COVID-19 weekly update

11th June 2021

clinical management

**Title:** RECOVERY trial finds aspirin does not improve survival for hospitalised COVID-19 patients

National Institute for Health Research | 8th June 2021

The NIHR-supported RECOVERY trial has found that the anti-inflammatory drug aspirin - a treatment widely used to reduce blood clotting in other diseases - does not improve survival for patients who are hospitalised with COVID-19.

Patients with COVID-19 are at increased risk of blood clots forming in their blood vessels, particularly in the lungs. It was hoped that aspirin may help reduce blood clotting and therefore improve lung function and patient outcomes in severe cases of COVID-19.

The RECOVERY trial assessed the effects of aspirin in a cohort of nearly 15,000 hospitalised COVID-19 patients. A total of 7,351 patients were randomised to receive 150 mg aspirin once daily, with results compared against 7,541 patients who received standard care alone.

The researchers found no evidence that aspirin treatment reduced mortality in hospitalised patients with COVID-19. There was no significant difference in the primary endpoint of 28-day mortality (17% aspirin vs. 17% usual care). These results were consistent in all pre-specified subgroups of patients.

The results of this evaluation of aspirin have been published on medRxiv and have been submitted to a leading peer-reviewed medical journal.

Full detail: [RECOVERY trial finds aspirin does not improve survival for hospitalised COVID-19 patients](https://www.nihr.ac.uk/news/recovery-trial-finds-aspirin-does-not-improve-survival-for-hospitalised-covid-19-patients/27872)

medRxiv: [Aspirin in patients admitted to hospital with COVID-19 (RECOVERY): a randomised, controlled, open-label, platform trial](https://www.medrxiv.org/content/10.1101/2021.06.08.21258132v1.full.pdf)

BMJ: [Aspirin does not improve survival for patients admitted to hospital, trial reports](https://www.bmj.com/content/373/bmj.n1475)

**Title:** Therapeutic versus prophylactic anticoagulation for patients admitted to hospital with COVID-19 and elevated D-dimer concentration (ACTION): an open-label, multicentre, randomised, controlled trial

The Lancet | 4th June 2021

COVID-19 is associated with a prothrombotic state leading to adverse clinical outcomes. Whether therapeutic anticoagulation improves outcomes in patients hospitalised with COVID-19 is unknown. This study aimed to compare the efficacy and safety of therapeutic versus prophylactic anticoagulation in this population.

In patients hospitalised with COVID-19 and elevated D-dimer concentration, in-hospital therapeutic anticoagulation with rivaroxaban or enoxaparin followed by rivaroxaban to day 30 did not improve clinical outcomes and increased bleeding compared with prophylactic anticoagulation. Therefore, use of therapeutic-dose rivaroxaban, and other direct oral anticoagulants, should be avoided in these patients in the absence of an evidence-based indication for oral anticoagulation.

Full paper: [Therapeutic versus prophylactic anticoagulation for patients admitted to hospital with COVID-19 and elevated D-dimer concentration (ACTION): an open-label, multicentre, randomised, controlled trial](https://www.thelancet.com/action/showPdf?pii=S0140-6736%2821%2901203-4)

**Title:** Inflammatory biomarkers in COVID-19-associated multisystem inflammatory syndrome in children, Kawasaki disease, and macrophage activation syndrome: a cohort study

The Lancet Rheumatology | 8th June 2021

Multisystem inflammatory syndrome in children (MIS-C) is a potentially life-threatening hyperinflammatory syndrome that occurs after primary SARS-CoV-2 infection. The pathogenesis of MIS-C remains undefined, and whether specific inflammatory biomarker patterns can distinguish MIS-C from other hyperinflammatory syndromes, including Kawasaki disease and macrophage activation syndrome (MAS), is unknown. Therefore, this study aimed to investigate whether inflammatory biomarkers could be used to distinguish between these conditions.

The findings show MIS-C is distinguishable from Kawasaki disease primarily by elevated CXCL9 concentrations. The stratification of patients with MIS-C by high or low CXCL9 concentrations provides support for MAS-like pathophysiology in patients with severe MIS-C, suggesting new approaches for diagnosis and management.

Full paper: [Inflammatory biomarkers in COVID-19-associated multisystem inflammatory syndrome in children, Kawasaki disease, and macrophage activation syndrome: a cohort study](https://www.thelancet.com/action/showPdf?pii=S2665-9913%2821%2900139-9)

**Title:** Individuals at risk of severe COVID-19 might have lower levels of inflammation prior to infection

Kings College London | 8th June 2021

New research has identified three key inflammatory proteins which are lower in individuals at risk of severe COVID-19.

The study aimed to understand whether levels of inflammation in the blood differed amongst individuals susceptible to severe COVID-19, before they were exposed to SARS-CoV-2. This was important as previous work had demonstrated very high levels of inflammation in the blood of severe COVID-19 patients versus healthy controls, but few studies had considered whether this also differed amongst susceptible individuals prior to infection.

While it is still difficult to predict who will go on to develop severe COVID-19 once infected, recent studies have identified genetic risk factors, which allowed the authors to rank who in a given population might be at highest or lowest risk.

