AND REPRODUCIBILITY

Data management and analysis was performed using the OpenSAFELY software libraries and Python, both implemented using Python 3. This analysis was delivered using federated analysis through the OpenSAFELY platform: codelists and code for data management and data analysis were specified once using the OpenSAFELY tools; then transmitted securely to the OpenSAFELY-TPP platform within TPP's secure environment, and separately to the OpenSAFELY-EMIS platform within EMIS's secure environment, where they were each executed separately against local patient data; summary results were then reviewed for disclosiveness, released, and combined for the final outputs. All code for the OpenSAFELY platform for data management, analysis and secure code execution is shared for review and re-use under open licenses at [GitHub.com/OpenSAFELY](https://github.com/opensafely). Data management was performed using Python 3.8, with analysis carried out using Stata 17. Code for data management and analysis as well as codelists archived online [https://github.com/opensafely/lone_households]. All iterations of the pre-specified study protocol are archived with version control.

ETHICS STATEMENT

We received ethics approval to conduct the data linkage and analyses by the London - City & East Research Ethics Committee on the 2nd of April 2020 (REC reference: 20/LO/0651) and LSHTM Ethics Board (ref 21863). No further ethical or research governance approval was required by the University of Oxford but copies of the approval documents were reviewed and held on record.

INFORMATION GOVERNANCE

NHS England is the data controller; TPP is the data processor; and the key researchers on OpenSAFELY are acting on behalf of NHS England. This implementation of OpenSAFELY is hosted within the TPP environment, which is accredited to the ISO 27001 information security standard and is NHS IG Toolkit compliant 52,53; patient data have been pseudonymized for analysis and linkage using industry standard cryptographic hashing techniques; all pseudonymized datasets transmitted for linkage onto OpenSAFELY are encrypted; access to the platform is through a virtual private network (VPN) connection; the researchers hold contracts with NHS England and only access the platform to initiate database queries and statistical models; all database activity is logged; and only aggregate statistical outputs leave the platform environment following best practice for anonymization of results such as statistical disclosure control for low cell counts⁵⁴. The OpenSAFELY research platform adheres to the data protection principles of the UK Data Protection Act

2018 and the EU General Data Protection Regulation (GDPR) 2016. In March 2020, the Secretary of State for Health and Social Care used powers under the UK Health Service (Control of Patient Information) Regulations 2002 (COPI) to require organizations to process confidential patient information for the purposes of protecting public health, providing healthcare services to the public and monitoring and managing the COVID-19 outbreak and incidents of exposure⁵⁵. Together, these provide the legal bases to link patient datasets on the OpenSAFELY platform. GP practices, from which the primary care data are obtained, are required to share relevant health information to support the public health response to the pandemic and have been informed of the OpenSAFELY analytics platform.

Table S1. Mental health outcomes used in EHR study

Outcome	Definition	Source
Depression	Any record of major depressive disorder, dysthymia, mixed anxiety and depression, and adjustment disorders with depressed mood; we will also include codes for depressive symptoms	Primary care
Self harm/suicide	Records that indicate explicit or undetermined intention to self-harm, non-suicidal or suicidal self-harm (including overdoses with drugs commonly implicated in suicide, such as paracetamol)	Primary care, hospital admission, emergency care attendance, death records
Anxiety	Any record of symptoms or diagnoses of social phobia, agoraphobia, panic, generalised anxiety disorder, and mixed anxiety and depression	Primary care
Obsessive compulsive disorder	Codes for hypochondriasis, hoarding disorder, and body focused repetitive behaviour disorders	Primary care
Eating disorders	Anorexia nervosa, bulimia nervosa, body dysmorphic disorders, and other specified feeding and eating disorders	Primary care, hospital admission, emergency care attendance, death records
Serious mental illness	Diagnoses of schizophrenia and other psychotic disorders, and bipolar disorders	Primary care, hospital admission, emergency care attendance

Table S2. Descriptive statistics for outcome measures in LPS by cohort, time and living status

Longitudinal Study	Mental Health Outcome	Living Alone Status	Pre-Pandemic			Peri-Pandemic 1			Peri-Pandemic 2			Peri-Pandemic 3		
			N	Mean Score (SD)	High Symptoms (%)	N	Mean Score (SD)	High Symptoms (%)	N	Mean Score (SD)	High Symptoms (%)	N	Mean Score (SD)	High Symptoms (%)
NS	Psychological Distress	Living Alone	249	11.6 (6.2)	25.9	156	14.4 (6.6)	47.8	144	14.1 (5.8)	32.3	161	14.0 (5.9)	41.3
		Living With Others	1013	11.4 (5.5)	23.9	1104	12.8 (5.5)	30.9	1038	13.0 (5.4)	30.6	1087	13.5 (5.4)	34.2
	Low Life Satisfaction	Living Alone	249	2.2 (0.8)	23.9	161	6.4 (2.2)	40.1	145	6.8 (1.8)	33.7	160	6.4 (1.9)	42.1
		Living With Others	1013	2.0 (0.8)	19.8	1128	7.2 (1.9)	28.9	1042	7.2 (1.8)	26.4	1093	6.6 (2.1)	39.9
BCS	Psychological Distress	Living Alone	229	1.7 (2.0)	20.2	377	1.7 (1.9)	15.8	347	2.0 (2.3)	21.2	339	2.0 (2.2)	22.6
		Living With Others	2564	1.5 (1.9)	14.9	2558	1.7 (2.0)	16.5	2326	1.9 (2.0)	19.2	2386	1.7 (1.9)	17.4
	Low Life Satisfaction	Living Alone	229	7.6 (1.8)	35.2	382	6.8 (2.0)	17.0	348	6.6 (2.1)	39.2	341	6.5 (2.1)	42.4
		Living With Others	2559	8.7 (1.6)	16.5	2578	7.3 (1.9)	25.0	2330	7.3 (1.8)	24.4	2390	6.9 (1.9)	33.5
NCDS	Psychological Distress	Living Alone	369	1.5 (1.8)	14.7	841	1.4 (1.8)	12.9	815	1.5 (1.9)	14.5	829	1.4 (1.8)	13.5
		Living With Others	3403	1.8 (1.7)	10.4	2936	1.3 (1.8)	9.1	2878	1.3 (1.8)	11.9	2895	1.3 (1.7)	11.4
	Low Life Satisfaction	Living Alone	369	6.6 (1.8)	39.5	860	6.9 (2.2)	32.7	815	6.9 (2.0)	34.0	834	6.6 (2.2)	41.7
		Living With Others	3403	7.7 (1.5)	16.4	2974	7.6 (1.9)	20.6	2882	7.6 (1.8)	20.9	2898	7.1 (1.9)	32.1
NSHD	Psychological Distress	Living Alone	304	4.4 (1.8)	20.7	353	6.8 (2.5)	69.1	357	6.0 (2.2)	55.5	251	5.5 (2.1)	43.0
		Living With Others	1127	4.2 (1.8)	16.2	1266	6.2 (2.2)	62.2	1170	5.6 (2.1)	44.5	862	5.0 (1.9)	32.1
	Low Life Satisfaction	Living Alone	264	7.7 (2.2)	15.9	252	6.9 (2.2)	23.8	363	6.9 (2.0)	25.9	251	6.4 (2.0)	32.7
		Living With Others	998	7.7 (1.8)	12.2	859	7.7 (1.8)	12.2	1170	7.5 (1.9)	14.0	863	7.2 (1.9)	19.2
ALSPAC-G1	Psychological Distress	Living Alone	141	8.2 (6.4)	33.3	161	7.9 (6.5)	24.2	127	7.6 (6.0)	27.6	145	8.2 (7.0)	31.7
		Living With Others	2111	6.7 (6.2)	22.6	2632	6.1 (5.0)	17.7	1946	6.4 (5.7)	21.1	2323	6.4 (6.0)	20.7
	Low Life Satisfaction	Living Alone	-	-	-	-	-	-	-	-	-	-	-	-
		Living With Others	-	-	-	-	-	-	-	-	-	-	-	-
USOC	Psychological Distress	Living Alone	3328	11.7 (5.4)	20.7	1148	13.7 (6.4)	31.8	1089	13.3 (6.3)	26.7	1066	13.6 (6.3)	28.2
		Living With Others	18859	11.3 (5.6)	19.5	8508	12.4 (6.2)	24.6	7645	11.8 (5.7)	20.0	7670	12.5 (6.2)	24.3
	Low Life Satisfaction	Living Alone	3328	5.0 (1.4)	30.5	1190	4.4 (1.4)	49.1	1093	4.5 (1.4)	45.4	1067	4.5 (1.4)	43.7
		Living With Others	18859	5.1 (1.4)	26.9	8942	4.8 (1.6)	35.2	7661	4.9 (1.5)	32.0	7964	4.9 (1.5)	31.2
ELSA	Psychological Distress	Living Alone	1348	1.8 (2.3)	4.1	1451	2.6 (2.5)	7.8	-	-	-	1303	2.9 (2.7)	9.3
		Living With Others	4123	1.8 (1.6)	7.2	4020	1.9 (2.0)	14.4	-	-	-	3742	2.1 (2.3)	18.1
	Low Life Satisfaction	Living Alone	1214	6.9 (2.6)	7.6	1447	6.7 (2.5)	10.2	-	-	-	1300	6.5 (2.5)	10.9
		Living With Others	3876	7.6 (2.0)	18.1	4004	7.1 (2.1)	24.4	-	-	-	3737	7.0 (2.2)	26.2
GS	Psychological Distress	Living Alone	452	3.0 (3.0)	21.9	433	4.1 (4.5)	24.9	334	4.1 (4.2)	32.9	304	4.9 (4.6)	40.8
		Living With Others	2530	2.5 (2.4)	16.9	2447	3.6 (3.8)	30.6	1771	3.2 (3.8)	26.0	1628	4.2 (4.1)	35.1
	Low Life Satisfaction	Living Alone	452	7.7 (1.8)	17.7	452	5.8 (2.3)	57.8	347	6.6 (2.2)	38.2	324	5.7 (2.3)	56.5
		Living With Others	2528	8.2 (1.6)	11.1	2528	6.5 (2.2)	42.7	1836	7.2 (1.9)	28.5	1700	6.3 (2.2)	47.3
TWINSUK	Psychological Distress	Living Alone	480	7.5 (5.9)	7.1	480	8.5 (6.5)	6.5	480	9.76 (5.3)	5.2	480	10 (5.7)	7.1
		Living With Others	1847	7.2 (5.9)	5.7	1847	8.6 (6.5)	8.1	1847	10 (5.5)	6	1847	10.4 (5.7)	6.7
	Low Life Satisfaction	Living Alone	-	-	-	480	6.8 (2.2)	36.7	480	7.0 (2.03)	30	480	7.2 (2.0)	25.8
		Living With Others	-	-	-	1847	7.0 (2.0)	34.2	1847	7.4 (1.9)	22.4	1847	7.5 (1.9)	23.8
ALSPAC-GO	Psychological Distress	Living Alone	205	7.4 (6.4)	23.4	237	4.9 (4.9)	11.4	213	5.0 (5.1)	12.7	219	4.7 (5.0)	12.3
		Living With Others	2568	6.3 (5.2)	17.3	3047	2.8 (3.5)	3.8	2614	3.0 (3.7)	4.9	2667	3.2 (3.9)	5.8
	Low Life Satisfaction	Living Alone	-	-	-	-	-	-	-	-	-	-	-	-
		Living With Others	-	-	-	-	-	-	-	-	-	-	-	-

Table S3. Regression coefficients from cross-sectional models with continuous outcomes

cohort	outcome (Z)	TP	exposure	coef	se	l_ci	u_ci	n	Adjusted for
NCDS	Psych distress	T0	T0 living alone	0.17	0.06	0.06	0.29	3772	--
NCDS	Psych distress	T0	T0 living alone	0.10	0.06	-0.01	0.22	3551	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Psych distress	T1	T1 living alone	0.17	0.06	0.06	0.28	3777	--
NCDS	Psych distress	T1	T1 living alone	0.07	0.05	-0.03	0.16	3567	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Psych distress	T2	T1 living alone	0.11	0.04	0.02	0.19	3693	--
NCDS	Psych distress	T2	T1 living alone	0.04	0.04	-0.04	0.12	3692	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Psych distress	T3	T1 living alone	0.07	0.04	-0.01	0.16	3724	--
NCDS	Psych distress	T3	T1 living alone	0.01	0.04	-0.07	0.08	3512	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Life satisfaction	T0	T0 living alone	-0.56	0.05	-0.66	-0.45	3772	--
NCDS	Life satisfaction	T0	T0 living alone	-0.50	0.05	-0.61	-0.39	3551	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Life satisfaction	T1	T1 living alone	-0.37	0.07	-0.50	-0.24	3834	--
NCDS	Life satisfaction	T1	T1 living alone	-0.32	0.06	-0.43	-0.21	3623	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Life satisfaction	T2	T1 living alone	-0.35	0.04	-0.43	-0.26	3697	--
NCDS	Life satisfaction	T2	T1 living alone	-0.31	0.04	-0.39	-0.22	3696	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Life satisfaction	T3	T1 living alone	-0.29	0.05	-0.38	-0.19	3732	--
NCDS	Life satisfaction	T3	T1 living alone	-0.26	0.05	-0.35	-0.17	3520	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NSHD	Psych distress	T0	T0 living alone	0.08	0.06	-0.03	0.19	1431	--
NSHD	Psych distress	T0	T0 living alone	0.01	0.06	-0.10	0.13	1300	sex, education, UK nation, tenure, disability
NSHD	Psych distress	T1	T1 living alone	0.36	0.08	0.21	0.51	1618	--
NSHD	Psych distress	T1	T1 living alone	0.27	0.08	0.11	0.43	1439	sex, education, UK nation, tenure, disability
NSHD	Psych distress	T2	T1 living alone	0.32	0.07	0.18	0.47	1526	--
NSHD	Psych distress	T2	T1 living alone	0.20	0.08	0.05	0.35	1445	sex, education, UK nation, tenure, disability
NSHD	Psych distress	T3	T1 living alone	0.23	0.08	0.08	0.39	1112	--
NSHD	Psych distress	T3	T1 living alone	0.15	0.08	-0.02	0.31	1053	sex, education, UK nation, tenure, disability
GS	Psych distress	T0	Live Alone	0.12	0.04	0.06	0.19	2984	--
GS	Psych distress	T1	Live Alone	0.13	0.06	0.02	0.24	2882	--
GS	Psych distress	T2	Live Alone	0.23	0.07	0.11	0.35	2106	--
GS	Psych distress	T3	Live Alone	0.22	0.08	0.08	0.36	1932	--
GS	Life satisfaction	T0	Live Alone	--	--	--	--	--	*No T0 LifeSat score

GS	Life satisfaction	T1	Live Alone	-0.33	0.05	-0.44	-0.23	2982	--	
GS	Life satisfaction	T2	Live Alone	-0.26	0.06	-0.36	-0.15	2184	--	
GS	Life satisfaction	T3	Live Alone	-0.28	0.06	-0.40	-0.16	2024	--	
GS	Psych distress	T0	Live Alone	0.11	0.04	0.05	0.18	2984		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Psych distress	T1	Live Alone	0.14	0.06	0.03	0.25	2882		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Psych distress	T2	Live Alone	0.22	0.07	0.10	0.34	2106		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Psych distress	T3	Live Alone	0.18	0.07	0.04	0.31	1932		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Life satisfaction	T0	Live Alone	--	--	--	--	--		*No T0 LifeSat score
GS	Life satisfaction	T1	Live Alone	-0.33	0.05	-0.43	-0.23	2982		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Life satisfaction	T2	Live Alone	-0.27	0.06	-0.37	-0.16	2184		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Life satisfaction	T3	Live Alone	-0.25	0.06	-0.37	-0.13	2024		sex, age, education, ethnicity, tenure, occupation, urbanicity
USOC	Psych distress	T0	T0 living alone	0.05	0.02	0.01	0.10	22187	--	
USOC	Psych distress	T0	T0 living alone	0.02	0.02	-0.02	0.07	22187		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Psych distress	T1	T1 living alone	0.15	0.03	0.09	0.21	12088	--	
USOC	Psych distress	T1	T1 living alone	0.17	0.03	0.12	0.23	12088		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Psych distress	T2	T1 living alone	0.15	0.03	0.09	0.22	9905	--	
USOC	Psych distress	T2	T1 living alone	0.15	0.03	0.09	0.21	9905		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Psych distress	T3	T1 living alone	0.12	0.03	0.06	0.18	9913	--	
USOC	Psych distress	T3	T1 living alone	0.12	0.03	0.06	0.18	9913		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Life satisfaction	T0	T0 living alone	-0.09	0.02	-0.14	-0.05	22187	--	
USOC	Life satisfaction	T0	T0 living alone	-0.06	0.02	-0.11	-0.02	22187		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Life satisfaction	T1	T1 living alone	-0.29	0.04	-0.37	-0.21	10132	--	
USOC	Life satisfaction	T1	T1 living alone	-0.26	0.04	-0.35	-0.18	10132		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Life satisfaction	T2	T1 living alone	-0.21	0.03	-0.27	-0.15	9905	--	
USOC	Life satisfaction	T2	T1 living alone	-0.17	0.03	-0.22	-0.11	9905		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Life satisfaction	T3	T1 living alone	-0.24	0.03	-0.29	-0.18	9913	--	
USOC	Life satisfaction	T3	T1 living alone	-0.20	0.03	-0.25	-0.14	9913		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
BCS	Psych distress	T0	T0 living alone	0.08	0.08	-0.08	0.24	2793	--	
BCS	Psych distress	T0	T0 living alone	0.01	0.07	-0.13	0.15	2461		sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Psych distress	T1	T1 living alone	0.02	0.07	-0.12	0.15	2935	--	
BCS	Psych distress	T1	T1 living alone	-0.04	0.07	-0.18	0.09	2616		sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Psych distress	T2	T1 living alone	0.09	0.07	-0.04	0.22	2673	--	

BCS	Psych distress	T2	T1 living alone	0.04	0.06	-0.08	0.17	2673	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Psych distress	T3	T1 living alone	0.16	0.07	0.02	0.30	2725	--
BCS	Psych distress	T3	T1 living alone	0.13	0.06	0.01	0.25	2406	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Life satisfaction	T0	T0 living alone	-0.49	0.07	-0.64	-0.35	2788	--
BCS	Life satisfaction	T0	T0 living alone	-0.43	0.07	-0.56	-0.30	2457	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Life satisfaction	T1	T1 living alone	-0.24	0.08	-0.40	-0.08	2960	--
BCS	Life satisfaction	T1	T1 living alone	-0.17	0.09	-0.33	0.00	2638	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Life satisfaction	T2	T1 living alone	-0.39	0.06	-0.51	-0.26	2678	--
BCS	Life satisfaction	T2	T1 living alone	-0.32	0.06	-0.44	-0.21	2678	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Life satisfaction	T3	T1 living alone	-0.24	0.07	-0.38	-0.10	2731	--
BCS	Life satisfaction	T3	T1 living alone	-0.19	0.06	-0.31	-0.06	2412	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
Next Steps	Psych distress	T0	T0 living alone	0.03	0.09	-0.15	0.20	1262	--
Next Steps	Psych distress	T0	T0 living alone	0.06	0.08	-0.10	0.21	1114	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic illness
Next Steps	Psych distress	T1	T1 living alone	0.28	0.16	-0.04	0.59	1260	--
Next Steps	Psych distress	T1	T1 living alone	0.36	0.13	0.10	0.61	1135	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic illness
Next Steps	Psych distress	T2	T1 living alone	0.19	0.10	-0.01	0.38	1182	--
Next Steps	Psych distress	T2	T1 living alone	0.16	0.09	-0.02	0.35	1182	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic illness
Next Steps	Psych distress	T3	T1 living alone	0.10	0.10	-0.10	0.29	1248	--
Next Steps	Psych distress	T3	T1 living alone	0.14	0.09	-0.03	0.32	1103	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic illness
Next Steps	Life satisfaction	T0	T0 living alone	0.05	0.02	0.01	0.09	1262	--
Next Steps	Life satisfaction	T0	T0 living alone	0.04	0.02	0.00	0.09	1114	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic illness
Next Steps	Life satisfaction	T1	T1 living alone	-0.27	0.11	-0.48	-0.06	1289	--
Next Steps	Life satisfaction	T1	T1 living alone	-0.25	0.11	-0.47	-0.04	1158	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic illness
Next Steps	Life satisfaction	T2	T1 living alone	-0.14	0.06	-0.27	-0.02	1187	--
Next Steps	Life satisfaction	T2	T1 living alone	-0.12	0.06	-0.24	0.00	1187	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic illness
Next Steps	Life satisfaction	T3	T1 living alone	-0.06	0.07	-0.20	0.07	1253	--
Next Steps	Life satisfaction	T3	T1 living alone	-0.05	0.06	-0.17	0.07	1106	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic illness
ELSA	Psych distress	T0	T0 living alone	0.35	0.05	0.26	0.44	5471	--
ELSA	Psych distress	T0	T0 living alone	0.20	0.04	0.12	0.28	5471	Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; chronic il
ELSA	Psych distress	T1	T1 living alone	0.37	0.05	0.28	0.47	5470	--
ELSA	Psych distress	T1	T1 living alone	0.26	0.04	0.17	0.35	5470	Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; chronic il
ELSA	Psych distress	T3	T1 living alone	0.34	0.05	0.25	0.44	5046	--

ELSA	Psych distress	T3	T1 living alone	0.23	0.04	0.14	0.31	5046	Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; chronic il
ELSA	Life Satisfaction	T0	T0 living alone	-0.38	0.04	-0.46	-0.29	5090	--
ELSA	Life Satisfaction	T0	T0 living alone	-0.33	0.04	-0.41	-0.24	5090	Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; chronic il
ELSA	Life Satisfaction	T1	T1 living alone	-0.16	0.04	-0.25	-0.08	5453	--
ELSA	Life Satisfaction	T1	T1 living alone	-0.12	0.04	-0.21	-0.04	5453	Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; chronic il
ELSA	Life Satisfaction	T3	T1 living alone	-0.23	0.05	-0.32	-0.14	5038	--
ELSA	Life Satisfaction	T3	T1 living alone	-0.21	0.05	-0.30	-0.12	5038	Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; chronic il
TwinsUK	Psych distress	T0	Live Alone	0.05	0.05	-0.05	0.15	2327	--
TwinsUK	Psych distress	T1	Live Alone	-0.03	0.05	-0.13	0.07	2323	--
TwinsUK	Psych distress	T2	Live Alone	-0.05	0.06	-0.16	0.06	2020	--
TwinsUK	Psych distress	T3	Live Alone	-0.07	0.05	-0.17	0.04	2141	--
TwinsUK	Life satisfaction	T0	Live Alone	--	--	--	--		
TwinsUK	Life satisfaction	T1	Live Alone	-0.08	0.05	-0.19	0.02	2327	--
TwinsUK	Life satisfaction	T2	Live Alone	-0.19	0.05	-0.30	-0.08	2026	--
TwinsUK	Life satisfaction	T3	Live Alone	-0.12	0.05	-0.22	-0.02	2155	--
TwinsUK	Psych distress	T0	Live Alone	0.06	0.05	-0.04	0.15	2327	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Psych distress	T1	Live Alone	0.02	0.05	-0.08	0.11	2323	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Psych distress	T2	Live Alone	-0.02	0.05	-0.13	0.08	2020	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Psych distress	T3	Live Alone	-0.02	0.05	-0.13	0.08	2141	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Life satisfaction	T0	Live Alone	-	-	-	-		
TwinsUK	Life satisfaction	T1	Live Alone	-0.12	0.05	-0.22	-0.02	2327	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Life satisfaction	T2	Live Alone	-0.15	0.05	-0.26	-0.05	2026	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Life satisfaction	T3	Live Alone	-0.13	0.05	-0.24	-0.03	2155	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
ALSPAC-G1	Psych distress	T0	Live Alone	0.23	0.08	0.07	0.40	2252	--
ALSPAC-G1	Psych distress	T1	Live Alone	0.31	0.08	0.15	0.47	2793	--
ALSPAC-G1	Psych distress	T2	Live Alone	0.21	0.09	0.03	0.39	2073	--
ALSPAC-G1	Psych distress	T3	Live Alone	0.28	0.08	0.12	0.45	2468	--
ALSPAC-G1	Life satisfaction	T0	Live Alone	-0.29	0.09	-0.46	-0.12	2178	--
ALSPAC-G1	Life satisfaction	T1	Live Alone	-0.34	0.08	-0.50	-0.18	2813	--

ALSPAC-G1	Life satisfaction	T2	Live Alone	-0.16	0.09	-0.34	0.01	2080	--
ALSPAC-G1	Life satisfaction	T3	Live Alone	-0.26	0.08	-0.43	-0.10	2474	--
ALSPAC-G1	Psych distress	T0	Live Alone	0.21	0.09	0.04	0.39	1809	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Psych distress	T1	Live Alone	0.27	0.08	0.10	0.43	2064	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Psych distress	T2	Live Alone	0.18	0.09	-0.01	0.36	1610	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Psych distress	T3	Live Alone	0.26	0.09	0.09	0.44	1919	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Life satisfaction	T0	Live Alone	-0.27	0.09	-0.45	-0.09	1720	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Life satisfaction	T1	Live Alone	-0.34	0.09	-0.51	-0.17	2075	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Life satisfaction	T2	Live Alone	-0.16	0.10	-0.35	0.03	1616	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Life satisfaction	T3	Live Alone	-0.29	0.09	-0.47	-0.12	1920	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G0	Psych distress	T0	Live Alone	0.23	0.07	0.09	0.37	2773	--
ALSPAC-G0	Psych distress	T1	Live Alone	0.56	0.07	0.43	0.69	3284	--
ALSPAC-G0	Psych distress	T2	Live Alone	0.51	0.07	0.37	0.65	2827	--
ALSPAC-G0	Psych distress	T3	Live Alone	0.38	0.07	0.24	0.51	2886	--
ALSPAC-G0	Psych distress	T0	Live alone	0.20	0.07	0.06	0.34	2702	sex, age, ethnicity, occupational class, education, chronic illness
ALSPAC-G0	Psych distress	T1	Live alone	0.48	0.07	0.35	0.61	3177	sex, age, ethnicity, occupational class, education, chronic illness
ALSPAC-G0	Psych distress	T2	Live alone	0.46	0.07	0.32	0.59	2746	sex, age, ethnicity, occupational class, education, chronic illness
ALSPAC-G0	Psych distress	T3	Live alone	0.35	0.07	0.22	0.48	2808	sex, age, ethnicity, occupational class, education, chronic illness

