COVID-19 weekly update

5th September 2022

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| [Clinical management](#Clinical)[Long-term effects](#Long)[Rates & variants](#Rates) | [Infection control](#Infection1)[Recovery](#Recovery1)[Health management](#Management) | [Mental health](#mentalhealth)[Public health & health inequalities](#Public)[International perspectives](#International) |

**clinical management**

**title:** COVID-19 rapid guideline: delivery of systemic anticancer treatments (NG161) – updated august 22

NICE| 11th august 2022

<https://www.nice.org.uk/guidance/ng161>

**title:** COVID-19 rapid guideline: haematopoietic stem cell transplantation (NG164)– updated JULY 22

NICE| 20th july 2022

<https://www.nice.org.uk/guidance/ng164>

**title:** Nirmatrelvir Use and Severe Covid-19 Outcomes during the Omicron Surge

new england journal of medicine | 1st SEPTEMBER 2022

BACKGROUND. The oral protease inhibitor nirmatrelvir has shown substantial efficacy in high-risk, unvaccinated patients infected with the B.1.617.2 (delta) variant of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Data regarding the effectiveness of nirmatrelvir in preventing severe coronavirus disease 2019 (Covid-19) outcomes from the B.1.1.529 (omicron) variant are limited.

METHODS. We obtained data for all members of Clalit Health Services who were 40 years of age or older at the start of the study period and were assessed as being eligible to receive nirmatrelvir therapy during the omicron surge. A Cox proportional-hazards regression model with time-dependent covariates was used to estimate the association of nirmatrelvir treatment with hospitalization and death due to Covid-19, with adjustment for sociodemographic factors, coexisting conditions, and previous SARS-CoV-2 immunity status…

…CONCLUSIONS. Among patients 65 years of age or older, the rates of hospitalization and death due to Covid-19 were significantly lower among those who received nirmatrelvir than among those who did not. No evidence of benefit was found in younger adults.
<https://www.nejm.org/doi/pdf/10.1056/NEJMoa2204919>

**title:** Predictive performance and clinical application of COV50, a urinary proteomic biomarker in early COVID-19 infection: a prospective multicentre cohort study

the lancet digital health| 31st august 2022

This living systematic review by Siemieniuk and colleagues (BMJ 2020;370:m2980) has been
The SARS-CoV-2 pandemic is a worldwide challenge. The CRIT-CoV-U pilot study generated a urinary proteomic biomarker consisting of 50 peptides (COV50), which predicted death and disease progression from SARS-CoV-2. After the interim analysis presented for the German Government, here, we aimed to analyse the full dataset to consolidate the findings and propose potential clinical applications of this biomarker…

…The urinary proteomic COV50 marker might be predictive of adverse COVID-19 outcomes. Even in people with mild-to-moderate PCR-confirmed infections (WHO scores 1–4), the 0·04 COV50 threshold justifies earlier drug treatment, thereby potentially reducing the number of days in hospital and associated costs.
[https://www.thelancet.com/journals/landig/article/PIIS2589-7500(22)00150-9/fulltext](https://www.thelancet.com/journals/landig/article/PIIS2589-7500%2822%2900150-9/fulltext)

**title:** Association of Male Hypogonadism With Risk of Hospitalization for COVID-19

JAMA| 2nd september 2022

Question Is male hypogonadism a risk factor for hospitalization for COVID-19?

Findings In this cohort study of 723 men, those with hypogonadism had significantly higher odds than men with eugonadism of being hospitalized, independent of other known risk factors for COVID-19–related hospitalization. Men receiving testosterone therapy had a similar risk of hospitalization as men with eugonadism.

Meaning This study suggests that men with hypogonadism are more likely to be hospitalized after COVID-19 infection compared with men with eugonadism and men receiving adequate testosterone therapy.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795874>

**title:** Assessment of Clinical and Virological Characteristics of SARS-CoV-2 Infection Among Children Aged 0 to 4 Years and Their Household Members

JAMA| 31st august 2022

Question Do community-acquired SARS-CoV-2 infections differ in adults and children aged 0 to 4 years with respect to incidence, symptoms, and detected viral load?

Findings In this cohort study of 690 participants from 175 households in Maryland conducted from November 2020 to October 2021, 54 incident SARS-CoV-2 infections were detected in 8.6% of children aged 0 to 4 years, 11.0% of children aged 5 to 17 years, and 6.3% of adults. Children were more frequently asymptomatic or mildly symptomatic than adults; highest detected viral loads correlated with the number of symptoms in adults but not in young children.

Meaning This study’s findings suggest that symptomatic screening for SARS-CoV-2 infection may be insufficient to control outbreaks in settings in which young children congregate.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795801>

**title:** Remdesivir in Patients With Severe Kidney Dysfunction: A Secondary Analysis of the CATCO Randomized Trial

JAMA | 29th august 2022

Remdesivir is a broad-spectrum antiviral that reduces hospitalization and may decrease mortality among noncritically ill inpatients with COVID-19.1,2 Remdesivir is not recommended for use in patients with an estimated glomerular filtration rate (eGFR) less than 30 mL/min1.73 m2 owing to the presence of excipients3 that may accumulate in kidney dysfunction and worsen kidney or hepatic outcomes.

