

# COVID-19

## Health Evidence Summary No.120

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*This weekly COVID-19 health evidence summary (HES) is based on 3.5 hours of desk-based research. The summary is not intended to be a comprehensive summary of available evidence on COVID-19 but aims to make original documents easily accessible to decision makers which, if relevant to them, they should go to before making decisions.*

### Clinical characteristics and management

Publication date	Title/URL	Journal/Article type	Summary	Keywords
15.04.2021	Cerebral venous thrombosis: a retrospective cohort study of 513,284 confirmed COVID-19 cases and a comparison with 489,871 people receiving a COVID-19 mRNA vaccine	<b>OSF  Pre-print, <u>not</u> peer reviewed</b>	<ul style="list-style-type: none"> <li>To understand the risks of COVID-19 and of vaccination to cerebral venous thrombosis (CVT) and portal vein thrombosis (PVT), electronic records were analysed from 59 healthcare organisations in USA.</li> <li>Included in the study was 513, 284 patients with a confirmed diagnosis of COVID-19 (between Jan 202 and March 2021) and 20 were diagnosed with CVT within 2 weeks following diagnosis (39 per million people). From the 20 people with CVT, 4 patients died (20%). This was compared to 489, 871 records of people receiving an mRNA-1273 (Moderna) or BNT162b2 (Pfizer)</li> </ul>	Cerebral venous thrombosis, retrospective cohort,

			<p>vaccine where an CVT incidence of 4.1 per million was reported.</p> <ul style="list-style-type: none"> <li>From the COVID-19 confirmed group, 224 had PVT (436 per million) which was compared to the post COVID-19 vaccine group were 22 cases of PVT were observed (44.9 per million), and post influenza vaccine group (98.4 per million).</li> <li>EME monitoring system was used to compare to ChAdOx1 nCoV-19 vaccine which reports CVT incidence of 5 per million.</li> </ul>	
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## Epidemiology and modelling

Publication date	Title/URL	Journal/Article type	Summary	Keywords
14.04.2021	Genomics and epidemiology of the P.1 SARS-CoV-2 lineage in Manaus, Brazil	Science  Article	<ul style="list-style-type: none"> <li>Brazil has experience high mortality due to COVID-19. The P1 variant was identified in November 2020. The authors use genomic data, structure-based mapping of mutations of interest onto the spike protein, and dynamical epidemiology modelling of genomic and mortality data, to 'investigate the emergence of the P.1 lineage and explore epidemiological explanations for the resurgence of COVID-19 in Manaus'.</li> <li>Using molecular clock phylogenetic, the authors estimate that the P1 lineage occurred</li> </ul>	P1 variant, Brazil, genomics, mathematical modelling

around 15<sup>th</sup> Nov 2020 'and was preceded by a period of faster molecular evolution'. Using modelling, the authors report that P1 is more transmissible than non-P1 lineages in the Manus cohort (1.7-2.4). They also estimate that an increase in mortality in the period following the emergence of P1 (1.2-1.9), however other factors such as the pressure on the health system need to be considered and therefore the authors report that the cause of the relative mortality risk can therefore not be determined. The authors report that P.1 lineage 'contains 10 lineage-defining amino acid mutations in the virus spike protein (L18F, T20N, P26S, D138Y, R190S, K417T, E484K, N501Y, H655Y, T1027I) compared with its immediate ancestor (B.1.1.28)'.

- In conclusion, the authors call for more sustainable genomic and epidemiological surveillance to identify and track variants of concern in real time.

## Therapeutics

Publication date	Title/URL	Journal/Article type	Summary	Keywords
15.04.2021	Mortality outcomes with hydroxychloroquine and chloroquine in COVID-19 from an international collaborative meta-analysis of randomized trials	Nature Communications  Article	<ul style="list-style-type: none"> <li>• A rapid meta-analysis was conducted on all published and non-published RCTs for hydroxychloroquine and chloroquine to analysis mortality. 28 trials were included (10, 319 patients), this included 14 unpublished trials and 14 preprint or published publications.</li> <li>• The authors report treatment with hydroxychloroquine was associated with increased mortality in patients with COVID-19, and there was no benefits to chloroquine.</li> </ul>	Hydroxychloroquine, chloroquine, meta-analysis, mortality
12.04.2021	Inhaled budesonide for COVID-19 in people at higher risk of adverse outcomes in the community: interim analyses from the	<b>MEDRXIV  Pre-print, <u>Not peer-reviewed</u></b>	<ul style="list-style-type: none"> <li>• This pre-print article reports interim results from a randomized control trial investigating the effectiveness of inhaled budesonide for treating COVID-19 in the community, as</li> </ul>	RCT, Inhaled budesonide, community treatment, comorbidities