Note: TP = timepoint; coef = coefficient; se = standard error ; l_ci = lower 95% confidence interval ; u_ci = upper 95% confidence interval

Table S4 Regression coefficients (non-exponentiated) from cross-sectional models with binary outcomes

cohort	outcome	TP	exposure	coef	se	l_ci	u_ci	n	Adjusted for
NCDS	Psych distress	T0	T0 living alone	0.35	0.14	0.08	0.62	3772	--
NCDS	Psych distress	T0	T0 living alone	0.24	0.14	-0.03	0.52	3551	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Psych distress	T1	T1 living alone	0.35	0.14	0.08	0.63	3777	--
NCDS	Psych distress	T1	T1 living alone	0.18	0.14	-0.10	0.47	3567	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Psych distress	T2	T1 living alone	0.20	0.10	0.00	0.40	3693	--
NCDS	Psych distress	T2	T1 living alone	0.08	0.10	-0.12	0.27	3692	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Psych distress	T3	T1 living alone	0.16	0.11	-0.04	0.37	3724	--
NCDS	Psych distress	T3	T1 living alone	0.04	0.11	-0.17	0.25	3512	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Life satisfaction	T0	T0 living alone	-0.32	0.04	-0.41	-0.24	3772	--
NCDS	Life satisfaction	T0	T0 living alone	-0.29	0.04	-0.38	-0.21	3551	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Life satisfaction	T1	T1 living alone	-0.17	0.03	-0.23	-0.10	3834	--
NCDS	Life satisfaction	T1	T1 living alone	-0.13	0.03	-0.20	-0.07	3623	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Life satisfaction	T2	T1 living alone	-0.18	0.03	-0.23	-0.13	3697	--
NCDS	Life satisfaction	T2	T1 living alone	-0.16	0.03	-0.21	-0.10	3696	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NCDS	Life satisfaction	T3	T1 living alone	-0.15	0.03	-0.22	-0.09	3732	--
NCDS	Life satisfaction	T3	T1 living alone	-0.16	0.03	-0.22	-0.09	3520	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Psych distress	T0	T0 living alone	0.30	0.17	-0.04	0.64	2793	--
BCS	Psych distress	T0	T0 living alone	0.08	0.15	-0.22	0.38	2461	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Psych distress	T1	T1 living alone	-0.04	0.18	-0.40	0.32	2935	--
BCS	Psych distress	T1	T1 living alone	-0.16	0.15	-0.46	0.14	2616	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Psych distress	T2	T1 living alone	0.10	0.12	-0.13	0.32	2673	--
BCS	Psych distress	T2	T1 living alone	0.03	0.12	-0.19	0.26	2673	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Psych distress	T3	T1 living alone	0.26	0.13	0.01	0.51	2725	--
BCS	Psych distress	T3	T1 living alone	0.22	0.11	0.00	0.45	2406	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Life satisfaction	T0	T0 living alone	-0.25	0.06	-0.37	-0.14	2788	--
BCS	Life satisfaction	T0	T0 living alone	-0.20	0.05	-0.29	-0.10	2457	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Life satisfaction	T1	T1 living alone	-0.17	0.07	-0.31	-0.04	2960	--
BCS	Life satisfaction	T1	T1 living alone	-0.10	0.06	-0.21	0.01	2638	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Life satisfaction	T2	T1 living alone	-0.22	0.05	-0.31	-0.13	2678	--

BCS	Life satisfaction	T2	T1 living alone	-0.19	0.05	-0.27	-0.10	2678	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
BCS	Life satisfaction	T3	T1 living alone	-0.14	0.05	-0.25	-0.04	2731	--
BCS	Life satisfaction	T3	T1 living alone	-0.04	0.05	-0.14	0.05	2412	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NS	Psych distress	T0	T0 living alone	0.08	0.13	-0.17	0.33	1262	--
NS	Psych distress	T0	T0 living alone	0.07	0.12	-0.18	0.31	1114	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic ill
NS	Psych distress	T1	T1 living alone	0.44	0.15	0.14	0.73	1260	--
NS	Psych distress	T1	T1 living alone	0.48	0.12	0.24	0.71	1135	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic ill
NS	Psych distress	T2	T1 living alone	0.05	0.13	-0.21	0.32	1182	--
NS	Psych distress	T2	T1 living alone	0.02	0.13	-0.24	0.28	1182	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic ill
NS	Psych distress	T3	T1 living alone	0.19	0.12	-0.04	0.42	1248	--
NS	Psych distress	T3	T1 living alone	0.21	0.11	0.00	0.42	1103	sex, ethnicity, education, UK nation, occupation, housing tenure, disability, chronic ill
NS	Life satisfaction	T0	T0 living alone	-0.05	0.04	-0.13	0.03	1262	--
NS	Life satisfaction	T0	T0 living alone	-0.07	0.04	-0.15	0.01	1114	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NS	Life satisfaction	T1	T1 living alone	-0.17	0.10	-0.37	0.02	1289	--
NS	Life satisfaction	T1	T1 living alone	-0.15	0.11	-0.38	0.07	1158	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NS	Life satisfaction	T2	T1 living alone	-0.11	0.07	-0.24	0.03	1187	--
NS	Life satisfaction	T2	T1 living alone	-0.09	0.07	-0.22	0.04	1187	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NS	Life satisfaction	T3	T1 living alone	-0.04	0.08	-0.20	0.12	1253	--
NS	Life satisfaction	T3	T1 living alone	-0.08	0.09	-0.25	0.10	1106	sex, education, UK nation, occupation, housing tenure, disability, chronic illness
NSHD	Psych distress	T0	T0 living alone	0.02	0.02	-0.01	0.06	1431	--
NSHD	Psych distress	T0	T0 living alone	0.00	0.02	-0.04	0.03	1300	sex, education, UK nation, tenure, disability
NSHD	Psych distress	T1	T1 living alone	0.10	0.03	0.05	0.16	1618	--
NSHD	Psych distress	T1	T1 living alone	0.08	0.03	0.02	0.14	1439	sex, education, UK nation, tenure, disability
NSHD	Psych distress	T2	T1 living alone	0.10	0.03	0.05	0.16	1526	--
NSHD	Psych distress	T2	T1 living alone	0.07	0.03	0.01	0.12	1445	sex, education, UK nation, tenure, disability
NSHD	Psych distress	T3	T1 living alone	0.06	0.03	0.00	0.12	1112	--
NSHD	Psych distress	T3	T1 living alone	0.03	0.03	-0.03	0.09	1053	sex, education, UK nation, tenure, disability
GS	Psych distress	T0	Live Alone	0.26	0.10	0.03	0.47	2984	--
GS	Psych distress	T1	Live Alone	0.13	0.07	-0.05	0.30	2882	--
GS	Psych distress	T2	Live Alone	0.23	0.09	0.02	0.44	2106	--

GS	Psych distress	T3	Live Alone	0.15	0.08	-0.05	0.34	1932	--	
GS	Life satisfaction	T0	Live Alone	--	--	--	--	--	--	No T0 Life Satisfaction
GS	Life satisfaction	T1	Live Alone	0.36	0.06	0.20	0.51	2982	--	
GS	Life satisfaction	T2	Live Alone	0.44	0.10	0.21	0.66	2184	--	
GS	Life satisfaction	T3	Live Alone	0.38	0.07	0.20	0.56	2024	--	
GS	Psych distress	T0	Live Alone	0.21	0.10	-0.02	0.43	2984		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Psych distress	T1	Live Alone	0.16	0.07	-0.02	0.34	2882		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Psych distress	T2	Live Alone	0.25	0.09	0.03	0.46	2106		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Psych distress	T3	Live Alone	0.13	0.08	-0.07	0.32	1932		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Life satisfaction	T0	Live Alone	--	--	--	--	--	--	No T0 Life Satisfaction
GS	Life satisfaction	T1	Live Alone	0.34	0.06	0.18	0.50	2982		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Life satisfaction	T2	Live Alone	0.45	0.10	0.21	0.68	2184		sex, age, education, ethnicity, tenure, occupation, urbanicity
GS	Life satisfaction	T3	Live Alone	0.36	0.07	0.17	0.54	2024		sex, age, education, ethnicity, tenure, occupation, urbanicity
USOC	Psych distress	T0	T0 living alone	0.06	0.04	-0.02	0.15	22187	--	
USOC	Psych distress	T1	T1 living alone	0.19	0.05	0.10	0.28	12088	--	
USOC	Psych distress	T2	T1 living alone	0.31	0.06	0.20	0.43	9905	--	
USOC	Psych distress	T3	T1 living alone	0.16	0.05	0.06	0.27	9913	--	
USOC	Life satisfaction	T0	T0 living alone	0.13	0.04	0.06	0.20	22187	--	
USOC	Life satisfaction	T1	T1 living alone	0.33	0.04	0.25	0.42	10132	--	
USOC	Life satisfaction	T2	T1 living alone	0.32	0.04	0.24	0.40	9905	--	
USOC	Life satisfaction	T3	T1 living alone	0.31	0.03	0.24	0.38	9913	--	
USOC	Psych distress	T0	T0 living alone	0.04	0.04	-0.04	0.13	22187		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Psych distress	T1	T1 living alone	0.29	0.05	0.20	0.38	12088		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Psych distress	T2	T1 living alone	0.31	0.06	0.19	0.43	9905		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Psych distress	T3	T1 living alone	0.18	0.05	0.07	0.29	9913		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Life satisfaction	T0	T0 living alone	0.04	0.04	-0.03	0.11	22187		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Life satisfaction	T1	T1 living alone	0.29	0.04	0.20	0.37	10132		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Life satisfaction	T2	T1 living alone	0.23	0.04	0.15	0.31	9905		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
USOC	Life satisfaction	T3	T1 living alone	0.23	0.04	0.16	0.30	9913		sex, age, education, ethnicity, UK nation, rural, social class, tenure, disability, illness
ELSA	Psych distress	T0	T0 living alone	0.75	0.09	0.58	0.93	5471	--	
ELSA	Psych distress	T0	T0 living alone	0.50	0.09	0.32	0.67	5471		Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; Chi
ELSA	Psych distress	T1	T1 living alone	0.48	0.07	0.35	0.61	5470	--	

ELSA	Psych distress	T1	T1 living alone	0.31	0.06	0.19	0.44	5470	Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; Chi
ELSA	Psych distress	T3	T1 living alone	0.42	0.06	0.30	0.54	5046	--
ELSA	Psych distress	T3	T1 living alone	0.31	0.06	0.19	0.42	5046	Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; Chi
ELSA	Low Life Satisfaction	T0	T0 living alone	0.49	0.06	0.37	0.60	5090	--
ELSA	Low Life Satisfaction	T0	T0 living alone	0.37	0.06	0.26	0.49	5090	Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; Chi
ELSA	Low Life Satisfaction	T1	T1 living alone	0.21	0.05	0.11	0.31	5453	--
ELSA	Low Life Satisfaction	T1	T1 living alone	0.14	0.05	0.03	0.24	5453	Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; Chi
ELSA	Low Life Satisfaction	T3	T1 living alone	0.24	0.05	0.14	0.34	5038	--
ELSA	Low Life Satisfaction	T3	T1 living alone	0.19	0.05	0.08	0.29	5038	Sex ; Age; Education; Ethnicity, Occupational class; Home ownership; Disability; Chi
TwinsUK	Psych distress	T0	Live Alone	0.27	0.25	-0.22	0.75	2327	--
TwinsUK	Psych distress	T1	Live Alone	-0.23	0.20	-0.62	0.16	2327	--
TwinsUK	Psych distress	T2	Live Alone	-0.06	0.26	-0.57	0.45	2026	--
TwinsUK	Psych distress	T3	Live Alone	0.13	0.24	-0.35	0.60	2148	--
TwinsUK	Life satisfaction	T0	Live Alone	-	-	-	-	-	
TwinsUK	Life satisfaction	T1	Live Alone	-0.04	0.06	-0.16	0.09	2327	
TwinsUK	Life satisfaction	T2	Live Alone	-0.13	0.07	-0.26	0.01	2026	
TwinsUK	Life satisfaction	T3	Live Alone	-0.03	0.06	-0.16	0.09	2155	
TwinsUK	Psych distress	T0	Live Alone	0.33	0.21	-0.08	0.74	2327	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Psych distress	T1	Live Alone	-0.10	0.20	-0.49	0.30	2327	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Psych distress	T2	Live Alone	-0.04	0.23	-0.49	0.40	2026	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Psych distress	T3	Live Alone	0.33	0.23	-0.12	0.78	2148	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Life satisfaction	T0	Live Alone	-	-	-	-	-	
TwinsUK	Life satisfaction	T1	Live Alone	-0.13	0.05	-0.24	-0.03	2327	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Life satisfaction	T2	Live Alone	-0.17	0.06	-0.28	-0.06	2026	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
TwinsUK	Life satisfaction	T3	Live Alone	-0.14	0.05	-0.24	-0.04	2155	sex, age, ethnicity, edu, country, ruc, homeownership, disability, srh_pp_bin
ALSPAC-G1	Psych distress	T0	Live Alone	0.39	0.15	0.09	0.69	2252	--
ALSPAC-G1	Psych distress	T1	Live Alone	0.31	0.17	-0.01	0.64	2793	--
ALSPAC-G1	Psych distress	T2	Live Alone	0.27	0.18	-0.08	0.61	2073	--
ALSPAC-G1	Psych distress	T3	Live Alone	0.43	0.15	0.12	0.73	2468	--
ALSPAC-G1	Life satisfaction	T0	Live Alone	0.39	0.18	0.04	0.75	2178	--

ALSPAC-G1	Life satisfaction	T1	Live Alone	0.31	0.13	0.06	0.56	2813	--
ALSPAC-G1	Life satisfaction	T2	Live Alone	0.26	0.14	-0.02	0.54	2080	--
ALSPAC-G1	Life satisfaction	T3	Live Alone	0.34	0.13	0.08	0.60	2474	--
ALSPAC-G1	Psych distress	T0	Live Alone	0.36	0.18	0.02	0.70	1809	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Psych distress	T1	Live Alone	0.24	0.20	-0.15	0.64	2064	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Psych distress	T2	Live Alone	0.24	0.21	-0.17	0.65	1610	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Psych distress	T3	Live Alone	0.46	0.17	0.12	0.80	1919	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Life satisfaction	T0	Live Alone	0.32	0.21	-0.09	0.73	1720	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Life satisfaction	T1	Live Alone	0.36	0.14	0.08	0.64	2075	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Life satisfaction	T2	Live Alone	0.22	0.17	-0.11	0.55	1616	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G1	Life satisfaction	T3	Live Alone	0.41	0.15	0.12	0.70	1920	sex, ethnicity, occupational class, education, chronic illness
ALSPAC-G0	Psych distress	T0	Live Alone	0.31	0.15	0.01	0.60	2773	--
ALSPAC-G0	Psych distress	T1	Live Alone	1.09	0.21	0.67	1.51	3284	--
ALSPAC-G0	Psych distress	T2	Live Alone	0.94	0.21	0.53	1.36	2827	--
ALSPAC-G0	Psych distress	T3	Live Alone	0.76	0.21	0.35	1.17	2886	--
ALSPAC-G0	Psych distress	T0	Live alone	0.28	0.16	-0.03	0.58	2702	sex, age, ethnicity, occupational class, education, chronic illness
ALSPAC-G0	Psych distress	T1	Live alone	0.97	0.23	0.52	1.43	3177	sex, age, ethnicity, occupational class, education, chronic illness
ALSPAC-G0	Psych distress	T2	Live alone	0.88	0.22	0.44	1.31	2746	sex, age, ethnicity, occupational class, education, chronic illness
ALSPAC-G0	Psych distress	T3	Live alone	0.75	0.22	0.32	1.18	2808	sex, age, ethnicity, occupational class, education, chronic illness

Note: TP = timepoint; coef = coefficient; se = standard error ; l_ci = lower 95% confidence interval ; u_ci = upper 95% confidence interval

Table S5. Interactions effects from cross-sectional models with continuous outcomes

cohort	outcome (Z)	TP	exposure	modifier	modifier category 1	coef_interaction	coef_se	lower_ci	upper_ci	n
NCDS	Psych distress	0	0 living alone	loneliness at 0	lonely	-0.31	0.23	-0.76	0.13	3448
NCDS	Psych distress	0	0 living alone	shielding status at 1	shielding	-0.13	0.20	-0.52	0.26	3527
NCDS	Psych distress	0	0 living alone	sex	female	-0.21	0.12	-0.44	0.02	3551
NCDS	Psych distress	0	0 living alone	Prior mental ill-health	yes	-0.14	0.10	-0.34	0.07	3551
NCDS	Psych distress	1	1 living alone	loneliness at 1	lonely	-0.42	0.23	-0.88	0.03	3547
NCDS	Psych distress	1	1 living alone	shielding status at 1	shielding	-0.05	0.21	-0.47	0.37	3545
NCDS	Psych distress	1	1 living alone	sex	female	0.01	0.09	-0.18	0.19	3567
NCDS	Psych distress	1	1 living alone	Prior mental ill-health	yes	0.08	0.21	-0.33	0.49	3567
NCDS	Psych distress	2	1 living alone	loneliness at 1	lonely	-0.48	0.20	-0.87	-0.09	3581
NCDS	Psych distress	2	1 living alone	shielding status at 1	shielding	0.03	0.17	-0.30	0.37	3667
NCDS	Psych distress	2	1 living alone	sex	female	-0.07	0.08	-0.24	0.09	3692
NCDS	Psych distress	2	1 living alone	Prior mental ill-health	yes	-0.20	0.15	-0.50	0.10	3692
NCDS	Psych distress	3	1 living alone	loneliness at 1	lonely	-0.49	0.21	-0.90	-0.07	3414
NCDS	Psych distress	3	1 living alone	shielding status at 1	shielding	0.00	0.18	-0.36	0.36	3489
NCDS	Psych distress	3	1 living alone	sex	female	-0.03	0.08	-0.18	0.13	3512
NCDS	Psych distress	3	1 living alone	Prior mental ill-health	yes	-0.15	0.15	-0.44	0.15	3512
NCDS	Life satisfaction	0	1 living alone	loneliness at 1	lonely	0.29	0.19	-0.09	0.66	3448
NCDS	Life satisfaction	0	1 living alone	shielding status at 1	shielding	0.10	0.23	-0.36	0.55	3527
NCDS	Life satisfaction	0	1 living alone	sex	female	0.01	0.11	-0.20	0.23	3551
NCDS	Life satisfaction	0	1 living alone	Prior mental ill-health	yes	-0.11	0.15	-0.41	0.18	3551
NCDS	Life satisfaction	1	1 living alone	loneliness at 1	lonely	0.20	0.22	-0.23	0.62	3595
NCDS	Life satisfaction	1	1 living alone	shielding status at 1	shielding	0.14	0.22	-0.29	0.57	3600
NCDS	Life satisfaction	1	1 living alone	sex	female	0.14	0.12	-0.09	0.36	3623
NCDS	Life satisfaction	1	1 living alone	Prior mental ill-health	yes	-0.05	0.21	-0.46	0.37	3623
NCDS	Life satisfaction	2	1 living alone	loneliness at 1	lonely	0.22	0.19	-0.15	0.60	3585
NCDS	Life satisfaction	2	1 living alone	shielding status at 1	shielding	-0.12	0.20	-0.52	0.27	3671
NCDS	Life satisfaction	2	1 living alone	sex	female	-0.02	0.08	-0.19	0.15	3696
NCDS	Life satisfaction	2	1 living alone	Prior mental ill-health	yes	0.18	0.14	-0.09	0.46	3696
NCDS	Life satisfaction	3	1 living alone	loneliness at 1	lonely	0.10	0.20	-0.29	0.49	3420
NCDS	Life satisfaction	3	1 living alone	shielding status at 1	shielding	-0.08	0.20	-0.47	0.32	3496

NCDS	Life satisfaction	3	1 living alone	sex	female	-0.10	0.09	-0.28	0.07	3520
NCDS	Life satisfaction	3	1 living alone	Prior mental ill-health	yes	-0.01	0.14	-0.29	0.27	3520
GS	Psych distress	0	Live Alone	1 loneliness	lonely	0.06	0.19	-0.19	0.31	2968
GS	Psych distress	0	Live Alone	shielding	shielding status at 1	-0.06	0.26	-0.39	0.27	2984
GS	Psych distress	0	Live Alone	sex	female	0.02	0.09	-0.13	0.17	2984
GS	Psych distress	0	Live Alone	prepandemic MH	prior mental ill health	0.19	0.08	0.09	0.29	2984
GS	Psych distress	0	Live Alone	age group	35 - 44	-0.37	0.23	-0.74	0.01	2984
GS	Psych distress	0	Live Alone	age group	45 - 54	0.01	0.22	-0.33	0.34	2984
GS	Psych distress	0	Live Alone	age group	54 - 64	-0.19	0.20	-0.50	0.12	2984
GS	Psych distress	0	Live Alone	age group	65 - 74	-0.29	0.20	-0.59	0.02	2984
GS	Psych distress	0	Live Alone	age group	75+	-0.14	0.22	-0.54	0.26	2984
GS	Life satisfaction	1	Live Alone	1 loneliness	lonely	0.31	0.18	-0.05	0.66	2968
GS	Life satisfaction	1	Live Alone	shielding	shielding status at 1	0.04	0.25	-0.45	0.52	2982
GS	Life satisfaction	1	Live Alone	sex	female	0.02	0.11	-0.19	0.24	2982
GS	Life satisfaction	1	Live Alone	prepandemic MH	prior mental ill health	-0.02	0.13	-0.26	0.23	2982
GS	Life satisfaction	1	Live Alone	age group	35 - 44	0.15	0.28	-0.40	0.71	2982
GS	Life satisfaction	1	Live Alone	age group	45 - 54	-0.20	0.27	-0.69	0.29	2982
GS	Life satisfaction	1	Live Alone	age group	54 - 64	0.19	0.25	-0.26	0.64	2982
GS	Life satisfaction	1	Live Alone	age group	65 - 74	0.16	0.24	-0.29	0.60	2982
GS	Life satisfaction	1	Live Alone	age group	75+	0.55	0.30	-0.04	1.14	2982
GS	Psych distress	1	Live Alone	1 loneliness	lonely	-0.36	0.28	-0.72	0.00	2871
GS	Psych distress	1	Live Alone	shielding	shielding status at 1	0.10	0.31	-0.40	0.60	2882
GS	Psych distress	1	Live Alone	sex	female	-0.16	0.13	-0.39	0.06	2882
GS	Psych distress	1	Live Alone	prepandemic MH	prior mental ill health	0.10	0.18	-0.15	0.35	2882
GS	Psych distress	1	Live Alone	age group	35 - 44	-0.36	0.41	-0.94	0.22	2882
GS	Psych distress	1	Live Alone	age group	45 - 54	-0.20	0.37	-0.73	0.32	2882
GS	Psych distress	1	Live Alone	age group	54 - 64	-0.40	0.34	-0.89	0.08	2882
GS	Psych distress	1	Live Alone	age group	65 - 74	-0.65	0.33	-1.12	-0.17	2882
GS	Psych distress	1	Live Alone	age group	75+	-0.60	0.37	-1.22	0.02	2882
GS	Life satisfaction	2	Live Alone	1 loneliness	lonely	0.25	0.24	-0.14	0.64	2172
GS	Life satisfaction	2	Live Alone	shielding	shielding status at 1	-0.06	0.26	-0.55	0.43	2184
GS	Life satisfaction	2	Live Alone	sex	female	0.00	0.12	-0.22	0.23	2184

GS	Life satisfaction	2	Live Alone	prepandemic MH	prior mental ill health	0.07	0.15	-0.17	0.32	2184
GS	Life satisfaction	2	Live Alone	age group	35 - 44	0.10	0.37	-0.55	0.75	2184
GS	Life satisfaction	2	Live Alone	age group	45 - 54	-0.12	0.36	-0.69	0.45	2184
GS	Life satisfaction	2	Live Alone	age group	54 - 64	-0.02	0.34	-0.56	0.53	2184
GS	Life satisfaction	2	Live Alone	age group	65 - 74	0.13	0.33	-0.41	0.66	2184
GS	Life satisfaction	2	Live Alone	age group	75+	0.37	0.36	-0.30	1.03	2184
GS	Psych distress	2	Live Alone	1 loneliness	lonely	-0.71	0.33	-1.15	-0.26	2096
GS	Psych distress	2	Live Alone	shielding	shielding status at 1	0.41	0.39	-0.14	0.97	2106
GS	Psych distress	2	Live Alone	sex	female	-0.17	0.15	-0.42	0.09	2106
GS	Psych distress	2	Live Alone	prepandemic MH	prior mental ill health	-0.07	0.20	-0.35	0.20	2106
GS	Psych distress	2	Live Alone	age group	35 - 44	-0.58	0.55	-1.34	0.18	2106
GS	Psych distress	2	Live Alone	age group	45 - 54	-0.39	0.50	-1.06	0.29	2106
GS	Psych distress	2	Live Alone	age group	54 - 64	-0.50	0.49	-1.14	0.14	2106
GS	Psych distress	2	Live Alone	age group	65 - 74	-0.66	0.48	-1.28	-0.03	2106
GS	Psych distress	2	Live Alone	age group	75+	-0.86	0.50	-1.63	-0.09	2106
GS	Life satisfaction	3	Live Alone	1 loneliness	lonely	0.49	0.25	0.05	0.93	2013
GS	Life satisfaction	3	Live Alone	shielding	shielding status at 1	-0.43	0.31	-1.00	0.14	2024
GS	Life satisfaction	3	Live Alone	sex	female	0.03	0.13	-0.22	0.29	2024
GS	Life satisfaction	3	Live Alone	prepandemic MH	prior mental ill health	-0.07	0.15	-0.36	0.22	2024
GS	Life satisfaction	3	Live Alone	age group	35 - 44	-0.05	0.35	-0.74	0.65	2024
GS	Life satisfaction	3	Live Alone	age group	45 - 54	-0.31	0.34	-0.91	0.29	2024
GS	Life satisfaction	3	Live Alone	age group	54 - 64	-0.27	0.32	-0.83	0.29	2024
GS	Life satisfaction	3	Live Alone	age group	65 - 74	-0.15	0.31	-0.70	0.40	2024
GS	Life satisfaction	3	Live Alone	age group	75+	-0.01	0.35	-0.74	0.72	2024
GS	Psych distress	3	Live Alone	1 loneliness	lonely	-0.45	0.32	-0.94	0.03	1923
GS	Psych distress	3	Live Alone	shielding	shielding status at 1	0.30	0.47	-0.35	0.95	1932
GS	Psych distress	3	Live Alone	sex	female	-0.27	0.16	-0.56	0.02	1932
GS	Psych distress	3	Live Alone	prepandemic MH	prior mental ill health	0.06	0.21	-0.25	0.37	1932
GS	Psych distress	3	Live Alone	age group	35 - 44	0.49	0.46	-0.28	1.26	1932
GS	Psych distress	3	Live Alone	age group	45 - 54	0.31	0.39	-0.36	0.97	1932
GS	Psych distress	3	Live Alone	age group	54 - 64	0.43	0.38	-0.19	1.06	1932
GS	Psych distress	3	Live Alone	age group	65 - 74	0.21	0.37	-0.41	0.82	1932
GS	Psych distress	3	Live Alone	age group	75+	0.14	0.41	-0.71	0.99	1932