The Canadian Treatments for COVID-19 (CATCO) trial randomized patients to remdesivir or standard care between August 1, 2020, and April 1, 2021, as part of the global Solidarity trial.5 CATCO did not have kidney function–based exclusion criteria. We report on patients with impaired kidney function at baseline as a post hoc analysis to examine the risk of kidney or hepatic toxic effects with remdesivir administration…

…In patients with eGFR less than 30 mL/min/1.73 m2 at baseline who received remdesivir, there was no increased risk of transaminitis or toxic kidney effects at day 5. There was also no significant difference in the need for invasive mechanical ventilation or new dialysis, or mortality. This study is limited by small numbers and baseline imbalance between groups. These findings suggest that remdesivir can be safely administered in patients with kidney dysfunction, balancing possible risks and benefits. The need for assessing kidney function in the absence of clinical suspicion before and during outpatient administration of remdesivir can be questioned.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795734>

**title:** Administration of Anti–SARS-CoV-2 Monoclonal Antibodies After US Food and Drug Administration Deauthorization

JAMA |29th AUGUST 2022

…These preclinical results suggest, if directly applicable to humans, that the standard formulation
In 2021, the US Food and Drug Administration (FDA) issued emergency use authorizations for 2 anti–SARS-CoV-2 monoclonal antibodies (mAbs), bamlanivimab-etesevimab and casirivimab-imdevimab, to treat mild to moderate COVID-19 in high-risk ambulatory patients. The Omicron variant was determined to not be susceptible to these treatments, leading the FDA to deauthorize their use on January 24, 2022.1 Given public controversy over this decision,2 we evaluated the administration of bamlanivimab-etesevimab and casirivimab-imdevimab in the US after FDA deauthorization…

…According to the results of this serial cross-sectional study, hospitals and health systems administered more than 158 000 anti–SARS-CoV-2 mAb doses in early 2022, despite FDA deauthorization because of a lack of efficacy against the Omicron variant. Medicare payments for mAb administration range from $450 to $750 per dose,5 indicating that spending on these deauthorized treatments likely exceeds $71 million. Our findings suggest that the use of deauthorized mAb products was widespread, even though patients had a minimal likelihood of benefit. Whether deauthorized treatments will be covered by payers and whether the FDA will take regulatory action against entities violating its guidance remains unknown.

The continued use of deauthorized anti–SARS-CoV-2 mAb treatments may reflect conflicting state government guidance,2 lack of hospital awareness of deauthorization, or other factors. Although the FDA announcements clearly stated that these mAbs were no longer authorized for use, the agency did not fully revoke their emergency use authorizations because of the possibility that future COVID-19 variants could retain susceptibility, which could have led to misinterpretation.1

Limitations of this study include a reliance on hospital reporting, which does not include other mAb administration sites (eg, federal health systems and correctional facilities). Reporting data are not yet publicly available for other COVID-19 therapeutics. All public data on mAb administration are aggregated to the state level; thus, we were unable to explore facility variation in mAb use. Efforts to improve transparency, equity, and value in the COVID-19 response should include public release of facility-level reporting for all therapeutics.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795735>

**long term effects**

**title:** Post-COVID-19 condition: current evidence and unanswered questions

the lancet global health | SEPTEMBER 2022

As of July 2022, over 555 million cases of COVID-19 have been recorded globally, with more than 8·5 million confirmed cases reported in the African region. Various studies have been published in the past 2 years identifying persisting symptoms in individuals who had COVID-19 in different countries across the globe.3 On the basis of this emerging condition—persisting symptoms linked to COVID-19 extending past the acute phase of infection—the UK's National Institute for Health and Care Excellence (NICE) published a guideline for clinicians on the long-term effects of COVID-19.4 The NICE guideline goes beyond clinical guidelines and defines the terms associated with these persistent signs and symptoms. The guideline distinguishes between the terminologies long COVID and post-COVID-19 condition, formerly used interchangeably. The term long COVID now refers to signs and symptoms that continue after acute COVID-19 disease (4–12 weeks),4 while the term post-COVID-19 condition (PCC) refers to signs and symptoms that develop during or after COVID-19 disease that continue for more than 12 weeks and cannot be explained by an alternative diagnosis.4 As the number of COVID-19 cases and survivors grows, the burden of PCC will also increase. Understanding the epidemiology and associated factors for PCC across diverse populations is crucial as the world transitions from the acute phase of the pandemic to a longer-term chronic phase.