The researchers propose that the severe symptoms experienced by some might be a consequence of the body’s immune system experiencing a delayed reaction to the virus, resulting in a sudden and rapid release of inflammatory proteins, known as the “cytokine storm” or “inflammatory storm”.

Further detail: [Individuals at risk of severe COVID-19 might have lower levels of inflammation prior to infection](https://www.kcl.ac.uk/news/individuals-at-risk-of-severe-covid-19-might-have-lower-levels-of-inflammation-prior-to-infection)

Full research paper: [Genetic risk for severe COVID-19 correlates with lower inflammatory marker levels in a SARS-CoV-2- negative cohort](https://onlinelibrary.wiley.com/doi/full/10.1002/cti2.1292) | Clinical & Translational Immunology

**Title:** Protein identified as new therapeutic anti-viral target for COVID-19

Kings College London | 7th June 2021

New research identified a novel interaction between the SARS-CoV-2 spike protein and the galectin-3-binding protein (LGALS3BP) which could be a new therapeutic anti-viral target. The research also found the presence of detectable viral RNA in blood in COVID-19 patients is a strong predictor of mortality.

In the study, authors analysed close to 500 blood samples from patients admitted to Guy’s and St Thomas’ and King’s College Hospitals. The authors compared plasma and serum samples between patients admitted to intensive care units (ICU) with COVID-19 and hospitalised non-ICU COVID-19 patients and non-COVID-19 patients in ICU.

Almost a quarter of COVID-19 ICU patients had detectable RNAemia – severe acute respiratory syndrome coronavirus 2 RNA – within the first six days of admission to ICU. The presence of RNAemia was a strong predictor of 28-day mortality. RNAemia was detectable in 56% of deceased patients but in only 13% of survivors.

Researchers also identified LGALS3BP as a binding protein to the SARS-CoV-2 spike protein. Rising levels of LGALS3BP in the lungs offered protection to cells from the harmful effects of the SARS-CoV-2 spike protein.

The identification of LGALS3BP as a potential antiviral protein is encouraging as the UK government launched an Antivirals Taskforce in April 2021 to find effective treatments that could prevent future waves of infections and limit the effect of new variants.

Further detail: [Protein identified as new therapeutic anti-viral target for COVID-19](https://www.kcl.ac.uk/news/protein-identified-new-therapeutic-anti-viral-target-covid-19)

**Title:** A simple, home-therapy algorithm to prevent hospitalisation for COVID-19 patients: A retrospective observational matched-cohort study

EClinicalMedicine | 9th June 2021

Effective home treatment algorithms implemented based on a pathophysiologic and pharmacologic rationale to accelerate recovery and prevent hospitalisation of patients with early coronavirus disease 2019 (COVID-19) would have major implications for patients and health system.

This study compared outcomes of 90 consecutive consenting patients with mild COVID-19 treated at home by their family physicians between October 2020 and January 2021 in Northern and Central Italy, according to the proposed recommendation algorithm, with outcomes for 90 age-, sex-, and comorbidities-matched patients who received other therapeutic regimens. Primary outcome was time to resolution of major symptoms. Secondary outcomes included prevention of hospitalisation.

Implementation of an early home treatment algorithm failed to accelerate recovery from major symptoms of COVID-19, but reduced the risk of hospitalisation and related treatment costs. Given the study design, additional research would be required to consolidate the proposed treatment recommendations.

Full paper: [A simple, home-therapy algorithm to prevent hospitalisation for COVID-19 patients: A retrospective observational matched-cohort study](https://www.thelancet.com/action/showPdf?pii=S2589-5370%2821%2900221-2)

recovery

**Title:** The four most urgent questions about long COVID

Nature | 9th June 2021

Scientists are starting to get insights into the lingering disorder that affects some people infected with SARS-CoV-2 — but many mysteries remain unsolved.

This news story published in Nature explores the following four questions:

1. How many people get long COVID and who is most at risk?
2. What is the underlying biology of long COVID?
3. What is the relationship between long COVID and other post-infection syndromes?
4. What can be done to help people with long COVID?

Full detail: [The four most urgent questions about long COVID](https://www.nature.com/articles/d41586-021-01511-z)

**Title:** Prevalence of ongoing symptoms following coronavirus (COVID-19) infection in the UK

Office for National Statistics | 4th June 2021

This dataset estimates of the prevalence and characteristics of people with self-reported “long COVID”, and associated activity limitation, using UK Coronavirus (COVID-19) Infection Survey data to 2 May 2021.

Full detail: [Prevalence of ongoing symptoms following coronavirus (COVID-19) infection in the UK](https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/datasets/alldatarelatingtoprevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk)

**Title:** long covid and its societal consequences

Environmental Microbiology | 10th June 2021

COVID-19 is an acute, highly transmissible respiratory infection that is potentially lethal, but often mild, sometimes asymptomatic, especially in the young. However, it has become clear that, in some patients, there may be sequelae involving tissues other than the lung, resulting in other types of morbidity, and sometimes longer term consequences that are often termed “long covid”.