USOC	Psych distress	0	Live Alone	shielding	shielding status at 1	0.21	0.13	-0.05	0.46	12088
USOC	Life satisfaction	0	Live Alone	shielding	shielding status at 1	-0.07	0.12	-0.30	0.16	12088
USOC	Life satisfaction	1	Live Alone	shielding	shielding status at 1	-0.18	0.15	-0.48	0.12	10132
USOC	Psych distress	0	Live Alone	0 loneliness	lonely	-0.20	0.09	-0.37	-0.03	22187
USOC	Life satisfaction	0	Live Alone	0 loneliness	lonely	0.03	0.07	-0.11	0.18	22187
USOC	Life satisfaction	1	Live Alone	0 loneliness	lonely	0.04	0.11	-0.19	0.26	10132
USOC	Psych distress	0	Live Alone	sex	female	-0.04	0.04	-0.13	0.04	22187
USOC	Life satisfaction	0	Live Alone	sex	female	0.04	0.04	-0.04	0.12	22187
USOC	Life satisfaction	1	Live Alone	sex	female	0.09	0.08	-0.07	0.26	10132
USOC	Psych distress	0	Live Alone	age group	16-24	0.20	0.16	-0.11	0.52	22187
USOC	Psych distress	0	Live Alone	age group	25-34	-0.06	0.11	-0.27	0.15	22187
USOC	Psych distress	0	Live Alone	age group	35-44	-0.05	0.11	-0.27	0.17	22187
USOC	Psych distress	0	Live Alone	age group	55-64	0.09	0.08	-0.07	0.25	22187
USOC	Psych distress	0	Live Alone	age group	65-74	-0.08	0.07	-0.22	0.06	22187
USOC	Psych distress	0	Live Alone	age group	75+	-0.18	0.07	-0.32	-0.04	22187
USOC	Life satisfaction	0	Live Alone	age group	16-24	-0.03	0.14	-0.31	0.25	22187
USOC	Life satisfaction	0	Live Alone	age group	25-34	0.09	0.09	-0.09	0.27	22187
USOC	Life satisfaction	0	Live Alone	age group	35-44	-0.03	0.11	-0.24	0.18	22187
USOC	Life satisfaction	0	Live Alone	age group	55-64	-0.05	0.08	-0.21	0.11	22187
USOC	Life satisfaction	0	Live Alone	age group	65-74	0.05	0.07	-0.09	0.19	22187
USOC	Life satisfaction	0	Live Alone	age group	75+	0.20	0.08	0.05	0.36	22187
USOC	Life satisfaction	1	Live Alone	age group	16-24	0.18	0.35	-0.51	0.87	10132
USOC	Life satisfaction	1	Live Alone	age group	25-34	-0.40	0.20	-0.80	-0.01	10132
USOC	Life satisfaction	1	Live Alone	age group	35-44	-0.39	0.17	-0.72	-0.05	10132
USOC	Life satisfaction	1	Live Alone	age group	55-64	-0.10	0.13	-0.35	0.16	10132
USOC	Life satisfaction	1	Live Alone	age group	65-74	-0.14	0.13	-0.38	0.11	10132
USOC	Life satisfaction	1	Live Alone	age group	75+	0.09	0.15	-0.20	0.38	10132
USOC	Life satisfaction	1	Live Alone	prepandemic MH	prior mental ill-health	-0.14	0.10	-0.33	0.05	10132
USOC	Psych distress	1	Live Alone	shielding	shielding status at 1	0.10	0.12	-0.13	0.32	12088
USOC	Psych distress	2	Live Alone	shielding	shielding status at 1	0.12	0.13	-0.13	0.37	9905
USOC	Psych distress	3	Live Alone	shielding	shielding status at 1	0.02	0.12	-0.22	0.26	9913
USOC	Life satisfaction	2	Live Alone	shielding	shielding status at 1	-0.01	0.11	-0.23	0.21	9905

USOC	Life satisfaction	3	Live Alone	shielding	shielding status at 1	-0.07	0.10	-0.27	0.13	9913
USOC	Psych distress	1	Live Alone	1 loneliness	lonely	-0.08	0.09	-0.26	0.11	12088
USOC	Psych distress	2	Live Alone	1 loneliness	lonely	0.01	0.11	-0.21	0.24	9905
USOC	Psych distress	3	Live Alone	1 loneliness	lonely	-0.05	0.11	-0.27	0.17	9913
USOC	Life satisfaction	2	Live Alone	1 loneliness	lonely	-0.08	0.09	-0.26	0.09	9905
USOC	Life satisfaction	3	Live Alone	1 loneliness	lonely	0.02	0.08	-0.15	0.18	9913
USOC	Psych distress	1	Live Alone	sex	female	-0.07	0.06	-0.19	0.04	12088
USOC	Psych distress	2	Live Alone	sex	female	-0.09	0.06	-0.21	0.03	9905
USOC	Psych distress	3	Live Alone	sex	female	-0.03	0.06	-0.15	0.09	9913
USOC	Life satisfaction	2	Live Alone	sex	female	0.17	0.06	0.05	0.29	9905
USOC	Life satisfaction	3	Live Alone	sex	female	0.18	0.06	0.07	0.29	9913
USOC	Psych distress	1	Live Alone	age group	16-24	-0.49	0.37	-1.21	0.24	12088
USOC	Psych distress	1	Live Alone	age group	25-34	0.10	0.16	-0.21	0.42	12088
USOC	Psych distress	1	Live Alone	age group	35-44	-0.13	0.15	-0.43	0.17	12088
USOC	Psych distress	1	Live Alone	age group	55-64	-0.07	0.10	-0.26	0.13	12088
USOC	Psych distress	1	Live Alone	age group	65-74	-0.06	0.10	-0.25	0.12	12088
USOC	Psych distress	1	Live Alone	age group	75+	-0.16	0.10	-0.36	0.05	12088
USOC	Psych distress	2	Live Alone	age group	16-24	-0.50	0.32	-1.13	0.13	9905
USOC	Psych distress	2	Live Alone	age group	25-34	0.28	0.18	-0.08	0.64	9905
USOC	Psych distress	2	Live Alone	age group	35-44	0.03	0.17	-0.31	0.37	9905
USOC	Psych distress	2	Live Alone	age group	55-64	-0.05	0.10	-0.25	0.15	9905
USOC	Psych distress	2	Live Alone	age group	65-74	-0.07	0.10	-0.27	0.12	9905
USOC	Psych distress	2	Live Alone	age group	75+	-0.18	0.11	-0.40	0.03	9905
USOC	Psych distress	3	Live Alone	age group	16-24	-0.37	0.41	-1.17	0.42	9913
USOC	Psych distress	3	Live Alone	age group	25-34	0.00	0.17	-0.34	0.34	9913
USOC	Psych distress	3	Live Alone	age group	35-44	-0.04	0.16	-0.35	0.26	9913
USOC	Psych distress	3	Live Alone	age group	55-64	-0.06	0.10	-0.26	0.15	9913
USOC	Psych distress	3	Live Alone	age group	65-74	-0.04	0.10	-0.24	0.16	9913
USOC	Psych distress	3	Live Alone	age group	75+	-0.09	0.11	-0.31	0.12	9913
USOC	Life satisfaction	2	Live Alone	age group	16-24	0.28	0.26	-0.22	0.78	9905
USOC	Life satisfaction	2	Live Alone	age group	25-34	-0.17	0.13	-0.43	0.09	9905
USOC	Life satisfaction	2	Live Alone	age group	35-44	-0.23	0.14	-0.50	0.03	9905
USOC	Life satisfaction	2	Live Alone	age group	55-64	-0.02	0.10	-0.21	0.17	9905

USOC	Life satisfaction	2	Live Alone	age group	65-74	0.13	0.09	-0.05	0.31	9905
USOC	Life satisfaction	2	Live Alone	age group	75+	0.33	0.11	0.11	0.54	9905
USOC	Life satisfaction	3	Live Alone	age group	16-24	0.43	0.24	-0.04	0.89	9913
USOC	Life satisfaction	3	Live Alone	age group	25-34	0.00	0.13	-0.25	0.24	9913
USOC	Life satisfaction	3	Live Alone	age group	35-44	-0.06	0.12	-0.30	0.19	9913
USOC	Life satisfaction	3	Live Alone	age group	55-64	-0.05	0.09	-0.22	0.13	9913
USOC	Life satisfaction	3	Live Alone	age group	65-74	0.05	0.09	-0.12	0.23	9913
USOC	Life satisfaction	3	Live Alone	age group	75+	0.06	0.10	-0.14	0.26	9913
USOC	Psych distress	1	Live Alone	prepandemic MH	prior mental ill-health	0.14	0.08	-0.02	0.30	12088
USOC	Psych distress	2	Live Alone	prepandemic MH	prior mental ill-health	0.22	0.09	0.05	0.40	9905
USOC	Psych distress	3	Live Alone	prepandemic MH	prior mental ill-health	0.13	0.09	-0.05	0.30	9913
USOC	Life satisfaction	2	Live Alone	prepandemic MH	prior mental ill-health	-0.26	0.07	-0.40	-0.11	9905
USOC	Life satisfaction	3	Live Alone	prepandemic MH	prior mental ill-health	-0.19	0.07	-0.32	-0.05	9913
BCS	Psych distress	0	0 living alone	loneliness at 0	lonely	-0.34	0.26	-0.84	0.16	2405
BCS	Psych distress	0	0 living alone	shielding status at 1	shielding	0.09	0.31	-0.51	0.69	2455
BCS	Psych distress	0	0 living alone	sex	female	0.22	0.14	-0.06	0.49	2461
BCS	Psych distress	0	0 living alone	Prior mental ill-health	yes	-0.02	0.12	-0.25	0.21	2461
BCS	Psych distress	1	1 living alone	loneliness at 1	lonely	-0.43	0.20	-0.83	-0.03	2608
BCS	Psych distress	1	1 living alone	shielding status at 1	shielding	-0.10	0.36	-0.81	0.61	2609
BCS	Psych distress	1	1 living alone	sex	female	0.00	0.13	-0.26	0.27	2616
BCS	Psych distress	1	1 living alone	Prior mental ill-health	yes	-0.12	0.18	-0.47	0.24	2616
BCS	Psych distress	2	1 living alone	loneliness at 1	lonely	-0.42	0.22	-0.85	0.02	2611
BCS	Psych distress	2	1 living alone	shielding status at 1	shielding	0.52	0.24	0.05	0.99	2666
BCS	Psych distress	2	1 living alone	sex	female	0.00	0.13	-0.25	0.25	2673
BCS	Psych distress	2	1 living alone	Prior mental ill-health	yes	0.28	0.15	-0.03	0.58	2673
BCS	Psych distress	3	1 living alone	loneliness at 1	lonely	-0.17	0.22	-0.60	0.26	2356
BCS	Psych distress	3	1 living alone	shielding status at 1	shielding	0.32	0.28	-0.23	0.88	2401
BCS	Psych distress	3	1 living alone	sex	female	0.00	0.13	-0.24	0.25	2406
BCS	Psych distress	3	1 living alone	Prior mental ill-health	yes	0.20	0.17	-0.13	0.52	2406
BCS	Life satisfaction	0	1 living alone	loneliness at 1	lonely	-0.37	0.23	-0.83	0.08	2401
BCS	Life satisfaction	0	1 living alone	shielding status at 1	shielding	0.31	0.31	-0.29	0.92	2451
BCS	Life satisfaction	0	1 living alone	sex	female	0.05	0.13	-0.22	0.31	2457

BCS	Life satisfaction	0	1 living alone	Prior mental ill-health	yes	-0.25	0.19	-0.62	0.12	2457
BCS	Life satisfaction	1	1 living alone	loneliness at 1	lonely	-0.06	0.24	-0.53	0.40	2628
BCS	Life satisfaction	1	1 living alone	shielding status at 1	shielding	0.03	0.44	-0.83	0.88	2631
BCS	Life satisfaction	1	1 living alone	sex	female	0.01	0.16	-0.31	0.33	2638
BCS	Life satisfaction	1	1 living alone	Prior mental ill-health	yes	-0.08	0.21	-0.49	0.32	2638
BCS	Life satisfaction	2	1 living alone	loneliness at 1	lonely	-0.15	0.20	-0.54	0.25	2616
BCS	Life satisfaction	2	1 living alone	shielding status at 1	shielding	-0.29	0.26	-0.80	0.23	2671
BCS	Life satisfaction	2	1 living alone	sex	female	0.18	0.12	-0.05	0.42	2678
BCS	Life satisfaction	2	1 living alone	Prior mental ill-health	yes	-0.05	0.16	-0.36	0.26	2678
BCS	Life satisfaction	3	1 living alone	loneliness at 1	lonely	-0.06	0.22	-0.50	0.38	2362
BCS	Life satisfaction	3	1 living alone	shielding status at 1	shielding	-0.11	0.28	-0.66	0.45	2407
BCS	Life satisfaction	3	1 living alone	sex	female	0.15	0.13	-0.10	0.41	2412
BCS	Life satisfaction	3	1 living alone	Prior mental ill-health	yes	0.05	0.18	-0.29	0.40	2412
NS	Psych distress	0	0 living alone	loneliness at 0	lonely	0.05	0.32	-0.58	0.68	1080
NS	Psych distress	0	0 living alone	shielding status at 1	shielding	-0.47	0.36	-1.18	0.24	1110
NS	Psych distress	0	0 living alone	sex	female	-0.40	0.15	-0.70	-0.10	1114
NS	Psych distress	0	0 living alone	Prior mental ill-health	yes	0.17	0.14	-0.11	0.44	1114
NS	Psych distress	1	1 living alone	loneliness at 1	lonely	-0.15	0.36	-0.86	0.55	1135
NS	Psych distress	1	1 living alone	shielding status at 1	shielding	0.13	0.42	-0.70	0.97	1131
NS	Psych distress	1	1 living alone	sex	female	0.09	0.22	-0.35	0.52	1135
NS	Psych distress	1	1 living alone	Prior mental ill-health	yes	-0.03	0.28	-0.58	0.52	1135
NS	Psych distress	2	1 living alone	loneliness at 1	lonely	-0.61	0.28	-1.16	-0.06	1141
NS	Psych distress	2	1 living alone	shielding status at 1	shielding	-0.27	0.51	-1.27	0.73	1178
NS	Psych distress	2	1 living alone	sex	female	-0.14	0.18	-0.49	0.22	1182
NS	Psych distress	2	1 living alone	Prior mental ill-health	yes	0.03	0.23	-0.42	0.48	1182
NS	Psych distress	3	1 living alone	loneliness at 1	lonely	-0.64	0.28	-1.18	-0.10	1071
NS	Psych distress	3	1 living alone	shielding status at 1	shielding	-0.15	0.58	-1.30	0.99	1099
NS	Psych distress	3	1 living alone	sex	female	-0.26	0.18	-0.61	0.09	1103
NS	Psych distress	3	1 living alone	Prior mental ill-health	yes	-0.05	0.23	-0.51	0.41	1103
NS	Life satisfaction	0	1 living alone	loneliness at 1	lonely	0.00	0.08	-0.17	0.16	1080
NS	Life satisfaction	0	1 living alone	shielding status at 1	shielding	-0.25	0.07	-0.40	-0.11	1110
NS	Life satisfaction	0	1 living alone	sex	female	-0.07	0.04	-0.15	0.01	1114

NS	Life satisfaction	0	1 living alone	Prior mental ill-health	yes	0.04	0.05	-0.06	0.14	1114
NS	Life satisfaction	1	1 living alone	loneliness at 1	lonely	-0.17	0.26	-0.68	0.35	1157
NS	Life satisfaction	1	1 living alone	shielding status at 1	shielding	0.10	0.29	-0.47	0.68	1154
NS	Life satisfaction	1	1 living alone	sex	female	0.04	0.20	-0.35	0.44	1158
NS	Life satisfaction	1	1 living alone	Prior mental ill-health	yes	0.31	0.24	-0.16	0.79	1158
NS	Life satisfaction	2	1 living alone	loneliness at 1	lonely	0.15	0.17	-0.19	0.48	1145
NS	Life satisfaction	2	1 living alone	shielding status at 1	shielding	-0.01	0.29	-0.58	0.56	1183
NS	Life satisfaction	2	1 living alone	sex	female	-0.03	0.11	-0.25	0.18	1187
NS	Life satisfaction	2	1 living alone	Prior mental ill-health	yes	0.01	0.15	-0.29	0.31	1187
NS	Life satisfaction	3	1 living alone	loneliness at 1	lonely	0.29	0.18	-0.06	0.64	1074
NS	Life satisfaction	3	1 living alone	shielding status at 1	shielding	0.22	0.28	-0.33	0.76	1102
NS	Life satisfaction	3	1 living alone	sex	female	0.25	0.12	0.01	0.50	1106
NS	Life satisfaction	3	1 living alone	Prior mental ill-health	yes	-0.07	0.16	-0.38	0.24	1106
ELSA	Psych distress	0	0 living alone	shielding status at 1	shielding	-0.09	0.12	-0.32	0.15	5463
ELSA	Psych distress	0	0 living alone	loneliness 0	often lonely	-0.26	0.20	-0.66	0.14	5117
ELSA	Psych distress	0	0 living alone	sex	female	0.16	0.09	-0.03	0.34	5470
ELSA	Psych distress	0	0 living alone	age group	55-64	-0.05	0.20	-0.43	0.34	5470
ELSA	Psych distress	0	0 living alone	age group	65-74	-0.15	0.17	-0.49	0.20	5470
ELSA	Psych distress	0	0 living alone	age group	75+	-0.13	0.18	-0.48	0.23	5470
ELSA	Psych distress	1	1 living alone	shielding status at 1	shielding	-0.08	0.10	-0.29	0.12	5463
ELSA	Psych distress	1	1 living alone	loneliness 1	often lonely	-0.14	0.13	-0.39	0.11	5465
ELSA	Psych distress	1	1 living alone	sex	female	0.05	0.09	-0.13	0.23	5470
ELSA	Psych distress	1	1 living alone	age group	55-64	-0.17	0.20	-0.57	0.22	5470
ELSA	Psych distress	1	1 living alone	age group	65-74	-0.16	0.18	-0.51	0.19	5470
ELSA	Psych distress	1	1 living alone	age group	75+	-0.32	0.18	-0.67	0.03	5470
ELSA	Psych distress	1	1 living alone	prior mental ill-health	depressed at 0	-0.05	0.12	-0.29	0.19	5470
ELSA	Psych distress	3	1 living alone	shielding status at 1	shielding	0.06	0.10	-0.14	0.26	5040
ELSA	Psych distress	3	1 living alone	loneliness 1	often lonely	0.12	0.13	-0.14	0.38	5042
ELSA	Psych distress	3	1 living alone	sex	female	-0.08	0.09	-0.25	0.09	5046
ELSA	Psych distress	3	1 living alone	age group	55-64	0.12	0.19	-0.26	0.50	5046
ELSA	Psych distress	3	1 living alone	age group	65-74	-0.01	0.18	-0.36	0.34	5046
ELSA	Psych distress	3	1 living alone	age group	75+	-0.12	0.18	-0.47	0.23	5046

ELSA	Psych distress	3	1 living alone	prior mental ill-health	depressed at 0	-0.06	0.11	-0.27	0.16	5046
ELSA	Life satisfaction	0	0 living alone	shielding status at 1	shielding	0.03	0.12	-0.21	0.26	5085
ELSA	Life satisfaction	0	0 living alone	loneliness 0	often lonely	0.27	0.20	-0.11	0.65	5058
ELSA	Life satisfaction	0	0 living alone	sex	female	-0.05	0.09	-0.23	0.14	5090
ELSA	Life satisfaction	0	0 living alone	age group	55-64	0.09	0.21	-0.32	0.51	5090
ELSA	Life satisfaction	0	0 living alone	age group	65-74	0.02	0.20	-0.36	0.40	5090
ELSA	Life satisfaction	0	0 living alone	age group	75+	0.12	0.20	-0.27	0.51	5090
ELSA	Life satisfaction	0	1 living alone	prior mental ill-health	depressed at 0	0.18	0.14	-0.10	0.46	5090
ELSA	Life satisfaction	1	1 living alone	shielding status at 1	shielding	0.01	0.11	-0.20	0.23	5446
ELSA	Life satisfaction	1	1 living alone	loneliness 1	often lonely	0.22	0.16	-0.10	0.54	5448
ELSA	Life satisfaction	1	1 living alone	sex	female	0.04	0.08	-0.13	0.20	5453
ELSA	Life satisfaction	1	1 living alone	age group	55-64	0.02	0.21	-0.38	0.43	5453
ELSA	Life satisfaction	1	1 living alone	age group	65-74	-0.09	0.19	-0.47	0.28	5453
ELSA	Life satisfaction	1	1 living alone	age group	75+	0.19	0.19	-0.19	0.57	5453
ELSA	Life satisfaction	1	1 living alone	prior mental ill-health	depressed at 0	0.18	0.12	-0.06	0.41	5453
ELSA	Life satisfaction	3	1 living alone	shielding status at 1	shielding	-0.03	0.11	-0.25	0.18	5031
ELSA	Life satisfaction	3	1 living alone	loneliness 1	often lonely	-0.01	0.17	-0.35	0.33	5034
ELSA	Life satisfaction	3	1 living alone	sex	female	0.01	0.09	-0.17	0.20	5038
ELSA	Life satisfaction	3	1 living alone	age group	55-64	-0.16	0.21	-0.58	0.25	5038
ELSA	Life satisfaction	3	1 living alone	age group	65-74	-0.12	0.19	-0.50	0.25	5038
ELSA	Life satisfaction	3	1 living alone	age group	75+	0.01	0.19	-0.37	0.39	5038
ELSA	Life satisfaction	3	1 living alone	prior mental ill-health	depressed at 0	0.18	0.14	-0.09	0.45	5038
TwinsUK	Psych distress	0	Live Alone	1 loneliness	lonely	1.12	0.14	0.93	1.31	2325
TwinsUK	Psych distress	0	Live Alone	shielding	shielding status at 1	0.20	0.05	0.11	0.30	2326
TwinsUK	Psych distress	0	Live Alone	sex	female	0.25	0.07	0.09	0.40	2327
TwinsUK	Psych distress	0	Live Alone	prepandemic MH	prior mental ill health	2.48	0.09	2.32	2.63	2327
TwinsUK	Psych distress	0	Live Alone	age group	16-24	-0.36	0.53	-1.20	0.49	2327
TwinsUK	Psych distress	0	Live Alone	age group	25-34	0.15	0.24	-0.29	0.60	2327
TwinsUK	Psych distress	0	Live Alone	age group	35-44	-0.01	0.15	-0.27	0.25	2327
TwinsUK	Psych distress	0	Live Alone	age group	55-64	-0.10	0.11	-0.32	0.11	2327
TwinsUK	Psych distress	0	Live Alone	age group	65-74	-0.18	0.15	-0.49	0.12	2327
TwinsUK	Psych distress	0	Live Alone	age group	75+	-0.08	0.21	-0.52	0.35	2327

TwinsUK	Psych distress	1	Live Alone	1 loneliness	lonely	1.65	0.13	1.45	1.86	2321
TwinsUK	Psych distress	1	Live Alone	shielding	shielding status at 1	0.23	0.06	0.12	0.33	2322
TwinsUK	Psych distress	1	Live Alone	sex	female	0.33	0.08	0.15	0.50	2323
TwinsUK	Psych distress	1	Live Alone	prepandemic MH	prior mental ill health	1.34	0.13	1.14	1.55	2323
TwinsUK	Psych distress	1	Live Alone	age group	16-24	-0.16	0.50	-1.11	0.78	2323
TwinsUK	Psych distress	1	Live Alone	age group	25-34	0.41	0.23	-0.09	0.90	2323
TwinsUK	Psych distress	1	Live Alone	age group	35-44	0.32	0.15	0.02	0.61	2323
TwinsUK	Psych distress	1	Live Alone	age group	55-64	0.01	0.12	-0.22	0.25	2323
TwinsUK	Psych distress	1	Live Alone	age group	65-74	-0.17	0.17	-0.52	0.17	2323
TwinsUK	Psych distress	1	Live Alone	age group	75+	-0.21	0.24	-0.70	0.27	2323
TwinsUK	Psych distress	2	Live Alone	1 loneliness	lonely	1.22	0.15	1.03	1.42	2321
TwinsUK	Psych distress	2	Live Alone	shielding	shielding status at 1	0.22	0.05	0.12	0.31	2019
TwinsUK	Psych distress	2	Live Alone	sex	female	0.35	0.07	0.19	0.51	2020
TwinsUK	Psych distress	2	Live Alone	prepandemic MH	prior mental ill health	1.33	0.12	1.15	1.51	2020
TwinsUK	Psych distress	2	Live Alone	age group	16-24	0.64	0.66	-0.30	1.58	2020
TwinsUK	Psych distress	2	Live Alone	age group	25-34	0.62	0.21	0.17	1.06	2020
TwinsUK	Psych distress	2	Live Alone	age group	35-44	0.31	0.14	0.05	0.58	2020
TwinsUK	Psych distress	2	Live Alone	age group	55-64	0.04	0.11	-0.18	0.25	2020
TwinsUK	Psych distress	2	Live Alone	age group	65-74	-0.07	0.16	-0.38	0.24	2020
TwinsUK	Psych distress	2	Live Alone	age group	75+	-0.09	0.22	-0.53	0.35	2020
TwinsUK	Psych distress	3	Live Alone	1 loneliness	lonely	1.12	0.12	0.93	1.31	2139
TwinsUK	Psych distress	3	Live Alone	shielding	shielding status at 1	0.22	0.05	0.12	0.31	2140
TwinsUK	Psych distress	3	Live Alone	sex	female	0.34	0.07	0.18	0.50	2141
TwinsUK	Psych distress	3	Live Alone	prepandemic MH	prior mental ill health	1.34	0.12	1.16	1.53	2141
TwinsUK	Psych distress	3	Live Alone	age group 45-54(ref)	16-24	-0.05	0.76	-1.01	0.91	2141
TwinsUK	Psych distress	3	Live Alone	age group	25-34	0.47	0.24	0.01	0.93	2141
TwinsUK	Psych distress	3	Live Alone	age group	35-44	0.13	0.14	-0.13	0.40	2141
TwinsUK	Psych distress	3	Live Alone	age group	55-64	-0.23	0.12	-0.45	-0.02	2141
TwinsUK	Psych distress	3	Live Alone	age group	65-74	-0.42	0.16	-0.73	-0.10	2141
TwinsUK	Psych distress	3	Live Alone	age group	75+	-0.45	0.22	-0.89	-0.01	2141
TwinsUK	Life satisfaction	1	Live Alone	1 loneliness	lonely	-1.21	0.12	-1.41	-1.00	2325
TwinsUK	Life satisfaction	1	Live Alone	shielding	shielding status at 1	-0.05	0.05	-0.15	0.05	2327
TwinsUK	Life satisfaction	1	Live Alone	sex	female	-0.11	0.07	-0.27	0.06	2327

