

# COVID-19

## Health Evidence Summary No.44

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*This daily COVID-19 Health Evidence Summary is to signpost DFID and other UK government departments to the latest relevant evidence and discourse on COVID-19 to inform and support their response. It is a result of 3 hours of work and 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
22.05.2020	COVID-19: Real-time forecasts of confirmed cases, active cases, and health infrastructure requirements for India and its majorly affected States using the ARIMA model	medRxiv  preprint (not peer reviewed)	<ul style="list-style-type: none"> <li>• This study forecasts the confirmed and active cases for C19 until June, using time series ARIMA model, and based on predicted active cases estimates required isolation beds, ICU beds and ventilators for C19 patients</li> <li>• Forecasts are 441,896 confirmed cases (95% CI 210,240 to 673,552), 124,712 active cases (95% CI 68,481 to 180,944) by the end of June</li> <li>• Estimates require 106,006 isolation beds (95% CI 58,209 to 153,802), 12,471 ICU beds (95% CI 6,848 to 18,094) and 6,236 ventilators (95% CI 3,424 to 9,047) to accommodate this forecast</li> <li>• Authors suggest a Public-Private-Partnership model in the health sector to accommodate C19 patients and reduce the burden on the Indian public healthcare system</li> </ul>

## Testing

Publication date	Title/URL	Journal/Article type	Summary
21.05.2020	Recombination potential of SARS-CoV-2 and MERS-CoV	iScience   SSRN	<ul style="list-style-type: none"> <li>• This study suggests that recombination between SARS-CoV-2 and MERS-CoV RNA is possible</li> <li>• Public health laboratories in high-risk areas should develop diagnostic capability for the detection of recombined coronaviruses in patient samples</li> </ul>

## Therapeutics

Publication date	Title/URL	Journal/Article type	Summary
22.05.2020	Hydroxychloroquine or chloroquine with or without a macrolide for the treatment of COVID-19: a multinational registry analysis	The Lancet   Article	<ul style="list-style-type: none"> <li>• This observational study of 96,032 patients with C19, 14,888 of whom were treated with hydroxychloroquine, chloroquine, or their combination with a macrolide, across six continents evaluated real-world evidence related to outcomes with the use of hydroxychloroquine or chloroquine in the absence of reported randomised trials</li> <li>• Although observational studies cannot fully account for unmeasured confounding factors no evidence of benefit of hydroxychloroquine or chloroquine when either used alone or with a macrolide was found and also potential harm (decreased in-hospital survival and an increased frequency of ventricular arrhythmias) with the use of hydroxychloroquine or chloroquine drug regimens (with or without macrolide) in hospitalised patients with C19</li> </ul>

## Vaccines

Publication date	Title/URL	Journal/Article type	Summary
22.05.2020	Safety, tolerability, and immunogenicity of a recombinant adenovirus type-5 vectored COVID-19 vaccine: a dose-escalation, open-label, non-randomised, first-in-human trial	The Lancet   Article	<ul style="list-style-type: none"> <li>This first-in-human trial showed that the Ad5 vectored COVID-19 vaccine is tolerable and immunogenic in healthy adults at 28 days post-vaccination.</li> <li>Humoral responses against SARS-CoV-2 peaked at day 28 post-vaccination in healthy adults, and rapid specific T-cell responses were noted from day 14 post-vaccination</li> <li>This study suggests there is potential for further investigation of this vaccine candidate</li> <li>An ongoing phase 2 trial in China will provide more information on the safety and immunogenicity of this vaccine candidate</li> </ul>
20.05.2020	DNA vaccine protection against SARS-CoV-2 in rhesus macaques	Science   Article	<ul style="list-style-type: none"> <li>DNA vaccine candidates expressing different forms of the SARS-CoV-2 Spike (S) protein elicited neutralising antibody titres which correlated with protection against SARS-CoV-2 in nonhuman primates</li> </ul>

## Indirect impact of COVID-19

Publication date	Title/URL	Journal/Article type	Summary
22.05.2020	Prevalence of mental health problems during virus epidemics in the general public, health care workers and survivors: a rapid review	medRxiv   Review (not peer reviewed)	<ul style="list-style-type: none"> <li>A rapid review of mental health problems (MHP) prevalence rates published since 2000, during and after epidemics, including the general public, healthcare workers and survivors</li> <li>Most original studies on MHP were conducted in China in the context of SARS-CoV-1, and reported anxiety, depression, post-traumatic stress symptoms/disorder, general psychiatric morbidity, and psychological symptoms</li> <li>The MHP rates across studies, populations and epidemics vary substantially</li> </ul>

	of the evidence		<ul style="list-style-type: none"> <li>Results call for the use of validated and standardised instruments, reference norms, and pre-post measurements to better understand the magnitude of the MHP during and after epidemics</li> </ul>
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## Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Journal   Article type	Author(s)
22.05.2020	Chloroquine or hydroxychloroquine for COVID-19: why might they be hazardous?	The Lancet   Comment	Christian Funck-Brentano Joe-Elie Salem
22.05.2020	Children appear half as likely to catch COVID-19 as adults	UCL   News	
21.05.2020	Covid-19 and the impact on gender and sexuality	IDS   Opinion	Susie Jolly
21.05.2020	Survey suggests rising risk of food and nutrition insecurity in Addis Ababa, Ethiopia as COVID-19 restrictions continue	IFPRI   Blog	Kalle Hirvonen Gashaw Tadesse Abate Alan De Brauw
21.05.2020	The economic impact of Covid-19 around the world: remittances, updated growth and poverty projections, and the reintroduction of Barter in Fiji	CGD	David Evans Amina Mendez Acosta
20.05.2020	Coronavirus: everyone wins when patents are pooled	Nature   Editorial	

