



**The
Strategy
Unit.**

COVID-19 and Coronavirus evidence alerting

**Rapid scan 7: Prospective and longitudinal studies
exploring the impacts of the COVID-19 pandemic**

16 July 2020

strategyunitwm.nhs.uk



Midlands and Lancashire
Commissioning Support Unit

The Strategy Unit is working in collaboration with the Health Foundation, King's Fund, Nuffield Trust, and Imperial College Healthcare Partners to provide additional analytical support to the NHS nationally in its overall response to COVID-19. The organisations will use their expertise to focus on questions that the NHS may lack the immediate resources to look at, which may be more medium-term, cut across sectors, or benefit from independent analysis. They will be sharing their knowledge, information, multi-disciplinary analytical skills, and extensive links to support different parts of the health and care system, arms-length bodies and government departments working on the COVID-19 response. For more information please email mlcsu.covid.analytics@nhs.net.

This rapid summary is part of an evidence alert service which has developed from requests for evidence to support recovery planning. Our first priority is to highlight key papers to inform decisions, policy and planning and our approach is pragmatic rather than exhaustive. More information on our methodology is provided in the Appendix.

Introduction

The research community has responded quickly to the COVID-19 pandemic, with rapid turnaround of funding decisions, publication of preprints and alerts to important findings.

As we move towards the easing of lockdown restrictions, there is growing interest in the longer term effects and impacts of COVID-19. We have collected here information on a number of prospective and longitudinal studies now collecting data and sharing emerging findings which will inform recovery planning. Whilst our search is systematic, it's not exhaustive and there will inevitably be some gaps – we will endeavour to add to this pack as we identify more studies.

Table of contents

New longitudinal studies	
- general population	5
- city-based	8
- long term effects	9
- mental health impacts	11
- adolescents	13
Existing longitudinal studies	
- COVID-19 surveys	15
- impacts on older people	16
Keep up to date	17
Methodology	18

New longitudinal studies

General population

Virus Watch is the largest and most comprehensive study of its kind in the UK. You can view regular updates of study results on a [public dashboard](#).

Levels of COVID-19 are now beginning to decrease but it is likely that COVID-19 will start to spread again when the government lift current restrictions. Public health authorities are considering a wide range of approaches to help us stop the spread of infection as we come out of lockdown. Studies are underway across the world to develop vaccines and treatments for COVID-19 but without these we will need to rely on other measures to stop the spread of COVID-19. Working out which approaches are most likely to help and whether measures that are introduced are working, needs large studies of COVID-19 in the community.



<https://ucl-virus-watch.net/>

To understand COVID-19 properly we need large community studies that can follow up people over time to see if they get ill and to look at the biological, social and behavioural factors that influence this. **Virus Watch** will follow up over **40,000 people** in England and Wales **from June 2020 to March 2021**. Through regular online surveys and access to swabs and tests for immunity for a subset of 10,000 participants, the research team will look to answer many of the unknowns, [which you can find out about here](#).

General population

This national study is being carried out by a team of doctors, scientists, public health specialists and health economists based at:

- Queen Mary University of London
- King's College London
- The London School of Hygiene and Tropical Medicine
- The University of Edinburgh
- Swansea University
- Queen's University Belfast.

The target sample is people aged 16 years or older, from all parts of the UK who will be asked to sign up and fill in an online questionnaire with details about their lifestyle and health.



Participants will be followed up every month to check if they have developed any symptoms of coronavirus disease, and to ask some follow-up questions about participants' more general health and social circumstances.

The data collected will be analysed in order to:

- advance understanding of risk factors for coronavirus disease among UK adults
- find out how quickly people recover from coronavirus disease and whether there are any long-term complications of this illness
- evaluate the impact of coronavirus disease on the physical, mental and economic wellbeing of the UK population
- establish a platform for future research on coronavirus disease in the UK.

<https://www.qmul.ac.uk/covidence/>

General population

COVID-19 infection survey

This study aims to find out how many people have the infection, and how many are likely to have had the infection, even if they haven't realised it at the time. This study will test for the virus in the nose and throat of people and measure levels of antibody in the blood. The research team will begin by asking everyone aged 2 years or older in ~11,000 households to have a nose and throat swab and answer some questions at a home visit. Those from ~1000 households will also have a blood sample taken by a healthcare professional. A new group of ~11,000 households will be included approximately every month, to find out how rates of infection and immunity are changing. We will also ask all these people whether they would be happy to have the same tests repeated each week for a month, and every month for a year, to find out how infection and immunity changes over time in individuals.