TwinsUK	Life satisfaction	1	Live Alone	prepandemic MH	prior mental ill health	-0.61	0.12	-0.82	-0.41	2327
TwinsUK	Life satisfaction	1	Live Alone	age group	16-24	-0.23	0.37	-1.13	0.66	2327
TwinsUK	Life satisfaction	1	Live Alone	age group	25-34	-0.42	0.23	-0.88	0.05	2327
TwinsUK	Life satisfaction	1	Live Alone	age group	35-44	-0.29	0.15	-0.57	-0.02	2327
TwinsUK	Life satisfaction	1	Live Alone	age group	55-64	-0.01	0.11	-0.23	0.21	2327
TwinsUK	Life satisfaction	1	Live Alone	age group	65-74	0.11	0.17	-0.21	0.43	2327
TwinsUK	Life satisfaction	1	Live Alone	age group	75+	0.20	0.23	-0.25	0.66	2327
TwinsUK	Life satisfaction	2	Live Alone	1 loneliness	lonely	-1.16	0.14	-1.38	-0.94	2024
TwinsUK	Life satisfaction	2	Live Alone	shielding	shielding status at 1	-0.16	0.06	-0.26	-0.05	2025
TwinsUK	Life satisfaction	2	Live Alone	sex	female	-0.26	0.08	-0.43	-0.09	2026
TwinsUK	Life satisfaction	2	Live Alone	prepandemic MH	prior mental ill health	-0.76	0.13	-0.97	-0.55	2026
TwinsUK	Life satisfaction	2	Live Alone	age group	16-24	-1.03	0.64	-2.04	-0.01	2026
TwinsUK	Life satisfaction	2	Live Alone	age group	25-34	-0.62	0.23	-1.10	-0.14	2026
TwinsUK	Life satisfaction	2	Live Alone	age group	35-44	-0.27	0.15	-0.55	0.02	2026
TwinsUK	Life satisfaction	2	Live Alone	age group	55-64	-0.02	0.12	-0.26	0.21	2026
TwinsUK	Life satisfaction	2	Live Alone	age group	65-74	0.02	0.17	-0.31	0.36	2026
TwinsUK	Life satisfaction	2	Live Alone	age group	75+	0.03	0.25	-0.45	0.51	2026
TwinsUK	Life satisfaction	3	Live Alone	1 loneliness	lonely	-0.99	0.13	-1.18	-0.79	2153
TwinsUK	Life satisfaction	3	Live Alone	shielding	shielding status at 1	-0.14	0.05	-0.24	-0.04	2154
TwinsUK	Life satisfaction	3	Live Alone	sex	female	-0.13	0.07	-0.28	0.03	2155
TwinsUK	Life satisfaction	3	Live Alone	prepandemic MH	prior mental ill health	-0.61	0.13	-0.81	-0.42	2155
TwinsUK	Life satisfaction	3	Live Alone	age group 45-54(ref)	16-24	0.05	0.47	-0.92	1.01	2155
TwinsUK	Life satisfaction	3	Live Alone	age group	25-34	-0.43	0.23	-0.89	0.03	2155
TwinsUK	Life satisfaction	3	Live Alone	age group	35-44	-0.16	0.14	-0.43	0.10	2155
TwinsUK	Life satisfaction	3	Live Alone	age group	55-64	0.04	0.11	-0.18	0.25	2155
TwinsUK	Life satisfaction	3	Live Alone	age group	65-74	0.14	0.16	-0.17	0.45	2155
TwinsUK	Life satisfaction	3	Live Alone	age group	75+	0.07	0.22	-0.36	0.51	2155
ALSPAC-G1	Psych distress	0	Live Alone	sex	female	0.23	0.19	-0.15	0.61	1809
ALSPAC-G1	Psych distress	0	Live Alone	prepandemic MH	prior mental ill health	-0.20	0.11	-0.41	0.01	1809
ALSPAC-G1	Psych distress	1	Live Alone	sex	female	0.09	0.19	-0.27	0.46	2064
ALSPAC-G1	Psych distress	1	Live Alone	prepandemic MH	prior mental ill health	0.11	0.18	-0.23	0.46	1774
ALSPAC-G1	Psych distress	2	Live Alone	sex	female	0.19	0.20	-0.21	0.59	1610

ALSPAC-G1	Psych distress	2	Live Alone	prepandemic MH	prior mental ill health	0.11	0.20	-0.27	0.50	1413
ALSPAC-G1	Psych distress	3	Live Alone	sex	female	0.14	0.19	-0.24	0.52	1919
ALSPAC-G1	Psych distress	3	Live Alone	prepandemic MH	prior mental ill health	0.29	0.18	-0.06	0.65	1675
ALSPAC-G1	Life satisfaction	0	Live Alone	sex	female	0.07	0.20	-0.32	0.46	1720
ALSPAC-G1	Life satisfaction	0	Live Alone	prepandemic MH	prior mental ill health	0.23	0.16	-0.08	0.54	1720
ALSPAC-G1	Life satisfaction	1	Live Alone	sex	female	0.05	0.19	-0.31	0.42	2075
ALSPAC-G1	Life satisfaction	1	Live Alone	prepandemic MH	prior mental ill health	0.37	0.21	-0.05	0.79	1696
ALSPAC-G1	Life satisfaction	2	Live Alone	sex	female	-0.20	0.21	-0.60	0.21	1616
ALSPAC-G1	Life satisfaction	2	Live Alone	prepandemic MH	prior mental ill health	0.39	0.24	-0.07	0.86	1351
ALSPAC-G1	Life satisfaction	3	Live Alone	sex	female	-0.11	0.20	-0.49	0.27	1920
ALSPAC-G1	Life satisfaction	3	Live Alone	prepandemic MH	prior mental ill health	0.13	0.22	-0.29	0.56	1600
ALSPAC-G0	Psych distress	0	Live Alone	sex	female	0.21	0.17	-0.12	0.54	2702
ALSPAC-G0	Psych distress	0	Live Alone	prepandemic MH	prior mental ill health	0.32	0.11	0.11	0.52	2702
ALSPAC-G0	Psych distress	1	Live Alone	sex	female	0.23	0.15	-0.07	0.54	3177
ALSPAC-G0	Psych distress	1	Live Alone	prepandemic MH	prior mental ill health	0.31	0.16	0.00	0.63	2579
ALSPAC-G0	Psych distress	2	Live Alone	sex	female	0.10	0.16	-0.22	0.42	2746
ALSPAC-G0	Psych distress	2	Live Alone	prepandemic MH	prior mental ill health	0.48	0.17	0.14	0.82	2279
ALSPAC-G0	Psych distress	3	Live Alone	sex	female	0.07	0.16	-0.25	0.38	2808
ALSPAC-G0	Psych distress	3	Live Alone	prepandemic MH	prior mental ill health	0.40	0.17	0.07	0.73	2349
ALSPAC-G0	Psych distress	0	Live Alone	age group	45 - 54	-0.02	0.26	-0.52	0.49	2702
ALSPAC-G0	Psych distress	0	Live Alone	age group	65 - 74	-0.61	0.19	-0.99	-0.24	2702
ALSPAC-G0	Psych distress	0	Live Alone	age group	75+	0.70	1.02	-1.30	2.70	2702
ALSPAC-G0	Psych distress	1	Live Alone	age group	45 - 54	-0.14	0.23	-0.59	0.30	3177
ALSPAC-G0	Psych distress	1	Live Alone	age group	65 - 74	-0.08	0.18	-0.44	0.27	3177
ALSPAC-G0	Psych distress	1	Live Alone	age group	75+	-0.81	1.02	-2.80	1.18	3177
ALSPAC-G0	Psych distress	2	Live Alone	age group	45 - 54	0.03	0.24	-0.44	0.50	2746
ALSPAC-G0	Psych distress	2	Live Alone	age group	65 - 74	-0.11	0.19	-0.48	0.26	2746
ALSPAC-G0	Psych distress	2	Live Alone	age group	75+	-0.44	1.02	-2.43	1.56	2746
ALSPAC-G0	Psych distress	3	Live Alone	age group	45 - 54	0.15	0.27	-0.38	0.69	2808
ALSPAC-G0	Psych distress	3	Live Alone	age group	65 - 74	0.02	0.17	-0.31	0.35	2808
ALSPAC-G0	Psych distress	3	Live Alone	age group	75+	-0.14	1.01	-2.13	1.85	2808

Note: TP = timepoint; coef = coefficient; se = standard error ; l_ci = lower 95% confidence interval ; u_ci = upper 95% confidence interval. Models adjust for covariates.

Table S6. Regression coefficients from stratified cross-sectional models with continuous outcomes

cohort	outcome (Z)	TP	stratifier	stratified group	coef	coef_se	lower_ci	upper_ci	n
NCDS	Psych distress	T0	Loneliness at T0	not lonely	0.09	0.06	-0.03	0.21	3290
NCDS	Psych distress	T0	Loneliness at T0	lonely	-0.16	0.25	-0.65	0.32	158
NCDS	Psych distress	T1	Loneliness at T1	not lonely	-0.03	0.04	-0.12	0.05	3382
NCDS	Psych distress	T1	Loneliness at T1	lonely	-0.47	0.22	-0.91	-0.03	165
NCDS	Psych distress	T2	Loneliness at T1	not lonely	-0.03	0.04	-0.11	0.05	3411
NCDS	Psych distress	T2	Loneliness at T1	lonely	-0.52	0.20	-0.92	-0.12	170
NCDS	Psych distress	T3	Loneliness at T1	not lonely	-0.06	0.04	-0.13	0.02	3260
NCDS	Psych distress	T3	Loneliness at T1	lonely	-0.55	0.21	-0.97	-0.12	154
NCDS	Psych distress	T0	Sex	male	0.24	0.09	0.07	0.41	1681
NCDS	Psych distress	T0	Sex	female	0.00	0.08	-0.15	0.15	1870
NCDS	Psych distress	T1	Sex	male	0.07	0.06	-0.06	0.19	1714
NCDS	Psych distress	T1	Sex	female	0.07	0.07	-0.06	0.21	1853
NCDS	Psych distress	T2	Sex	male	0.08	0.06	-0.03	0.19	1768
NCDS	Psych distress	T2	Sex	female	0.01	0.06	-0.11	0.13	1924
NCDS	Psych distress	T3	Sex	male	0.03	0.05	-0.08	0.13	1662
NCDS	Psych distress	T3	Sex	female	-0.01	0.06	-0.12	0.11	1850
NCDS	Psych distress	T0	Shielding status at T1	not shielding	0.11	0.06	-0.01	0.23	3320
NCDS	Psych distress	T0	Shielding status at T1	shielding	-0.09	0.20	-0.49	0.31	207
NCDS	Psych distress	T1	Shielding status at T1	not shielding	0.07	0.05	-0.03	0.16	3345
NCDS	Psych distress	T1	Shielding status at T1	shielding	-0.03	0.19	-0.41	0.35	200
NCDS	Psych distress	T2	Shielding status at T1	not shielding	0.03	0.04	-0.05	0.12	3456
NCDS	Psych distress	T2	Shielding status at T1	shielding	0.07	0.18	-0.28	0.41	211
NCDS	Psych distress	T3	Shielding status at T1	not shielding	0.00	0.04	-0.08	0.08	3286
NCDS	Psych distress	T3	Shielding status at T1	shielding	-0.03	0.20	-0.42	0.35	203
NCDS	Psych distress	T0	Prior mental ill-health	no prior MH	0.05	0.04	-0.02	0.12	3175
NCDS	Psych distress	T0	Prior mental ill-health	prior MH	-0.14	0.09	-0.33	0.04	376
NCDS	Psych distress	T1	Prior mental ill-health	no prior MH	0.02	0.04	-0.06	0.10	3197
NCDS	Psych distress	T1	Prior mental ill-health	prior MH	0.04	0.18	-0.31	0.40	370
NCDS	Psych distress	T2	Prior mental ill-health	no prior MH	0.03	0.04	-0.04	0.11	3299
NCDS	Psych distress	T2	Prior mental ill-health	prior MH	-0.20	0.15	-0.49	0.10	393
NCDS	Psych distress	T3	Prior mental ill-health	no prior MH	-0.02	0.04	-0.09	0.06	3141

NCDS	Psych distress	T3	Prior mental ill-health	prior MH	-0.22	0.15	-0.51	0.08	371
NCDS	Life satisfaction	T0	Loneliness at T0	not lonely	-0.49	0.06	-0.61	-0.38	3290
NCDS	Life satisfaction	T0	Loneliness at T0	lonely	-0.24	0.21	-0.65	0.17	158
NCDS	Life satisfaction	T1	Loneliness at T1	not lonely	-0.18	0.05	-0.28	-0.08	3425
NCDS	Life satisfaction	T1	Loneliness at T1	lonely	0.01	0.20	-0.39	0.41	170
NCDS	Life satisfaction	T2	Loneliness at T1	not lonely	-0.20	0.04	-0.28	-0.12	3415
NCDS	Life satisfaction	T2	Loneliness at T1	lonely	0.05	0.20	-0.35	0.46	170
NCDS	Life satisfaction	T3	Loneliness at T1	not lonely	-0.17	0.05	-0.26	-0.09	3265
NCDS	Life satisfaction	T3	Loneliness at T1	lonely	-0.01	0.22	-0.44	0.43	155
NCDS	Life satisfaction	T0	Sex	male	-0.51	0.08	-0.67	-0.35	1681
NCDS	Life satisfaction	T0	Sex	female	-0.49	0.07	-0.63	-0.35	1870
NCDS	Life satisfaction	T1	Sex	male	-0.35	0.08	-0.50	-0.19	1739
NCDS	Life satisfaction	T1	Sex	female	-0.29	0.08	-0.44	-0.14	1884
NCDS	Life satisfaction	T2	Sex	male	-0.26	0.06	-0.39	-0.14	1770
NCDS	Life satisfaction	T2	Sex	female	-0.33	0.06	-0.44	-0.22	1926
NCDS	Life satisfaction	T3	Sex	male	-0.19	0.06	-0.31	-0.06	1665
NCDS	Life satisfaction	T3	Sex	female	-0.32	0.06	-0.45	-0.19	1855
NCDS	Life satisfaction	T0	Shielding status at T1	not shielding	-0.50	0.06	-0.61	-0.39	3320
NCDS	Life satisfaction	T0	Shielding status at T1	shielding	-0.44	0.23	-0.91	0.02	207
NCDS	Life satisfaction	T1	Shielding status at T1	not shielding	-0.33	0.06	-0.44	-0.22	3394
NCDS	Life satisfaction	T1	Shielding status at T1	shielding	-0.21	0.21	-0.62	0.20	206
NCDS	Life satisfaction	T2	Shielding status at T1	not shielding	-0.30	0.04	-0.38	-0.21	3459
NCDS	Life satisfaction	T2	Shielding status at T1	shielding	-0.46	0.20	-0.84	-0.07	212
NCDS	Life satisfaction	T3	Shielding status at T1	not shielding	-0.25	0.05	-0.35	-0.16	3293
NCDS	Life satisfaction	T3	Shielding status at T1	shielding	-0.36	0.20	-0.76	0.04	203
NCDS	Life satisfaction	T0	Prior mental ill-health	no prior MH	-0.46	0.06	-0.57	-0.35	3175
NCDS	Life satisfaction	T0	Prior mental ill-health	prior MH	-0.56	0.14	-0.84	-0.28	376
NCDS	Life satisfaction	T1	Prior mental ill-health	no prior MH	-0.28	0.05	-0.38	-0.18	3239
NCDS	Life satisfaction	T1	Prior mental ill-health	prior MH	-0.38	0.17	-0.71	-0.04	384
NCDS	Life satisfaction	T2	Prior mental ill-health	no prior MH	-0.31	0.04	-0.40	-0.22	3301
NCDS	Life satisfaction	T2	Prior mental ill-health	prior MH	-0.14	0.14	-0.41	0.12	395
NCDS	Life satisfaction	T3	Prior mental ill-health	no prior MH	-0.24	0.05	-0.34	-0.15	3148
NCDS	Life satisfaction	T3	Prior mental ill-health	prior MH	-0.20	0.14	-0.47	0.07	372

NSHD	Psych distress	T0	Loneliness at T0	not lonely	-0.12	0.14	-0.40	0.16	1113
NSHD	Psych distress	T0	Loneliness at T0	lonely	-0.49	0.27	-1.02	0.03	187
NSHD	Psych distress	T1	Loneliness at T1	not lonely	0.34	0.17	0.01	0.66	1238
NSHD	Psych distress	T1	Loneliness at T1	lonely	-0.68	0.37	-1.41	0.05	202
NSHD	Psych distress	T2	Loneliness at T1	not lonely	0.35	0.16	0.04	0.67	1242
NSHD	Psych distress	T2	Loneliness at T1	lonely	-0.53	0.31	-1.14	0.08	204
NSHD	Psych distress	T3	Loneliness at T1	not lonely	0.06	0.17	-0.28	0.40	864
NSHD	Psych distress	T3	Loneliness at T1	lonely	-0.61	0.34	-1.28	0.07	190
NSHD	Psych distress	T0	Sex	male	-0.16	0.19	-0.53	0.22	590
NSHD	Psych distress	T0	Sex	female	-0.02	0.16	-0.33	0.29	710
NSHD	Psych distress	T1	Sex	male	-0.03	0.23	-0.48	0.43	645
NSHD	Psych distress	T1	Sex	female	0.66	0.19	0.28	1.03	795
NSHD	Psych distress	T2	Sex	male	0.05	0.22	-0.39	0.49	649
NSHD	Psych distress	T2	Sex	female	0.46	0.17	0.12	0.80	797
NSHD	Psych distress	T3	Sex	male	-0.30	0.23	-0.75	0.15	493
NSHD	Psych distress	T3	Sex	female	0.48	0.19	0.10	0.86	561
NSHD	Psych distress	T0	Shielding status at T1	not shielding	-0.08	0.13	-0.33	0.17	1161
NSHD	Psych distress	T0	Shielding status at T1	shielding	0.14	0.37	-0.58	0.87	139
NSHD	Psych distress	T1	Shielding status at T1	not shielding	0.35	0.15	0.05	0.66	1285
NSHD	Psych distress	T1	Shielding status at T1	shielding	0.94	0.44	0.07	1.82	155
NSHD	Psych distress	T2	Shielding status at T1	not shielding	0.38	0.14	0.10	0.66	1286
NSHD	Psych distress	T2	Shielding status at T1	shielding	-0.04	0.44	-0.92	0.83	160
NSHD	Psych distress	T3	Shielding status at T1	not shielding	0.21	0.15	-0.10	0.51	964
NSHD	Psych distress	T3	Shielding status at T1	shielding	0.39	0.53	-0.66	1.44	90
NSHD	Psych distress	T0	Prior mental ill-health	no prior MH	-0.03	0.07	-0.18	0.11	1083
NSHD	Psych distress	T0	Prior mental ill-health	prior MH	-0.30	0.31	-0.91	0.30	217
NSHD	Psych distress	T1	Prior mental ill-health	no prior MH	0.31	0.16	-0.01	0.63	1074
NSHD	Psych distress	T1	Prior mental ill-health	prior MH	1.27	0.40	0.49	2.05	215
NSHD	Psych distress	T2	Prior mental ill-health	no prior MH	0.28	0.15	-0.01	0.57	1074
NSHD	Psych distress	T2	Prior mental ill-health	prior MH	0.39	0.37	-0.33	1.11	216
NSHD	Psych distress	T3	Prior mental ill-health	no prior MH	0.12	0.15	-0.18	0.42	820
NSHD	Psych distress	T3	Prior mental ill-health	prior MH	0.29	0.43	-0.57	1.15	162
GS	Life satisfaction	1	Prior MH	not shielding	-0.33	0.06	-0.44	-0.22	2457

GS	Life satisfaction	1	Prior MH	shielding	-0.37	0.13	-0.62	-0.13	525
GS	Life satisfaction	2	Prior MH	not shielding	-0.27	0.06	-0.38	-0.16	1811
GS	Life satisfaction	2	Prior MH	shielding	-0.22	0.14	-0.49	0.04	373
GS	Life satisfaction	3	Prior MH	not shielding	-0.26	0.07	-0.39	-0.14	1684
GS	Life satisfaction	3	Prior MH	shielding	-0.32	0.14	-0.62	-0.02	340
GS	Life satisfaction	1	sex	male	-0.33	0.09	-0.51	-0.16	1146
GS	Life satisfaction	1	sex	female	-0.32	0.07	-0.44	-0.19	1836
GS	Life satisfaction	2	sex	male	-0.27	0.10	-0.46	-0.09	822
GS	Life satisfaction	2	sex	female	-0.25	0.07	-0.38	-0.12	1362
GS	Life satisfaction	3	sex	male	-0.29	0.11	-0.49	-0.08	768
GS	Life satisfaction	3	sex	female	-0.23	0.08	-0.38	-0.08	1256
GS	Life satisfaction	1	Shielding	not shielding	-0.35	0.05	-0.46	-0.25	2874
GS	Life satisfaction	1	Shielding	shielding	-0.39	0.26	-0.93	0.15	108
GS	Life satisfaction	2	Shielding	not shielding	-0.27	0.06	-0.38	-0.17	2103
GS	Life satisfaction	2	Shielding	shielding	-0.41	0.28	-0.98	0.15	81
GS	Life satisfaction	3	Shielding	not shielding	-0.27	0.06	-0.39	-0.14	1951
GS	Life satisfaction	3	Shielding	shielding	-1.06	0.33	-1.67	-0.45	73
GS	Life satisfaction	1	T1 loneliness	not lonely	-0.24	0.05	-0.35	-0.14	2846
GS	Life satisfaction	1	T1 loneliness	lonely	0.12	0.17	-0.22	0.46	122
GS	Life satisfaction	2	T1 loneliness	not lonely	-0.20	0.06	-0.30	-0.09	2088
GS	Life satisfaction	2	T1 loneliness	lonely	0.08	0.27	-0.43	0.58	84
GS	Life satisfaction	3	T1 loneliness	not lonely	-0.24	0.07	-0.37	-0.12	1931
GS	Life satisfaction	3	T1 loneliness	lonely	0.27	0.28	-0.26	0.81	82
GS	Psych distress	0	Prior MH	not shielding	0.02	0.02	-0.02	0.06	2458
GS	Psych distress	0	Prior MH	shielding	0.20	0.08	0.05	0.34	526
GS	Psych distress	1	Prior MH	not shielding	0.13	0.06	0.03	0.23	2390
GS	Psych distress	1	Prior MH	shielding	0.20	0.18	-0.12	0.52	492
GS	Psych distress	2	Prior MH	not shielding	0.22	0.06	0.11	0.34	1747
GS	Psych distress	2	Prior MH	shielding	0.15	0.20	-0.22	0.52	359
GS	Psych distress	3	Prior MH	not shielding	0.16	0.07	0.03	0.30	1612
GS	Psych distress	3	Prior MH	shielding	0.12	0.21	-0.26	0.50	320
GS	Psych distress	0	sex	male	0.10	0.07	-0.01	0.22	1148
GS	Psych distress	0	sex	female	0.12	0.05	0.04	0.21	1836
GS	Psych distress	1	sex	male	0.24	0.12	0.06	0.42	1110

GS	Psych distress	1	sex	female	0.09	0.07	-0.04	0.22	1772
GS	Psych distress	2	sex	male	0.33	0.13	0.12	0.54	805
GS	Psych distress	2	sex	female	0.18	0.08	0.03	0.33	1301
GS	Psych distress	3	sex	male	0.39	0.14	0.16	0.61	742
GS	Psych distress	3	sex	female	0.08	0.09	-0.09	0.25	1190
GS	Psych distress	0	Shielding	not shielding	0.12	0.04	0.05	0.19	2876
GS	Psych distress	0	Shielding	shielding	0.16	0.30	-0.26	0.58	108
GS	Psych distress	1	Shielding	not shielding	0.16	0.06	0.05	0.27	2783
GS	Psych distress	1	Shielding	shielding	0.36	0.37	-0.32	1.04	99
GS	Psych distress	2	Shielding	not shielding	0.22	0.07	0.10	0.34	2026
GS	Psych distress	2	Shielding	shielding	0.90	0.42	0.24	1.56	80
GS	Psych distress	3	Shielding	not shielding	0.19	0.07	0.06	0.33	1864
GS	Psych distress	3	Shielding	shielding	0.84	0.58	-0.01	1.70	68
GS	Psych distress	0	T1 loneliness	not lonely	0.05	0.04	-0.02	0.12	2846
GS	Psych distress	0	T1 loneliness	lonely	0.12	0.19	-0.27	0.50	122
GS	Psych distress	1	T1 loneliness	not lonely	0.00	0.05	-0.11	0.10	2758
GS	Psych distress	1	T1 loneliness	lonely	-0.27	0.27	-0.83	0.30	113
GS	Psych distress	2	T1 loneliness	not lonely	0.11	0.06	-0.01	0.23	2018
GS	Psych distress	2	T1 loneliness	lonely	-0.52	0.34	-1.22	0.19	78
GS	Psych distress	3	T1 loneliness	not lonely	0.09	0.07	-0.04	0.23	1846
GS	Psych distress	3	T1 loneliness	lonely	-0.29	0.32	-0.95	0.36	77
BCS	Psych distress	T0	Loneliness at T0	not lonely	-0.02	0.07	-0.16	0.12	2266
BCS	Psych distress	T0	Loneliness at T0	lonely	-0.19	0.28	-0.75	0.36	139
BCS	Psych distress	T1	Loneliness at T1	not lonely	-0.11	0.06	-0.23	0.02	2456
BCS	Psych distress	T1	Loneliness at T1	lonely	-0.45	0.19	-0.83	-0.07	152
BCS	Psych distress	T2	Loneliness at T1	not lonely	0.00	0.07	-0.13	0.13	2459
BCS	Psych distress	T2	Loneliness at T1	lonely	-0.47	0.22	-0.91	-0.03	152
BCS	Psych distress	T3	Loneliness at T1	not lonely	0.06	0.06	-0.06	0.19	2221
BCS	Psych distress	T3	Loneliness at T1	lonely	-0.24	0.21	-0.66	0.18	135
BCS	Psych distress	T0	Sex	male	-0.12	0.09	-0.30	0.05	961
BCS	Psych distress	T0	Sex	female	0.14	0.11	-0.08	0.37	1500
BCS	Psych distress	T1	Sex	male	-0.07	0.10	-0.26	0.12	1054
BCS	Psych distress	T1	Sex	female	-0.02	0.10	-0.22	0.17	1562