## Guidelines, Statements & Tools

Publication Date	Title/URL	Source	Summary
21.05.2020	Revealing the toll of COVID-19	Prevent Epidemics   Tool	<ul style="list-style-type: none"> <li>This technical package helps guide governments in rapid mortality surveillance, informing decision-making based on the true impact of C19 within their countries</li> </ul>
May 2020	Key considerations for COVID-19 management in marginalised populations in Southeast Asia: transnational migrants, informal workers, and people living in informal settlements	SSHAP   Briefings	<ul style="list-style-type: none"> <li>This brief presents considerations of C19 management among structurally vulnerable populations in SE Asia including transnational migrants, people working in the informal economy, and people living in informal urban and peri-urban settlements</li> <li>These populations are poorly understood ignored or left out of formal policy</li> <li>Whilst not a systematic study of C19 control measures, does include information on alternative parallel, or informal responses that are relevant to C19 control in the region</li> </ul>
May 2020	Key considerations: Covid-19 in the context of conflict and displacement – Myanmar	SSHAP   Briefing	<ul style="list-style-type: none"> <li>This brief focuses on how the interplay between conflict, displacement and inter-communal tensions in Myanmar may influence disease control</li> <li>The response to C19 must be sensitive and effective where there are social and political challenges and where trust in authorities imposing diseases control may be low</li> <li>A range of non-state actors must be factored into a public health response</li> </ul>

## 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 Diagnostic tests: 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	
Our World in Data		Singapore	Our World in Data: C19 Policy responses	COVID-evidence			
Global 5050		UK	IFPRI COVID-19 Policy	Cochrane			

			Response Portal				
CEBM, University of Oxford		US		Clinicaltrials.gov			
Humanitarian Data Exchange				UKCDR			
Information is Beautiful							
LSHTM							
HealthMap (cases)							
The Commons Project							

## C19 Resource Hubs

Global	Regional & Country	Academic journals & Publishers	Institutes/Centres/Funders/Others	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	GeoPol I: 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		Ethics, health systems & COVID-19
UN	African Academy of Sciences	Cochrane	Center for Global Development		Social Development Direct C19 blog series
UN Women	Africa Evidence Network	Elsevier	CMMID Repository		
UNOCHA	OCHA Southern and Eastern Africa COVID-19 Digest	JAMA Network	Norwegian Institute of Public Health		
UNHCR		The Lancet	Oxford Centre for Evidence-based Medicine		
UNICEF		medRxiv and bioRxiv (Preprints)	HEART		



UNESCO		NEJM	UKRI		
UN WFP		Oxford University Press	Evidence Aid		
GOARN		PLoS	NIH		
EPI-WIN		SAGE journals	IFPRI Resources and Analyses of C19 Impact		
World Bank		Science	Prevent Epidemics		
Our World in Data		Springer Nature			
COVID-19 Narratives by David Nabarro		SSRN (Preprints)			
Reliefweb		Wiley			
Humanitarian OpenStreetMap Team					
Global Partnership for Sustainable Development Data					
WorldPop					
Flowminder					
COVID-END					

Premise COVID-19 Global Impact Study					
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## Online learning & events

Date	Title/URL	Online learning/event	Duration	Lead
04.06.2020 12pm ET	<a href="#">CGD Conversations on COVID-19 and Development: John Nkengasong</a>	Event		CGD
Available now	<a href="#">WHO Academy and WHO Info mobile applications</a>	Mobile app		WHO
Available now	<a href="#">COVID-19: Pandemics, Modelling and Policy</a>	Online learning	2 weeks   2 hours weekly study	FutureLearn UNESCO UNITWIN Complex Systems Digital Campus/Open University
11.5.2020	<a href="#">COVID-19 Contact Tracing course</a>	Online learning	5 hours	Johns Hopkins Bloomberg School of Health
7-28 May 2020	<a href="#">Virtual Evidence Weeks</a>	5 sessions	1h 30	International Initiative for Impact Evaluation (3ie)
Tuesdays at 1700 CEST (Geneva time) & Thursdays 0830 CEST (Geneva time)	<a href="#">COVID-19 Open online brief with Dr David Nabarro</a>	Event	1h	4SD

30.04.2020	Professor Chris Whitty's Gresham lecture on COVID-19	Event	1h 20	Gresham College
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

## Suggested citation

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## Rapid review methodology

The rapid daily 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 (“equity” OR “equities”) OR (“poverty”), 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 daily COVID-19 health evidence summary (HES) is based on 3 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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