In The Lancet Global Health, Murray Dryden and colleagues prospectively investigate the prevalence and risk factors associated with PCC among individuals admitted to hospital with laboratory-confirmed SARS-CoV-2 infection in South Africa…
[https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(22)00323-0/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X%2822%2900323-0/fulltext)

Linked research paper: [Post-COVID-19 condition 3 months after hospitalisation with SARS-CoV-2 in South Africa: a prospective cohort study](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X%2822%2900286-8/fulltext)

**rates & variants**

**title:** Methods for early characterisation of the severity and dynamics of SARS-CoV-2 variants: a population-based time series analysis in South Afric

the lancet microbe |31st august 2022

…Here we develop a set of methods that make use of non-linked, aggregate data to promptly estimate the severity of a novel variant, compare its characteristics with those of previous VOCs, and inform data-driven public health responses.

Using daily population-level surveillance data from the National Institute for Communicable Diseases in South Africa (March 2, 2020, to Jan 28, 2022), we determined lag intervals most consistent with time from case ascertainment to hospital admission and within-hospital death through optimisation of the distance correlation coefficient in a time series analysis. We then used these intervals to estimate and compare age-stratified case-hospitalisation and case-fatality ratios across the four epidemic waves that South Africa has faced, each dominated by a different variant.

Results. A total of 3 569 621 cases, 494 186 hospitalisations, and 99 954 deaths attributable to COVID-19 were included in the analyses. We found that lag intervals and disease severity were dependent on age and variant. At an aggregate level, fluctuations in cases were generally followed by a similar trend in hospitalisations within 7 days and deaths within 15 days. We noted a marked reduction in disease severity throughout the omicron period relative to previous waves (age-standardised case-fatality ratios were consistently reduced by >50%), most substantial for age strata with individuals 50 years or older.

Interpretation. This population-level time series analysis method, which calculates an optimal lag interval that is then used to inform the numerator of severity metrics including the case-hospitalisation and case-fatality ratio, provides useful and timely estimates of the relative effects of novel SARS-CoV-2 VOCs, especially for application in settings where resources are limited.
[https://www.thelancet.com/journals/lanmic/article/PIIS2666-5247(22)00182-3/fulltext](https://www.thelancet.com/journals/lanmic/article/PIIS2666-5247%2822%2900182-3/fulltext)

**infection control**

**title:** How covid-19 spreads: narratives, counter narratives, and social dramas

BMJ |31st august 2022

Trisha Greenhalgh and colleagues explore why inaccurate narratives about the mode of transmission of SARS-CoV-2 emerged early in the pandemic and shaped a flawed policy response, with tragic consequences

Key messages:

A flawed narrative that SARS-CoV-2 was transmitted by droplets rather than being airborne became entrenched early in the pandemic

Measures aimed at an assumed droplet pathogen (handwashing, surface cleansing, physical distancing) were over-emphasised

Measures to reduce airborne transmission (improving indoor air quality, reducing indoor crowding and time spent indoors, and high-grade respiratory protection) were under-emphasised

UK policy makers seemed to favour narratives from a narrow group of scientific advisers

Consequences included care home deaths, mission critical delays in public masking, and avoidable infections of healthcare workers…
<https://www.bmj.com/content/378/bmj-2022-069940>

**title:** Covid-19 in the UK: policy on children and schools

BMJ| 31st august 2022

Deepti Gurdasani and colleagues argue UK covid policy did not give children sufficient priority and question the evidence behind government decisions

Key messages:

Pandemic policy on children and schools reflected UK based scientific narratives that did not align with global scientific consensus

Government relied on evidence that downplayed the seriousness of covid-19 in children, underestimated the benefits of precautionary measures, and overestimated the harms of vaccination

Return to school in September 2020 with minimal emphasis on masking and air quality, and inadequate support for isolation may have accelerated community transmission

The public inquiry should explore why the UK was an international outlier in its approach to protecting children and making schools and communities safer…
<https://www.bmj.com/content/378/bmj-2022-071234>

**title:** How Do We Stop the Spread of SARS-CoV-2 in Young Children?

JAMA | 31st August 2022

…The [prospective household cohort study by Karron et al](https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795801) found that young children are important reservoirs of SARS-CoV-2 infection and that relying on symptom-based testing may not be enough to mitigate the transmission of SARS-CoV-2 among children aged 0 to 4 years, an age group that now has safe and beneficial vaccines available for use. Vaccination against SARS-CoV-2 will likely be the best strategy to diminish the spread of virus and prevent severe disease in children.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795807>

**title:** COVID vaccine booster doses for omicron variants

the lancet respiratory medicine | 2nd september 2022

On Aug 26, 2022, Pfizer and BioNTech announced that they had applied to the European Medicines Agency to have their omicron BA.4/BA.5-adapted bivalent COVID-19 vaccine authorised as a booster dose. The companies submitted an equivalent application to the US Food and Drug Administration (FDA) on Aug 22. The vaccine combines mRNA coding for the spike protein of the Wuhan strain of SARS-CoV-2, which is the basis of the original Pfizer-BioNTech vaccine, with mRNA coding for the spike protein of the omicron BA.4 and BA.5 subvariants. The US Government has agreed to buy 105 million doses of the updated vaccine, along with 66 million doses of a similarly formulated vaccine from Moderna, for use in the booster campaigns of the autumn and winter. Moderna applied for FDA authorisation of its bivalent vaccine on Aug 23…
[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00361-7/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2822%2900361-7/fulltext)