This article summarises recent findings about COVID-19 sequelae, with a particular focus on long covid. It also discuss some of the long scars that COVID-19 and long covid will collectively leave on society that the authors term *Societal Long Covid*.

Full article: [Long covid and its societal consequences](https://sfamjournals.onlinelibrary.wiley.com/doi/epdf/10.1111/1462-2920.15634)

**Title:** Sequelae in adults at 12 months after mild-to-moderate coronavirus disease 2019 (COVID-19)

International Forum of Allergy & Rhinology | 9th June 2021  
Severe acute respiratory syndrome-coronavirus-2 (SARS-CoV-2) infection can cause a wide array of symptoms ranging from mild to severe or fatal forms of coronavirus disease 2019 (COVID-19). Furthermore, it has been observed that in a proportion of patients a variable range of symptoms may persist for a long time.

An increasing number of studies have been focused on long COVID, but they have mainly been concentrated on previously hospitalized severe COVID-19 patients reporting symptoms up to 6-months after illness. The main aim of this study was to evaluate the prevalence of COVID-related symptoms 12-months after the onset of mild-to-moderate disease.

The study indicates that persistent symptoms of SARS-CoV-2 infection can be detected beyond 12 months from the onset of the illness in more than half of outpatients. Identifying patients at risk for prevention and treatment will be critical to improving outcomes and reducing health costs. Finally, a structured and validated questionnaire for the assessment of symptoms in COVID-19 patients is highly desirable to characterize the full clinical spectrum of long COVID.

Full article: [Sequelae in adults at 12 months after mild-to-moderate coronavirus disease 2019 (COVID-19)](https://onlinelibrary.wiley.com/doi/pdf/10.1002/alr.22832)

**Title:** Neurology and neuropsychiatry of COVID-19: a systematic review and meta-analysis of the early literature reveals frequent CNS manifestations and key emerging narratives

Journal of Neurology, Neurosurgery & Psychiatry | 3rd June 2021  
There is accumulating evidence of the neurological and neuropsychiatric features of infection with SARS-CoV-2. This systematic review and meta-analysis aimed to describe the characteristics of the early literature and estimate point prevalences for neurological and neuropsychiatric manifestations.

The review found neurological and neuropsychiatric symptoms of COVID-19 in the pandemic’s early phase are varied and common. The researchers found high numbers of patients reporting symptoms of mental health issues like depression (23%) and anxiety (16%). Neurological symptoms were also commonplace, with the most frequently reported symptoms being a loss of smell (43%), weakness (40%), fatigue (38%), a loss of taste (37%), muscle pain (25%) and headache (21%).

While the majority of studies included in the review focused on severe cases, primarily where people had been admitted to hospital, the researchers surprisingly found similarly high levels of neurological and psychiatric symptoms in those with less severe illness.

Full paper: [Neurology and neuropsychiatry of COVID-19: a systematic review and meta-analysis of the early literature reveals frequent CNS manifestations and key emerging narratives](https://jnnp.bmj.com/content/jnnp/early/2021/06/03/jnnp-2021-326405.full.pdf)

**Title:** UK and US agree new partnership to fight future pandemics and tackle health inequalities

Department of Health & Social Care | 10th June 2021

The UK and the US governments have agreed a new landmark partnership between the UK Health Security Agency (UKHSA) and the US National Centre for Epidemic Forecasting and Outbreak Analysis, run by the US Centers for Disease Control and Prevention (CDC), to turbocharge efforts to combat global pandemics and emerging health threats.

By bolstering disease surveillance, as well as genomic and variant sequencing capacity worldwide, this partnership will accelerate the recovery from COVID-19 around the world and establish an early warning system to detect diseases – which in turn will help low and middle-income countries that do not yet have the same capabilities.

Full detail: [UK and US agree new partnership to fight future pandemics and tackle health inequalities](https://www.gov.uk/government/news/uk-and-us-agree-new-partnership-to-fight-future-pandemics-and-tackle-health-inequalities)

**Title:** NHS ahead of target in recovery of elective care, and mental health services back to pre-pandemic levels

NHS England | 10th June 2021

Operations and other routine care are ahead of ambitions set out in April with mental health services back at pre-pandemic levels, NHS figures show. The number of people waiting over 52 weeks to begin treatment dropped by more than 50,000 in April, while by May, operations and other elective activity had already climbed to 90% of pre-pandemic levels.

Services disrupted during the pandemic have continued to recover, with 1.1 million people beginning treatment and 1.8 million diagnostic tests taking place in April. Cancer services have continued to rebound strongly, with more than 200,000 people referred for cancer checks in April following a record high the month before.

The NHS also faced one of its busiest months on record in terms of emergency care in May, with staff responding to more than 800,000 incidents – an increase of over 70,000 from two years previously.

Important steps have been made in restoring mental health services to pre-COVID-19 levels and there has been an increase in the number of patients referred for talking therapies for common disorders such as depression and anxiety. Newly published data on mental health services show that Improving Access to Psychological Therapies referrals significantly increased to 159,140 in March 2021, a rise from 133,365 in February and from 108,330 the year before.

