

COVID-19

Health Evidence Summary No.112

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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.

Epidemiology and modelling

Publication date	Title/URL	Journal/Article type	Summary	Keywords
11.02.2021	Antibody status and incidence of SARS-CoV-2 infection in health care workers	NEJM Original article	<ul style="list-style-type: none"> Investigation of incidence of SARS-CoV-2 infection in 12,541 health care workers in UK Presence of anti-spike or anti-nucleocapsid IgG antibodies was associated with a substantially reduced risk of SARS-CoV-2 reinfection in the following 6 months 	Antibodies, reinfection
03.02.2021	Recurrent deletions in the SARS-CoV-2 spike glycoprotein drive antibody escape	Science Report	<ul style="list-style-type: none"> Coronaviruses acquire substitutions more slowly than other RNA viruses, due to a proofreading polymerase In the spike glycoprotein, recurrent deletions are found that overcome this slow substitution rate Deletion variants arise in diverse genetic and geographic backgrounds and can transmit efficiently Deletions frequently in the recurrent deletion regions (RDRs) confer resistance to neutralising antibodies 	Variants, immune escape

			<ul style="list-style-type: none"> • Progression of adaptations in immunocompromised patients remain to be resolved • Recurrence of adaptations in single patients, and on global scales highlights the importance of tracking and monitoring deletion variants 	
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Therapeutics

Publication date	Title/URL	Journal/Article type	Summary	Keywords
12.02.2021	Chloroquine or hydroxychloroquine for prevention and treatment of COVID-19	Cochrane Systematic Review	<ul style="list-style-type: none"> • SR of randomised controlled trials to evaluate the effects of chloroquine or hydroxychloroquine (HCQ) in 3 subgroups: (1) treating people with C19 on death and time to clearance of the virus; (2) preventing infection in people at risk of SARS-CoV-2 exposure; (3) preventing infection in people exposed to SARS-CoV-2 • HCQ for people infected with COVID-19 has little or no effect on the risk of death and probably no effect on progression to mechanical ventilation • There should be no further trials of HCQ or 	Chloroquine, hydroxychloroquine

			<p>chloroquine for treatment of COVID-19</p> <ul style="list-style-type: none"> Given these results, it is unlikely that the drug is effective in protecting people from infection, although this is not excluded, and high-quality trials examining prevention of infection could be carried out to give a clear answer 	
11.02.2021	Tocilizumab in patients admitted to hospital with COVID-19 (RECOVERY): preliminary results of a randomised, controlled, open-label, platform trial	medRxiv pre-print (not peer reviewed)	<ul style="list-style-type: none"> Randomised, controlled, open-label, platform trial in 4116 adult patients with hypoxia (oxygen saturation <92% on air or requiring oxygen therapy) and evidence of systemic inflammation (C-reactive protein ≥ 75mg/L) randomised to usual standard of care alone versus usual standard of care plus tocilizumab at a dose of 400 mg to 800 mg (depending on weight) given intravenously Primary outcome was 28-day mortality, assessed in the intention-to-treat population Findings are that in hospitalised COVID-19 	tocilizumab

			<p>patients with hypoxia and systemic inflammation, tocilizumab improved survival and other clinical outcomes</p> <ul style="list-style-type: none"> • Benefits seen irrespective of the level of respiratory support and were additional to the benefits of systemic corticosteroids 	
08.02.2021	Inhaled budesonide in the treatment of early COVID-19 illness: a randomised controlled trial	medRxiv pre-print (not peer reviewed)	<ul style="list-style-type: none"> • Early in the pandemic, observed that patients with chronic respiratory disease, who are often prescribed inhaled steroids, were significantly under-represented among those admitted to hospital with COVID-19 • Phase 2 randomised, open label trial of inhaled budesonide versus usual care in 146 adults within 7 days of onset of mild Covid-19 symptoms (STOIC trial) • Treatment with inhaled budesonide (corticosteroid used in long-term management of asthma and COPD) given to 	budesonide

			patients with COVID-19 within seven days of symptom onset reduced the need for urgent care, hospitalisation and recovery time in people with COVID-19	
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Vaccines

Publication date	Title/URL	Journal/Article type	Summary	Keywords
12.02.2021	Challenges in ensuring global access to COVID-19 vaccines: production, affordability, allocation, and deployment	The Lancet Health Policy	<ul style="list-style-type: none"> Review of potential challenges to success in of COVID-19 production, affordability, allocations and deployment and a discussion of policy implications Includes a dashboard to highlight key characteristics of 26 leading vaccine candidates with a traffic-light system to signal the potential contributions of each candidate in achieving global vaccine immunity and important trade-offs in policy and implementation Also 32-country survey from Oct to Dec 2020 on potential acceptance of COVID-19 vaccines 	COVID-19 vaccines, global access
11.02.2021	A Covid Vaccine Certificate: building on lessons from digital ID for the digital yellow card	CGD Notes	<ul style="list-style-type: none"> A Covid Vaccine Certificate (CVC) is likely to become an important tool to help monitor and manage the rollout of vaccinations and in the recovery of national economies, facilitate safe movement of people across countries and rejuvenate tourism, important for many developing countries These notes consider some lessons from rollout of identification systems across the world 	Covid vaccine certificate