**title:** EVASION OF NEUTRALISING ANTIBODIES BY OMICRON SUBLINEAGE BA.2.75

the lancet infectious diseases| 1st september 2022

…Here we show that the emerging sublineage, BA.2.75, does not show greater antibody evasion than the currently dominating BA.5 variant in a set of random samples from Stockholm. BA.2.75 largely maintains sensitivity to bebtelovimab despite a slight reduction in potency, and exhibits moderate susceptibility to tixagevimab and cilgavimab.
[https://www.thelancet.com/pdfs/journals/laninf/PIIS1473-3099(22)00524-2.pdf](https://www.thelancet.com/pdfs/journals/laninf/PIIS1473-3099%2822%2900524-2.pdf)

**title:** Interrupting methotrexate to improve immunity after COVID-19 booster vaccination: is it really worth it?

the lancet respiratory medicine | 1st september 2022

Abhishek and colleagues1 conducted an important clinical trial (the VROOM study), examining the effect of a 2-week interruption of methotrexate on the antibody response to the COVID-19 booster vaccination. The rigorous study design yielded insightful findings regarding the effects of this intervention on vaccine immunogenicity.

…we believe the conclusions that endorse the discontinuation of methotrexate before COVID-19 booster vaccination in this patient population are too optimistic. The relevance of the findings of the VROOM study and similar studies relying on antibody concentrations needs to be shown in long-term studies.
[https://www.thelancet.com/journals/lanres/article/PIIS2213-2600(22)00271-5/fulltext](https://www.thelancet.com/journals/lanres/article/PIIS2213-2600%2822%2900271-5/fulltext)

**title:** Protection against Omicron BA.5 from Previous Infection

new england journal of medicine | 31st august 2022

…Overall, we found that breakthrough infections with the BA.5 subvariant were less likely among persons with a previous SARS-CoV-2 infection history in a highly vaccinated population, especially for previous BA.1 or BA.2 infection, than among uninfected persons.
<https://www.nejm.org/doi/full/10.1056/NEJMc2209479?query=featured_coronavirus>

**title:** Analysis of Neutralizing Antibody Levels in Children and Adolescents Up to 16 Months After SARS-CoV-2 Infection

jama pediatrics | 29th august 2022

Epidemiologic data indicate that SARS-CoV-2 infection in children is usually mild, which contrast with high rates of morbidity and mortality in older adults.1,2 Data on the strength and durability of antibodies generated after SARS-CoV-2 infection in children remain limited.3,4 Such data are critical in understanding disease severity, identifying risk of reinfection, and establishing herd immunity and vaccination policy. In this study, we analyzed the dynamics of neutralizing antibodies in a cohort of children and adolescents after SARS-CoV-2 infection. The study period covered the emergence of the original SARS-CoV-2 Wuhan strain up to and including the Delta variant.

…This study provided evidence of the durability of neutralizing antibodies in children up to 16 months after infection. There were no differences in level and duration of neutralizing antibodies by sex or symptom status. However, younger age (<5 years) was associated with significantly rapid generation of neutralizing antibody levels during the acute phase of infection and less degradation over time, compared with older age.

Study limitations included the assessment of neutralizing antibodies specific to viral spike protein receptor-binding domain as they were highly associated with protection.6 The sample size also decreased 9 months after infection, but all age groups were still represented.

The findings suggest that risk of SARS-CoV-2 reinfection in younger children is lower than in adults, which has important implications for scheduling COVID-19 vaccination after infection. The findings also broaden the understanding about less severe clinical disease in younger children.
<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2795690>

**title:** Immune Response to SARS-CoV-2 Infection in Children [editorial]

JAMA pediatrics | 29th august 2022

…The novel SARS-CoV-2 virus and COVID-19 pandemic have resulted in a fundamental change in all countries, but as time has passed, adherence to public health guidance regarding mask wearing, handwashing and social distancing has waned. The evolution of novel variants coupled with an incomplete understanding of both the full spectrum of COVID-19 or associated medium- to long-term sequalae or the kinetics of the immune response underscores the importance of performing studies such as that undertaken by Yung and colleagues and population-based longitudinal studies to fully understand the immune response to SARS-CoV-2 infection and response to vaccination. The virus will continue to mutate and evolve, and with each change, the clinical expression of infection may change. To date, Omicron has resulted in relatively less severe disease than other variants (for example Delta) but that may not be the case in the future. Such studies need to be performed in all age groups. In pediatrics, it is also encouraging that vaccines are available under emergency use authorization to children as young as 6 months of age, since, despite immune escape, vaccines remain protective against not only severe infection and death, but also potentially against MIS-C.
<https://jamanetwork.com/journals/jamapediatrics/fullarticle/2795691>

