

# COVID-19

## Health Evidence Summary No.66

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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.*

### Clinical characteristics and management

Publication date	Title/URL	Journal/Article type	Summary	Keywords
17.06.2020	Genomewide association study of severe COVID-19 with respiratory failure	NEJM   Article	<ul style="list-style-type: none"> <li>Patients infected with SARS-CoV-2 show considerable variation in disease behaviour</li> <li>This study involved 1980 patients with C19 and severe disease (defined as respiratory failure) at 7 hospitals in Italy and Spain</li> <li>The 3p21.31 gene cluster was identified as a genetic susceptibility locus in patients with C19 with respiratory failure and confirmed a potential involvement of the ABO blood-group system</li> </ul>	Genetic susceptibility, respiratory failure
18.06.2020	Associations of global country profiles and modifiable risk factors with	medRxiv (non-peer reviewed)   Article	<ul style="list-style-type: none"> <li>Lifestyle modification could play a role in SARS-CoV-2 infection and mortality but this has not been studied at a global level</li> <li>Analysing publicly available data from</li> </ul>	Obesity, physical inactivity, salt consumption

	COVID-19 cases and deaths		<p>countries reporting C19 cases and deaths, obesity was the primary modifiable risk factor for infection and greater age, male sex, physical inactivity and low salt consumption were associated with excess deaths. Obesity was less influential on mortality than physical inactivity</p> <ul style="list-style-type: none"> <li>• High salt consumption may induce reductions in tissues ACE2 expression and subsequently reduce mortality rates</li> </ul>	
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## Epidemiology and modelling

Publication date	Title/URL	Journal/Article type	Summary	Keywords
17.06.2020	Household secondary attack rate of COVID-19 and associated determinants in Guangzhou, China: a retrospective cohort study	The Lancet Infectious Diseases   Article	<ul style="list-style-type: none"> <li>• Household transmissibility of SARS-CoV-2 remains unclear</li> <li>• This study uses a statistical transmission model to estimate the secondary attack rate of SARS-CoV-2 among household and non-household close contacts in Guangzhou, China</li> <li>• SARS-CoV-2 is more transmissible in households than SARS-CoV and MERS</li> <li>• Older individuals (those 60y and older) are the most susceptible to household transmission of SARS-CoV-2</li> <li>• Timely tracing and quarantine of close contacts should be implemented to prevent transmission during the viral incubation period</li> </ul>	Household, transmission

## Infection Prevention and Control

Publication date	Title/URL	Journal/Article type	Summary	Keywords
18.06.2020	Perceived challenges of COVID-19 infection prevention and control preparedness: a multinational survey	medRxiv (non-peer reviewed)   Article	<ul style="list-style-type: none"> <li>This study assessed the perceptions of HCWs on the current global IPC preparedness measures for C19 in 339 IPC professionals spanning 63 countries in all 6 WHO regions, mostly from tertiary care centres</li> <li>A lack of guidelines and concerns over insufficient PPE supply were evident in both HICs and LICs</li> <li>National health authorities should “ramp up” IPC implementation and focus on long-term preparedness for future pandemics</li> </ul>	HCWs, PPE, guidelines
18.06.2020	State-wise estimates of current hospital beds, intensive care unit (ICU) beds and ventilators in India: are we prepared for a surge in COVID-19 hospitalisations?	medRxiv (non-peer reviewed)   Article	<ul style="list-style-type: none"> <li>This study combines data on public and private sector hospitals in India to produce state level estimates of hospital beds, ICU beds and mechanical ventilators. Assumptions made: 5% of all hospital beds were ICU beds, 50% of ICU beds were equipped with ventilators</li> <li>Nationally, resources are concentrated in the private sector</li> <li>There is substantial variation in available resources across states and union territories</li> <li>In an optimistic scenario approx. 270 000 ICU beds will be required, over 2.8 times the estimated number available in India</li> </ul>	Hospital capacity, India

## Testing

Publication date	Title/URL	Journal/Article type	Summary	Keywords
18.06.2020	Combined point of care nucleic acid and antibody testing for SARS-CoV-2: a prospective cohort study in suspected moderate to severe COVID-19 disease	medRxiv (non-peer reviewed)   Article	<ul style="list-style-type: none"> <li>• Rapid C19 diagnosis in hospital is essential for patient management and to limit nosocomial transmission</li> <li>• This study assessed the diagnostic accuracy of combined rapid antibody point of care (POC) and nucleic acid assays for suspected C19 in the emergency department</li> <li>• Dual POC SARS-CoV-2 testing can significantly improve diagnostic sensitivity whilst maintain high specificity</li> <li>• A rapid combined approach will aid recruitment into clinical trials and in prescribing therapeutics</li> </ul>	Nosocomial transmission, dual POC testing
18.06.2020	Detection of antibodies to the SARS-CoV-2 spike glycoprotein in both serum and saliva enhances detection of infection	medRxiv (non-peer reviewed)   Article	<ul style="list-style-type: none"> <li>• Detecting antibody responses in hospitalised patients with severe disease is more reliable than in subjects with mild disease or in those who are asymptomatic</li> <li>• This could be due to the suboptimal sensitivity of antibody assays and the compartmentalisation of the antibody response</li> <li>• Detecting antibody responses in both saliva and serum is optimal for determining virus exposure and understanding immune responses after SARS-CoV-2 infection</li> </ul>	Antibody, serum, saliva