BCS	Psych distress	T2	Sex	male	0.03	0.09	-0.15	0.21	1073
BCS	Psych distress	T2	Sex	female	0.05	0.09	-0.13	0.23	1600
BCS	Psych distress	T3	Sex	male	0.10	0.09	-0.08	0.27	938
BCS	Psych distress	T3	Sex	female	0.15	0.09	-0.02	0.32	1468
BCS	Psych distress	T0	Shielding status at T1	not shielding	0.01	0.07	-0.14	0.15	2333
BCS	Psych distress	T0	Shielding status at T1	shielding	-0.12	0.35	-0.82	0.59	122
BCS	Psych distress	T1	Shielding status at T1	not shielding	-0.02	0.07	-0.15	0.11	2483
BCS	Psych distress	T1	Shielding status at T1	shielding	-0.31	0.33	-0.96	0.34	126
BCS	Psych distress	T2	Shielding status at T1	not shielding	0.02	0.07	-0.11	0.15	2537
BCS	Psych distress	T2	Shielding status at T1	shielding	0.39	0.30	-0.20	0.97	129
BCS	Psych distress	T3	Shielding status at T1	not shielding	0.11	0.06	-0.01	0.24	2280
BCS	Psych distress	T3	Shielding status at T1	shielding	0.32	0.31	-0.29	0.93	121
BCS	Psych distress	T0	Prior mental ill-health	no prior MH	-0.02	0.04	-0.10	0.07	2095
BCS	Psych distress	T0	Prior mental ill-health	prior MH	-0.03	0.12	-0.26	0.20	366
BCS	Psych distress	T1	Prior mental ill-health	no prior MH	-0.04	0.06	-0.16	0.07	2216
BCS	Psych distress	T1	Prior mental ill-health	prior MH	-0.09	0.18	-0.45	0.28	400
BCS	Psych distress	T2	Prior mental ill-health	no prior MH	-0.07	0.06	-0.18	0.04	2266
BCS	Psych distress	T2	Prior mental ill-health	prior MH	0.29	0.16	-0.02	0.60	407
BCS	Psych distress	T3	Prior mental ill-health	no prior MH	0.04	0.05	-0.07	0.15	2049
BCS	Psych distress	T3	Prior mental ill-health	prior MH	0.27	0.16	-0.05	0.60	357
BCS	Life satisfaction	T0	Loneliness at T0	not lonely	-0.32	0.07	-0.45	-0.19	2264
BCS	Life satisfaction	T0	Loneliness at T0	lonely	-0.68	0.23	-1.15	-0.22	137
BCS	Life satisfaction	T1	Loneliness at T1	not lonely	-0.02	0.07	-0.16	0.12	2474
BCS	Life satisfaction	T1	Loneliness at T1	lonely	-0.01	0.21	-0.43	0.40	154
BCS	Life satisfaction	T2	Loneliness at T1	not lonely	-0.21	0.06	-0.33	-0.10	2463
BCS	Life satisfaction	T2	Loneliness at T1	lonely	-0.23	0.20	-0.63	0.16	153
BCS	Life satisfaction	T3	Loneliness at T1	not lonely	-0.10	0.07	-0.23	0.03	2226
BCS	Life satisfaction	T3	Loneliness at T1	lonely	0.07	0.21	-0.34	0.48	136
BCS	Life satisfaction	T0	Sex	male	-0.48	0.10	-0.67	-0.29	959
BCS	Life satisfaction	T0	Sex	female	-0.40	0.10	-0.60	-0.21	1498
BCS	Life satisfaction	T1	Sex	male	-0.13	0.13	-0.38	0.12	1059
BCS	Life satisfaction	T1	Sex	female	-0.18	0.09	-0.35	-0.01	1579
BCS	Life satisfaction	T2	Sex	male	-0.43	0.09	-0.61	-0.26	1077
BCS	Life satisfaction	T2	Sex	female	-0.25	0.08	-0.40	-0.09	1601

BCS	Life satisfaction	T3	Sex	male	-0.26	0.10	-0.46	-0.06	940
BCS	Life satisfaction	T3	Sex	female	-0.14	0.08	-0.30	0.03	1472
BCS	Life satisfaction	T0	Shielding status at T1	not shielding	-0.45	0.07	-0.59	-0.32	2329
BCS	Life satisfaction	T0	Shielding status at T1	shielding	-0.06	0.33	-0.71	0.58	122
BCS	Life satisfaction	T1	Shielding status at T1	not shielding	-0.18	0.08	-0.34	-0.01	2504
BCS	Life satisfaction	T1	Shielding status at T1	shielding	0.20	0.41	-0.60	1.01	127
BCS	Life satisfaction	T2	Shielding status at T1	not shielding	-0.31	0.06	-0.43	-0.19	2542
BCS	Life satisfaction	T2	Shielding status at T1	shielding	-0.41	0.30	-1.00	0.19	129
BCS	Life satisfaction	T3	Shielding status at T1	not shielding	-0.17	0.07	-0.30	-0.04	2286
BCS	Life satisfaction	T3	Shielding status at T1	shielding	-0.25	0.30	-0.83	0.34	121
BCS	Life satisfaction	T0	Prior mental ill-health	no prior MH	-0.38	0.07	-0.51	-0.25	2091
BCS	Life satisfaction	T0	Prior mental ill-health	prior MH	-0.63	0.19	-1.00	-0.25	366
BCS	Life satisfaction	T1	Prior mental ill-health	no prior MH	-0.15	0.08	-0.31	0.01	2234
BCS	Life satisfaction	T1	Prior mental ill-health	prior MH	-0.21	0.20	-0.61	0.19	404
BCS	Life satisfaction	T2	Prior mental ill-health	no prior MH	-0.28	0.06	-0.41	-0.16	2270
BCS	Life satisfaction	T2	Prior mental ill-health	prior MH	-0.37	0.16	-0.68	-0.06	408
BCS	Life satisfaction	T3	Prior mental ill-health	no prior MH	-0.19	0.07	-0.32	-0.05	2054
BCS	Life satisfaction	T3	Prior mental ill-health	prior MH	-0.09	0.17	-0.42	0.24	358
NS	Psych distress	T0	Loneliness at T0	not lonely	0.04	0.08	-0.11	0.19	968
NS	Psych distress	T0	Loneliness at T0	lonely	-0.05	0.31	-0.67	0.58	112
NS	Psych distress	T1	Loneliness at T1	not lonely	0.27	0.12	0.04	0.49	1017
NS	Psych distress	T1	Loneliness at T1	lonely	0.17	0.31	-0.45	0.79	118
NS	Psych distress	T2	Loneliness at T1	not lonely	0.23	0.10	0.03	0.43	1023
NS	Psych distress	T2	Loneliness at T1	lonely	-0.37	0.24	-0.84	0.10	118
NS	Psych distress	T3	Loneliness at T1	not lonely	0.21	0.10	0.03	0.40	961
NS	Psych distress	T3	Loneliness at T1	lonely	-0.49	0.25	-0.98	0.00	110
NS	Psych distress	T0	Sex	male	0.27	0.11	0.05	0.50	380
NS	Psych distress	T0	Sex	female	-0.11	0.10	-0.31	0.09	734
NS	Psych distress	T1	Sex	male	0.31	0.17	-0.02	0.64	389
NS	Psych distress	T1	Sex	female	0.43	0.17	0.10	0.76	746
NS	Psych distress	T2	Sex	male	0.23	0.14	-0.03	0.50	401
NS	Psych distress	T2	Sex	female	0.12	0.12	-0.12	0.37	781
NS	Psych distress	T3	Sex	male	0.30	0.14	0.03	0.58	379

NS	Psych distress	T3	Sex	female	0.04	0.11	-0.18	0.27	724
NS	Psych distress	T0	Shielding status at T1	not shielding	0.07	0.08	-0.08	0.23	1078
NS	Psych distress	T0	Shielding status at T1	shielding	-0.66	0.40	-1.51	0.19	32
NS	Psych distress	T1	Shielding status at T1	not shielding	0.36	0.14	0.09	0.62	1099
NS	Psych distress	T1	Shielding status at T1	shielding	0.43	0.34	-0.28	1.15	32
NS	Psych distress	T2	Shielding status at T1	not shielding	0.17	0.10	-0.02	0.36	1144
NS	Psych distress	T2	Shielding status at T1	shielding	-0.04	0.36	-0.79	0.72	34
NS	Psych distress	T3	Shielding status at T1	not shielding	0.15	0.09	-0.03	0.33	
NS	Psych distress	T3	Shielding status at T1	shielding	-0.17	0.62	-1.49	1.15	31
NS	Psych distress	T0	Prior mental ill-health	no prior MH	0.00	0.05	-0.10	0.11	849
NS	Psych distress	T0	Prior mental ill-health	prior MH	0.12	0.13	-0.14	0.37	265
NS	Psych distress	T1	Prior mental ill-health	no prior MH	0.29	0.17	-0.04	0.62	864
NS	Psych distress	T1	Prior mental ill-health	prior MH	0.23	0.22	-0.22	0.67	271
NS	Psych distress	T2	Prior mental ill-health	no prior MH	0.12	0.11	-0.10	0.34	902
NS	Psych distress	T2	Prior mental ill-health	prior MH	0.17	0.20	-0.22	0.55	280
NS	Psych distress	T3	Prior mental ill-health	no prior MH	0.15	0.09	-0.03	0.33	841
NS	Psych distress	T3	Prior mental ill-health	prior MH	0.10	0.20	-0.30	0.50	262
NS	Life satisfaction	T0	Loneliness at T0	not lonely	0.04	0.02	0.00	0.09	968
NS	Life satisfaction	T0	Loneliness at T0	lonely	0.01	0.08	-0.14	0.16	112
NS	Life satisfaction	T1	Loneliness at T1	not lonely	-0.16	0.08	-0.32	0.00	1037
NS	Life satisfaction	T1	Loneliness at T1	lonely	-0.34	0.20	-0.73	0.06	120
NS	Life satisfaction	T2	Loneliness at T1	not lonely	-0.10	0.06	-0.23	0.02	1027
NS	Life satisfaction	T2	Loneliness at T1	lonely	0.03	0.15	-0.28	0.34	118
NS	Life satisfaction	T3	Loneliness at T1	not lonely	-0.06	0.06	-0.19	0.06	964
NS	Life satisfaction	T3	Loneliness at T1	lonely	0.28	0.16	-0.04	0.60	110
NS	Life satisfaction	T0	Sex	male	0.09	0.03	0.02	0.15	380
NS	Life satisfaction	T0	Sex	female	0.02	0.03	-0.04	0.07	734
NS	Life satisfaction	T1	Sex	male	-0.28	0.11	-0.49	-0.08	396
NS	Life satisfaction	T1	Sex	female	-0.25	0.17	-0.58	0.08	762
NS	Life satisfaction	T2	Sex	male	-0.09	0.08	-0.25	0.08	404
NS	Life satisfaction	T2	Sex	female	-0.13	0.08	-0.29	0.03	783
NS	Life satisfaction	T3	Sex	male	-0.18	0.09	-0.37	0.00	379
NS	Life satisfaction	T3	Sex	female	0.05	0.08	-0.10	0.20	727
NS	Life satisfaction	T0	Shielding status at T1	not shielding	0.05	0.02	0.01	0.10	1078

NS	Life satisfaction	T0	Shielding status at T1	shielding	-0.13	0.09	-0.32	0.05	32
NS	Life satisfaction	T1	Shielding status at T1	not shielding	-0.26	0.11	-0.48	-0.03	1122
NS	Life satisfaction	T1	Shielding status at T1	shielding	-0.31	0.28	-0.89	0.28	32
NS	Life satisfaction	T2	Shielding status at T1	not shielding	-0.12	0.06	-0.25	0.00	1149
NS	Life satisfaction	T2	Shielding status at T1	shielding	0.23	0.25	-0.30	0.76	34
NS	Life satisfaction	T3	Shielding status at T1	not shielding	-0.06	0.06	-0.18	0.07	1071
NS	Life satisfaction	T3	Shielding status at T1	shielding	-0.17	0.29	-0.80	0.46	31
NS	Life satisfaction	T0	Prior mental ill-health	no prior MH	0.03	0.02	-0.01	0.08	849
NS	Life satisfaction	T0	Prior mental ill-health	prior MH	0.08	0.05	-0.01	0.17	265
NS	Life satisfaction	T1	Prior mental ill-health	no prior MH	-0.33	0.13	-0.58	-0.08	879
NS	Life satisfaction	T1	Prior mental ill-health	prior MH	-0.03	0.18	-0.39	0.34	279
NS	Life satisfaction	T2	Prior mental ill-health	no prior MH	-0.10	0.07	-0.25	0.04	904
NS	Life satisfaction	T2	Prior mental ill-health	prior MH	-0.10	0.13	-0.35	0.15	283
NS	Life satisfaction	T3	Prior mental ill-health	no prior MH	-0.02	0.07	-0.16	0.11	844
NS	Life satisfaction	T3	Prior mental ill-health	prior MH	-0.08	0.13	-0.34	0.18	262
ELSA	Psych distress	T0	Loneliness at T0	not lonely	0.07	0.04	0.00	0.15	4837
ELSA	Psych distress	T0	Loneliness at T0	lonely	-0.19	0.17	-0.52	0.14	280
ELSA	Psych distress	T1	Loneliness at T1	not lonely	0.13	0.04	0.04	0.22	5161
ELSA	Psych distress	T1	Loneliness at T1	lonely	0.09	0.12	-0.14	0.31	304
ELSA	Psych distress	T3	Loneliness at T1	not lonely	0.10	0.04	0.01	0.18	4771
ELSA	Psych distress	T3	Loneliness at T1	lonely	0.30	0.13	0.05	0.56	271
ELSA	Psych distress	T0	Sex	male	0.16	0.07	0.03	0.29	2336
ELSA	Psych distress	T0	Sex	female	0.23	0.05	0.12	0.34	3135
ELSA	Psych distress	T1	Sex	male	0.25	0.08	0.10	0.40	2335
ELSA	Psych distress	T1	Sex	female	0.29	0.05	0.19	0.40	3135
ELSA	Psych distress	T3	Sex	male	0.28	0.07	0.14	0.42	2164
ELSA	Psych distress	T3	Sex	female	0.20	0.05	0.09	0.30	2882
ELSA	Psych distress	T0	Shielding status at T1	not shielding	0.22	0.05	0.13	0.31	4543
ELSA	Psych distress	T0	Shielding status at T1	shielding	0.09	0.10	-0.11	0.29	921
ELSA	Psych distress	T1	Shielding status at T1	not shielding	0.28	0.05	0.18	0.37	4542
ELSA	Psych distress	T1	Shielding status at T1	shielding	0.18	0.10	-0.01	0.38	921
ELSA	Psych distress	T3	Shielding status at T1	not shielding	0.22	0.05	0.12	0.31	4240
ELSA	Psych distress	T3	Shielding status at T1	shielding	0.26	0.10	0.07	0.45	800

ELSA	Psych distress	T1	Prior mental ill-health	good MH	0.20	0.05	0.11	0.29	4880
ELSA	Psych distress	T1	Prior mental ill-health	ill health	0.22	0.11	0.01	0.44	590
ELSA	Psych distress	T3	Prior mental ill-health	good MH	0.15	0.04	0.07	0.24	4528
ELSA	Psych distress	T3	Prior mental ill-health	ill health	0.18	0.11	-0.03	0.40	518
ELSA	Life satisfaction	T0	Loneliness at T0	not lonely	-0.23	0.04	-0.31	-0.14	4790
ELSA	Life satisfaction	T0	Loneliness at T0	lonely	-0.08	0.16	-0.39	0.23	268
ELSA	Life satisfaction	T1	Loneliness at T1	not lonely	-0.04	0.04	-0.12	0.04	5145
ELSA	Life satisfaction	T1	Loneliness at T1	lonely	0.16	0.17	-0.16	0.49	303
ELSA	Life satisfaction	T3	Loneliness at T1	not lonely	-0.12	0.05	-0.20	-0.03	4764
ELSA	Life satisfaction	T3	Loneliness at T1	lonely	-0.18	0.18	-0.54	0.17	270
ELSA	Life satisfaction	T0	Sex	male	-0.30	0.07	-0.44	-0.16	2193
ELSA	Life satisfaction	T0	Sex	female	-0.33	0.05	-0.43	-0.23	2897
ELSA	Life satisfaction	T1	Sex	male	-0.11	0.07	-0.25	0.04	2333
ELSA	Life satisfaction	T1	Sex	female	-0.14	0.05	-0.25	-0.04	3120
ELSA	Life satisfaction	T3	Sex	male	-0.20	0.08	-0.36	-0.05	2161
ELSA	Life satisfaction	T3	Sex	female	-0.21	0.05	-0.31	-0.10	2877
ELSA	Life satisfaction	T0	Shielding status at T1	not shielding	-0.33	0.05	-0.42	-0.24	4261
ELSA	Life satisfaction	T0	Shielding status at T1	shielding	-0.31	0.11	-0.52	-0.09	824
ELSA	Life satisfaction	T1	Shielding status at T1	not shielding	-0.13	0.05	-0.22	-0.04	4528
ELSA	Life satisfaction	T1	Shielding status at T1	shielding	-0.08	0.11	-0.29	0.13	918
ELSA	Life satisfaction	T3	Shielding status at T1	not shielding	-0.21	0.05	-0.31	-0.11	4233
ELSA	Life satisfaction	T3	Shielding status at T1	shielding	-0.21	0.10	-0.40	-0.01	798
ELSA	Life satisfaction	T0	Prior mental ill-health	good MH	-0.27	0.04	-0.35	-0.19	4589
ELSA	Life satisfaction	T0	Prior mental ill-health	ill health	-0.13	0.13	-0.38	0.13	501
ELSA	Life satisfaction	T1	Prior mental ill-health	good MH	-0.10	0.05	-0.19	-0.01	4866
ELSA	Life satisfaction	T1	Prior mental ill-health	ill health	0.04	0.11	-0.18	0.27	587
ELSA	Life satisfaction	T3	Prior mental ill-health	good MH	-0.18	0.05	-0.27	-0.08	4523
ELSA	Life satisfaction	T3	Prior mental ill-health	ill health	-0.09	0.13	-0.33	0.16	515
USOC	Psych distress	T0	Shielding status at T1	not shielding	0.06	0.03	-0.01	0.13	12200
USOC	Psych distress	T0	Shielding status at T1	shielding	0.19	0.12	-0.04	0.42	784
USOC	Life satisfaction	T0	Shielding status at T1	not shielding	-0.10	0.03	-0.16	-0.03	12200
USOC	Life satisfaction	T0	Shielding status at T1	shielding	-0.11	0.11	-0.33	0.12	784
USOC	Life satisfaction	T1	Shielding status at T1	not shielding	-0.25	0.04	-0.33	-0.17	9530

USOC	Life satisfaction	T1	Shielding status at T1	shielding	-0.32	0.14	-0.59	-0.04	602
USOC	Psych distress	T0	Loneliness at T0	not lonely	-0.03	0.02	-0.07	0.01	20541
USOC	Psych distress	T0	Loneliness at T0	lonely	-0.13	0.10	-0.33	0.06	1646
USOC	Life satisfaction	T0	Loneliness at T0	not lonely	-0.01	0.02	-0.05	0.04	20541
USOC	Life satisfaction	T0	Loneliness at T0	lonely	-0.03	0.08	-0.20	0.13	1646
USOC	Life satisfaction	T1	Loneliness at T1	not lonely	-0.18	0.04	-0.27	-0.10	9470
USOC	Life satisfaction	T1	Loneliness at T1	lonely	-0.05	0.11	-0.28	0.17	662
USOC	Psych distress	T0	Sex	male	0.03	0.03	-0.03	0.10	9917
USOC	Psych distress	T0	Sex	female	0.02	0.03	-0.04	0.08	12270
USOC	Life satisfaction	T0	Sex	male	-0.09	0.03	-0.16	-0.02	9917
USOC	Life satisfaction	T0	Sex	female	-0.04	0.03	-0.10	0.02	12270
USOC	Life satisfaction	T1	Sex	male	-0.32	0.07	-0.45	-0.18	4210
USOC	Life satisfaction	T1	Sex	female	-0.22	0.05	-0.31	-0.12	5922
USOC	Life satisfaction	T1	Prior mental ill-health	good MH	-0.22	0.05	-0.31	-0.13	8341
USOC	Life satisfaction	T1	Prior mental ill-health	ill health	-0.33	0.08	-0.49	-0.17	1791
USOC	Psych distress	T0	Age	16-24	0.28	0.14	0.00	0.55	2615
USOC	Psych distress	T0	Age	25-34	0.01	0.08	-0.16	0.17	2522
USOC	Psych distress	T0	Age	35-44	0.00	0.09	-0.17	0.18	3227
USOC	Psych distress	T0	Age	45-54	0.02	0.06	-0.10	0.14	4088
USOC	Psych distress	T0	Age	55-64	0.13	0.05	0.02	0.23	3978
USOC	Psych distress	T0	Age	65-74	0.03	0.04	-0.04	0.10	3503
USOC	Psych distress	T0	Age	75+	-0.07	0.04	-0.14	0.00	2254
USOC	Life satisfaction	T0	Age	16-24	-0.12	0.13	-0.36	0.13	2615
USOC	Life satisfaction	T0	Age	25-34	-0.05	0.07	-0.18	0.09	2522
USOC	Life satisfaction	T0	Age	35-44	-0.12	0.09	-0.29	0.04	3227
USOC	Life satisfaction	T0	Age	45-54	-0.05	0.06	-0.18	0.07	4088
USOC	Life satisfaction	T0	Age	55-64	-0.14	0.05	-0.24	-0.04	3978
USOC	Life satisfaction	T0	Age	65-74	-0.09	0.04	-0.18	-0.01	3503
USOC	Life satisfaction	T0	Age	75+	0.04	0.05	-0.06	0.13	2254
USOC	Life satisfaction	T1	Age	16-24	-0.05	0.37	-0.77	0.67	651
USOC	Life satisfaction	T1	Age	25-34	-0.56	0.16	-0.88	-0.24	935
USOC	Life satisfaction	T1	Age	35-44	-0.50	0.14	-0.78	-0.22	1506
USOC	Life satisfaction	T1	Age	45-54	-0.11	0.11	-0.32	0.10	2069
USOC	Life satisfaction	T1	Age	55-64	-0.27	0.07	-0.42	-0.13	2255

USOC	Life satisfaction	T1	Age	65-74	-0.28	0.07	-0.42	-0.14	1986
USOC	Life satisfaction	T1	Age	75+	-0.12	0.11	-0.33	0.09	1524
USOC	Psych distress	T1	Shielding status at T1	not shielding	0.17	0.03	0.11	0.23	11364
USOC	Psych distress	T1	Shielding status at T1	shielding	0.23	0.11	0.01	0.44	724
USOC	Psych distress	T2	Shielding status at T1	not shielding	0.14	0.03	0.08	0.20	9309
USOC	Psych distress	T2	Shielding status at T1	shielding	0.25	0.12	0.01	0.50	596
USOC	Psych distress	T3	Shielding status at T1	not shielding	0.12	0.03	0.06	0.18	9304
USOC	Psych distress	T3	Shielding status at T1	shielding	0.10	0.12	-0.14	0.34	609
USOC	Life satisfaction	T2	Shielding status at T1	not shielding	-0.16	0.03	-0.22	-0.10	9309
USOC	Life satisfaction	T2	Shielding status at T1	shielding	-0.17	0.11	-0.39	0.04	596
USOC	Life satisfaction	T3	Shielding status at T1	not shielding	-0.19	0.03	-0.25	-0.13	9304
USOC	Life satisfaction	T3	Shielding status at T1	shielding	-0.28	0.10	-0.48	-0.08	609
USOC	Psych distress	T1	Loneliness at T1	not lonely	0.04	0.03	-0.01	0.09	11234
USOC	Psych distress	T1	Loneliness at T1	lonely	-0.06	0.10	-0.27	0.14	854
USOC	Psych distress	T2	Loneliness at T1	not lonely	0.05	0.03	-0.01	0.11	9258
USOC	Psych distress	T2	Loneliness at T1	lonely	-0.05	0.13	-0.30	0.20	647
USOC	Psych distress	T3	Loneliness at T1	not lonely	0.03	0.03	-0.03	0.09	9259
USOC	Psych distress	T3	Loneliness at T1	lonely	-0.20	0.12	-0.44	0.04	654
USOC	Life satisfaction	T2	Loneliness at T1	not lonely	-0.09	0.03	-0.15	-0.03	9258
USOC	Life satisfaction	T2	Loneliness at T1	lonely	-0.07	0.09	-0.24	0.10	647
USOC	Life satisfaction	T3	Loneliness at T1	not lonely	-0.14	0.03	-0.19	-0.08	9259
USOC	Life satisfaction	T3	Loneliness at T1	lonely	-0.02	0.09	-0.20	0.15	654
USOC	Psych distress	T1	Sex	male	0.21	0.05	0.12	0.30	5080
USOC	Psych distress	T1	Sex	female	0.14	0.04	0.07	0.22	7008
USOC	Psych distress	T2	Sex	male	0.20	0.05	0.10	0.30	4137
USOC	Psych distress	T2	Sex	female	0.10	0.04	0.02	0.18	5768
USOC	Psych distress	T3	Sex	male	0.14	0.05	0.04	0.24	4123
USOC	Psych distress	T3	Sex	female	0.11	0.04	0.03	0.19	5790
USOC	Life satisfaction	T2	Sex	male	-0.27	0.05	-0.37	-0.18	4137
USOC	Life satisfaction	T2	Sex	female	-0.09	0.04	-0.16	-0.02	5768
USOC	Life satisfaction	T3	Sex	male	-0.32	0.05	-0.41	-0.23	4123
USOC	Life satisfaction	T3	Sex	female	-0.11	0.03	-0.18	-0.05	5790
USOC	Psych distress	T1	Age	16-24	-0.23	0.36	-0.93	0.48	923
USOC	Psych distress	T1	Age	25-34	0.34	0.14	0.06	0.62	1223