Full detail: [NHS ahead of target in recovery of elective care, and mental health services back to pre-pandemic levels](https://www.england.nhs.uk/2021/06/nhs-ahead-of-target-in-recovery-of-elective-care-and-mental-health-services-back-to-pre-pandemic-levels/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+NHSCBoard+%28NHS+England%29)

**Title:** Improving mental health care key to COVID-19 pandemic recovery

OECD | 8th June 2021

The long-lasting COVID-19 crisis and the toll it is taking on mental health has made mental health systems more important than ever. This report provides an in-depth analysis of how well countries are delivering the policies and services that matter for mental health system performance.

The report highlights recent reforms countries have taken to strengthen mental health performance, including by increasing access to mental health care, ensuring that service users take the lead in planning and even delivering services, and prioritising integration and mental health promotion. The report also identifies promising approaches countries should pursue to better meet their populations’ mental health needs. This report sets up a framework for understanding mental health performance through internationally comparable indicators

Full detail: [A New Benchmark for Mental Health Systems. Tackling the Social and Economic Costs of Mental Ill-Health](https://read.oecd.org/10.1787/4ed890f6-en?format=html)

Press release: [Improving mental health care key to COVID-19 pandemic recovery](https://www.oecd.org/health/improving-mental-health-care-key-to-covid-19-pandemic-recovery.htm)

Infection control

**Title:** Impact of vaccination on new SARS-CoV-2 infections in the United Kingdom

Nature Medicine | 9th June 2021

The authors of this paper used the Office for National Statistics (ONS) COVID-19 Infection Survey—a large community-based survey to assess the effectiveness of the BNT162b2 (BioNTech Pfizer) and ChAdOx1 (Oxford Astra Zeneca) vaccines, as implemented in the United Kingdom, against any SARS-CoV-2 PCR-positive test performed in the survey, where real-time PCR (RT-PCR) tests were performed on a fixed schedule, irrespective of symptoms, vaccine status and previous infection.

They assessed vaccine effectiveness based on overall RT-PCR positivity and split according to self-reported symptoms, cycle threshold (Ct) value (less than 30 versus more than or equal to 30; as a surrogate for viral load) and gene positivity pattern (compatible with B.1.1.7 or not).

Their findings indicate that vaccination against COVID-19, with either the ChAdOx1 vaccine or the BNT162b2 vaccine, substantially reduced the odds of individuals testing PCR positive with a new SARS-CoV-2 infection, with the greatest reductions in new infections observed in individuals with Ct < 30 and self-reported symptoms, and in those who had received two vaccine doses.

Full paper: [Impact of vaccination on new SARS-CoV-2 infections in the United Kingdom](https://www.nature.com/articles/s41591-021-01410-w.pdf)

**Title:** New research exploring vaccination confidence provides vital lessons for public health campaigns

Healthwatch England | 7th June 2021

It is well documented that there’s lower vaccine confidence to COVID-19 vaccines among some ethnic minority communities living in the UK. This evidence follows a historical trend of lower vaccine uptake in areas with a higher proportion of ethnic minority groups across England.

At the root of the problem are institutional mistrust and misinformation – and that is what the healthcare sector and policymakers need to address. Addressing mistrust and misinformation about NHS programmes could also help reduce health inequalities at a local level.

Healthwatch England joined forces with Traverse, a social research organisation, to explore vaccination confidence among people from African, Bangladeshi, Caribbean and Pakistani backgrounds living in the UK.

The resulting report outlines a range of themes emerging from the findings. These can provide important lessons to the COVID-19 vaccine programme and anyone working on future public health campaigns.

Full report: [VacciNation: Exploring vaccine confidence](https://www.healthwatch.co.uk/report/2021-06-07/vaccination-exploring-vaccine-confidence)

**Title:** What have we learned from a year of NHS Test and Trace?

The Health Foundation | 3rd June 2021

NHS Test and Trace recently celebrated its first birthday. This blog reflects on what we learned and what’s to come of this £37bn government programme.

Full detail: [What have we learned from a year of NHS Test and Trace?](https://www.health.org.uk/news-and-comment/blogs/what-have-we-learned-from-a-year-of-nhs-test-and-trace)

**Title:** Exposures associated with SARS-CoV-2 infection in France: A nationwide online case-control study

The Lancet Regional Health – Europe | 7th June 2021

This study aimed to assess the role of different setting and activities in acquiring SARS-CoV-2 infection. Places and activities during which infection prevention and control measures may be difficult to fully enforce were those with increased risk of infection. Children attending day-care, kindergarten, middle and high schools, but not primary schools, were potential sources of infection for the household.

Full paper: [Exposures associated with SARS-CoV-2 infection in France: A nationwide online case-control study](https://www.thelancet.com/action/showPdf?pii=S2666-7762%2821%2900125-3)

**Title:** AstraZeneca vaccine linked with small risk of ITP, real world data show

BMJ | 2021; 373: n1489 | 10th June 2021

The AstraZeneca covid-19 vaccine is associated with a small increased risk of immune thrombocytopenic purpura (ITP), real world data from Scotland’s vaccination programme has shown.

The authors of the study, published in *Nature Medicine*, stress that the condition is treatable and that the benefits of vaccination greatly outweigh the risks.