**title:** POTENTIAL FOR FALSE DECLINE OF ANTI-SARSCOV-2 SPIKE ANTIBODY TITERS AFTER COVID-19 VACCINATION

the lancet rheumatlogy| SEPTEMBER 2022

…Heterologous primary and booster covid-19 vaccine schedules of ChAdOx1-S priming and mRNA
…These cases emphasise the importance of clinical correlation with laboratory results and highlight the limitations of antibody testing in the management of SARSCoV-2. Clinicians should be aware of the reasons for spurious results, particularly if it influences clinical management (ie, modification of immunosuppressive treatments, additional booster doses, or preexposure prophylaxis). Of note, these limitations should be considered when characterising antibody dynamics after COVID-19 vaccination in larger cohorts, if such data are used to inform vaccine booster policies or to understand factors associated with breakthrough infections. The manufacturer now recommends initial sample dilution when measuring anti-spike protein antibodies after the additional vaccine dose.
[https://www.thelancet.com/pdfs/journals/lanrhe/PIIS2665-9913(22)00222-3.pdf](https://www.thelancet.com/pdfs/journals/lanrhe/PIIS2665-9913%2822%2900222-3.pdf)

**title:** COVID-19 VACCINES — IMMUNITY, VARIANTS, BOOSTERS [FRANKLIN H. EPSTEIN LECTURE]

new england journal of medicine | 31st august 2022

…This review summarizes the current state of knowledge about immune responses to Covid-19 vaccines and the importance of both humoral and cellular immunity for durable protection against severe disease.
<https://www.nejm.org/doi/pdf/10.1056/NEJMra2206573>

**recovery**

**title:** Guided by the science? Questions for the UK’s covid-19 public inquiry

bmj | 31ST AUGUST 2022

A BMJ series examines how politicians used, and failed to use, evidence in response to the pandemic.

…Our conclusion is clear: with the toll approaching 200 000 excess deaths the UK’s response should have been much better. In 2019, it had come second in the world in an index of pandemic preparedness.21 While debate continues about how best to compare the resilience of national health systems to shocks such as pandemics, there is little doubt that the UK’s response fell far short of its potential. The effect of that mismanagement continues to be felt in the ongoing pressures on the workforce and patients in health and social care.

The question is why? And that is the central question that the UK’s covid-19 inquiry must answer. Each article in our series, which will continue over the next few weeks, offers a set of messages that we hope will inform the inquiry, as well as a list of questions that demand answers. But one message is universal and unequivocal: scientists and health workers on the front line of the response, and therefore the public, were too often let down by politicians. True to a phrase first used to describe British infantrymen in the first world war, scientists and health workers during the covid-19 pandemic of 2020-21 were “lions led by donkeys.”
<https://www.bmj.com/content/378/bmj.o2066>

**title:** The Johns Hopkins University Center for Systems Science and Engineering COVID-19 Dashboard: data collection process, challenges faced, and lessons learned

the lancet infectious diseases |31st august 2022

On Jan 22, 2020, a day after the USA reported its first COVID-19 case, the Johns Hopkins University Center for Systems Science and Engineering (JHU CSSE) launched the first global real-time coronavirus surveillance system: the JHU CSSE COVID-19 Dashboard. As of June 1, 2022, the dashboard has served the global audience for more than 30 consecutive months, totalling over 226 billion feature layer requests and 3·6 billion page views. The highest daily record was set on March 29, 2020, with more than 69 billion requests and over 4·6 billion views. This Personal View reveals the fundamental technical details of the entire data system underlying the dashboard, including data collection, data fusion logic, data curation and sharing, anomaly detection, data corrections, and the human resources required to support such an effort. The Personal View also covers the challenges, ranging from data visualisation to reporting standardisation. The details presented here help develop a framework for future, large-scale public health-related data collection and reporting.
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00434-0/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2822%2900434-0/fulltext)

title: Tackling the politicisation of COVID-19 data reporting through open access data sharing

THE LANCET INFECTIOUS DISEASES |31ST AUGUST 2022

… The JHU CSSE Dashboard was not susceptible to the same misalignment of incentives as some government officials who were more concerned about short-term economic repercussions of measures to curtail COVID-19 transmission than accurate risk evaluations. Regression analysis of country-specific death rates among 137 countries, showed that approximately 400 000 deaths were estimated to be unaccounted for during the first year of the pandemic, most likely among autocratic governments…
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00505-9/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2822%2900505-9/fulltext)

**title:** Association of the COVID-19 Pandemic With Medical School Diversity Pathway Programs

JAMA | 29th august 2022

Question Is the COVID-19 pandemic associated with changes in medical school diversity pathway programs?

