

COVID-19

Health Evidence Summary No.110

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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
01.02.2021	Predicting prognosis in COVID-19 patients using machine learning and readily available clinical data	medRxiv pre-print (not peer reviewed)	<ul style="list-style-type: none"> This study found that severe outcomes for patients admitted to hospital with COVID-19 infection can be assessed using machine learning-based models using readily available information at hospital admission 	Predicting outcomes, prognosis, machine learning

Therapeutics

Publication date	Title/URL	Journal/Article type	Summary	Keywords
27.01.2021	Efficacy of Colchicine in non-hospitalized patients with COVID-19	medRxiv pre-print (not peer reviewed)	<ul style="list-style-type: none"> • Randomised, double-blind trial of colchicine, an orally administered, anti-inflammatory, in 4488 non-hospitalised patients with COVID-19 • The primary endpoint occurred in 4.7% of the patients in the colchicine group and 5.8% of those in the placebo group. odds ratio, 0.79; 95.1% confidence interval 0.61 to 1.03; P=0.08 • Among non-hospitalized patients with COVID-19, colchicine reduces the composite rate of death or hospitalization 	colchicine
25.01.2021	Prospective mapping of viral mutations that escape antibodies used to treat COVID-19	Science Report	<ul style="list-style-type: none"> • Determining which SARS-CoV-2 mutations escape key antibodies is essential for assessing how mutations observed during viral surveillance may impact efficacy of antibody treatments for SARS-CoV-2 • Here, authors have completely mapped mutations that escape three leading anti-SARS-CoV-2 antibodies • Authors express their concern that so many escape mutations impose little cost on the receptor binding domain folding or receptor affinity and that some are already present in circulating SARS-CoV-2 strains • This work will assist viral genomic surveillance by enabling immediate interpretation of the effects of mutations catalogued 	Antibody treatment, viral escape

Vaccines

Publication date	Title/URL	Journal/Article type	Summary	Keywords
29.01.2021	Safety and immunogenicity of S-Trimer (SCB-2019), a protein subunit vaccine candidate for COVID-19 in healthy adults: a phase 1, randomised, double-blind, placebo-controlled trial	The Lancet Article	<ul style="list-style-type: none"> • First known study to assess the effect of two different adjuvants (AS03 and CPG/Alum) on a S-protein subunit vaccine against SARS-CoV-2 (SCB-2019) which uses Trimer-Tag technology in 151 trial participants • Immune responses to the S-Trimer protein alone were inadequate but with both tested adjuvants achieved neutralising antibody titres after two vaccinations • Responses were consistent with those recorded in the reference standard - a panel of convalescent serum samples from patients with COVID-19 • Both SCB-2019 adjuvanted formulations, which are stable when stored at 2-8oC, were generally well tolerated and are highly immunogenic when administered as two doses 21 days apart 	Safety, immunogenicity, protein vaccine
29.01.2021	Neutralization of SARS-CoV-2 lineage B.1.1.7 pseudovirus by	Science Report	<ul style="list-style-type: none"> • SARS-CoV-2-S pseudoviruses with either the Wuhan reference strain or the B.1.1.7 lineage spike protein were tested with sera of 	UK variant, BioNTech-Pfizer vaccine

	BNT162b2 vaccine-elicited human sera		<p>40 participants who were vaccinated in a previously reported trial with the mRNA-based COVID-19 vaccine BNT162b2</p> <ul style="list-style-type: none"> • Results suggest that the B.1.1.7 lineage will not escape BNT162b2-mediated protection • These data suggest that the BioNTech-Pfizer vaccine will protect against the “UK variant” 	
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Indirect impact of COVID-19

Publication date	Title/URL	Journal/Article type	Summary	Keywords
21.01.2021	Global pandemics interconnected – obesity, impaired metabolic health and COVID-19	Nature Reviews Endocrinology Review	<ul style="list-style-type: none"> • This review highlights how obesity and impaired metabolic health increase complications and mortality in COVID-19 and summarises the consequences of SARS-CoV-2 infection for organ function and risk of NCDs • Discusses data indicating that the COVID-19 pandemic could have serious consequences for the obesity epidemic • Proposes strategies, particularly during the COVID-19 pandemic, for the prevention and treatment of obesity and impaired metabolic health on a clinical and population, given obesity and impaired metabolic health are both accelerators and 	COVID-19, obesity, metabolic health

Social Science

Publication date	Title/URL	Journal/Article type	Summary	Keywords
2021	Operational considerations for building community resilience for COVID-19 response and recovery	SSHAP Briefings	<ul style="list-style-type: none"> • A community resilience approach frames epidemic shocks more holistically and from the perspectives of a whole system • A resilience framework offers the opportunity to build existing capacities to manage health, social, psychosocial and economic impacts of an epidemic making the resilience approach more localised, adaptable, and sustainable in the long-term • This brief presents considerations for how health and humanitarian practitioners can support communities to respond to and recover from COVID-19 using a community resilience approach 	community resilience approach
29.01.2021	Behaviour adoption approaches during public health emergencies: implications for the COVID-19 pandemic and beyond	BMJ Global Health Practice	<ul style="list-style-type: none"> • Using the COVID-19 pandemic as a case study, here authors operationalise a contextual framework on behaviour adoption during diverse public health emergencies to demonstrate how three approaches, top-down, intermediary and bottom-up, differ in terms of their implementation, underlying drivers of action, enforcement, reach and uptake • Blended strategies that include all three approaches can help accelerate and sustain 	Behaviour change