The study analysed general practice data for 2.53 million people who received first doses of covid-19 vaccines between 8 December 2020 and 14 April 2021. Of these 1.71 million people were vaccinated with the AstraZeneca (ChAdOx1) vaccine and 0.82 million with the Pfizer BioNTech (BNT162b2) vaccine. The analysis compared the incidence of blood clots, unusual bleeding, and ITP in those who had been vaccinated and a matched comparison group.

The researchers estimated there are an additional 1.13 cases per 100 000 doses of ITP after vaccination with the AstraZeneca vaccine.

Full detail: [AstraZeneca vaccine linked with small risk of ITP, real world data show](https://www.bmj.com/content/373/bmj.n1489)

Related article: [First-dose ChAdOx1 and BNT162b2 COVID-19 vaccines and thrombocytopenic, thromboembolic and hemorrhagic events in Scotland](https://www.nature.com/articles/s41591-021-01408-4) | Nature Medicine

**Title:** Tests must be more rigorously regulated to protect public, say statisticians

BMJ | 2021; 373: n1483 | 9th June 2021

Statistical experts have called for new standards for diagnostic tests in response to regulatory gaps identified during the covid-19 pandemic.

Current legislation does not require tests to be evaluated in the settings where they will be used. But in a review of the statistical evidence needed to assure the performance of new tests, the Royal Statistical Society (RSS) has called on the Medicines and Healthcare Products Regulatory Agency to “review and revise the national licensing process for in vitro diagnostics to ensure public safety is protected.”

The RSS’s Working Group on Diagnostic Tests, which produced the review, said that action was needed because tests such as the rapid Innova lateral flow test had come to market during the pandemic without evidence of their accuracy for many of their subsequent uses and had been marketed using claims that were not supported by strong studies.

The working group also emphasised that regulatory assessment of a test’s safety should go beyond just the safety of the device itself and should include the potentially harmful consequences of false negatives and false positives.

Full detail: [Tests must be more rigorously regulated to protect public, say statisticians](https://www.bmj.com/content/373/bmj.n1483)

Related: [Royal Statistical Society. Diagnostic Tests Working Group report](https://rss.org.uk/RSS/media/File-library/Policy/2021/RSS-Diagnostic-tests-report-FINAL.pdf)

**Title:** Delta variant is now UK’s most dominant strain and spreading through schools

BMJ | 2021; 373: n1445 | 4th June 2021

The delta covid-19 variant (B.1.617.2), which was first detected in India, has overtaken the alpha variant, better known as the UK or Kent variant (B.1.1.7), to make it the most dominant strain circulating in the UK, Public Health England has said.

This is a concern because there is evidence that the risk of hospital admission is higher in people with the delta variant, it said. Data also indicate that the variant is spreading rapidly through England’s schools.

Public Health England’s latest weekly coronavirus data on circulating variants show there were 5472 new cases of the delta variant in the UK in the week to 26 May, bringing the total number of cases of the variant detected to 12 431.

In the week to 2 June a total of 278 people with the delta variant attended hospital emergency departments, and 94 people were admitted to hospital overnight. The previous week 201 people with the variant attended A&E and 43 were admitted. Most of those admitted had not been vaccinated.

Full detail: [Delta variant is now UK’s most dominant strain and spreading through schools](https://www.bmj.com/content/373/bmj.n1445)

Related: [Covid-19 variants: genomically confirmed case numbers](https://www.gov.uk/government/publications/covid-19-variants-genomically-confirmed-case-numbers) | Public Health England

**Title:** Freedom won’t last if UK doesn’t share excess vaccine doses, aid agencies warn

BMJ | 2021; 373: n1444 | 4th June 2021

Freedom from covid-19 restrictions will be short lived if the UK fails to share its huge supply of vaccine doses with low income countries, Unicef and Wellcome have warned the prime minister.

In an open letter to Boris Johnson the organisations said the UK had secured access to enough doses to vaccinate the entire UK population twice over, while other countries still did not have enough to vaccinate their healthcare workers and the most vulnerable groups.

The UK must now “show the historic leadership needed to end this crisis” and share at least 20% of its available doses between now and August, they said, and should call on the other G7 countries to commit to sharing one billion doses in 2021 and to fully fund the Access to Covid-19 Tools (ACT) Accelerator, launched by the World Health Organisation to accelerate the development of tests, treatments, and vaccines and to ensure their equitable distribution.

Full detail: [Freedom won’t last if UK doesn’t share excess vaccine doses, aid agencies warn](https://www.bmj.com/content/373/bmj.n1444)

**Title:** UK has highest vaccine confidence and Japan and South Korea the lowest, survey finds

BMJ | 2021; 373: n1439 | 4th June 2021

The UK population has the highest confidence in covid-19 vaccines and its health authorities, while Japan and South Korea have the lowest, a survey of 15 countries shows.

Carried out by Imperial College London and YouGov between March and May 2021, the survey included more than 68 000 people from Australia, Canada, Denmark, France, Germany, Israel, Italy, Japan, Norway, Singapore, South Korea, Spain, Sweden, the UK, and the US. It found that in 13 of the 15 countries more than 50% of people were confident in covid-19 vaccines and in 10 countries more than 50% were confident that their health authorities would provide them with an effective vaccine.