<https://www.ons.gov.uk/surveys/informationforhouseholdsandindividuals/householdandindividualsurveys/covid19infectionsurveycis>

City-based

Liverpool Household COVID-19 Cohort Study (COVID-LIV)



The research team is selecting different types of households (for example with different numbers of people, or those with and without children) to take part in COVID-LIV – the target sample is c1000 people from 300 different households. There are several aims to the research:

- Measure the occurrence and rate of spread in households.
- Understand how and why the infection is spread in the household.
- Measure the proportion of infections that are mild or unnoticed and how much they contribute to transmission.
- Measure how immunity develops and how this links with severity of disease.

<https://www.liverpool.ac.uk/covidhouseholdstudy>

Long-term effects of COVID-19

The Post-hospitalisation COVID-19 study (PHOSP-COVID) is a consortium of leading researchers and clinicians from across the UK working together to understand and improve long-term health outcomes for patients who have been in hospital with confirmed or suspected COVID-19.

PHOSP-COVID has been set up and funded as a long term research study to recruit 10,000 patients who have been hospitalised with COVID-19. Over the course of a year, clinical assessments will track patients to gain a comprehensive picture of the impact COVID-19 has had on longer term health outcomes across the UK.

The PHOSP-COVID team will then develop trials of new strategies for clinical care, including personalised treatments for groups of patients based on the particular disease characteristics they show as a result of having COVID-19 to improve their long term health.

<https://phosp.org/>



Long-term effects of COVID-19

COVERSCAN STUDY

Aims

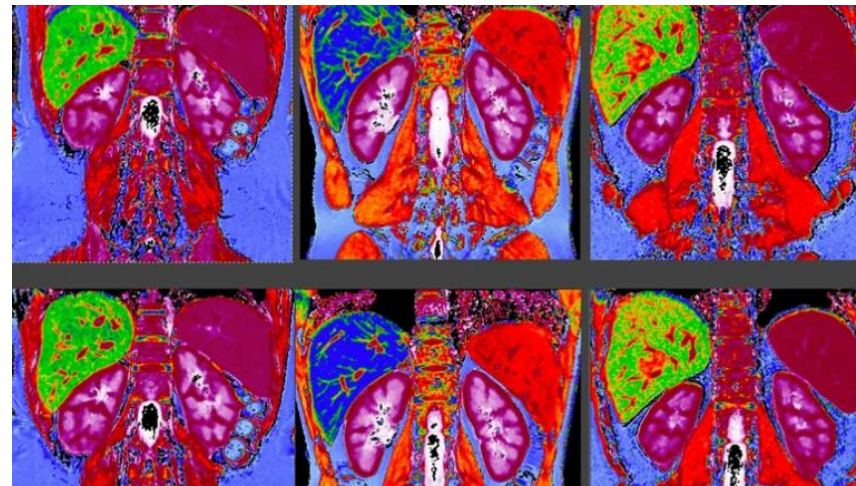
To determine the prevalence and degree of organ damage in patients recovering from COVID-19 disease, using multi-parametric magnetic resonance imaging (MRI).

Which organs will be assessed?

- Lungs
- Heart
- Kidney
- Liver
- Pancreas
- Spleen

How will they be assessed?

The study will use outpatient MRI facilities and involve blood tests, basic physical measurements (height, weight, blood pressure) and online questionnaires.



<https://coverscan.com/>

Mental health impacts

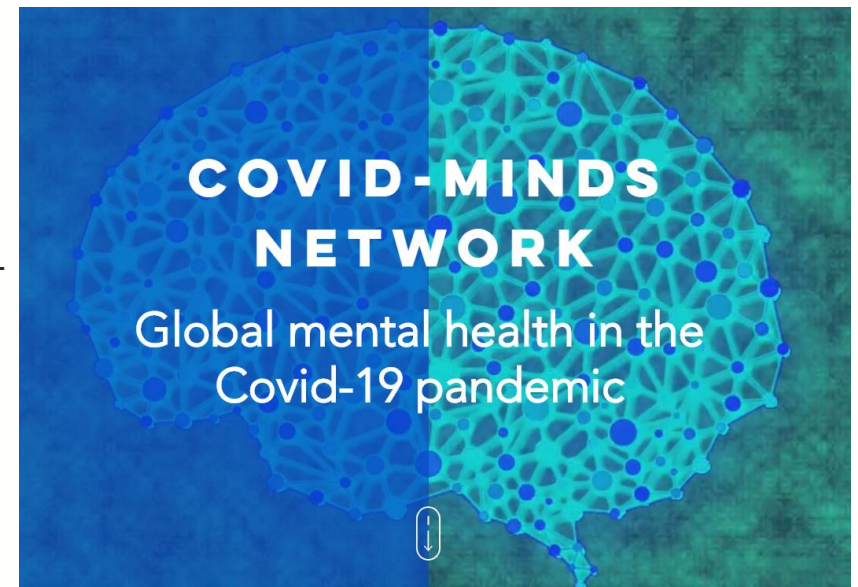
COVID-MINDS is a network of longitudinal studies on the global mental health impact of Covid-19.