Findings This survey study of 12 medical school pathway program administrators and 112 osteopathic and allopathic schools found a decrease in diversity pathway programming since the onset of the COVID-19 pandemic compared with the previous year. The participants reported that in-person experiences, including research and shadowing, and programs targeting elementary and middle school–aged students appeared to be the most affected.

Meaning The findings of this study suggest that diversity pathway programs were substantially disrupted by the COVID-19 pandemic; the long-term outcomes of these disruptions are unknown.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795732>

**health management**

**title:** How Much Is Covid-19 To Blame For Growing NHS Waiting Times?

NUFFIELD TRUST | SEPTEMBER 2022

This analysis looks at access and waiting times before and during the Covid-19 pandemic. While it has accelerated a trajectory of declining NHS performance, Covid is not solely to blame for the current problems.
<https://www.nuffieldtrust.org.uk/news-item/qualitywatch-covid-19-not-solely-to-blame-for-scale-of-nhs-care-backlog>

**title:** Remote vs In-home Physician Visits for Hospital-Level Care at Home A Randomized Clinical Trial

JAMA | 30th august 2022

Question When a patient receives acute hospital-level care at home (home hospital), is the use of remote physician visits noninferior to in-home physician visits in terms of safety and patient experience?

Findings In this 2-site randomized clinical trial of 172 patients, the mean adverse event count was 6.8 per 100 patients for patients receiving remote care vs 3.9 per 100 patients for control patients, for a difference of 2.8, supporting noninferiority, although 19% of patients receiving remote care required in-home physician visits. Patient experience was noninferior.

Meaning In this study, remote physician visits were noninferior to in-home physician visits during home hospital care for adverse events and patient experience, although in-home physician care was necessary to support 1 in 5 patients receiving remote care.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795758>

**mental health**

**title:** Maternal Mental Health and Infant Development During the COVID-19 Pandemic

JAMA psychiatry| 31st august 2022

Importance The COVID-19 pandemic has prompted an unprecedented need to rapidly investigate the potential consequences for maternal mental health, infant and child development, and the mother-infant relationship.

Observations Globally, the mental health of pregnant and postpartum individuals has worsened during the pandemic regardless of infection status, and these concerning changes have disproportionally affected racial and ethnic minoritized people from underserved populations. Early indicators of infant neurobehavioral outcomes suggest that while in utero exposure to a maternal SARS-CoV-2 infection is likely negligible, limited data are available regarding the neurodevelopmental consequences for the generation of infants born during the pandemic. High maternal depression and grief during the COVID-19 pandemic are associated with lower levels of self-reported maternal-infant bonding. Yet nearly all published reports of child neurodevelopmental outcomes and dyadic functioning in the context of the pandemic rely on self-reported and parent-reported measures, which are subject to bias.

Conclusions and Relevance In the context of prior research, and considering the paucity of research on infant neurodevelopment following prenatal SARS-CoV-2 exposure and birth during the pandemic, robust scientific investigation is needed to detect indicators of compromised early outcomes that could inform widespread assessment and accessible intervention. We simultaneously caution against reflexive apprehension regarding the generation of children born during the COVID-19 pandemic.
<https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2795949>

**public health & health inequalities**

**title:** The Continuing Impact Of Covid-19 On Health And Inequalities

health foundation| 24th august 2022

This long read revisits the conclusions of The Health Foundation's Covid-19 impact inquiry, published in July 2021, to consider the further direct impact of Covid-19 on health outcomes and the broader implications for health and the wider determinants. It also discusses the extent to which previously highlighted risks to health have been addressed and the implications for the country of ‘living with Covid-19’.
[The continuing impact of COVID-19 on health and inequalities - The Health Foundation](https://www.health.org.uk/publications/long-reads/the-continuing-impact-of-covid-19-on-health-and-inequalities)

**title:** COVID-19 mortality and excess mortality among working-age residents in California, USA, by occupational sector: a longitudinal cohort analysis of mortality surveillance data

the lancet public health | september 2022

During the first year of the COVID-19 pandemic, workers in essential sectors had higher rates of SARS-CoV-2 infection and COVID-19 mortality than those in non-essential sectors. It is unknown whether disparities in pandemic-related mortality across occupational sectors have continued to occur during the periods of SARS-CoV-2 variants and vaccine availability.

In this longitudinal cohort study, we obtained data from the California Department of Public Health on all deaths occurring in the state of California, USA, from Jan 1, 2016, to Dec 31, 2021. We restricted our analysis to residents of California who were aged 18–65 years at time of death and died of natural causes.