Almost nine in 10 people in the UK (87%) said they trusted the vaccines, while 83% said the same in Israel. But in South Korea and Japan just 47% said they trusted the vaccines.

Full detail: [UK has highest vaccine confidence and Japan and South Korea the lowest, survey finds](https://www.bmj.com/content/373/bmj.n1439)

Related: [Global attitudes towards a covid-19 vaccine](https://www.imperial.ac.uk/media/imperial-college/institute-of-global-health-innovation/GlobalVaccineInsights_ICL-YouGov-Covid-19-Behaviour-Tracker_20210520_v2.pdf) | Imperial College London

**Title:** Does vaccinating adults stop kids from spreading COVID too?

Nature | 10th June 2021

Unvaccinated children seem to be reaping the benefits of mass COVID-19 vaccination programmes in many parts of the world. Infections in children have fallen as adults get their shots. However, as this article explains, experts disagree on whether this means that unvaccinated children are unlikely to become a ‘reservoir’ for infection — and a potential hotbed for the emergence of new variants.

Full detail: [Does vaccinating adults stop kids from spreading COVID too?](https://www.nature.com/articles/d41586-021-01549-z)

**Title:** Further measures in additional areas to tackle Delta (B1.617.2) variant

Department of Health and Social Care | 8th June 2021

Measures including surge testing, tracing, isolation support and maximising vaccine uptake will be deployed rapidly across Greater Manchester and all Lancashire County Council areas. The new interventions follow extensive COVID-19 surveillance which has detected a number of cases of the Delta (B1.617.2) variant in these communities. Introduction of these additional measures will be led by local authorities to ensure the right steps are taken at the right time.

As part of the package, there is extra guidance on steps people can take, such as minimising travel in and out of the affected areas.

Full detail: [Further measures in additional areas to tackle Delta (B1.617.2) variant](https://www.gov.uk/government/news/further-measures-in-additional-areas-to-tackle-delta-b16172-variant)

**Title:** Breathing, speaking, coughing or sneezing: What drives transmission of SARS-CoV-2?

Journal of Internal Medicine | 8th June 2021

The SARS-CoV-2 virus is highly contagious, as demonstrated by numerous well-documented superspreading events. The infection commonly starts in the upper respiratory tract (URT) but can migrate to the lower respiratory tract (LRT) and other organs, often with severe consequences. Whereas LRT infection can lead to shedding of virus via breath and cough droplets, URT infection enables shedding via abundant speech droplets.

Their viral load can be high in carriers with mild or no symptoms, an observation linked to the abundance of SARS-CoV-2-susceptible cells in the oral cavity epithelium. Expelled droplets rapidly lose water through evaporation, with the smaller ones transforming into long-lived aerosol.

Although the largest speech droplets can carry more virions, they are few in number, fall to the ground rapidly and therefore play a relatively minor role in transmission. Of more concern is small speech aerosol, which can descend deep into the LRT and cause severe disease. However, since their total volume is small, the amount of virus they carry is low. Nevertheless, in closed environments with inadequate ventilation, they can accumulate, which elevates the risk of direct LRT infection.

Of most concern is the large fraction of speech aerosol that is intermediate-sized because it remains suspended in air for minutes and can be transported over considerable distances by convective air currents. The abundance of this speech-generated aerosol, combined with its high viral load in pre- and asymptomatic individuals, strongly implicates airborne transmission of SARS-CoV-2 through speech as the primary contributor to its rapid spread.

Full detail: [Breathing, speaking, coughing or sneezing: What drives transmission of SARS-CoV-2?](https://onlinelibrary.wiley.com/doi/epdf/10.1111/joim.13326)

**Title:** EMA evaluating the use of COVID-19 Vaccine Moderna in young people aged 12 to 17

European Medicines Agency | 8th June 2021

EMA has started evaluating an application to extend the use of the COVID-19 Vaccine Moderna to include young people aged 12 to 17.

EMA’s human medicines committee (CHMP) will carry out an accelerated assessment of data submitted in the application, including results from a large ongoing clinical study involving adolescents from 12 to 17 years of age.

EMA will communicate the outcome of its evaluation, which is expected in July.

Full detail: [EMA evaluating the use of COVID-19 Vaccine Moderna in young people aged 12 to 17](https://www.ema.europa.eu/en/news/ema-evaluating-use-covid-19-vaccine-moderna-young-people-aged-12-17)

**Title:** Should we vaccinate children against SARS-CoV-2?

The Lancet Infectious Diseases | 10th June 2021

Following sharing with regulatory bodies of phase 3 trial data showing that Pfizer-BioNTech's mRNA BNT162b2 vaccine was efficacious, immunogenic, and safe in children aged 12–15 years, several countries have authorised the use of the vaccine in this age group.

Reactions to this news have been mixed. Although it is considered likely that children will have to be vaccinated against SARS-CoV-2 eventually, there is the question of whether now is the right time.