The network links together studies from countries around the world, supporting the **sharing** of protocols and data, the **harmonisation** of mental health measures, and the **dissemination** of findings to policy-makers and health bodies.

The network also collates empirical research on mental health as it is published and sending **fortnightly newsletters** to help researchers stay up to date.

The website features a list of existing and new longitudinal and cohort studies, providing details of the population, sample size, follow up frequency and key measures.

The network is funded by the [Wellcome Trust](#).



<https://www.covidminds.org/>

Mental health impacts

The **COVID-19 Social Study** is run by University College London, exploring the effects of the virus and social distancing measures on adults in the UK during the outbreak.

The study started on 21st March 2020. It is a large scale longitudinal panel study of adults aged 18 and over living in the UK. The study was established with five core aims:

1. To understand the psychological and social impact of Covid-19
2. To map how the psychosocial impact evolves over time as social distancing and lockdown measures were introduced and relaxed
3. To ascertain which groups were at greatest risk of adverse effects
4. To explore the interaction between psychosocial impact and adherence to healthy and protective behaviours
5. To identify protective activities during isolation that could buffer against adverse effects

The website provides links to weekly reports and scientific papers from the study.

<https://www.covidsocialstudy.org/>



Emerging findings

Scientific papers

- [Trajectories of depressive symptoms among vulnerable groups in the UK during the COVID-19 pandemic](#)
- [Are we all in this together? Longitudinal assessment of cumulative adversities by socioeconomic position in the first 3 weeks of lockdown in the UK](#)
- [Predictors of engaging in voluntary work during the Covid-19 pandemic: analyses of data from 31,890 adults in the UK](#)
- [Are adversities and worries during the COVID-19 pandemic related to sleep quality? Longitudinal analyses of 48,000 UK adults](#)
- [Trajectories of depression and anxiety during enforced isolation due to COVID-19: longitudinal analyses of 59,318 adults in the UK with and without diagnosed mental illness](#)
- [Loneliness during lockdown: trajectories and predictors during the COVID-19 pandemic in 35,712 adults in the UK](#)
- [Who is lonely in lockdown? Cross-cohort analyses of predictors of loneliness before and during the COVID-19 pandemic](#)
- [How are adversities during COVID-19 affecting mental health? Differential associations for worries and experiences and implications for policy](#)
- [COVID-19, smoking, and inequalities: a cross-sectional survey of adults in the UK](#)

Weekly reports cover:

COVID-19 response and stressors

Exercise and social behaviours

Psychological response

Fear of COVID-19

Meaning in life

Happiness, boredom and future

Fresh air

Worries about others

Lockdown experiences and health behaviours

Trust

Relationships

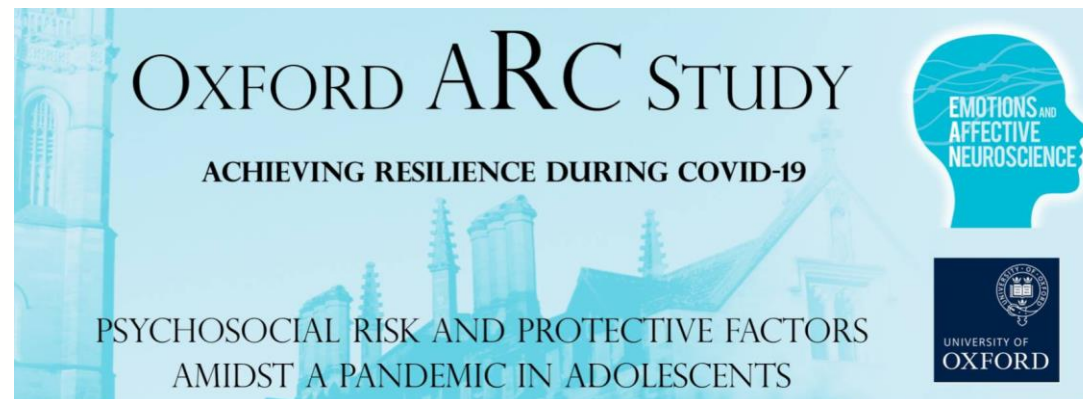
Financial consequences

Adolescents

The Oxford ARC study investigates resilience and how adolescents and their parents/carers are coping with social isolation during the COVID-19 (coronavirus) pandemic. The research team aim to find out why some young people cope extremely well with stressful situations, while others find it more difficult.