## Social Science

Publication date	Title/URL	Journal/Article type	Summary	Keywords
18.06.2020	Knowledge and behaviours related to the COVID-19 pandemic in Malawi	medRxiv (non-peer reviewed)   Article	<ul style="list-style-type: none"> <li>• 630 individuals (59% women, 77.6% residing in rural areas) aged 18 and older were interviewed by mobile phone between 25 April and 23 May. Only 1 respondent had never heard of C19</li> <li>• Misconceptions about the modes of transmission of SARS-CoV-2 and the course and severity of C19 were common. Increased handwashing and avoiding crowds were the most reported strategies to prevent SARS-CoV-2 spread. Use of face masks was more common in urban residents.</li> <li>• Gaps in knowledge about C19 persist in this population despite widespread access to information</li> <li>• Adoption of preventive strategies remains limited, possible due to limited perceived risk of infection among a large fraction of the population</li> </ul>	Knowledge, behaviour
18.06.2020	Knowledge, attitudes and fear of COVID-19 during the rapid rise period in Bangladesh	medRxiv (non-peer reviewed)   Article	<ul style="list-style-type: none"> <li>• Prospective, cross-sectional survey of 2157 subjects 13 to 90 years old, living in Bangladesh</li> <li>• Overall Bangladeshis reported a high prevalence of self-isolation, positive preventive health behaviours related to C19 and moderate to high fear levels</li> <li>• Higher knowledge and practice was found in males, higher education levels, older age and urban location</li> </ul>	Knowledge, behaviour, attitude

			<ul style="list-style-type: none"> <li>• Fear of C19 was more prevalent in female and elderly subjects</li> <li>• Most reported a positive attitude reflecting the belief that COVID-19 was controllable and containable</li> </ul>	
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## Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Journal   Article type	Author(s)
18.06.2020	WHO concerned over COVID-19 impact on women, girls in Africa	WHO Africa   News	
18.06.2020	Imperial COVID-19 Vaccine Trial	ICL   News	
18.06.2020	How Covid is making it tougher to tackle TB, AIDS, malaria and child health	The Print	Jacob Bigio Madhukar Pai
18.06.2020	African Parliamentarians aim for increased health budgets amid COVID-19 pandemic	African Union   News	
July 2020	Prioritising children's rights in the COVID-19 response	The Lancet Child & Adolescent Health   Editorial	
July 2020	COVID-19: a catalyst for flexibility and creativity in neurology	The Lancet Neurology   Editorial	
17.06.2020	Household studies provide key insights on the transmission of, and susceptibility to, SARS-CoV-2	The Lancet Infectious Diseases   Comment	Virginia E. Pitzer Ted Cohen

## 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 COVID-19 Government Response Tracker (OxCGRT)	US NIH	Our World in Data: COVID-19 Testing	COVID-19 Therapeutics Accelerator	
Our World in Data		Singapore	Our World in Data: COVID-19 Policy responses	COVID-evidence			
Global 5050		UK	<a href="#">IFPRI COVID-19 Policy Response Portal</a>	Cochrane			
CEBM, University of Oxford		US	<a href="#">COVID-19 Primer</a>	Clinicaltrials.gov			

Humanitarian Data Exchange			NIH LitCovid	UKCDR			
Information is Beautiful			WHO COVID-19 Database				
LSHTM							
HealthMap (cases)							
The Commons Project							

## 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		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	South African Government	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					

## Online learning & events

Date	Title/URL	Online learning/event	Duration	Lead
24-25.06.2020	<a href="#">Africa's leadership role in COVID-19 vaccine development and access</a>	Zoom webinar		African Union & Africa CDC
18.06.20 2 pm EDT	<a href="#">Social, political, and public health factors fuelling the COVID19 crisis in Brazil and Colombia</a>	Virtual event	45 mins	Broad Global Health Initiative
Available now	<a href="#">Standard precautions: Environmental cleaning and disinfection</a>	Online course	1 hour	WHO
16.06.2020	<a href="#">Africa beyond COVID-19</a>	Virtual event	1h 30 hours	ODI
Available now	<a href="#">COVID-19: Effective Nursing in Times of Crisis</a>	Online course	2 weeks – 2 hours per week	Johns Hopkins School of Nursing
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
12.05.2020	<a href="#">COVID-19 and maintaining quality essential health services</a>	Webinar	1 hour	WHO & ISQua – Dr Shams Syed, Dr Peter Lachman, Dr Teri Rynolds & Dr Ed Kelley

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
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	COVID-19 Diagnostics and Testing	Online learning	3 weeks   3 hours weekly study	FutureLearn FIND/LSHTM/ASLM

version will commence 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

## 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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