As tis editorial discusses, many public health figures think not, considering that children typically experience only mild illness and many of the world's low-income and middle-income countries (LMICs) are reporting vaccine shortages. Countries with enough doses to cover their children might consider donating excess doses to countries that do not have enough vaccine to immunise the extremely vulnerable, older people, and front-line health workers.

Full editorial: [Should we vaccinate children against SARS-CoV-2?](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(21)00339-X/fulltext)

**Title:** Mixing COVID-19 vaccines appears to boost immune responses

Science | 9th June 2021

Faced with short supplies of COVID-19 vaccines and unforeseen side effects, some countries have adopted an unproven strategy: switching shots midstream. Most authorized vaccines require two doses administered weeks or months apart, but Canada and several European countries are now recommending a different vaccine for the second dose in some patients. Early data suggest the approach, born of necessity, may actually be beneficial.

In three recent studies, researchers have found that following one dose of the vaccine made by AstraZeneca with a dose of the Pfizer-BioNTech vaccine produces strong immune responses, as measured by blood tests. Two of the studies even suggest the mixed vaccine response will be at least as protective as two doses of the Pfizer-BioNTech product, one of the most effective COVID-19 vaccines. Only a few of the potential vaccine combinations have been tested, but if mixing vaccines proves safe and effective, it could speed the effort to protect billions of people.

Full detail: [Mixing COVID-19 vaccines appears to boost immune responses](https://www.sciencemag.org/news/2021/06/mixing-covid-19-vaccines-appears-boost-immune-responses)

workforce wellbeing

**Title:** Workforce burnout and resilience in the NHS and social care

Health and Social Care Committee | 8th June 2021

In a highly critical Report, the Health and Social Care Committee finds that workforce burnout across the NHS and social care has reached an emergency level and poses a risk to the future functioning of both services. Only a total overhaul of workforce planning can provide a solution, say MPs.

Though covid-19 had a huge impact on workforce pressures, the Committee was told of staff shortages across the NHS and social care prior to the pandemic, with such shortages identified as ultimately the biggest driver of workforce burnout.

The inquiry heard that NHS workforce planning was at best opaque and at worst was responsible for unacceptable pressure on staff. The Report concludes that available funding was the driver behind planning, rather than the level of demand and staffing capacity needed to service it. It further cites the absence of any ‘accurate, public projection’ of workforce requirements in specialisms over the next five to ten years.

Although the inquiry’s terms of reference included workforce resilience in the NHS and social care, evidence cautioned against a focus on the resilience of individual staff members, advising instead to consider systems and systemic solutions.

Full report: [Workforce burnout and resilience in the NHS and social care](https://publications.parliament.uk/pa/cm5802/cmselect/cmhealth/22/2202.htm)

Press release: [Overhaul needed to tackle NHS and social care workforce burnout emergency](https://committees.parliament.uk/committee/81/health-and-social-care-committee/news/155698/overhaul-needed-to-tackle-nhs-and-social-care-workforce-burnout-emergency/)

See also:

[‘Bitter irony’ that health and care staff are made ill by their work: The King’s Fund response to the Commons Committee report on workforce burnout and resilience](https://www.kingsfund.org.uk/press/press-releases/bitter-irony-health-care-staff-made-ill-committee-report-workforce-burnout-resilience)

[Staff burnout: MPs demand “total overhaul” of NHS workforce planning](https://www.bmj.com/content/373/bmj.n1461) | BMJ

**Title:** Personal protective equipment and heat: risk of heat stress

Public Health England | HSE | 9th June 2021

Wearing personal protective equipment (PPE) in warm/hot environments increases the risk of heat stress. This occurs when the body is unable to cool itself enough to maintain a healthy temperature. Heat stress can cause heat exhaustion and lead to heat stroke if the person is unable to cool down.

Measures to control the temperature of clinical environments and enable staff to make behavioural adaptations to stay cool and well hydrated should be made. Staff may require more frequent breaks and the frequency of PPE changes may increase, with a resulting increase in demand.

Further details: [Personal protective equipment and heat: risk of heat stress](https://www.cas.mhra.gov.uk/ViewandAcknowledgment/ViewAttachment.aspx?Attachment_id=103800)

other

**Title:** Invisible deaths: understanding why deaths at home increased during the Covid-19 pandemic

The Kings Fund | 8th June 2021

One of the untold stories of the Covid-19 pandemic is the dramatic rise in the number of people dying at home. Between the start of the pandemic in March 2020 and 28 May 2021, over 59,000 (39 per cent) more deaths occurred at home in England and Wales than the average number of home deaths in 2015-19. Moreover, the sustained increase in people dying at home has been evident throughout the pandemic and shows no sign of abating.

This article explores what is known about these deaths.