The study will help to better understand how psychological factors relating to worry, resilience, and social isolation affects the mental health of adolescents and their parents/carers during the challenges and uncertainties of this pandemic.

The target sample is teenagers (aged 13 – 18), and their parents/carers, to take part in a longitudinal online study. Participants are asked to complete a survey each week for about three months and then monthly for nine months.



<https://oxfordarcstudy.com/>

Emerging findings (still recruiting)

Week 1 update (12/5/20): Based on a sample of 524, 35% of young people reported high levels of loneliness, despite spending 3 hours a day socializing online

Week 2 update (20/5/20) : Based on a sample of 233 parents and 321 young people, young people are reporting lower levels of wellbeing than parents. Young people are feeling more lonely than parents during social isolation.

Week 3 update (27/5/20) : Young people have reported that they spend on average three hours of the day on social media. One of the biggest reasons was that they didn't have anything better to do. It's important to realise that more teenagers than parents are always using social media to keep in touch with people.

<https://www.instagram.com/oceanoxford/>

Existing longitudinal studies

COVID-19 surveys

In response to the pandemic, longitudinal studies both in the UK and internationally, have launched special surveys for their participants to help us understand the immediate and long-term impacts on individuals, families, and communities:

[1946, 1958, 1970, 2000-01 British birth cohorts, Next Steps and Southall & Brent Revisited](#)

[Avon Longitudinal Study of Parents and Children](#)

[Understanding Society: The UK Household Longitudinal Study](#)

[Born in Bradford](#)

[English Longitudinal Study of Ageing](#)

[Generation Scotland and Aberdeen Children of the 1950s](#)

[TwinsUK](#)

[Irish Longitudinal Study of Ageing](#)



<https://www.closer.ac.uk/covid19-longitudinal-research-hub/>

To capture and showcase this activity, including surveys, data releases and emerging findings, the **COVID-19 Longitudinal Research Hub** acts as a 'one-stop shop' resource for researchers, parliamentarians and policy makers. The Longitudinal Research Hug provides links to longitudinal surveys, data releases, emerging evidence and other useful resources.

Data releases

[Link to publications](#)

Understanding Society

- 2nd Wave of the Understanding Society COVID-19 survey which ran from late May to early June 2020 and included questions on a range of topics including COVID-19 symptoms, physical and mental health, housing, employment and finances, relationships, and time use. Access the [Understanding Society COVID-19 dataset](#) (Study number: 8644)
- 1st Wave of the Understanding Society COVID-19 survey which contains information about mental and physical health, health behaviours, caring, employment, income, education, and family relationships within and beyond the household. Access the [Understanding Society COVID-19 dataset](#) (Study number: 8644)

Avon Longitudinal Study of Parents and Children (ALSPAC)

- 6,800 study participants took part in the survey, which ran from April to May 2020. The survey contains information on symptoms of COVID-19 and seasonal flu, travel prior to the pandemic, mental health and social, behavioural and lifestyle factors. Visit the [ALSPAC website](#) to find out more and access the data.

To be released:

- 1st dataset from COVID-19 survey sent to participants of the 1946, 1958, 1970 & 2000-01 British birth cohorts, Next Steps, and Southall & Brent Revisited cohorts
- 2nd dataset from the Avon Longitudinal Study of Parents and Children
- 3rd Wave of Understanding Society COVID-19 survey

Impacts on older people

Social Impacts of COVID-19 policies for Older People:

CFAS cohort [COVID-19]