			<p>protective behaviours, important even when safe and effective vaccines are widely available</p> <ul style="list-style-type: none"> • This contextual framework can inform the design, implementation, tracking and evaluation of comprehensive public health and social measures during health emergencies 	
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Leadership and governance

Publication date	Title/URL	Journal/Article type	Summary	Keywords
29.01.2021	Words matter: political and gender analysis of speeches made by heads of government during the COVID-19 pandemic	BMJ Global Health Original research	<ul style="list-style-type: none"> • Differences in how leaders address the pandemic through public messages have practical implications for building trust and an effective response within a country • Here an analysis of speeches made by 20 heads of government from around the world find that five primary themes emerged across a total of 122 speeches on COVID-19: economics and financial relief, social welfare and vulnerable populations, nationalism, responsibility and paternalism, and emotional appeals • Findings provide insight into the rhetorical tools and types of language used by different leaders and on differences in political leaders' messages and priorities to inspire citizens' adherence to the social contract in the adoption 	Political leadership, speeches

			of response and recovery measures	
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Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Journal Article type
01.02.2021	Oxygen shortages bite in poorer countries battling Covid	Financial Times News
01.02.2021	Blurring lines: between vaccine urgency in a pandemic and research and regulation ethics	PLoS Blogs
31.01.2021	Jeremy Farrar: Until we are all safe, no one is safe. Covid is a global problem	The Guardian Interview
30.01.2021	SARS-CoV-2 serosurveys in low-income and middle-income countries	The Lancet Comment
30.01.2021	WHO's Covid warnings were not heeded. Now the world has a new chance to beat the virus	The Observer Opinion
30.01.2021	Health and care workers are owed a better future	The Lancet Editorial
29.01.2021	Next-generation COVID-19 vaccines: here come the proteins	The Lancet Comment
29.01.2021	SARS-CoV-2 evolution and vaccines: cause for concern?	The Lancet Respiratory Medicine Comment
29.01.2021	COVID-19 rarely spreads through surfaces. So why are we still deep cleaning?	Nature News
29.01.2021	Combating the COVID-19 infodemic: a three-level approach for low and middle-income countries	BMJ Global Health Commentary
29.01.2021	Novavax offers first evidence that COVID vaccines protect people against variants	Nature News

29.01.2021	How to redesign COVID vaccines so they protect against variants	Nature News
29.01.2021	J&J's one-shot COVID vaccine offers hope for faster protection	Nature News
28.01.2021	SARS-CoV-2 testing for public health use: core principles and considerations for defined use settings	The Lancet Global Health Comment
28.01.2021	Urgent needs of low-income and middle-income countries for COVID-19 vaccines and therapeutics	The Lancet Comment
28.01.2021	'The country is falling apart': Lebanon's hospitals overwhelmed by Covid surge	Financial Times News
27.01.2021	Is Africa wasting the pandemic-induced economic crisis?	CGD Blog
25.01.2021	COVID-19 is a gendered crisis. Here's what policymakers can do about it	CGD Blog
23.01.2021	South Africa responds to new SARS-CoV-2 variant	The Lancet World Report

Guidelines, Statements & Tools

Publication Date	Title/URL	Source	Summary
29.01.2021	The selection and use of essential in vitro diagnostics – TRS 1031	WHO Technical Report Series	<ul style="list-style-type: none"> WHO released the third edition of its Model List of Essential In Vitro Diagnostics (EDL). This edition includes WHO-recommended Covid-19 tests (nucleic acid as well as antigen detection tests)
26.01.2021	Covid-19 in developing countries:	International Development Committee	<ul style="list-style-type: none"> This IDC report highlights that developing countries face disastrous healthcare setbacks including disruption to routine

	secondary impacts		<p>immunisation and treatment programmes</p> <ul style="list-style-type: none"> • Tackling COVID-19 is diverting funding, exhausting staff, absorbing resources, and scaring off patients with other illnesses from accessing healthcare
Jan 2021	Future at risk: the UK's role in averting a global health crises for mothers and children	UNICEF Report	<ul style="list-style-type: none"> • Using data from UNICEF countries and other partners, along with projections on the potential indirect health impacts of COVID-19, this report examines the effects of the pandemic on essential life-saving services for mothers, newborns and children • Also, sets an agenda for action for the UK Government, and specifically FCDO, to deliver on ending preventable deaths and ensure opportunity for every child

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	COVID-19 Oxford Vaccine Trial
WEF		Sierra Leone	Oxford C19 Government Response Tracker (OxCGRT)	US NIH	Our World in Data: C19 Testing	COVID-19 Therapeutics Accelerator	COVID-19 Vaccine Tracker

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		
UNOCHA	OCHA Southern and Eastern Africa	Health Policy and Planning	Norwegian Institute of Public Health		

	COVID-19 Digest				
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			
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
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	Online event	1h30	CGD

	before we approve efficacious COVID-19 vaccines			
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 emergencies, now offers 10 online courses related to COVID19.	Online courses	Varies	WHO
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 COVID-19: methods for detection, prevention, response and control	Online learning	3 hours	WHO
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	COVID-19 Diagnostics and Testing	Online learning	3 weeks 3 hours weekly study	FutureLearn FIND/LSHTM/ASLM

early June 2020				
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

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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

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