PRINCIPLE  
trial

- art of the PRINCIPLE trial.
- The multi-centred RCT includes participants (ages >65 years or >50 years with comorbidities) with suspected COVID-19; 4663 participants were enrolled between 02.04.2020 and 31.03.2021. From this group, 56.1% (2617) tested positive for COVID-19 and were randomized to either receive budesonide (751), usual care (1028) or other interventions (643). Participants in budesonide group received twice daily inhaled budesonide for 14 days. Primary outcomes included hospitalisation or death within 28 days, and duration of illness (self reported). Secondary outcomes explored how well participants felt over 28 days.

			<ul style="list-style-type: none"> <li>Interim analysis indicates that inhaled budesonide in this population reduced time to recovery by a median of 3 days. Of those that have contributed data for 28 days follow up, in the budesonide group 8.5% were hospitalised or died compared to 10.3% in the usual care group. Final analysis is ongoing and has not yet been reported.</li> </ul>	
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## Social Science

Publication date	Title/URL	Journal/Article type	Summary	Keywords
May 2021	Instructional interventions for improving COVID-19 knowledge, attitudes, behaviors: Evidence from a large-scale RCT in India	Social Science and Medicine  Article	<ul style="list-style-type: none"> <li>This article explores if instructional interventions for COVID-19 mitigation can improve the knowledge, attitudes of young adults/youths in India. A large RCT with 8376 participants (15-30 years) was conducted in urban India. Participants were randomly assigned to one of three cohorts: 1. Facts cohort where (10min) targeted fact based information via video was given 2. Fact plus concepts, where the intervention</li> </ul>	Knowledge, attitudes and behaviour, instructional intervention, communication, youths, India

			<p>contained the same facts with underlying scientific concepts (22min) or 3. Control group. a baseline survey on knowledge, attitudes and behaviours took place before the intervention. A survey was repeated following the intervention and then again one week later.</p> <ul style="list-style-type: none"> <li>• Both interventions improved knowledge with the 'fact plus concepts' group having great improvements in applied knowledge, attitudes and behaviour.</li> <li>• The authors conclude that communication for COVID-19 should take time to explain scientific concepts in order to improve knowledge, attitudes and behaviours of youths.</li> </ul>	
14.04.2021	<p>Examining unit costs for COVID-19 case management in Kenya</p>	BMJ Global Health  Article	<ul style="list-style-type: none"> <li>• Case management costs for patients per day with COVID-19 were estimated in Kenya. The authors reports that costs per patient who are asymptomatic is 1993.01 Kenyan shillings (US\$18.89), for mild/moderate COVID-19 treated at home, 1995.17 KES (US\$18.991). For patients managed in an isolation centre or hospital with mild-to-moderate disease 6719.90 KES (US\$63.70). For patients with severe COVID-19 disease managed in general</li> </ul>	Economic costs, Kenya

			<p>hospital wards 13 137.07 KES (US\$124.53 and those with critical COVID-19 disease admitted in intensive care units 63 243.11 KES (US\$599.51). The authors conclude that the cost of COVID-19 per patient are substantial and therefore Kenya and other LMICs need to take action to mitigate these potentially catastrophic costs.</p>	
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## Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Journal   Article type
19.04.2021	<a href="#">Human challenge trial launches to study immune response to COVID-19</a>	University of Oxford  News
16.04.2021	<a href="#">Indoor Air Changes and Potential Implications for SARS-CoV-2 Transmission</a>	JAMA Network  JAMA Insights
16.04.2021	<a href="#">Covid-19: Failed response in Brazil has led to humanitarian catastrophe, says MSF</a>	The BMJ  News
16.04.2021	<a href="#">SARS-CoV-2 Vaccine–Induced Immune Thrombotic Thrombocytopenia</a>	The New England Journal of Medicine  Editorial
16.04.2021	<a href="#">Triple jeopardy: disabled people and the COVID-19 pandemic</a>	The Lancet  Comment
15.04.2021	<a href="#">Risk of rare blood clotting higher for COVID-19 than for vaccines</a>	University of Oxford  News