…Workers in essential sectors have continued to bear the brunt of high COVID-19 and excess mortality throughout the pandemic, particularly in the agriculture, emergency, manufacturing, facilities, and transportation or logistics sectors. This high death toll has continued during periods of vaccine availability and the delta surge. In an ongoing pandemic without widespread vaccine coverage and with anticipated threats of new variants, the USA must actively adopt policies to more adequately protect workers in essential sectors.
[https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(22)00191-8/fulltext](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667%2822%2900191-8/fulltext)

**title:** Worldwide physical activity trends since COVID-19 onset

the lancet global health | 31st august 2022

…In summary, worldwide step counts have not returned to pre-pandemic levels in the 2 years since COVID-19 began. Step counts in Europe and North America appear to have recovered the most, but as of early 2022, they remain significantly lower than their pre-pandemic baseline. Patterns of step count recovery appear to reflect regional differences in the timing of COVID-19 infection surges, and might also correlate with changes in regional social distancing policies.3 The pace of recovery in physical activity might also reflect availability and uptake of COVID-19 vaccines, which varies by region.
[Worldwide physical activity trends since COVID-19 onset - The Lancet Global Health](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X%2822%2900361-8/fulltext)

**title:** Epidemiology of respiratory syncytial virus in children younger than 5 years in England during the COVID-19 pandemic, measured by laboratory, clinical, and syndromic surveillance: a retrospective observational study

the lancet infectious diseases | 2nd sepetember 2022

Seasonal epidemics of respiratory syncytial virus (RSV) cause a clinically significant burden of disease among young children. Non-pharmaceutical interventions targeted at SARS-CoV-2 have affected the activity of other respiratory pathogens. We describe changes in the epidemiology of RSV among children younger than 5 years in England since 2020…

RSV-associated activity was reduced for all RSV indicators during winter 2020–21 in England, with 10 280 (relative change –99·5% [95% prediction interval –100·0 to –99·1]) fewer laboratory-confirmed cases, 22·2 (–99·6%) percentage points lower test positivity, 92 530 (–80·8% [–80·9 to –80·8]) fewer hospital admissions, 96 672 (–73·7% [–73·7 to –73·7]) fewer NHS 111 calls, 2924 (–88·8% [–90·4 to –87·2]) fewer out-of-hours GP contacts, 91 304 (–89·9% [–90·0 to –89·9]) in-hours GP consultations, and 27 486 (–85·3% [–85·4 to –85·2]) fewer emergency department attendances for children younger than 5 years compared with predicted values based on winter seasons before the COVID-19 pandemic. An unprecedented summer surge of RSV activity occurred in 2021, including 11 255 (1258·3% [1178·3 to 1345·8]) extra laboratory-confirmed cases, 11·6 percentage points (527·3%) higher test positivity, 7604 (10·7% [10·7 to 10·8]) additional hospital admissions, 84 425 (124·8% [124·7 to 124·9]) more calls to NHS 111, 409 (39·0% [36·6 to 41·8]) more out-of-hours GP contacts, and 9789 (84·9% [84·5 to 85·4]) more emergency department attendances compared with the predicted values, although there were 21 805 (–34·1% [–34·1 to –34·0]) fewer in-hours GP consultations than expected. Most indicators were also lower than expected in winter 2021–22, although to a lesser extent than in winter 2020–21.

…The extraordinary absence of RSV during winter 2020–21 probably resulted in a cohort of young children without natural immunity to RSV, thereby raising the potential for increased RSV incidence, out-of-season activity, and health-service pressures when measures to restrict SARS-CoV-2 transmission were relaxed.
[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(22)00525-4/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2822%2900525-4/fulltext)
Linked commentary: [Quantifying the RSV immunity debt following COVID-19: a public health matter](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099%2822%2900544-8/fulltext)

**title:** Theater for Vaccine Hesitancy—Setting the Stage for Difficult Conversations

JAMA | 2nd september 2022

With almost one-quarter of Americans unwilling to get immunized with available COVID-19 vaccines,1 vaccine hesitancy remains a substantial obstacle to controlling the coronavirus pandemic. This essay describes our experience with a Theater for Vaccine Hesitancy training program that uses improvisational theater techniques to help health care workers have collaborative conversations with unvaccinated patients about the benefits of COVID-19 vaccination.
<https://jamanetwork.com/journals/jama/fullarticle/2796160>

**title:** Costs, Reach, and Benefits of COVID-19 Pandemic Electronic Benefit Transfer and Grab-and-Go School Meals for Ensuring Youths’ Access to Food During School Closures

JAMA | 31st august 2022

Question What were the operating costs, costs and benefits to families, and proportion of eligible youths who received benefits of 2 programs aimed at replacing school meals missed when US schools were closed owing to COVID-19 from March to June 2020?

Findings In this economic evaluation, among 30 million youths eligible to receive free or reduced-price meals, the Pandemic Electronic Benefit Transfer (P-EBT) program (state agencies sent debit cards loaded with the cash value of missed school meals to families) reached 89% of eligible students and cost $6.46 per meal. Grab-and-go school meals (school food service departments provided prepared meals for off-site consumption) reached 27% and cost $8.07 per meal.