			<ul style="list-style-type: none"> • Low-cost, high-access approaches are essential to ensure that the digital and affordability gap does not widen, balancing Level of Assurance against Level of Security 	
10.02.2021	mRNA vaccine-elicited antibodies to SARS-CoV-2 and circulating variants	Nature Accelerated Article Preview	<ul style="list-style-type: none"> • A report on antibody and memory B cell responses in 20 volunteers eight weeks after second vaccination with either Moderna or Pfizer-BioNTec vaccines • Modest effects of the mutations on viral sensitivity to plasma reflects polyclonal nature of neutralising antibodies • Mutations maybe emerging in response to immune selection in individuals with non-sterilising immunity • Plasma neutralising activity, and relative numbers of receptor binding domain-specific memory B cells were equivalent to those recovering from natural infection • Authors conclude that monoclonal antibodies in clinical use should be tested against newly arising variants and that mRNA vaccines may need to be updated periodically to avoid loss of clinical efficacy 	Immunity, mRNA vaccines

Indirect impact of COVID-19

Publication date	Title/URL	Journal/Article type	Summary	Keywords
Jan 2021	Impact of Covid-19 on adolescent mental health in Viet Nam	ODI Working and discussion paper	<ul style="list-style-type: none"> • A literature review of the impacts of COVID-19 on mental well-being and the mental health and psychosocial support needs of adolescents in Viet Nam and Tanzania • COVID-19 has led to an increase in mental health 	Adolescent mental health, Viet Nam, Tanzania

	and Tanzania		<p>disorder, particularly anxiety, stress and depressive disorders with a particular impact from school closures and online learning</p> <ul style="list-style-type: none"> • Older adolescents stress about examinations, their uncertain future and job prospects • Increased provision in services dedicated to combating domestic and online violence given increased exposure to abusive household conditions and online child abuse material • A variety of digital interventions were introduced in both countries, in response to restrictions on providing in-person mental health services, reaching millions of adolescents globally. Key lessons must be learnt from this for post-Covid engagement and particular attention to accessibility 	
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Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Journal Article type
15.02.2021	Covid-19: are cloth masks still effective? And other questions answered	BMJ News analysis
13.02.2021	Tanzania refuses COVID-19 vaccines	The Lancet World Report
12.02.2021	How 'killer' T cells could boost COVID immunity in face of new variants	Nature News
12.02.2021	Genomic-informed pathogen surveillance in Africa: opportunities and challenges	The Lancet Infectious Diseases Personal view

12.02.2021	Oxford University extends COVID-19 vaccine study to children	University of Oxford News
12.02.2021	Can Covax deliver the vaccines much of the world needs?	Financial Times News
12.02.2021	Priorities for the COVID-19 pandemic at the start of 2021: statement of the Lancet COVID-19 Commission	The Lancet Comment
12.02.2021	The hazards of medicine by tweet: the case of anti-cytokine therapy for Covid-19	Statnews
11.02.2021	The COVID-19 exit strategy – why we need to aim low	The Lancet Infectious Diseases Editorial
11.02.2021	SARS-CoV-2 variants and ending the COVID-19 pandemic	The Lancet Comment
11.02.2021	SARS-CoV-2 variants and ending the COVID-19 pandemic	The Lancet Comment
10.02.2021	Redesigning health systems for global health security	The Lancet Global Health Comment
10.02.2021	Oxygen supplies and COVID-19 mortality in Africa	The Lancet Respiratory Medicine News
10.02.2021	Drug trial that could improve respiratory recovery from COVID-19 now underway	University of Oxford News
10.02.2021	The rich people's virus? Latest reflection from Zimbabwe	SSHAP Blog
10.02.2021	Expanding health product manufacturing in Africa: ideas for development finance institutions, procurers, and policymakers	CGD Blog
10.02.2021	Release COVID-19 vaccine contracts	CGD Blog

10.02.2021	How will COVID-19 impact our progress towards Universal Health Coverage	CGD Blog
09.02.2021	Rapid coronavirus tests: a guide for the perplexed	Nature News
09.02.2021	We can stop preventable COVID deaths by urgently prioritising medical oxygen and essential critical care	CGD Blog
01.02.2021	COVID crisis is fueling food price rises for world's poorest	World Bank Blog
07.01.2021	What COVID-19 can mean for long-term inequality in developing countries	World Bank Blog
03.02.2021	Put to the test: use of rapid testing technologies for covid-19	BMJ analysis

Guidelines, Statements & Tools

Publication Date	Title/URL	Source	Summary
10.02.2021	Interim recommendations for use of the AZD1222 (ChAdOx1-S (recombinant)) vaccine against COVID-10 developed by Oxford University and AstraZeneca	WHO Interim guidelines	<ul style="list-style-type: none"> • Interim guidance developed on the basis of WHO SAGE advice • Recommendation is two standard doses of ChAdOx1 nCoV-19 administered at an 8-12 week interval in people aged 18 years and older • Priority to be given to health workers at high risk of exposure and older people, including those aged 65 or older • Further studies are required for persons living with HIV or auto-immune or immunocompromised but may be vaccinated after receiving information and counselling
Jan 2021	The inequality virus	Oxfam Report	<ul style="list-style-type: none"> • Documenting how COVID-19 has affected different populations and parts of the world and impacts on those already-marginalised

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 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			
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
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	4-week discussion starting 16 Nov		HIFA

	services during (and after) the pandemic			
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 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 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

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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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