15.04.2021	Ten scientific reasons in support of airborne transmission of SARS-CoV-2	The Lancet  Comment
14.04.2021	Alternating vaccines trial expands to include two additional vaccines	University of Oxford  News
14.04.2021	Covid-19: How AstraZeneca lost the vaccine PR war	The BMJ  Feature
14.04.2021	Covid-19 has redefined airborne transmission	The BMJ  Editorial
14.04.2021	Covid-19: India authorises Sputnik V vaccine as cases soar to more than 180 000 a day	The BMJ  News
13.04.2021	Rethinking and strengthening the Global Health Diplomacy through triangulated nexus between policy makers, scientists and the community in light of COVID-19 global crisis	Global Health Research and Policy  Perspective
13.04.2021	Neglected tropical diseases as a barometer for progress in health systems in times of COVID-19	BMJ Global Health  Commentary
12.04.2021	Covid-19: Budesonide shortens recovery time in patients not admitted to hospital, study finds	The BMJ  News
12.04.2021	Asthma drug budesonide shortens recovery time in non-hospitalised patients with COVID-19	Principle Trial  News

## Guidelines, Statements & Tools

Publication Date	Title/URL	Source	Summary
April 2021	<p>Managing India's Second COVID-19 Wave: Urgent Steps</p>	The Lancet COVID-19 Commission India Task Force  Report	<ul style="list-style-type: none"> <li>• New cases have dramatically risen during India's second wave in comparison to the first. The report acknowledges that whilst case fatality ratios are lower (1.3% to 0.87%), the number of infections is rising quicker, with a current average of 664 COVID-related deaths per day, worst case predictions is that this could rise to 2320 per day by June 2021 in the absence of efforts to mitigate this. COVID-19 has also disrupted routine health services and worsened the economy, therefore urgent action is recommended. Whilst many of these recommendations are within the Governments advisories and plans, the report recommend the following:               <ul style="list-style-type: none"> <li>○ Vaccinations: Aggressive coverage of priority vaccination groups (45 years and above and those below 45 years with severe comorbidities); urgently approve and deploy a broader type of vaccines; increase manufacturing capacity for domestic use; address vaccine hesitancy; monitor collate and report on adverse events.</li> <li>○ Non-pharmaceutical intervention: Re-launch public advocacy campaigns on mask wearing and safe behaviours; ban mass gatherings and large events (larger than 10 people for the next 2 months); community led, decentralised tracing, testing and isolating and community monitoring; scale up testing and record data on vaccination history and type on COVID-19 test registration forms.</li> <li>○ Travel and mobility: recommend 7 days mandatory quarantine for all international travellers; promote and support safe behaviours for domestic travel.</li> </ul> </li> </ul>

			<ul style="list-style-type: none"><li>○ Teacher in schools and colleges should be vaccinated, and schools re-opened safely as advised in sister document.</li><li>○ Expand genome sequencing to better understand variants.</li><li>○ Strengthen the health system through: addressing bottlenecks in pharmaceutical supply chain to end shortage of essential medicines; invest in medical infrastructure; support workforce through training and psycho-social support.</li><li>○ Avoid national/state lockdown as this has significantly negatively impacted on the most marginalised, instead focus on local level containment in consultation with local stakeholders.</li></ul>
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## Dashboards & Trackers

Cases & deaths: Global	Cases & deaths: Regional	Cases & deaths: Country	Living evidence & policy maps	Current research including trials	Diagnostics	Treatments	Vaccines
WHO sitreps	WHO Africa	Ghana	COVID-NMA	WHO	FIND SARS-CoV-2 Test Tracker	Global COVID-19 Clinical Trial Tracker	CEPI
WHO dashboard	African Arguments	Indonesia	EPPI Centre	WHO International Clinical Trials Registry Platform (ICTRP)	FIND SARS-CoV-2 Diagnostics: performance data	US NIH registered clinical trials	Vaccine Centre LSHTM
Johns Hopkins University	European CDC	Nigeria CDC	Norwegian Institute of Public Health	Cytel	Serology-based tests for COVID-19	Solidarity trial	<a href="#">COVID-19 Oxford Vaccine Trial</a>
WEF		Sierra Leone	Oxford C19 Government Response Tracker (OxCGRT)	US NIH	Our World in Data: C19 Testing	COVID-19 Therapeutics Accelerator	<a href="#">COVID-19 Vaccine Tracker</a>

Our World in Data		Singapore	Our World in Data: C19 Policy responses	COVID-evidence			Our World in Data: COVID-19 vaccinations
Global 5050		UK	IFPRI COVID-19 Policy Response Portal	Cochrane			
CEBM, University of Oxford		US	COVID-19 Primer	Clinicaltrials.gov			
Humanitarian Data Exchange			NIH LitCovid	UKCDR			
Information is Beautiful			WHO COVID-19 Database				
LSHTM							
HealthMap (cases)							
The Commons Project							
SeroTracker							