Full detail: [Invisible deaths: understanding why deaths at home increased during the Covid-19 pandemic](https://www.kingsfund.org.uk/blog/2021/06/understanding-why-deaths-home-increased-covid-19-pandemic)

See also:

* [Dying at home during the pandemic](https://www.bmj.com/content/373/bmj.n1437) | BMJ [editorial]
* [Deaths at home increased by a third in 2020, while deaths in hospitals fell except for COVID-19](https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/deathsathomeincreasedbyathirdin2020whiledeathsinhospitalsfellexceptforcovid19/2021-05-07) | Office for National Statistics

**Title:** Excess deaths from COVID-19 and other causes by region, neighbourhood deprivation level and place of death during the first 30 weeks of the pandemic in England and Wales: A retrospective registry study

The Lancet Regional Health – Europe | 7th June 2021

Excess deaths during the COVID-19 pandemic compared with those expected from historical trends have been unequally distributed, both geographically and socioeconomically. Not all excess deaths have been directly related to COVID-19 infection. This study investigated geographical and socioeconomic patterns in excess deaths for major groups of underlying causes during the pandemic.

During the first 30 weeks of the COVID-19 pandemic there was significant geographic and socioeconomic variation in excess deaths for respiratory causes, but not for cardiovascular disease, diabetes and cancer. Pandemic recovery plans, including vaccination programmes, should take account of individual characteristics including health, socioeconomic status and place of residence.

Full paper: [Excess deaths from COVID-19 and other causes by region, neighbourhood deprivation level and place of death during the first 30 weeks of the pandemic in England and Wales: A retrospective registry study](https://www.thelancet.com/action/showPdf?pii=S2666-7762%2821%2900121-6)

**Title:** are excess deaths an objective measure of pandemic performance?

The Health Foundation | 10th June 2021

This analysis compares the G7 countries (Canada, France, Germany, Italy, Japan, the UK and the US) using excess deaths as a percentage of expected deaths in 2020.

Full detail: [Comparing G7 countries: are excess deaths an objective measure of pandemic performance?](https://health.org.uk/publications/long-reads/comparing-g7-countries-are-excess-deaths-an-objective-measure-of-pandemic-performance)

**Title:** Clinical characteristics and risk factors for death among hospitalised children and adolescents with COVID-19 in Brazil: an analysis of a nationwide database

The Lancet Child & Adolescent Health | 10th June 2021

COVID-19 is usually less severe and has lower case fatality in children than in adults. We aimed to characterise the clinical features of children and adolescents hospitalised with laboratory-confirmed SARS-CoV-2 infection and to evaluate the risk factors for COVID-19-related death in this population.

The analysis of this study showed that death from COVID-19 was associated with age, Indigenous ethnicity, poor geopolitical region, and pre-existing medical conditions. Disparities in health care, poverty, and comorbidities can contribute to magnifying the burden of COVID-19 in more vulnerable and socioeconomically disadvantaged children and adolescents in Brazil.

Full paper: [Clinical characteristics and risk factors for death among hospitalised children and adolescents with COVID-19 in Brazil: an analysis of a nationwide database](https://www.thelancet.com/action/showPdf?pii=S2352-4642%2821%2900134-6)

**Title:** Researchers examine the cost of cancer during the COVID-19 pandemic

Kings College London | 8th June 2021

During the COVID-19 pandemic, the negative impact of shutting down routine healthcare practices was rarely assessed. Researchers from the School of Cancer & Pharmaceutical Sciences have been investigating this to gain a better understanding of the complete picture. Specifically, their focus has been on examining the significant backlogs in the management of cancer patients, as well as those who have yet to be diagnosed.

Their current research focuses on four major cancer types that make up 40% of the cancer burden across England during the first wave of the pandemic. Through analysing economic data, the findings revealed that delays in diagnosis during this time would cost the U.K. over £100 million over the next five years. If this is extrapolated to include all cancer types and the whole of the U.K as well as subsequent potential pandemic waves, the economic impact would of course be even more severe.

Further detail: [Researchers examine the cost of cancer during the COVID-19 pandemic](https://www.kcl.ac.uk/news/researchers-examine-the-cost-of-cancer-during-the-covid-19-pandemic)

**Title:** Managing COVID-19-related mental ill health in primary care

Guidelines in Practice | 28th May 2021

This article looks at mental health during the pandemic in the primary care setting, with a particular focus on the effect of COVID-19 on the experience and management of mental ill health.

The article looks at:

* the balance of positive and negative factors that contributes to mental wellbeing
* the impacts of the COVID-19 pandemic and its associated restrictions on mental health
* assessing and managing mental ill health in the context of COVID-19.

Full detail: [Managing COVID-19-related mental ill health in primary care](https://www.guidelinesinpractice.co.uk/mental-health/managing-covid-19-related-mental-ill-health-in-primary-care/455995.article?utm_source=MGP%20Ltd&utm_medium=email&utm_campaign=12430120_20210605%20GinP%20highlights&dm_i=HEZ,7EF54,W84HTI,U1TDN,1)

**Title:** Shift work is associated with positive COVID-19 status in hospitalised patients

Thorax | 10th June 2021

Shift work is associated with lung disease and infections. The authors of this study therefore investigated the impact of shift work on significant COVID-19 illness.

The study concludes that shift work is associated with a higher likelihood of in-hospital COVID-19 positivity. This risk could potentially be mitigated via additional workplace precautions or vaccination.

Full article: [Shift work is associated with positive COVID-19 status in hospitalised patients](https://thorax.bmj.com/content/thoraxjnl/76/6/601.full.pdf)

We

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