USOC	Psych distress	T1	Age	35-44	0.08	0.13	-0.17	0.34	1831
USOC	Psych distress	T1	Age	45-54	0.21	0.08	0.05	0.37	2496
USOC	Psych distress	T1	Age	55-64	0.18	0.06	0.07	0.29	2590
USOC	Psych distress	T1	Age	65-74	0.21	0.05	0.11	0.30	2183
USOC	Psych distress	T1	Age	75+	0.10	0.07	-0.03	0.24	842
USOC	Psych distress	T2	Age	16-24	-0.31	0.29	-0.88	0.26	590
USOC	Psych distress	T2	Age	25-34	0.48	0.17	0.15	0.80	897
USOC	Psych distress	T2	Age	35-44	0.24	0.14	-0.05	0.52	1421
USOC	Psych distress	T2	Age	45-54	0.17	0.09	0.00	0.34	1994
USOC	Psych distress	T2	Age	55-64	0.15	0.06	0.04	0.27	2281
USOC	Psych distress	T2	Age	65-74	0.13	0.05	0.03	0.24	1979
USOC	Psych distress	T2	Age	75+	-0.03	0.07	-0.16	0.11	743
USOC	Psych distress	T3	Age	16-24	-0.07	0.38	-0.83	0.68	599
USOC	Psych distress	T3	Age	25-34	0.17	0.15	-0.13	0.47	891
USOC	Psych distress	T3	Age	35-44	0.15	0.13	-0.10	0.40	1437
USOC	Psych distress	T3	Age	45-54	0.15	0.08	-0.01	0.31	2043
USOC	Psych distress	T3	Age	55-64	0.11	0.06	0.00	0.23	2281
USOC	Psych distress	T3	Age	65-74	0.14	0.05	0.04	0.25	1944
USOC	Psych distress	T3	Age	75+	0.07	0.07	-0.08	0.21	718
USOC	Life satisfaction	T2	Age	16-24	0.07	0.19	-0.31	0.44	590
USOC	Life satisfaction	T2	Age	25-34	-0.38	0.11	-0.60	-0.16	897
USOC	Life satisfaction	T2	Age	35-44	-0.44	0.11	-0.66	-0.23	1421
USOC	Life satisfaction	T2	Age	45-54	-0.19	0.08	-0.35	-0.04	1994
USOC	Life satisfaction	T2	Age	55-64	-0.25	0.06	-0.37	-0.14	2281
USOC	Life satisfaction	T2	Age	65-74	-0.10	0.06	-0.21	0.02	1979
USOC	Life satisfaction	T2	Age	75+	0.08	0.08	-0.09	0.24	743
USOC	Life satisfaction	T3	Age	16-24	0.22	0.21	-0.20	0.63	599
USOC	Life satisfaction	T3	Age	25-34	-0.22	0.11	-0.43	-0.01	891
USOC	Life satisfaction	T3	Age	35-44	-0.26	0.10	-0.45	-0.06	1437
USOC	Life satisfaction	T3	Age	45-54	-0.19	0.07	-0.32	-0.05	2043
USOC	Life satisfaction	T3	Age	55-64	-0.26	0.06	-0.37	-0.16	2281
USOC	Life satisfaction	T3	Age	65-74	-0.16	0.05	-0.27	-0.06	1944
USOC	Life satisfaction	T3	Age	75+	-0.17	0.08	-0.32	-0.01	718
USOC	Psych distress	T1	Prior mental ill-health	good MH	0.13	0.03	0.07	0.18	9887

USOC	Psych distress	T1	Prior mental ill-health	ill health	0.21	0.08	0.05	0.37	2201
USOC	Psych distress	T2	Prior mental ill-health	good MH	0.09	0.03	0.04	0.15	8164
USOC	Psych distress	T2	Prior mental ill-health	ill health	0.22	0.09	0.04	0.39	1741
USOC	Psych distress	T3	Prior mental ill-health	good MH	0.08	0.03	0.02	0.14	8156
USOC	Psych distress	T3	Prior mental ill-health	ill health	0.10	0.09	-0.07	0.28	1757
USOC	Life satisfaction	T2	Prior mental ill-health	good MH	-0.10	0.03	-0.16	-0.04	8164
USOC	Life satisfaction	T2	Prior mental ill-health	ill health	-0.32	0.07	-0.45	-0.19	1741
USOC	Life satisfaction	T3	Prior mental ill-health	good MH	-0.15	0.03	-0.21	-0.09	8156
USOC	Life satisfaction	T3	Prior mental ill-health	ill health	-0.27	0.06	-0.39	-0.14	1757
ALSPAC-G1	Psych distress	T0	Sex	male	0.04	0.15	-0.25	0.32	501
ALSPAC-G1	Psych distress	T0	Sex	female	0.29	0.11	0.08	0.51	1308
ALSPAC-G1	Psych distress	T1	Sex	male	0.21	0.13	-0.04	0.46	586
ALSPAC-G1	Psych distress	T1	Sex	female	0.30	0.11	0.09	0.51	1478
ALSPAC-G1	Psych distress	T2	Sex	male	0.07	0.14	-0.20	0.34	459
ALSPAC-G1	Psych distress	T2	Sex	female	0.25	0.12	0.01	0.49	1151
ALSPAC-G1	Psych distress	T3	Sex	male	0.18	0.14	-0.10	0.47	539
ALSPAC-G1	Psych distress	T3	Sex	female	0.31	0.11	0.09	0.52	1380
ALSPAC-G1	Psych distress	T0	Prior mental ill-health	no prior MH	0.10	0.05	-0.01	0.20	1404
ALSPAC-G1	Psych distress	T0	Prior mental ill-health	prior MH	-0.09	0.12	-0.32	0.14	405
ALSPAC-G1	Psych distress	T1	Prior mental ill-health	no prior MH	0.16	0.08	0.00	0.33	1376
ALSPAC-G1	Psych distress	T1	Prior mental ill-health	prior MH	0.27	0.20	-0.13	0.67	398
ALSPAC-G1	Psych distress	T2	Prior mental ill-health	no prior MH	0.05	0.09	-0.14	0.24	1098
ALSPAC-G1	Psych distress	T2	Prior mental ill-health	prior MH	0.16	0.22	-0.27	0.58	315
ALSPAC-G1	Psych distress	T3	Prior mental ill-health	no prior MH	0.11	0.09	-0.06	0.28	1300
ALSPAC-G1	Psych distress	T3	Prior mental ill-health	prior MH	0.38	0.20	-0.02	0.78	375
ALSPAC-G1	Life satisfaction	T0	Sex	male	-0.33	0.17	-0.66	0.00	469
ALSPAC-G1	Life satisfaction	T0	Sex	female	-0.25	0.11	-0.47	-0.03	1251
ALSPAC-G1	Life satisfaction	T1	Sex	male	-0.38	0.16	-0.69	-0.08	587
ALSPAC-G1	Life satisfaction	T1	Sex	female	-0.33	0.10	-0.53	-0.13	1488
ALSPAC-G1	Life satisfaction	T2	Sex	male	-0.04	0.16	-0.36	0.28	456
ALSPAC-G1	Life satisfaction	T2	Sex	female	-0.23	0.12	-0.46	0.00	1160
ALSPAC-G1	Life satisfaction	T3	Sex	male	-0.23	0.16	-0.55	0.09	533
ALSPAC-G1	Life satisfaction	T3	Sex	female	-0.33	0.11	-0.53	-0.12	1387

ALSPAC-G1	Life satisfaction	T0	Prior mental ill-health	no prior MH	-0.20	0.08	-0.35	-0.06	1439
ALSPAC-G1	Life satisfaction	T0	Prior mental ill-health	prior MH	0.03	0.10	-0.17	0.24	281
ALSPAC-G1	Life satisfaction	T1	Prior mental ill-health	no prior MH	-0.38	0.10	-0.58	-0.19	1418
ALSPAC-G1	Life satisfaction	T1	Prior mental ill-health	prior MH	0.00	0.21	-0.41	0.40	278
ALSPAC-G1	Life satisfaction	T2	Prior mental ill-health	no prior MH	-0.14	0.11	-0.36	0.07	1123
ALSPAC-G1	Life satisfaction	T2	Prior mental ill-health	prior MH	0.23	0.22	-0.21	0.67	228
ALSPAC-G1	Life satisfaction	T3	Prior mental ill-health	no prior MH	-0.23	0.10	-0.42	-0.03	1336
ALSPAC-G1	Life satisfaction	T3	Prior mental ill-health	prior MH	-0.11	0.20	-0.51	0.29	264
ALSPAC-G0	Psych distress	T0	Sex	male	0.08	0.14	-0.19	0.35	755
ALSPAC-G0	Psych distress	T0	Sex	female	0.25	0.08	0.09	0.42	1947
ALSPAC-G0	Psych distress	T1	Sex	male	0.31	0.11	0.10	0.53	843
ALSPAC-G0	Psych distress	T1	Sex	female	0.54	0.08	0.38	0.70	2334
ALSPAC-G0	Psych distress	T2	Sex	male	0.38	0.11	0.16	0.61	743
ALSPAC-G0	Psych distress	T2	Sex	female	0.48	0.08	0.32	0.65	2003
ALSPAC-G0	Psych distress	T3	Sex	male	0.31	0.12	0.08	0.54	739
ALSPAC-G0	Psych distress	T3	Sex	female	0.37	0.08	0.20	0.53	2069
ALSPAC-G0	Psych distress	T0	Prior mental ill-health	no prior MH	0.02	0.05	-0.09	0.12	2223
ALSPAC-G0	Psych distress	T0	Prior mental ill-health	prior MH	0.33	0.09	0.15	0.50	479
ALSPAC-G0	Psych distress	T1	Prior mental ill-health	no prior MH	0.38	0.07	0.25	0.51	2121
ALSPAC-G0	Psych distress	T1	Prior mental ill-health	prior MH	0.61	0.21	0.19	1.03	458
ALSPAC-G0	Psych distress	T2	Prior mental ill-health	no prior MH	0.34	0.07	0.21	0.48	1889
ALSPAC-G0	Psych distress	T2	Prior mental ill-health	prior MH	0.78	0.22	0.34	1.22	390
ALSPAC-G0	Psych distress	T3	Prior mental ill-health	no prior MH	0.21	0.07	0.07	0.34	1951
ALSPAC-G0	Psych distress	T3	Prior mental ill-health	prior MH	0.55	0.21	0.13	0.97	398
ALSPAC-G0	Psych distress	T0	Age	45-54	0.32	0.26	-0.18	0.83	447
ALSPAC-G0	Psych distress	T0	Age	55-64	0.30	0.08	0.13	0.46	1954
ALSPAC-G0	Psych distress	T0	Age	65-74	-0.29	0.15	-0.59	0.01	292
ALSPAC-G0	Psych distress	T0	Age	75+	-0.91	1.92	-6.23	4.41	9
ALSPAC-G0	Psych distress	T1	Age	45-54	0.38	0.25	-0.11	0.88	576
ALSPAC-G0	Psych distress	T1	Age	55-64	0.51	0.07	0.36	0.66	2250
ALSPAC-G0	Psych distress	T1	Age	65-74	0.42	0.14	0.15	0.69	342
ALSPAC-G0	Psych distress	T1	Age	75+	-0.55	0.79	-2.73	1.64	9
ALSPAC-G0	Psych distress	T2	Age	45-54	0.52	0.26	0.01	1.03	442

ALSPAC-G0	Psych distress	T2	Age	55-64	0.47	0.08	0.31	0.63	1976
ALSPAC-G0	Psych distress	T2	Age	65-74	0.41	0.13	0.16	0.66	320
ALSPAC-G0	Psych distress	T2	Age	75+	-0.17	0.72	-2.45	2.11	8
ALSPAC-G0	Psych distress	T3	Age	45-54	0.48	0.31	-0.13	1.09	368
ALSPAC-G0	Psych distress	T3	Age	55-64	0.33	0.08	0.17	0.49	2054
ALSPAC-G0	Psych distress	T3	Age	65-74	0.37	0.14	0.10	0.64	376
ALSPAC-G0	Psych distress	T3	Age	75+	-0.19	1.25	-3.41	3.04	10

Note: TP = timepoint; coef = coefficient; se = standard error ; l_ci = lower 95% confidence interval ; u_ci = upper 95% confidence interval. Models adjust for covariates.

Table S7. Regression coefficients from sensitivity analysis (excluding those living in households of larger than ten)

cohort	outcome	exposure	coef	coef_se	lower_ci	upper_ci	n
NCDS	T1 Psych distress	T1 living alone alternative coding	0.07	0.05	-0.03	0.16	3566
NCDS	T2 Psych distress	T1 living alone alternative coding	0.04	0.04	-0.04	0.12	3691
NCDS	T3 Psych distress	T1 living alone alternative coding	0.01	0.04	-0.07	0.09	3723
NCDS	T2 Psych distress	T2 living alone	0.07	0.04	-0.01	0.15	3682
NCDS	T3 Psych distress	T3 living alone	0.07	0.04	-0.01	0.15	3719
NCDS	T2 Life satisfaction	T2 living alone	-0.30	0.04	-0.38	-0.21	3685
NCDS	T3 Life satisfaction	T3 living alone	-0.29	0.05	-0.38	-0.20	3727
NCDS	T2 Psych distress (binary)	T2 living alone	0.27	0.12	0.04	0.50	3681
NCDS	T3 Psych distress (binary)	T3 living alone	0.14	0.12	-0.10	0.39	3716
BCS	T1 Psych distress	T1 living alone alternative coding	-0.04	0.07	-0.18	0.09	2616
BCS	T2 Psych distress	T1 living alone alternative coding	0.04	0.06	-0.08	0.17	2673
BCS	T3 Psych distress	T1 living alone alternative coding	0.11	0.06	-0.01	0.24	2725
BCS	T2 Psych distress	T2 living alone	0.05	0.07	-0.08	0.17	2669
BCS	T3 Psych distress	T3 living alone	0.07	0.06	-0.05	0.19	2720
BCS	T2 Life satisfaction	T2 living alone	-0.35	0.06	-0.47	-0.24	2674
BCS	T3 Life satisfaction	T3 living alone	-0.19	0.06	-0.31	-0.07	2726
BCS	T2 Psych distress (binary)	T2 living alone	0.04	0.16	-0.27	0.35	2668
BCS	T3 Psych distress (binary)	T3 living alone	0.20	0.16	-0.10	0.51	2719
NS	T1 Psych distress	T1 living alone alternative coding	0.36	0.13	0.10	0.62	1131
NS	T2 Psych distress	T1 living alone alternative coding	0.16	0.09	-0.02	0.35	1178
NS	T3 Psych distress	T1 living alone alternative coding	0.08	0.09	-0.10	0.27	1244
NS	T2 Psych distress	T2 living alone	0.09	0.10	-0.10	0.28	1182
NS	T3 Psych distress	T3 living alone	-0.08	0.09	-0.24	0.09	1245
NS	T2 Life satisfaction	T2 living alone	-0.12	0.06	-0.25	0.00	1186
NS	T3 Life satisfaction	T3 living alone	-0.01	0.07	-0.15	0.13	1250
NS	T2 Psych distress (binary)	T2 living alone	0.03	0.21	-0.38	0.44	1182
NS	T3 Psych distress (binary)	T3 living alone	0.29	0.20	-0.09	0.68	1248

ELSA	T1 Psych distress	T1 living alone alternative coding	0.00	0.05	-0.09	0.10	5470
ELSA	T3 Psych distress	T1 living alone alternative coding	-0.04	0.05	-0.13	0.06	5046
ELSA	T3 Psych distress	T3 living alone	0.21	0.04	0.12	0.29	5045
ELSA	T3 Life satisfaction	T3 living alone	-0.17	0.04	-0.26	-0.09	5037
ELSA	T3 Psych distress (binary)	T3 living alone	0.09	0.02	0.05	0.12	5045
USOC	T1 Psych distress	T1 living alone alternative coding	0.17	0.03	0.12	0.23	12,087
USOC	T2 Psych distress	T1 living alone alternative coding	0.15	0.03	0.09	0.21	9,904
USOC	T3 Psych distress	T1 living alone alternative coding	0.12	0.03	0.06	0.18	9,912
USOC	T1 Life satisfaction	T1 living alone alternative coding	-0.26	0.04	-0.35	-0.18	10,132
USOC	T2 Life satisfaction	T1 living alone alternative coding	-0.17	0.03	-0.22	-0.11	9,904
USOC	T3 life satisfaction (binary)	T1 living alone alternative coding	-0.20	0.03	-0.25	-0.14	9,912
USOC	T2 Psych distress	T2 living alone	0.12	0.03	0.07	0.17	9905
USOC	T3 Psych distress	T3 living alone	0.10	0.03	0.04	0.15	9913
USOC	T2 Life satisfaction	T2 living alone	-0.17	0.03	-0.23	-0.12	9905
USOC	T3 Life satisfaction	T3 living alone	-0.16	0.03	-0.21	-0.11	9913
USOC	T2 Psych distress (binary)	T2 living alone	0.30	0.05	0.19	0.40	9905
USOC	T3 Psych distress (binary)	T3 living alone	0.19	0.05	0.10	0.28	9913
USOC	T2 life satisfaction (binary)	T2 living alone	0.25	0.04	0.18	0.33	9905
USOC	T3 life satisfaction (binary)	T3 living alone	0.22	0.03	0.16	0.29	9913
ALSPAC-G1	T1 Psych distress	T1 living alone alternative coding	0.27	0.08	0.10	0.43	2062
ALSPAC-G1	T2 Psych distress	T1 living alone alternative coding	0.18	0.09	-0.01	0.36	1609
ALSPAC-G1	T3 Psych distress	T1 living alone alternative coding	0.26	0.09	0.09	0.44	1917
ALSPAC-G1	T2 Psych distress	T2 living alone	0.15	0.09	-0.02	0.33	1618
ALSPAC-G1	T3 Psych distress	T3 living alone	0.20	0.07	0.05	0.35	1964
ALSPAC-G1	T2 Life satisfaction	T2 living alone	-0.16	0.09	-0.33	0.02	1624
ALSPAC-G1	T3 Life satisfaction	T3 living alone	-0.24	0.08	-0.39	-0.10	1965

ALSPAC-G0	T1 Psych distress	T1 living alone alternative coding	0.48	0.07	0.35	0.61	3175
ALSPAC-G0	T2 Psych distress	T1 living alone alternative coding	0.45	0.07	0.32	0.59	2744
ALSPAC-G0	T3 Psych distress	T1 living alone alternative coding	0.35	0.07	0.21	0.48	2806
ALSPAC-G0	T2 Psych distress	T2 living alone	0.46	0.07	0.33	0.59	2797
ALSPAC-G0	T3 Psych distress	T3 living alone	0.38	0.06	0.26	0.50	2873

Note: TP = timepoint; coef = coefficient; se = standard error ; l_ci = lower 95% confidence interval ; u_ci = upper 95% confidence interval. Models adjust for covariates.

Table S8. Results from longitudinal multi-level models (time x lone household interactions)

cohort	outcome (cont outcomes only)	Model	exposure	TP	coef_interaction	se	l_ci	u_ci	main effect (time)	se	l_ci	u_ci	main effect (Lone HH)	se	L_ci	u_ci	n	
NCDS	Psych distress	Unadjusted	living alone	1	-0.04	0.05	-0.14	0.06	-0.03	0.02	-0.07	0.00	0.14	0.05	0.04	0.23	3928	
NCDS	Psych distress	Unadjusted	living alone	2	-0.07	0.05	-0.17	0.03	0.10	0.02	0.07	0.14	--	--	--	--	--	
NCDS	Psych distress	Unadjusted	living alone	3	-0.10	0.05	-0.21	0.00	0.07	0.02	0.04	0.11	--	--	--	--	--	
NCDS	Psych distress	Adjusted	living alone	1	-0.03	0.05	-0.13	0.07	-0.03	0.02	-0.06	0.01	0.09	0.05	-0.01	0.18	3928	
NCDS	Psych distress	Adjusted	living alone	2	-0.06	0.05	-0.16	0.04	0.11	0.02	0.07	0.14	--	--	--	--	--	
NCDS	Psych distress	Adjusted	living alone	3	-0.09	0.05	-0.20	0.01	0.07	0.02	0.04	0.11	--	--	--	--	--	
BCS	Psych distress	Unadjusted	living alone	1	-0.05	0.06	-0.16	0.06	0.02	0.02	-0.01	0.05	0.06	0.06	-0.05	0.18	3026	
BCS	Psych distress	Unadjusted	living alone	2	-0.01	0.06	-0.12	0.11	0.16	0.02	0.13	0.20	--	--	--	--	--	
BCS	Psych distress	Unadjusted	living alone	3	0.06	0.06	-0.06	0.18	0.09	0.02	0.05	0.12	--	--	--	--	--	
BCS	Psych distress	Adjusted	living alone	1	-0.06	0.06	-0.17	0.06	0.02	0.02	-0.01	0.05	0.03	0.06	-0.08	0.15	3026	
BCS	Psych distress	Adjusted	living alone	2	-0.02	0.06	-0.13	0.10	0.17	0.02	0.13	0.20	--	--	--	--	--	
BCS	Psych distress	Adjusted	living alone	3	0.05	0.06	-0.07	0.17	0.09	0.02	0.05	0.12	--	--	--	--	--	
Next Steps	Psych distress	Unadjusted	living alone	1	0.21	0.13	-0.04	0.47	0.32	0.04	0.24	0.40	0.01	0.09	-0.16	0.17	4555	
Next Steps	Psych distress	Unadjusted	living alone	2	0.14	0.12	-0.10	0.37	0.28	0.04	0.20	0.36	--	--	--	--	--	
Next Steps	Psych distress	Unadjusted	living alone	3	0.09	0.12	-0.14	0.32	0.36	0.04	0.29	0.44	--	--	--	--	--	
Next Steps	Psych distress	Adjusted	living alone	1	0.19	0.12	-0.05	0.43	0.34	0.04	0.27	0.42	0.06	0.09	-0.12	0.24	4555	
Next Steps	Psych distress	Adjusted	living alone	2	0.05	0.11	-0.16	0.26	0.27	0.04	0.19	0.34	--	--	--	--	--	
Next Steps	Psych distress	Adjusted	living alone	3	0.08	0.11	-0.14	0.29	0.33	0.04	0.26	0.40	--	--	--	--	--	
																	(obs)	(groups)
ELSA	Psych distress	Unadjusted	living alone	1	-0.03	0.06	-0.15	0.08	-0.01	0.02	-0.05	0.03	0.34	0.05	0.25	0.43	15139	5047
ELSA	Psych distress	Unadjusted	living alone	3	-0.10	0.05	-0.21	0.00	0.02	0.02	-0.02	0.07	--	--	--	--	--	--
ELSA	Psych distress	Adjusted	living alone	1	-0.03	0.06	-0.14	0.08	0.00	0.02	-0.05	0.04	0.26	0.04	0.17	0.34	15139	5047
ELSA	Psych distress	Adjusted	living alone	3	-0.10	0.05	-0.20	0.00	0.03	0.02	-0.01	0.07	--	--	--	--	--	--
TwinsUK	Psych distress	Unadjusted	Live Alone	1	-0.08	0.04	-0.16	0.00	0.24	0.02	0.21	0.28	0.08	0.05	-0.01	0.18	2327	
TwinsUK	Psych distress	Unadjusted	Live Alone	2	-0.10	0.04	-0.19	-0.02	0.49	0.02	0.45	0.52	--	--	--	--	--	--

