

COVID-19

Health Evidence Summary No.59

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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
05.06.2020	Rapid generation of neutralizing antibody responses in COVID-19 patients	Cell Article	<ul style="list-style-type: none"> • Cross-sectional study of antibody responses to the receptor binding domain (RBD) of the spike protein and neutralisation activity in a cohort of hospitalised COVID-19 patients • A robust humoral immune response occurs early during severe or moderate C19 infection • These kinetic findings support the effort in applying antibody testing for clinical diagnostic purposes and highlight the importance of timing of these tests • The appearance of high titer neutralising antibody responses early after infection suggests there may be some degree of protection from re-infection • Further studies will need to define the neutralising titer which correlates with protective immunity and 	Antibody response, protective immunity

determine the durability of the responses over time.

Epidemiology and modelling

Publication date	Title/URL	Journal/Article type	Summary	Keywords
09.06.2020	Update Alert: Epidemiology of and risk factors for coronavirus infection in health care workers	Annals of Internal Medicine Letter	<ul style="list-style-type: none"> First monthly update alert for a living review on the epidemiology and risk factors for coronavirus infections in HCWs 	Risk factors, infection, HCWs
09.06.2020	Sex differences in immune responses to SARS-CoV-2 that underlie disease outcomes	medRxiv Preprint (not peer reviewed)	<ul style="list-style-type: none"> This study examined sex differences in viral loads, SARS-CoV-2-specific antibody titres, plasma cytokines and blood cell phenotyping in C19 patients with mild to moderate disease who had not received immunomodulatory medications Findings reveal a possible explanation underlying observed sex biases in C19 	Sex, immune responses
09.06.2020	An analysis of SARS-CoV-2 viral load by patient age	medRxiv Preprint (not peer reviewed)	<ul style="list-style-type: none"> Analysis to examine the relationship between patient age and estimated viral load from this study conducted in Germany concludes that a considerable percentage of infected people in all age groups, including those who are pre- or mild-symptomatic, carry viral loads like to represent infectivity Authors recommend caution and careful monitoring during gradual lifting of NPIs. There is little evidence from the present study to support 	Age, viral load, infectivity

			suggestions that children may not be as infectious as adults	
08.06.2020	Reduction in mobility and COVID-19 transmission	ICL Report 26	<ul style="list-style-type: none"> • Mobility data represent an important proxy of measure of social distancing • This modelling study developed a framework and applied to 53 countries with sustained SARS-CoV-2 transmission based on two distinct country-specific automated measures of human mobility – Apple and Google. The relationship between mobility and transmission was consistent within and across countries • Enhanced control measures necessary to expect a decline in new infections ($R < 1$) are still warranted for the majority of countries • Early evidence was found of some decoupling of transmission and mobility in 10 countries – a key indicator of successful easing of social-distancing restrictions 	Mobility, transmission

Infection Prevention and Control

Publication date	Title/URL	Journal/Article type	Summary	Keywords
09.06.2020	Exploring the correlation between COVID-19 fatalities and poor	medRxiv Preprint (not peer reviewed)	<ul style="list-style-type: none"> • It is currently unknown whether poor or non-availability of WASH services are closely related to C19 fatalities • Analysis of data on C19 fatality rates in SSA with indicators of safe water and sanitation governance show a strong correlation between a higher case fatality rate and poorer 	Mortality, WASH

	WASH services		<p>access to safe drinking water as well as safe sanitation</p> <ul style="list-style-type: none"> • Whilst an association was confirmed by this study, this analysis does not establish causality 	
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Vaccines

Publication date	Title/URL	Journal/Article type	Summary	Keywords
06.06.2020	Development of an inactivated vaccine candidate, BBIP-CorV, with potent protection against SARS-CoV-2	Cell Article	<ul style="list-style-type: none"> • An inactivated SARS-coV-2 vaccine candidate BBIP-CorV • This vaccine induces high levels of neutralising antibody titres in animal models • Two-dose immunisation with 2ug/dose of the vaccine candidate efficiently protects rhesus macaques • This vaccine candidate exhibits efficient productivity and good genetic stability for vaccine manufacture 	Vaccine candidate, animal models

Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Journal Article type	Author(s)
09.06.2020	Overcoming COVID-19: Addressing the perception of risk and transitioning protective behaviours to habits	Infection control & hospital infection Letter	<p>Mohamad G. Fakih</p> <p>Lisa Sturm</p> <p>Rand R. Fakih</p>

09.06.2020	Evaluation of modelling study shows limits of COVID-19 importing risk simulations in sub-Saharan Africa	Epidemiology & Infection	T Miyachi T Tanimoto M Kami
09.06.2020	Addressing the public mental health challenge of COVID-19	The Lancet Psychiatry	Jonathan Campion Afzal Javed Norma Sartorius Michael Marmot

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	

Our World in Data		Singapore	Our World in Data: C19 Policy responses	COVID-evidence			
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							

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	JAMA Network	Norwegian Institute of Public Health		

	COVID-19 Digest				
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
Available now	Standard precautions: Environmental cleaning and disinfection	Online course	1 hour	WHO
16.06.2020	Africa beyond COVID-19	Virtual event	1h 30 hours	ODI
15.06.2020	Poverty monitoring in the context of Covid-19	Virtual event	1h 15	ODI
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
12.05.2020	COVID-19 and maintaining quality essential health services	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	Online learning	Multiple self-paced course	WHO

	coronavirus disease outbreak			
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 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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