## C19 Resource Hubs

Global	Regional & Country	Academic journals & Publishers	Institutes/Centres/ Funders/Other	Health Topics	Social Sciences
WHO COVID-19 pandemic	Africa CDC	Annals of Internal Medicine	LSTM	Stop TB Partnership	SSHAP
WHO risk communication	African Union	BMJ	LSHTM		IDA
WHO Q&A	Nigeria CDC	Bulletin of the WHO	ICL MRC Centre for Global Infectious Disease Analysis	Global Menstrual Collective	Disability and inclusion
WHO Global research	GeoPoll: SSA	Cambridge University Press	ODI	SLH: Handwashing in low resource settings	Coregroup IDDC
COVID-19 Solidarity Response Fund	Global Health Network Africa	Cell Press	Johns Hopkins University	RBM Partnership	Ethics, health systems & COVID-19
UN	African Academy of Sciences	Cochrane	Center for Global Development	Epidemic Preparedness Innovations	Social Development Direct C19 blog series
UN Women	Africa Evidence Network	Elsevier	CMMID Repository	Southern Voice	Covid Collective Research Platform

UNOCHA	OCHA Southern and Eastern Africa COVID-19 Digest	Health Policy and Planning	Norwegian Institute of Public Health		
UNHCR	South African Government	JAMA Network	Oxford Centre for Evidence-based Medicine		
UNICEF		The Lancet	HEART		
UNESCO		medRxiv and bioRxiv (Preprints)	UKRI		
UN WFP		NEJM	Evidence Aid		
GOARN		Oxford University Press	NIH		
EPI-WIN		PLoS	IFPRI Resources and Analyses of C19 Impact		
World Bank		SAGE journals	Prevent Epidemics		
Our World in Data		Science	Health systems Global		
COVID-19 Narratives by David Nabarro		Springer Nature			
Reliefweb		SSRN (Preprints)			

Humanitarian OpenStreetMap Team		Wiley			
Global Partnership for Sustainable Development Data					
WorldPop					
Flowminder					
COVID-END					
Premise COVID-19 Global Impact Study					
GISAID					

## Online learning & events

Date	Title/URL	Online learning/event	Duration	Lead
15.04.2021	How can evaluation work support greater vaccine equity for COVID-19?	Webinar	1h	Itad
12.04.2021	COVID-19: Vaccines Safety Webinar - Understanding the Facts & Myths	Webinar	1.5h	Asia Pacific Association of Allergy, Asthma and Clinical Immunology



07.04.2021	Public webinar 'The RECOVERY Trial: one year on'	Webinar	1h	Nuffield Department of Population Health
25 March 2021	UK Public Health Rapid Support Team: Latest research & scientific insights	Webinar	1h	LSHTM
18 March 2021	Africa taking charge of its future: prioritizing gender equality in the path to recovery	Webinar	1h 30	CGD
10 March 2021	Equity and scale in global immunization: new evidence from Nigeria on cash transfers for vaccination	Webinar	1h 15	CGD
9 March 2021	COVID-19 vaccines and Africa: where do we stand in the race for vaccines?	Virtual conference webinar	1h	AHAIC
8 March 2021	Chronic Respiratory Diseases in the COVID era	Webinar		GARD, WHO
February 2021	COVID-19 vaccination training for health workers	Online training	3h	WHO
14.01.2021	Evidence to impact in crisis: how have we measured up during the COVID-19 pandemic?	Webinar	1h 30	CGD
04.12.2020	COVID-19, supply chain resilience and global trade	Webinar	1h	CGD

03.12.2020	More money for health services: What is the role of PFM in the “new normal”?	WHO & CGD Health systems Governance & Financing	1h 30	Joe Kutzin
01.12.2020	Solutions and support for the mental wellbeing of community health workers on the COVID-19 frontline	Webinar		HSG TWG on CHWs with The George Institute for Global Health
19.11.2020	Looking at the pandemic with a gender lens	Live Twitter conversation		SSHAP
16.11.2020	HIFA and WHO collaborate to promote sharing of experience and expertise around the maintenance of essential health services during (and after) the pandemic	4-week discussion starting 16 Nov		HIFA
10.11.2020	COVID-19 vaccine predictions part 2: estimating the time before we approve efficacious COVID-19 vaccines	Online event	1h30	CGD
16.10.2020	Financing a Global Public Health Response	Online event	1h30	CGD
02.10.2020	Understanding and Improving COVID-19 Vaccine Portfolio	Online event	1h30	CGD
21.09.2020	Mitigating the Economic and Health Impact of COVID-19 across Africa	Online event	1h30	CGD, GF, AU
June 2020	OpenWHO, the free, open-access learning platform for health	Online courses	Varies	WHO