TwinsUK	Psych distress	Unadjusted	Live Alone	3	-0.11	0.04	-0.19	-0.03	0.54	0.02	0.50	0.57						2327
TwinsUK	Psych distress	Adjusted	Live Alone	1	-0.08	0.04	-0.16	0.00	0.24	0.02	0.21	0.28	0.10	0.05	0.01	0.20		2327
TwinsUK	Psych distress	Adjusted	Live Alone	2	-0.10	0.04	-0.19	-0.02	0.49	0.02	0.45	0.52	--	--	--	--	--	
TwinsUK	Psych distress	Adjusted	Live Alone	3	-0.11	0.04	-0.19	-0.03	0.54	0.02	0.50	0.57						2327
GS	Psych distress	Unadjusted	Live Alone	1	0.02	0.06	-0.08	0.11	0.31	0.02	0.27	0.35	0.12	0.04	0.03	0.22		2882
GS	Psych distress	Unadjusted	Live Alone	2	0.11	0.06	0.00	0.21	0.22	0.02	0.18	0.26	--	--	--	--	--	
GS	Psych distress	Unadjusted	Live Alone	3	0.05	0.07	-0.06	0.16	0.47	0.02	0.42	0.51	--	--	--	--	--	
GS	Psych distress	Adjusted	Live Alone	1	0.02	0.06	-0.08	0.11	0.31	0.02	0.27	0.35	0.12	0.04	0.02	0.21		2882
GS	Psych distress	Adjusted	Live Alone	2	0.11	0.06	0.01	0.22	0.22	0.02	0.18	0.27	--	--	--	--	--	
GS	Psych distress	Adjusted	Live Alone	3	0.05	0.07	-0.06	0.15	0.47	0.02	0.43	0.51	--	--	--	--	--	
USOC	Psych distress	Unadjusted	living alone	1	0.05	0.04	-0.03	0.12	0.20	0.01	0.18	0.23	0.04	0.04	-0.03	0.11		12270
USOC	Psych distress	Unadjusted	living alone	2	0.05	0.04	-0.03	0.12	0.10	0.01	0.08	0.12	--	--	--	--	--	
USOC	Psych distress	Unadjusted	living alone	3	0.00	0.04	-0.07	0.08	0.26	0.01	0.23	0.28	--	--	--	--	--	
USOC	Psych distress	Adjusted	living alone	1	0.05	0.04	-0.02	0.12	0.20	0.01	0.18	0.23	0.04	0.04	-0.02	0.11		12270
USOC	Psych distress	Adjusted	living alone	2	0.05	0.04	-0.02	0.12	0.10	0.01	0.08	0.13	--	--	--	--	--	
USOC	Psych distress	Adjusted	living alone	3	0.01	0.04	-0.07	0.08	0.26	0.01	0.24	0.29	--	--	--	--	--	
ALSPAC-G1	Psych distress	Unadjusted	living alone	1	0.04	0.08	-0.12	0.19	-0.10	0.02	-0.14	-0.07	0.26	0.09	0.08	0.44		2852
ALSPAC-G1	Psych distress	Unadjusted	living alone	2	-0.04	0.07	-0.18	0.11	-0.06	0.02	-0.10	-0.02	--	--	--	--	--	
ALSPAC-G1	Psych distress	Unadjusted	living alone	3	0.04	0.08	-0.12	0.20	-0.06	0.02	-0.10	-0.01	--	--	--	--	--	
ALSPAC-G1	Psych distress	Adjusted	living alone	1	0.04	0.08	-0.12	0.21	-0.11	0.02	-0.15	-0.06	0.21	0.09	0.03	0.39		2102
ALSPAC-G1	Psych distress	Adjusted	living alone	2	-0.02	0.08	-0.18	0.14	-0.07	0.02	-0.12	-0.02	--	--	--	--	--	
ALSPAC-G1	Psych distress	Adjusted	living alone	3	0.08	0.09	-0.10	0.25	-0.07	0.02	-0.11	-0.02	--	--	--	--	--	
ALSPAC-G0	Psych distress	Unadjusted	living alone	1	0.15	0.09	-0.03	0.32	-0.73	0.02	-0.77	-0.69	0.27	0.09	0.09	0.45		3434
ALSPAC-G0	Psych distress	Unadjusted	living alone	2	0.17	0.09	-0.01	0.34	-0.68	0.02	-0.72	-0.64	--	--	--	--	--	
ALSPAC-G0	Psych distress	Unadjusted	living alone	3	0.08	0.09	-0.08	0.25	-0.64	0.02	-0.68	-0.60	--	--	--	--	--	
ALSPAC-G0	Psych distress	Adjusted	living alone	1	0.13	0.09	-0.05	0.31	-0.73	0.02	-0.77	-0.69	0.23	0.09	0.05	0.41		3326
ALSPAC-G0	Psych distress	Adjusted	living alone	2	0.16	0.09	-0.02	0.34	-0.69	0.02	-0.73	-0.65	--	--	--	--	--	
ALSPAC-G0	Psych distress	Adjusted	living alone	3	0.09	0.09	-0.08	0.26	-0.65	0.02	-0.69	-0.61	--	--	--	--	--	

Table S9. Results from the meta-analysis in LPS

	Time point	SMD	Lower CI	Upper CI	<i>P</i>
Continuous Psychological Distress	0	0.093	0.044	0.143	58.54
	1	0.191	0.092	0.289	87.21
	2	0.153	0.06	0.246	82.77
	3	0.146	0.074	0.218	76.04
Binary Psychological Distress	0	1.251	1.116	1.386	85.39
	1	1.312	1.03	1.593	96.75
	2	1.262	1.008	1.516	95.84
	3	1.307	1.148	1.466	91.89
Continuous Life Satisfaction	0	-0.251	-0.458	-0.044	97.85
	1	-0.223	-0.296	-0.15	66.26
	2	-0.222	-0.29	-0.155	66.61
	3	-0.191	-0.236	-0.146	35.38
Binary Life Satisfaction	0	1.056	0.779	1.333	97.76
	1	1.04	0.882	1.198	93.5
	2	1.05	0.806	1.293	97.48
	3	1.071	0.906	1.236	95.18

Table S10. Main effects from EHR analyses

	Anxiety				Depression				Eating disorder				OCD				Self harm				Severe mental illness			
	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value
Effect of not living alone pre-pandemic	-13.63	3.67	(-20.93, -6.33)	<0.001	-25.56	3.89	(-33.30, -17.82)	<0.001	-2.88	0.19	(-3.27, -2.49)	<0.001	-0.31	0.11	(-0.53, -0.08)	0.009	-25.83	0.85	(-27.53, -24.14)	<0.001	-57.96	1.97	(-61.87, -54.06)	<0.001
Effect of the pandemic in those living alone	-48.07	5.06	(-58.12, -38.02)	<0.001	-66.12	4.96	(-75.99, -56.25)	<0.001	0.1	0.4	(-0.70, 0.91)	0.798	-0.61	0.14	(-0.89, -0.34)	<0.001	-6.99	1.44	(-9.85, -4.13)	<0.001	-7.48	2.79	(-13.03, -1.92)	0.009
Effect of the pandemic among those not living alone	5.67	7.55	(-9.34, 20.68)	0.455	13.42	6.89	(-0.29, 27.12)	0.055	0.49	0.52	(-0.55, 1.52)	0.352	0.05	0.17	(-0.30, 0.39)	0.795	7.95	1.68	(4.62, 11.29)	<0.001	4.40	3.00	(-1.57, 10.37)	0.147
Summer	7.06	6.01	(-4.89, 19.00)	0.244	8.81	6.05	(-3.22, 20.83)	0.149	0.43	0.4	(-0.37, 1.22)	0.291	-0.01	0.14	(-0.28, 0.27)	0.966	3.02	1.06	(0.93, 5.12)	0.005	0.33	1.97	(-3.57, 4.24)	0.866
Autumn	22.19	6.11	(10.05, 34.33)	<0.001	24.78	6.38	(12.09, 37.47)	<0.001	0.25	0.38	(-0.51, 1.00)	0.521	0.06	0.14	(-0.22, 0.34)	0.654	-0.36	0.95	(-2.24, 1.53)	0.708	2.49	1.92	(-1.33, 6.32)	0.199
Winter	1.97	6.83	(-11.60, 15.55)	0.773	8.36	6.5	(-4.55, 21.27)	0.201	0.05	0.4	(-0.75, 0.85)	0.906	0.00	0.14	(-0.27, 0.28)	0.989	-2.08	1.14	(-4.34, 0.18)	0.071	3.74	2.54	(-1.31, 8.80)	0.144
Constant	244.48	5.08	(234.39, 254.57)	<0.001	212.59	5.53	(201.60, 223.58)	<0.001	9.49	0.29	(8.91, 10.06)	<0.001	3.25	0.12	(3.01, 3.49)	<0.001	52.32	0.94	(50.46, 54.18)	<0.001	88.36	2.1	(84.19, 92.53)	<0.001

Mental health outcomes as defined in Table S1.

Table S11. Sex-stratified estimates from EHR analyses

	Anxiety				Depression				Eating disorder				OCD				Self harm				Severe mental illness				
	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	
Pre-pandemic effects																									
Females not living alone	16.4	4.48	(7.56, 25.24)	<0.001	2.72	4.75	(-6.67, 12.10)	0.568	-4.24	0.36	(-4.94, -3.53)	<0.001	0.24	0.14	(-0.02, 0.51)	0.074	-26.29	1.02	(-28.31, -24.27)	<0.001	-49.45	1.98	(-53.35, -45.56)	<0.001	
Males living alone	-98.53	3.6	(-96.12, -81.14)	<0.001	-34.16	4.51	(-43.05, -25.26)	<0.001	-12.88	0.34	(-13.54, -12.21)	<0.001	-0.18	0.16	(-0.50, 0.14)	0.263	-11.17	0.99	(-13.12, -9.22)	<0.001	8.64	2.61	(3.49, 13.80)	0.001	
Males not living alone	-135.15	3.47	(-142.01, -128.29)	<0.001	-88.65	3.95	(-96.45, -80.85)	<0.001	-14.26	0.33	(-14.92, -13.61)	<0.001	-1.06	0.12	(-1.31, -0.82)	<0.001	-36.64	0.98	(-38.57, -34.71)	<0.001	-58.29	2	(-62.23, -54.34)	<0.001	
Effect of the pandemic in those living alone	-37.89	6.08	(-49.88, -25.89)	<0.001	-65.09	5.45	(-75.96, -54.33)	<0.001	0.6	0.7	(-0.79, 1.99)	0.395	-0.48	0.16	(-0.79, -0.17)	0.002	-8.2	1.58	(-11.33, -5.08)	<0.001	-4.4	2.93	(-10.18, 1.38)	0.134	
Interaction effects during pandemic																									
Females not living alone	-3.09	9.82	(-22.48, 16.29)	0.753	3.09	8.18	(-13.05, 19.23)	0.706	0.62	0.91	(-1.19, 2.42)	0.5	-0.1	0.21	(-0.52, 0.32)	0.641	9.4	1.88	(5.69, 13.11)	<0.001	0.79	3.17	(-5.48, 7.06)	0.804	
Males living alone	-8.43	7.52	(-23.27, 6.41)	0.264	-2.23	6.98	(-16.00, 11.54)	0.75	-0.97	0.71	(-2.38, 0.43)	0.173	-0.27	0.22	(-0.70, 0.15)	0.209	2.47	2.11	(-1.69, 6.63)	0.243	-6.38	3.94	(-14.16, 1.40)	0.107	
Males not living alone	7.11	7.61	(-7.91, 22.14)	0.352	22.02	6.67	(8.86, 35.18)	0.001	-0.62	0.7	(-2.01, 0.77)	0.379	-0.06	0.17	(-0.41, 0.28)	0.717	8.91	1.75	(5.46, 12.35)	<0.001	1.86	3.11	(-4.28, 7.99)	0.551	
Summer	6.99	4.49	(-1.87, 15.85)	0.121	8.81	4.37	(0.18, 17.44)	0.045	0.42	0.36	(-0.30, 1.14)	0.249	0	0.11	(-0.21, 0.20)	0.963	3.04	0.77	(1.52, 4.57)	<0.001	0.33	1.41	(-2.44, 3.11)	0.813	
Autumn	23.85	4.59	(14.79, 32.91)	<0.001	24.85	4.66	(15.66, 34.04)	<0.001	0.24	0.35	(-0.45, 0.93)	0.489	0.07	0.11	(-0.15, 0.29)	0.536	-0.34	0.71	(-1.74, 1.07)	0.638	2.5	1.37	(-0.22, 5.21)	0.071	
Winter	3.44	5.08	(-6.58, 13.46)	0.499	8.45	4.68	(-0.80, 17.69)	0.073	0.06	0.37	(-0.67, 0.79)	0.878	0	0.11	(-0.21, 0.21)	0.987	-2.05	0.84	(-3.71, -0.40)	0.015	3.76	1.8	(0.21, 7.32)	0.038	
Constant	289.5	4.07	(281.46, 297.54)	<0.001	229.65	4.77	(220.24, 239.07)	<0.001	15.8	0.37	(15.08, 16.53)	<0.001	3.34	0.12	(3.10, 3.59)	<0.001	57.94	0.99	(55.99, 59.89)	<0.001	84.27	1.98	(80.36, 88.17)	<0.001	

NB: Except where specified, coefficients relate to effects in the baseline categories of all variables (pre-pandemic, spring, living alone, females)

Table S12. Age band-stratified estimates from EHR analyses

	Anxiety				Depression				Eating disorder				OCD				Self harm				Severe mental illness			
	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value
Pre-pandemic effects																								
Age 18-39 not living alone	-266.13	5.29	(-276.55, -255.72)	<0.001	-215.01	5.25	(-225.34, -204.6)	<0.001	-18.37	0.54	(-19.42, -17.32)	<0.001	-5.49	0.32	(-6.12, -4.87)	<0.001	-90.82	1.54	(-93.85, -87.80)	<0.001	6.97	3.34	(0.40, 13.53)	0.038
Age 40-59 living alone	-308.98	5.27	(-319.34, -298.62)	<0.001	-262.97	4.85	(-272.51, -253.4)	<0.001	-19.59	0.52	(-20.61, -18.56)	<0.001	-5.93	0.31	(-6.54, -5.32)	<0.001	-100.56	1.51	(-103.52, -97.5)	<0.001	-46.86	1.49	(-49.90, -43.93)	<0.001
Age 40-59 not living alone	-298.61	5.87	(-310.14, -287.07)	<0.001	-269.19	4.75	(-278.54, -259.8)	<0.001	-18.45	0.54	(-19.50, -17.39)	<0.001	-6.43	0.31	(-7.05, -5.82)	<0.001	-98.63	1.56	(-101.70, -95.5)	<0.001	-35.79	2.82	(-41.35, -30.24)	<0.001
Age 60-79 living alone	-318.99	5.92	(-330.63, -307.36)	<0.001	-282.19	4.94	(-291.92, -272.4)	<0.001	-18.11	0.54	(-19.18, -17.05)	<0.001	-6.4	0.31	(-7.01, -5.78)	<0.001	-101.43	1.5	(-104.37, -98.4)	<0.001	-49.06	1.67	(-52.34, -45.77)	<0.001
Age 60-79 not living alone	-58.01	6.8	(-71.40, -44.63)	<0.001	-59.24	5.69	(-70.43, -48.06)	<0.001	-9.22	0.55	(-10.30, -8.14)	<0.001	-1.22	0.32	(-1.85, -0.58)	<0.001	-58.58	1.65	(-61.82, -55.34)	<0.001	-45.75	1.33	(-48.37, -43.12)	<0.001
Age 80+ living alone	-136.01	5.86	(-147.54, -124.47)	<0.001	-69.54	7.08	(-83.46, -55.62)	<0.001	-12.9	0.55	(-13.97, -11.82)	<0.001	-2.85	0.33	(-3.51, -2.20)	<0.001	-40.07	1.74	(-43.49, -36.65)	<0.001	55.06	2.72	(49.70, 60.42)	<0.001
Age 80+ not living alone	-209.38	5.33	(-219.87, -198.89)	<0.001	-160.58	5.26	(-170.93, -150.2)	<0.001	-17.62	0.52	(-18.65, -16.60)	<0.001	-4.77	0.31	(-5.39, -4.16)	<0.001	-86.08	1.53	(-89.09, -83.07)	<0.001	-42.59	1.45	(-45.44, -39.74)	<0.001
Effect of the pandemic in those living alone	-66.76	10.6	(-87.61, -45.90)	<0.001	-79.77	9.25	(-97.96, -61.58)	<0.001	0.87	1.22	(-1.53, 3.27)	0.477	-0.65	0.44	(-1.51, 0.21)	0.138	-20.46	3.02	(-26.40, -14.52)	<0.001	-16.36	1.9	(-20.10, -12.61)	<0.001
Interaction effects during pandemic																								
Age 18-39 not living alone	10.27	14.6	(-18.44, 38.98)	0.482	10.88	12.19	(-13.10, 34.86)	0.373	1.27	1.42	(-1.51, 4.05)	0.37	-0.05	0.5	(-1.03, 0.92)	0.913	22.24	3.32	(15.71, 28.77)	<0.001	13.12	2.2	(8.81, 17.44)	<0.001
Age 40-59 living alone	5.44	11.82	(-17.80, 28.67)	0.646	-23.08	11.41	(-45.52, -0.63)	0.044	-1.47	1.25	(-3.93, 0.99)	0.242	-0.69	0.46	(-1.59, 0.21)	0.133	12.26	3.66	(5.06, 19.46)	0.001	-1.06	4.16	(-9.25, 7.13)	0.8
Age 40-59 not living alone	37.8	11.65	(14.90, 60.70)	0.001	24.54	10.38	(4.12, 44.96)	0.019	-1.04	1.23	(-3.46, 1.38)	0.399	0.1	0.44	(-0.77, 0.96)	0.824	21.46	3.1	(15.36, 27.55)	<0.001	11.83	2.3	(7.31, 16.35)	<0.001
Age 60-79 living alone	48.69	11.06	(26.93, 70.45)	<0.001	37.36	9.7	(18.28, 56.44)	<0.001	-0.8	1.23	(-3.22, 1.62)	0.516	0.45	0.44	(-0.42, 1.33)	0.308	21.47	3.09	(15.39, 27.54)	<0.001	18.82	4.5	(9.98, 27.66)	<0.001
Age 60-79 not living alone	59.89	11.2	(37.87, 81.91)	<0.001	59.17	9.62	(40.25, 78.09)	<0.001	-0.96	1.22	(-3.35, 1.43)	0.43	0.44	0.44	(-0.42, 1.30)	0.315	21.81	3.08	(15.76, 27.86)	<0.001	15.04	2.31	(10.50, 19.58)	<0.001
Age 80+ living alone	58.36	11.22	(36.28, 80.43)	<0.001	64.72	9.51	(46.01, 83.42)	<0.001	-0.85	1.23	(-3.27, 1.56)	0.488	0.64	0.44	(-0.23, 1.50)	0.148	23.92	3.13	(17.76, 30.07)	<0.001	26.57	3.5	(19.69, 33.45)	<0.001
Age 80+ not living alone	59.53	11.51	(36.88, 82.17)	<0.001	70.83	9.63	(51.89, 89.77)	<0.001	-0.99	1.24	(-3.42, 1.45)	0.426	0.54	0.44	(-0.32,									

Table S13. Ethnicity-stratified estimates from EHR analyses

	Anxiety			Depression			Eating disorder			OCD			Self harm			Severe mental illness								
	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value				
Pre-pandemic effects																								
White not living alone	85.28	9.86	(65.91, 104.65)	<0.001	92.1	9.29	(73.85, 110.34)	<0.001	7.25	1.36	(4.59, 9.92)	<0.001	1.7	0.76	(0.21, 3.19)	0.026	27.63	2.84	(22.05, 33.21)	<0.001	96.47	4.49	(87.66, 105.29)	<0.001
Mixed living alone	46.66	4.4	(38.02, 55.31)	<0.001	37.2	4.37	(28.61, 45.79)	<0.001	2.42	0.76	(0.93, 3.91)	0.002	0.46	0.4	(-0.34, 1.25)	0.259	0.76	1.66	(-2.50, 4.03)	0.646	-11.69	2.51	(-16.62, 4.75)	<0.001
Mixed not living alone	-15.34	3.99	(-23.19, -7.50)	<0.001	-5.22	4.11	(-13.29, 2.86)	0.205	-3.29	0.45	(-4.18, -2.40)	<0.001	-0.08	0.3	(-0.68, 0.52)	0.986	-12.81	1.15	(-15.07, -10.56)	<0.001	36.7	2.88	(31.05, 42.36)	<0.001
Asian living alone	-61.52	3.09	(-67.58, -55.46)	<0.001	-63.63	2.94	(-69.40, -57.85)	<0.001	-4.31	0.32	(-4.94, -3.68)	<0.001	-0.33	0.24	(-0.79, 0.14)	0.165	-25.01	0.74	(-26.46, -23.55)	<0.001	-22.64	2.15	(-26.86, -18.42)	<0.001
Asian not living alone	-19.49	3.84	(-27.04, -11.94)	<0.001	0.64	6.44	(-12.01, 13.30)	0.921	-1.65	0.59	(-2.81, -0.49)	0.005	-1.01	0.38	(-1.75, -0.26)	0.008	-7.61	1.43	(-10.42, -4.80)	<0.001	116.59	3.83	(109.06, 124.12)	<0.001
Black living alone	-75.11	3.78	(-82.54, -67.69)	<0.001	-62.95	3.1	(-69.04, -56.86)	<0.001	-3.45	0.38	(-4.20, -2.70)	<0.001	-1.72	0.25	(-2.22, -1.22)	<0.001	-23.51	0.89	(-25.25, -21.76)	<0.001	-12.7	2.42	(-17.46, -7.95)	<0.001
Black not living alone	-50.57	4.29	(-59.01, -42.14)	<0.001	-36.62	3.89	(-44.26, -28.98)	<0.001	-3.14	0.59	(-4.29, -1.98)	<0.001	-0.62	0.33	(-1.26, 0.30)	0.063	-15.21	1.13	(-17.43, -12.98)	<0.001	-3.84	3.46	(-10.64, 2.96)	0.268
Other living alone	-73.71	3.49	(-80.57, -66.85)	<0.001	-71.15	2.92	(-76.88, -65.41)	<0.001	-4.58	0.43	(-5.43, -3.73)	<0.001	-1.31	0.27	(-1.84, -0.79)	<0.001	-24.23	0.85	(-25.89, -22.56)	<0.001	-36.5	2.14	(-40.71, -32.30)	<0.001
Other not living alone	18.28	4.18	(10.06, 26.50)	<0.001	5.06	3.04	(-0.91, 11.02)	0.096	-1.09	0.31	(-1.67, -0.49)	<0.001	0.48	0.22	(0.05, 0.91)	0.027	-9.22	0.89	(-10.98, -7.47)	<0.001	-37.9	2.14	(-42.11, -33.69)	<0.001
Unknown living alone	71.73	3.89	(64.10, 79.36)	<0.001	63.81	4.25	(55.46, 72.16)	<0.001	3.08	0.34	(2.41, 3.75)	<0.001	0.76	0.24	(0.30, 1.23)	0.001	25	0.97	(23.10, 26.91)	<0.001	34.07	2.83	(28.51, 39.64)	<0.001
Unknown not living alone	57.48	3.92	(49.78, 65.19)	<0.001	38.83	3.48	(31.98, 45.67)	<0.001	-0.17	0.3	(-0.77, 0.42)	0.571	0.31	0.22	(-0.13, 0.75)	0.163	-5.5	0.82	(-7.12, -3.88)	<0.001	-27.15	2.18	(-31.44, -22.85)	<0.001
Effect of the pandemic in those living alone and w	-30.26	4.82	(-39.73, -20.80)	<0.001	-45.63	3.93	(-53.35, -37.90)	<0.001	0.96	0.4	(0.18, 1.74)	0.015	-0.68	0.26	(-1.19, -0.16)	0.01	-2.11	1.03	(-4.14, -0.08)	0.042	-3.76	2.45	(-8.56, 1.04)	0.125
Interaction effects during pandemic																								
White not living alone	-0.56	8.31	(-16.89, 15.78)	0.947	1.3	6.43	(-11.33, 13.93)	0.84	0.6	0.63	(-0.64, 1.84)	0.34	0.12	0.3	(-0.47, 0.70)	0.692	4.24	1.37	(1.56, 6.93)	0.002	2.28	2.62	(-2.88, 7.44)	0.386
Mixed living alone	-17.47	7.17	(-31.57, -3.38)	0.015	-29.04	6.42	(-41.64, -16.44)	<0.001	-1.17	0.6	(-2.36, 0.01)	0.053	0.01	0.3	(-0.58, 0.59)	0.986	-6.43	2.07	(-10.50, -2.37)	0.002	-3.55	3.84	(-11.11, 4.00)	0.356
Mixed not living alone	-9.99	8.06	(-25.81, 5.84)	0.216	-13.29	6.47	(-26.01, -0.57)	0.041	-0.54	0.51	(-1.54, 0.46)	0.289	0.06	0.29	(-0.50, 0.62)	0.83	2.81	1.32	(0.21, 5.41)	0.034	0.28	2.74	(-5.10, 5.66)	0.919
Asian living alone	21.59	13.06	(-4.06, 47.25)	0.099	10.57	12.9	(-14.77, 35.91)	0.413	2.59	2.11	(-1.56, 6.74)	0.221	-0.46	0.95	(-2.32, 1.40)	0.627	-8.46	3.54	(-15.41, -1.51)	0.017	-23.3	7.59	(-39.20, -8.39)	0.002
Asian not living alone	1.49	9.48	(-17.13, 20.11)	0.875	-1.01	8.65	(-18.00, 15.98)	0.907	-0.02	1.11	(-2.20, 1.16)	0.986	0.7	0.57	(-0.43, 1.82)	0.225	4.46	2.55	(-0.55, 9.47)	0.081	0.56	3.4	(-6.11, 7.23)	0.868
Black living alone	13.67	7.7	(-1.45, 28.80)	0.076	6.49	6.61	(-6.49, 19.46)	0.326	0.23	0.67	(-1.08, 5.4)	0.729	1.29	0.46	(0.39, 2.18)	0.005	3	1.76	(-0.45, 6.46)	0.088	-12.35	3.76	(-19.73, -4.96)	0.001
Black not living alone	18.97	5.97	(7.25, 30.70)	0.002	20.53	5.28	(10.17, 30.90)	<0.001	-0.95	0.47	(-1.87, -0.02)	0.044	0.28	0.3	(-0.31, 0.88)	0.351	3.33	1.21	(0.96, 5.70)	0.006	-0.02	2.74	(-5.41, 5.36)	0.993
Other living alone	15.22	8.33	(-1.14, 31.59)	0.068	6.1	9.76	(-13.07, 25.27)	0.532	-0.37	1.12	(-2.57, 1.82)	0.74	0.43	0.51	(-0.58, 1.44)	0.404	-1.65	2.28	(-6.13, 2.84)	0.472	-27.43	6.26	(-39.74, -15.12)	<0.001
Other not living alone	24.12	6.28	(11.78, 36.47)	<0.001	22.56	5.6	(11.55, 33.56)	<0.001	-1.16	0.63	(-2.40, 0.09)	0.068	0.4	0.31	(-0.21, 1.01)	0.201	2.58	1.39	(-0.15, 5.30)	0.064	0.15	3	(-5.75, 6.05)	0.96
Unknown living alone	22.9	7.58	(6.00, 37.80)	0.003	20.97	6.96	(7.30, 34.64)	0.003	-0.66	0.81	(-2.25, 0.93)	0.417	0.38	0.46	(-0.52, 1.29)	0.405	-1.53	1.73	(-4.92, 1.86)	0.375	-4.34	4.21	(-12.61, 3.92)	0.303
Unknown not living alone	15.62	6.2	(3.44, 27.80)	0.012	25.13	5.03	(15.25, 35.02)	<0.001	-0.08	0.58	(-1.22, 1.07)	0.894	0.59	0.34	(-0.07, 1.25)	0.079	2.75	1.29	(0.20, 5.29)	0.034	1.56	2.69	(-3.72, 6.84)	0.561
Summer	3.07	2.78	(-2.39, 8.53)	0.27	9.11	2.95	(3.31, 14.90)	0.002	0.6	0.29	(0.03, 1.18)	0.04	0.01	0.15	(-0.29, 0.31)	0.956	3.14	0.64	(1.88, 4.40)	<0.001	0.53	1.45	(-2.31, 3.7)	0.714
Autumn	13.92	2.75	(8.51, 19.33)	<0.001	19.9	2.95	(14.11, 25.69)	<0.001	0.13	0.3	(-0.47, 0.73)	0.676	0.22	0.16	(-0.10, 0.54)	0.17	0.05	0.62	(-1.17, 1.27)	0.937	2.28	1.41	(-0.48, 5.05)	0.105
Winter	1.86	3.03	(-4.11, 7.82)	0.541	11.49	3.23	(5.15, 17.83)	<0.001	0.33	0.37	(-0.40, 1.05)	0.38	0.11	0.16	(-0.20, 0.42)	0.48	-1.01	0.7	(-2.38, 0.37)	0.151	3.87	1.49	(0.95, 6.79)	0.009
Constant	198.33	3.16	(192.12, 204.53)	<0.001	166.56	2.96	(160.74, 172.38)	<0.001	7.29	0.34	(6.62, 7.95)	<0.001	2.65	0.23	(2.20, 3.10)	<0.001	34.4	0.73	(32.96, 35.85)	<0.001	59.04	2.19	(54.75, 63.33)	<0.001