Meaning These findings suggest that during times when youths cannot access school meals, state and federal agencies should support cost-efficient programs for schools to distribute prepared meals and activate programs such as P-EBT to efficiently reach eligible youths.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795795>

**title:** Receipt of Telehealth Services, Receipt and Retention of Medications for Opioid Use Disorder, and Medically Treated Overdose Among Medicare Beneficiaries Before and During the COVID-19 Pandemic

jama psychiatry | 31st august 2022

Question How were federal emergency authorities to expand telehealth use for substance use disorder treatment and facilitate provision of medications for opioid use disorder (MOUD) used during the COVID-19 pandemic among Medicare beneficiaries with opioid use disorder (OUD)?

Findings In this cohort study including 175 778 beneficiaries, receipt of OUD-related telehealth services during the COVID-19 pandemic was associated with improved MOUD retention and lower odds of medically treated overdose.

Meaning Emergency authorities to expand telehealth utilization and provide MOUD flexibilities during the COVID-19 pandemic were used among Medicare beneficiaries and were associated with improved MOUD retention and lower odds of medically treated overdose, lending support for permanent adoption.
[Full-text](https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2795953?guestAccessKey=ee7219e9-7be8-4f85-bf27-6313250cfea3&utm_source=For_The_Media&utm_medium=referral&utm_campaign=ftm_links&utm_content=tfl&utm_term=083122)

**title:** Comparison of Help-Seeking Consultations for Domestic Violence Before vs During the COVID-19 Pandemic in Japan

JAMA | 30th august 2022

Since 2011, rates of professional help-seeking consultations (ie, inquiries) for domestic violence (DV) have been increasing steadily in Japan, with a considerable upward trend during the COVID-19 pandemic.1 Pandemic-related restrictions have increased time spent in domestic settings and contributed to income instability for both perpetrators and survivors of DV.2 These living conditions affect households with potentially abusive individuals, with survivors of DV bearing most of the physical and mental health burden.3 We compared rates of incident DV inquiries during the COVID-19 pandemic with years before onset in Japan.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795762>

**title:** The effect of a proof-of-vaccination requirement, incentive payments, and employer-based mandates on COVID-19 vaccination rates in New York City: a synthetic-control analysis

the lancet public health | 2nd september 2022

In 1999 two social psychologists, Dunning and Kruger, described the phenomenon of “illusory
COVID-19 vaccines have been available to all adults in the USA since April, 2021, but many adults remain unvaccinated. We aimed to assess the joint effect of a proof-of-vaccination requirement, incentive payments, and employer-based mandates on rates of adult vaccination in New York City (NYC)….

…The combination of a proof-of-vaccination requirement, incentive payments, and vaccine mandates increased vaccination rates among adults in NYC compared with jurisdictions that did not use the same measures. Whether the impact of these measures occurred by inducing more people to get vaccinated, or by accelerating vaccinations that would have occurred later, the increase in vaccination rates likely averted illness and death.
[https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(22)00196-7/fulltext](https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667%2822%2900196-7/fulltext)

**title:** Abusive Head Trauma in Infants During the COVID-19 Pandemic in the Paris Metropolitan Area

JAMA | 30th august 2022

Question Did the incidence of abusive head trauma in infants in the Paris metropolitan area increase during the first 2 years of the COVID-19 pandemic (2020-2021) compared with the prepandemic period (2017-2019)?

Findings In a time-series analysis of a cohort study including 99 infants, abusive head trauma incidence was stable in 2020 and then nearly doubled, a significant increase, in 2021.

Meaning These findings suggest that the marked increase in abusive head trauma incidence during the COVID-19 pandemic in the Paris metropolitan area should prompt clinical awareness and preventive actions.
<https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795760>
Linked commentary: [Delayed Increase in Abusive Head Trauma in Paris During COVID-19 Pandemic](https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2795763)

**title:** Changes in Health and Quality of Life in US Skilled Nursing Facilities by COVID-19 Exposure Status in 2020

JAMA | 29th august 2022

…Among skilled nursing facilities in the US during the first year of the COVID-19 pandemic and prior to the availability of COVID-19 vaccination, mortality and functional decline significantly increased at facilities with active COVID-19 cases compared with the prepandemic period, while a modest statistically significant decrease in mortality was observed at facilities that had never had a known COVID-19 case. Weight loss and depressive symptoms significantly increased in skilled nursing facilities in the first year of the pandemic, regardless of COVID-19 status.
<https://jamanetwork.com/journals/jama/fullarticle/2795935>

**international perspectives**

**title:** The COVID-19 pandemic and disruptions to essential health services in Kenya: a retrospective time-series analysis

BMJ | 31st august 2022

Public health emergencies can disrupt the provision of and access to essential health-care services, exacerbating health crises. We aimed to assess the effect of the COVID-19 pandemic on essential health-care services in Kenya.
[https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(22)00285-6/fulltext](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X%2822%2900285-6/fulltext)

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