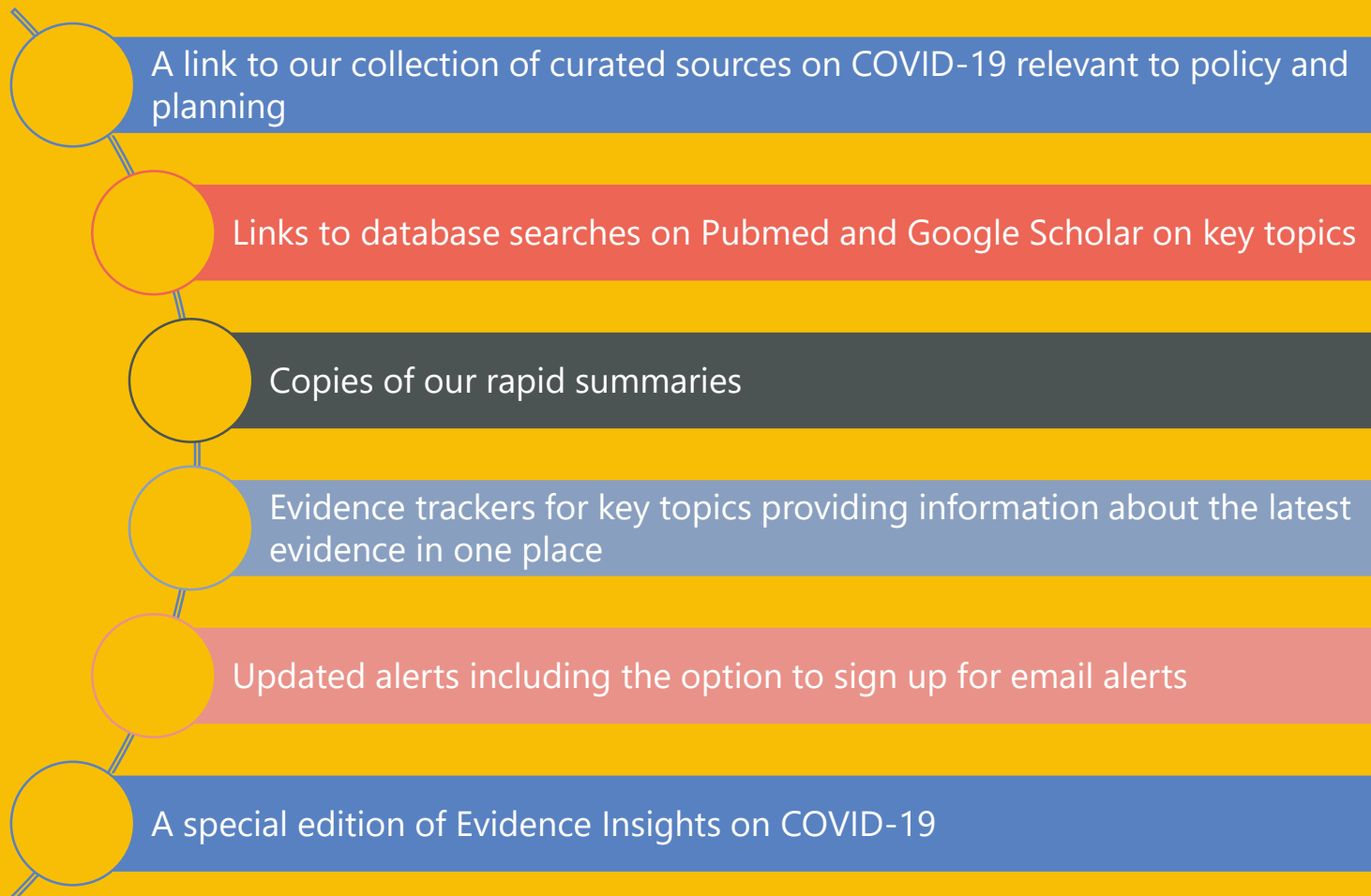


The recent introduction of social isolation measures for those aged over 70 and in at-risk groups by the government due to the COVID-19 coronavirus outbreak has no doubt had a profound impact on those communities both for their physical and mental health. The Cognitive Function and Ageing Studies II (CFAS II) are population representative longitudinal studies examining the health, well-being and cognition of older adults in diverse sites across the UK, including Cambridgeshire, Newcastle and Nottingham. Participants were initially recruited to CFAS II in 2009, they have undertaken a minimum of 3 waves of interviewing in the intervening years. The research team plan to follow up with study participants to assess the impact governmental policies of self-isolation have had on this vulnerable group, including impacts on both their physical and mental health and their contact with health and care services; care and support received from others including family, neighbours, church etc.; and use of technology.

Keep up to date

Keep up with new and emerging evidence via our web page, where you will find:

<https://www.strategyunitwm.nhs.uk/COVID-19-and-coronavirus>



Appendix - Methodology



Scoping the review

Geography Settings

International

All care settings – secondary, primary, community, independent – unless specified

Language/s

No language restrictions but please note there is no budget for translation. Therefore, we will prioritise translated materials where available and will source translations within existing resource.

Dates

We may limit evidence relating to earlier pandemics/major incidents to the last 10 years, should the volume of results be high, to focus on contemporary literature.

Search sources and locations

Bibliographic databases:

- Pubmed
- Google Scholar
- Cochrane Library
- CINAHL
- Global Health
- Disaster Lit

Aggregators and search engines:

- NHS Evidence
- TRIP (using Covid filters)

Grey literature:

via our [curated collection](#) of resources on COVID-19 and Coronavirus ²⁸