NB: Except where specified, coefficients relate to effects in the baseline categories of all variables (pre-pandemic, spring, living alone, White ethnicity)

Table S14. IMD-stratified estimates from EHR analyses

	Anxiety			Depression			Eating disorder			OCD			Self harm			Severe mental illness								
	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value				
Pre-pandemic effects, by quintile of deprivation																								
IMD 1 (least deprived), not living alone	-86.84	5.23	(-97.11, -76.57)	<0.001	-101.47	5.98	(-113.23, -89.70)	<0.001	-1.18	0.37	(-1.90, -0.46)	0.001	-0.45	0.26	(-0.97, 0.07)	0.09	-54.51	1.5	(-57.46, -51.56)	<0.001	-73.14	2.86	(-78.76, -67.51)	<0.001
IMD 2 living alone	-95.64	5.4	(-106.25, -85.03)	<0.001	-117.42	5.91	(-129.03, -105.8)	<0.001	-3.76	0.27	(-4.30, -3.23)	<0.001	-0.74	0.22	(-1.17, -0.31)	0.001	-73.71	1.49	(-76.65, -70.78)	<0.001	-120.29	2.29	(-124.80, -115.7)	<0.001
IMD 2 not living alone	-105.07	5.19	(-115.28, -94.87)	<0.001	-120.73	6.03	(-132.58, -108.8)	<0.001	-2.27	0.35	(-2.95, -1.58)	<0.001	-0.75	0.26	(-1.26, -0.24)	0.004	-63.79	1.5	(-66.75, -60.84)	<0.001	-88.57	2.84	(-94.14, -82.99)	<0.001
IMD 3 living alone	-110.56	5.25	(-120.88, -100.24)	<0.001	-135.75	5.94	(-147.42, -124.0)	<0.001	-4.33	0.27	(-4.87, -3.79)	<0.001	-0.9	0.21	(-1.31, -0.49)	<0.001	-78.23	1.47	(-81.11, -75.35)	<0.001	-125.56	2.26	(-130.01, -121.1)	<0.001
IMD 3 not living alone	-116.84	5.04	(-126.75, -106.93)	<0.001	-137.25	6.31	(-149.64, -124.8)	<0.001	-2.63	0.36	(-3.34, -1.91)	<0.001	-0.61	0.25	(-1.10, -0.12)	0.016	-72.47	1.49	(-75.39, -69.55)	<0.001	-101.03	2.67	(-106.29, -95.7)	<0.001
IMD 4 living alone	-125.41	5.16	(-135.55, -115.27)	<0.001	-153.96	5.82	(-165.40, -142.5)	<0.001	-4.35	0.28	(-4.90, -3.80)	<0.001	-0.82	0.21	(-1.24, -0.41)	<0.001	-81.84	1.5	(-84.79, -78.89)	<0.001	-129.33	2.26	(-133.77, -124.1)	<0.001
IMD 4 not living alone	-122.04	5.97	(-133.76, -110.31)	<0.001	-139.18	6.51	(-151.97, -26.39)	<0.001	-3.23	0.3	(-3.83, -2.64)	<0.001	-0.37	0.22	(-0.81, 0.06)	0.093	-52.07	1.64	(-55.30, -48.84)	<0.001	-100.69	2.31	(-105.23, -96.1)	<0.001
IMD 5 (most deprived), living alone	-54.79	5.59	(-65.77, -43.80)	<0.001	-62.49	6.28	(-74.84, -50.15)	<0.001	0.65	0.46	(-0.24, 1.55)	0.152	-0.15	0.23	(-0.61, 0.31)	0.514	-38.45	1.62	(-41.64, -35.27)	<0.001	-45.22	2.88	(-50.89, -39.56)	<0.001
IMD 5 (most deprived), not living alone																								

Table S15. Region-stratified estimates from EHR analyses

	Anxiety			Depression			Eating disorder			OCD			Self harm			Severe mental illness								
	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value				
Pre-pandemic effects																								
East Midlands, not living alone	-67.3	12.38	(-91.60, -43.00)	<0.001	-60.55	14.8	(-89.61, -31.50)	<0.001	3.3	0.58	(2.15, 4.44)	<0.001	-0.04	0.35	(-0.72, 0.64)	0.916	-36.67	1.08	(-38.79, -34.56)	<0.001	6.96	2.88	(1.31, 12.60)	0.016
East, living alone	-135.7	5.33	(-146.15, -125.25)	<0.001	-132.77	6.46	(-145.46, -120.0)	<0.001	-1.26	0.35	(-1.95, -0.57)	<0.001	-1.18	0.27	(-1.70, -0.66)	<0.001	-49.06	1	(-51.02, -47.09)	<0.001	-57.05	2.01	(-61.01, -53.10)	<0.001
East, not living alone	28.72	6.45	(16.06, 41.39)	<0.001	-3.41	8.78	(-20.65, 13.83)	0.698	4.34	0.59	(3.19, 5.50)	<0.001	-0.11	0.34	(-0.78, 0.57)	0.757	2.03	1.64	(-1.18, 5.25)	0.215	-12.31	3.45	(-19.08, -5.54)	<0.001
London, living alone	6.36	5.36	(-4.16, 16.88)	0.236	-38.16	6.69	(-51.29, -25.03)	<0.001	-1.06	0.41	(-1.85, -0.26)	0.01	0	0.3	(-0.59, 0.59)	0.997	-30.02	1.14	(-32.25, -27.78)	<0.001	-62.74	1.97	(-66.61, -58.87)	<0.001
London, not living alone	48.82	5.76	(37.51, 60.13)	<0.001	33.24	8.13	(17.28, 49.19)	<0.001	-0.32	0.49	(-1.29, 0.64)	0.511	-0.23	0.29	(-0.79, 0.33)	0.422	9.89	1.57	(6.81, 12.98)	<0.001	0.73	2.99	(-5.13, 6.59)	0.807
North East, living alone	55.74	6.09	(43.80, 67.69)	<0.001	5.77	7.01	(-7.99, 19.53)	0.411	-2.3	0.34	(-2.96, -1.63)	<0.001	-0.17	0.28	(-0.72, 0.37)	0.533	-24.43	1.12	(-26.64, -22.23)	<0.001	-59.25	2.04	(-63.26, -55.24)	<0.001
North East, not living alone	-37.22	5.04	(-47.11, -27.33)	<0.001	-59.83	6.67	(-72.93, -46.73)	<0.001	3.97	0.46	(2.47, 4.27)	<0.001	0.01	0.34	(-0.67, 0.69)	0.979	-4.64	1.62	(-7.81, -1.46)	0.004	-4.82	3	(-10.70, 1.07)	0.109
North West, living alone	-54.61	5.27	(-64.95, -44.27)	<0.001	-72	6.46	(-84.68, -59.32)	<0.001	-0.23	0.37	(-0.95, 0.49)	0.525	-0.04	0.27	(-0.57, 0.50)	0.89	-31.82	1.21	(-34.20, -29.45)	<0.001	-60.07	2.04	(-64.07, -56.07)	<0.001
North West, not living alone	-76.31	4.93	(-85.99, -66.62)	<0.001	-69.5	7.3	(-83.84, -55.17)	<0.001	0.79	0.43	(0.06, 1.64)	0.069	-0.68	0.32	(-1.30, -0.06)	0.032	-13.44	1.09	(-15.59, -11.29)	<0.001	-14.02	3.05	(-20.01, -8.03)	<0.001
South East, living alone	-81.61	4.66	(-90.76, -72.46)	<0.001	-79.48	6.66	(-92.56, -66.40)	<0.001	-0.91	0.35	(-1.59, -0.23)	0.008	-0.96	0.26	(-1.46, -0.45)	<0.001	-33.75	1.04	(-35.78, -31.71)	<0.001	-63.85	2.11	(-67.98, -59.71)	<0.001
South East, not living alone	-4.37	7.57	(-19.22, 10.48)	0.564	-14.56	10	(-34.19, 5.07)	0.146	2.89	0.72	(1.48, 4.31)	<0.001	-0.55	0.4	(-1.34, 0.23)	0.167	-16.52	1.53	(-19.52, -13.53)	<0.001	6.68	2.87	(1.06, 12.31)	0.02
South West, living alone	-2.14	5.4	(-12.74, 8.45)	0.692	-42.45	7.62	(-57.40, -27.50)	<0.001	0.07	0.59	(-1.08, 1.22)	0.902	-0.22	0.32	(-0.85, 0.42)	0.502	-33.18	1.27	(-35.68, -30.68)	<0.001	-50.85	2.04	(-54.86, -46.84)	<0.001
South West, not living alone	17.85	5.74	(6.58, 29.12)	0.002	6.88	7.06	(-6.98, 20.75)	0.33	-0.17	0.47	(-1.09, 0.74)	0.711	-0.85	0.28	(-1.40, -0.29)	0.003	-1.73	1.19	(-4.07, 0.61)	0.147	0.09	2.93	(-5.67, 5.84)	0.977
West Midlands, living alone	2.01	5.26	(-8.31, 12.32)	0.703	-27.66	6.5	(-40.43, -14.89)	<0.001	-2.86	0.34	(-3.53, -2.19)	<0.001	-0.7	0.26	(-1.20, -0.20)	0.007	-31.4	0.96	(-33.29, -29.51)	<0.001	-58.61	2.09	(-62.73, -54.50)	<0.001
West Midlands, not living alone	-10.58	4.92	(-20.23, -0.92)	0.032	-17.99	7.04	(-31.81, -4.16)	0.011	-2.41	0.33	(-3.06, -1.75)	<0.001	-0.39	0.26	(-0.90, 0.11)	0.128	-29.1	1.11	(-31.28, -26.92)	<0.001	-59.06	1.95	(-62.90, -55.23)	<0.001
Yorkshire and The Humber, living alone	-24.35	5.3	(-34.75, -13.95)	<0.001	-41.75	7.11	(-55.71, -27.79)	<0.001	1.03	0.39	(0.27, 1.79)	0.008	0.48	0.31	(0.13, 1.09)	0.126	-7.03	1.11	(-9.21, -4.85)	<0.001	3.14	3.02	(-2.79, 9.08)	0.299
Yorkshire and The Humber, not living alone	-48.11	5.28	(-58.47, -37.74)	<0.001	-68.8	6.39	(-81.34, -56.25)	<0.001	-1.82	0.32	(-2.45, -1.19)	<0.001	-0.37	0.26	(-0.87, 0.13)	0.151	-35.17	1.08	(-37.29, -33.06)	<0.001	-59.65	2.11	(-63.78, -55.51)	<0.001
Effect of the pandemic in those living alone	-70.19	5.78	(-81.54, -58.84)	<0.001	-100.93	6.43	(-113.56, -88.31)	<0.001	0.1	0.55	(-0.98, 1.17)	0.861	-1.21	0.27	(-1.74, -0.68)	<0.001	-3.87	2.23	(-8.25, 0.51)	0.083	-7.06	2.75	(-12.46, -1.66)	0.01
Interaction effects during pandemic																								
East Midlands, not living alone	16.09	8.18	(0.03, 32.14)	0.05	24.24	8.49	(7.57, 40.91)	0.004	0.13	0.62	(-1.08, 1.34)	0.833	0.44	0.32	(-0.18, 1.06)	0.167	6.75	2.54	(1.76, 11.73)	0.008	4.06	2.96	(-1.76, 9.87)	0.171
East, living alone	12.71	7.68	(-2.37, 27.79)	0.098	24.45	8.13	(8.48, 40.42)	0.003	0.43	0.67	(1.74, 0.87)	0.515	-0.21	0.35	(-0.89, 0.48)	0.552	-4.79	2.71	(-10.11, 0.54)	0.078	-1.45	4.31	(-9.90, 7.00)	0.737
East, not living alone	32.56	8.52	(15.84, 49.27)	<0.001	51.47	7.89	(35.98, 66.96)	<0.001	0.31	0.65	(-0.98, 1.59)	0.64	0.65	0.3	(0.06, 2.32)	0.031	4.43	2.41	(-0.31, 9.16)	0.067	3.55	3.07	(-2.48, 9.58)	0.248
London, living alone	169.32	17.14	(135.69, 202.96)	<0.001	194.41	19.07	(156.98, 231.84)	<0.001	2.12	1.05	(0.07, 4.18)	0.043	3.27	0.53	(2.23, 4.32)	<0.001	3.3	2.56	(-1.71, 8.32)	0.197	-5.1	4.09	(-13.13, 2.94)	0.213
London, not living alone	81.42	8.31	(65.12, 97.72)	<0.001	106.16	8.36	(89.74, 122.57)	<0.001	0.75	0.74	(-0.70, 2.21)	0.31	1.45	0.32	(0.83, 2.07)	<0.001	4.57	2.37	(-0.08, 9.22)	0.054	4.98	3.09	(-1.68, 10.45)	0.156
North East, living alone	-4.56	8.66	(-21.56, 12.44)	0.599	6.03	9.92	(-3.15, 16.81)	0.543	-0.74	1.23	(-3.15, 1.28)	0.549	0.24	0.41	(-0.57, 1.05)	0.561	-8.67	3.27	(-15.10, -2.25)	0.008	11.63	4.67	(2.47, 20.79)	0.013
North East, not living alone	28.12	8.82	(10.82, 45.43)	0.001	50.67	8.92	(33.16, 68.17)	<0.001	-0.25	0.77	(-1.76, 1.26)	0.748	0.25	0.38	(-0.49, 0.99)	0.509	4.43	2.46	(-0.41, 9.27)	0.073	6.04	3.03	(0.09, 11.99)	0.047
North West, living alone	-0.65	9.39	(-19.08, 17.79)	0.945	-3.07	9.72	(-22.15, 16.00)	0.752	-0.16	1.39	(-1.70, 1.38)	0.84	0.78	0.38	(0.03, 1.53)	0.042	-5.19	3.03	(-11.14, 0.76)	0.087	-2.66	4.48	(-11.46, 6.13)	0.552
North West, not living alone	21.19	10.68	(0.24, 42.15)	0.047	35.16	9.8	(15.93, 54.39)	<0.001	0.72	0.67	(-0.59, 2.03)	0.282	0.51	0.34	(-0.16, 1.19)	0.134	6.56	2.51	(1.63, 11.50)	0.009	3.31	3.04	(-2.67, 9.28)	0.278
South East, living alone	25.83	8.99	(8.17, 43.48)	0.004	40.27	8.39	(23.81, 56.73)	<0.001	-1.22	0.87	(-2.94, 0.49)	0.162	0.68	0.4	(-0.19, 1.54)	0.162	0.47	3.38	(-6.16, 7.11)	0.889	-1.3	4.18	(-9.51, 6.12)	0.757
South East, not living alone	42.22	9.31	(23.95, 60.50)	<0.001	55.1	8	(39.41, 70.80)	<0.001	0.91	0.73	(-0.52, 2.34)	0.21	0.7	0.33	(0.05, 1.34)	0.034	6.04	2.44	(1.25, 10.83)	0.014	3.33	2.97	(-2.50, 9.17)	0.263
South West, living alone	35.69	7.33	(21.30, 50.08)	<0.001	41.17	7.97	(25.53, 56.81)	<0.001	-0.08	0.8	(-1.65, 1.49)	0.922	0.26	0.37	(-0.47, 0.98)	0.486	2.58	2.67	(-7.83, 2.67)	0.335	1.17	4.12	(-6.92, 9.17)	0.776
South West, not living alone	44.96	7.85	(29.56, 60.36)	<0.001	54.19	7.77	(38.94, 69.44)	<0.001	0.72	0.69	(-0.63, 2.08)	0.295	0.7	0.31	(0.08, 1.31)	0.026	4.58	2.37	(-0.08, 9.23)	0.054	5.12	3.04	(-0.84, 11.08)	0.092
West Midlands, living alone	7.28	9.61	(-11.59, 26.14)	0.449	14.24	10.62	(-6.61, 35.09)	0.18	-0.35	1.2	(-2.71, 2.01)	0.77	0.63	0.5	(-0.34, 1.61)	0.204	-0.99	3.01	(-6.89, 4.91)	0.204	1	5.4	(-9.60, 11.60)	0.853
West Midlands, not living alone	13.81	8.04	(-1.98, 29.60)	0.087	39.22	8.68	(22.18, 56.27)	<0.001	0.33	0.81	(-1.26, 1.91)	0.687	0.66	0.36	(-0.05, 1.37)	0.067	3.25	2.53	(-1.71, 8.21)	0.198	3.82	3.12	(-2.30, 9.95)	0.221
Yorkshire and The Humber, living alone	19.89	8.47	(3.26, 36.52)	0.019	14.94	8.56	(-1.86, 31.74)	0.081	0.28	0.82	(-1.32, 1.88)	0.732	0.93	0.34	(0.27, 1.60)	0.006	-6.47	4.44	(-11.74, -1.20)	0.016	-1.62	4.44	(-10.95, 7.10)	0.715
Yorkshire and The Humber, not living alone	40.87	9.11	(22.98, 58.75)	<0.001	47.3	8.66	(30.30, 64.30)	<0.001	1.02	0.7	(0.36, 2.40)	0.147	0.71	0.31	(0.11, 1.31)	0.021	2.57	2.34	(-2.02, 7.16)	0.272	3.31	3.02	(-2.61, 9.24)	0.273
Summer	6.42	2.42	(1.67, 11.17)	0.008	9.14	2.46	(4.31, 13.97)	<0.001	0.21	0.22	(-0.22, 0.65)	0.343	-0.04	0.09	(-0.22, 0.13)	0.622	2.81	0.48	(1.87, 3.75)	<0.001	0.07	0.83	(-1.55, 1.70)	0.929
Autumn	22.97	2.54	(17.98, 27.96)	<0.001	25.23	2.68	(19.97, 30.49)	<0.001	0.15	0.21	(-0.27, 0.57)	0.486	0.03	0.09	(-0.14, 0.21)	0.699	-0.74	0.46	(-1.64, 0.16)	0.108	2.16	0.84	(0.51, 3.80)	0.01

Table S17. Previous mental illness-stratified estimates from EHR analyses

	Anxiety			Depression			Eating disorder			OCD			Self harm			Severe mental illness								
	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value	Coefficient	SE	95% CI	P value				
Pre-pandemic effects																								
No previous mental illness, not living alone	2.24	5.98	(-9.56, 14.05)	0.708	-3.95	5.46	(-14.72, 6.82)	0.47	-0.43	0.24	(-0.91, 0.05)	0.078	-0.03	0.06	(-0.15, 0.10)	0.683	-3.55	1.95	(-7.39, 0.29)	0.07	-9.96	1.44	(-12.81, -7.11)	<0.001
Previous mental illness, living alone	907.96	13.31	(881.69, 934.23)	<0.001	809.36	16.47	(776.86, 841.85)	<0.001	46.6	1.1	(44.43, 48.78)	<0.001	14.41	0.46	(13.51, 15.31)	<0.001	264.23	4.25	(255.83, 272.63)	<0.001	483.38	8.53	(466.54, 500.22)	<0.001
Previous mental illness, not living alone	943.07	12.03	(919.32, 966.82)	<0.001	785.88	14.91	(756.46, 815.29)	<0.001	35.75	0.59	(34.59, 36.91)	<0.001	14.82	0.35	(14.12, 15.51)	<0.001	135.55	2.46	(130.68, 140.41)	<0.001	189.25	3.74	(181.86, 196.64)	<0.001
Effect of the pandemic in those living alone																								
No previous mental illness, not living alone	-15.48	6.43	(-28.18, -2.78)	0.017	-31.69	6.01	(-43.55, -19.83)	<0.001	-0.08	0.27	(-0.62, 0.45)	0.766	-0.22	0.08	(-0.38, -0.06)	0.006	-1.66	1.92	(-5.46, 2.13)	0.388	-2.66	1.52	(-5.67, 0.35)	0.083
Interaction effects during pandemic																								
No previous mental illness, not living alone	2.34	9.18	(-15.79, 20.46)	0.799	8.2	8.37	(-8.31, 24.70)	0.329	0.14	0.37	(-0.60, 0.87)	0.716	0.08	0.09	(-0.11, 0.27)	0.406	1.58	2.77	(-3.88, 7.03)	0.57	1.61	2.1	(-2.53, 5.76)	0.444
Previous mental illness, living alone	-188.7	20.92	(-229.98, -147.42)	<0.001	-238.8	22.13	(-282.47, -195.1)	<0.001	0.46	2.14	(-3.76, 4.68)	0.831	-2.69	0.63	(-3.94, -1.43)	<0.001	-38.59	8.33	(-55.03, -22.16)	<0.001	-36.73	14.39	(-65.13, -8.32)	0.012
Previous mental illness, not living alone	-203.31	23.87	(-250.42, -156.20)	<0.001	-241.42	22.62	(-286.07, -196.7)	<0.001	2.99	1.86	(0.68, 6.65)	0.11	-3.49	0.55	(-4.57, -2.40)	<0.001	4.3	4.28	(-4.16, 12.75)	0.317	-20.27	6.67	(-33.44, -7.10)	0.003
Summer	14.67	12.41	(-9.82, 39.15)	0.239	16.56	12.65	(-8.41, 41.52)	0.192	1.41	1.12	(-0.79, 3.61)	0.208	-0.02	0.34	(-0.68, 0.64)	0.953	8.46	3.13	(2.29, 14.64)	0.007	2.49	5.78	(-8.92, 13.90)	0.667
Autumn	47.36	13.56	(20.60, 74.12)	0.001	49.27	14.58	(20.50, 78.03)	0.001	0.54	1.03	(-1.50, 2.57)	0.605	0.05	0.34	(-0.62, 0.71)	0.89	-1.13	2.59	(-6.23, 3.97)	0.663	8.44	5.64	(-2.69, 19.56)	0.136
Winter	1.32	13.8	(-25.92, 28.55)	0.924	10.99	13.11	(-14.88, 36.85)	0.403	-0.13	1.11	(-2.33, 2.07)	0.908	-0.04	0.33	(-0.69, 0.61)	0.905	-6.72	3.26	(-13.15, -0.29)	0.04	9.65	6.91	(-3.98, 23.28)	0.164
Constant	100.63	9.66	(81.57, 119.70)	<0.001	81.2	9.71	(62.03, 100.36)	<0.001	2.12	0.73	(0.67, 3.57)	0.004	1.08	0.22	(0.64, 1.51)	<0.001	12.17	2.09	(8.05, 16.29)	<0.001	11.38	4.17	(3.16, 19.60)	0.007

NB: Except where specified, coefficients relate to effects in the baseline categories of all variables (pre-pandemic, spring, living alone, no previous mental illness)

Table S18. Heterogeneity between estimates of psychological distress explained by cohort differences (meta-regression analyses)

Measure	Timepoint	Heterogeneity (I ²)	Heterogeneity Explained (%)
Time between pre-pandemic and first pandemic measure	0	65.7	-7.2
	1	89.2	-2.0
	2	85.9	-3.1
	3	80.2	-4.2
General population representativeness	0	58.0	0.6
	1	88.0	-0.8
	2	82.7	0.1
	3	77.7	-1.6
Type of measure for mental health used	0	19.4	39.1
	1	82.0	5.2
	2	79.9	2.9
	3	71.8	4.2

Table S19 Leave-One-Out Analysis

Meta-analysed standardised mean differences for psychological distress when named cohort is removed from analysis.

Time Period 0			
Cohort	SMD	Lower CI	Upper CI
All Included	0.09	0.04	0.14
ALSPAC-G0	0.08	0.03	0.14
ALSPAC-G1	0.09	0.04	0.14
BCS	0.10	0.05	0.15
ELSA	0.07	0.03	0.12
GS	0.09	0.04	0.15
NCDS	0.09	0.04	0.15
NS	0.10	0.04	0.15
NSHD	0.10	0.05	0.16
TwinsUK	0.10	0.04	0.15
USOC	0.11	0.06	0.16

Time Period 1			
Cohort	SMD	Lower CI	Upper CI
All Included	0.19	0.09	0.29
ALSPAC-G0	0.15	0.07	0.23
ALSPAC-G1	0.18	0.08	0.29
BCS	0.22	0.12	0.31
ELSA	0.18	0.07	0.29
GS	0.20	0.09	0.31
NCDS	0.21	0.10	0.31
NS	0.18	0.08	0.28
NSHD	0.18	0.08	0.29
TwinsUK	0.21	0.11	0.31
USOC	0.19	0.08	0.31

Time Period 2			
Cohort	SMD	Lower CI	Upper CI
All Included	0.15	0.06	0.25
ALSPAC-G0	0.11	0.05	0.18
ALSPAC-G1	0.15	0.05	0.25
BCS	0.17	0.07	0.27
ELSA*	0.15	0.06	0.25
GS	0.15	0.04	0.25
NCDS	0.17	0.07	0.27
NS	0.15	0.05	0.26
NSHD	0.15	0.05	0.25
TwinsUK	0.18	0.08	0.27
USOC	0.16	0.05	0.26

Time Period 3			
Cohort	SMD	Lower CI	Upper CI
All Included	0.15	0.07	0.22
ALSPAC-G0	0.12	0.06	0.19
ALSPAC-G1	0.14	0.06	0.21
BCS	0.15	0.07	0.23
ELSA	0.14	0.06	0.21
GS	0.14	0.07	0.22
NCDS	0.17	0.09	0.24
NS	0.15	0.07	0.23
NSHD	0.15	0.07	0.23
TwinsUK	0.17	0.10	0.24
USOC	0.15	0.07	0.23

* ELSA does not contain information for Time Period 2

Figure S1. Results of meta-analyses in LPS