	emergencies, now offers 10 online courses related to COVID19.			
Available now	Standard precautions: Environmental cleaning and disinfection	Online course	1 hour	WHO
Available now	COVID-19: Effective Nursing in Times of Crisis	Online course	2 weeks – 2 hours per week	Johns Hopkins School of Nursing
Available now	WHO Academy and WHO Info mobile applications	Mobile app		WHO
Available now	COVID-19: Pandemics, Modelling and Policy	Online learning	2 weeks   2 hours weekly study	FutureLearn UNESCO UNITWIN Complex Systems Digital Campus/Open University
11.5.2020	COVID-19 Contact Tracing course	Online learning	5 hours	Johns Hopkins Bloomberg School of Health
7-28 May 2020	Virtual Evidence Weeks	5 sessions	1h 30	International Initiative for Impact Evaluation (3ie)
Tuesdays at 1700 CEST (Geneva time) & Thursdays 0830 CEST (Geneva time)	COVID-19 Open online brief with Dr David Nabarro	Event	1h	4SD
Available now	Emerging respiratory viruses, including	Online learning	3 hours	WHO

	COVID-19: methods for detection, prevention, response and control			
Available now	Responding to COVID-19: Real-time training for the coronavirus disease outbreak	Online learning	Multiple self-paced course	WHO
25 May 2020	COVID-19: Tackling the Novel Coronavirus	Online learning	3 weeks   4 hours weekly study	FutureLearn LSHTM/UK PHRST
Available online now without mentors. Updated version will commence early June 2020	COVID-19 Diagnostics and Testing	Online learning	3 weeks   3 hours weekly study	FutureLearn FIND/LSHTM/ASLM
6 April 2020	COVID-19 Critical Care: Understanding and Application	Online learning	5 weeks   1 hour weekly study	FutureLearn University of Edinburgh & Royal College of Physicians of Edinburgh
Available now	COVID-19 supporting online courses	Online learning	Multiple self-paced course	BMJ Learning

## Suggested citation

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## Rapid review methodology

The rapid weekly search for peer-reviewed literature is carried out through a PubMed search with the following keywords (“COVID-19” OR “severe acute respiratory syndrome coronavirus 2” OR “2019-nCoV” OR “SARS-CoV-2” OR “2019nCoV” OR “coronavirus” ) AND (“Africa” OR “South Asia” OR “Developing” OR “low-income” OR “low income” OR “lower-middle income” OR “low and middle income” OR “LMIC” OR “LIC” OR “global south”) OR (“poverty”) OR (“equity” OR “equities”), restricted to articles published in the previous 2 to 3 days, in English. This is complemented by a search of the homepage of the following high-impact global health journals: The Lancet journals, New England Journal of Medicine, Nature, JAMA, Annals of Internal Medicine, Cochrane Reviews, BMJ Global Health, the PLoS journals and a Twitter search of their Twitter pages. A search also of preprints from bioRxiv and medRxiv. Please note that papers that have **not been peer-reviewed** are highlighted in red. All primary research papers that relate to the primary and secondary impacts of the COVID-19 response in LMICs, and disease control and health system responses are included. Articles related to tackling the secondary impacts on other sectors are not included. Additional commentaries, opinions, and commissioned pieces are selected based on relevance.

The search for dashboards, guidelines, tools, editorials, comments, blogs, opinions and news is through the academic journals listed above, C19 resource hubs and following lead academics and professionals on Twitter.

## About this report

This weekly COVID-19 health evidence summary (HES) is based on 3.5 hours of desk-based research. The summary is not intended to be a comprehensive summary of available evidence on COVID-19 but aims to make original documents easily accessible to decision makers which, if relevant to them, they should go to before making decisions. The HES are not intended to replace medical or professional advice and the researcher or the K4D consortium cannot be held responsible for any decisions made about COVID-19 on the basis of the HES alone. K4D services are provided by a consortium of leading organisations working in international development, led by the Institute of Development Studies (IDS), with Education Development Trust, Itad, University of Leeds Nuffield Centre for International Health and Development, Liverpool School of Tropical Medicine (LSTM), University of Birmingham International Development Department (IDD) and the University of Manchester Humanitarian and Conflict Response Institute (HCRI).

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