K4D | Knowledge, evidence and learning for development

COVID-19 Health Evidence Summary No.84

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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
09.07.2020	Clinical characteristics of 82 cases of death from COVID-19	PLOS One | Article	Older males with comorbidities are more likely to develop severe disease and even die from SARS-CoV-2 infection. Respiratory failure is the main cause of COVID-19, but the virus itself and cytokine release syndrome-mediated damage to other organs, including cardiac, renal, hepatic, and hemorrhagic damage, should be taken seriously as well.	Older males
09.07.2020	Persistent Symptoms in Patients After Acute COVID-19	JAMA | Article	Study assessed persistent symptoms in patients who were discharged from the hospital after recovery from COVID-19 and found that in patients who had recovered from COVID-19, 87.4% reported persistence of at least 1 symptom, particularly fatigue and dyspnea.	Persistent symptoms, fatigue, dyspnea

Epidemiology and modelling

Publication date	Title/URL	Journal/Article type	Summary	Keywords
15.07.2020	Comprehensive analysis of genomic diversity of SARS-CoV-2 in different geographic regions of India: An endeavour to classify Indian SARS-CoV-2 strains on the basis of co-existing mutations	medRxiv (not peer-reviewed) | pre-print	• This study highlights the divergent evolution of SARS-CoV-2 strains and co-circulation of multiple clades in India. Monitoring of the emerging mutations would pave ways for vaccine formulation and designing of antiviral drugs.	strains
13.07.2020	Potential impact of the COVID-19 pandemic on HIV, tuberculosis, and malaria in low-income and middle-income countries: a modelling study	Lancet Global Health | Article	• Study aims to quantify the extent to which disruptions to services for HIV, tuberculosis, and malaria in low-income and middle-income countries with high burdens of these diseases could lead to additional loss of life over the next 5 years. • Study finds in high-burden settings, deaths due to HIV, tuberculosis, and malaria over 5 years could increase by up to 10%, 20%, and 36%, respectively, compared with if there was no COVID-19 pandemic.	Modelling, HIV, tuberculosis, malaria
15.07.2020	Analysis of COVID-19 cases and	medRxiv (not peer-	• Analysis of COVID-19 cases and prediction of quantity of associated ventilator requirement is very relevant during	Ventilator

	associated ventilator requirement in Indian States	reviewed) | pre-print	this pandemic. This paper presents a method for predictive estimation of ventilator requirement for COVID-19 patients in Indian states. It uses ARIMA (Autoregressive Integrated Moving Average) model for predicting the future cumulative cases and daily fatality. • Taking cue from this, ventilator requirement is estimated for each state. State wise estimation of ventilator is important because public healthcare system in India is managed at state level. Dataset on Novel Corona Disease 2019 in India from Kaggle website is used in this work.	

Infection Prevention and Control

Publication date	Title/URL	Journal/Article type	Summary	Keywords
15.07.2020	Physical distancing interventions and incidence of coronavirus disease 2019: natural experiment in 149 countries	BMJ | Article	• Physical distancing interventions were associated with reductions in the incidence of covid-19 globally. No evidence was found of an additional effect of public transport closure when the other four physical distancing measures were in place. Earlier implementation of lockdown was associated with a larger reduction in the incidence of covid-19. These findings might support policy	Physical distancing

			decisions as countries prepare to impose or lift physical distancing measures in current or future epidemic waves.	

Testing

Publication date	Title/URL	Journal/Article type	Summary	Keywords
15.07.2020	An affordable anti- SARS-COV-2 spike ELISA test for early detection of IgG seroconversion suited for large-scale surveillance studies in low-income countries	medRxiv (not peer-reviewed) | pre-print	• We describe a cost-effective, scalable technology to produce SARS-COV-2 spike (S) protein based on stable expression in HEK293 cells, and its use to develop a highly specific and sensitive ELISA test. The assay allows early detection of anti-S IgG seroconversion and endpoint titers correlate with virus neutralization. The low-cost S-antigen production, together with sample collection by finger prick and dried blood spots, allowed the development of a half-dollar test that fits the urgent need for large-scale serological surveillance in low-income countries.	test

Indirect impact of COVID-19

Publication date	Title/URL	Journal/Article type	Summary	Keywords
24.06.2020	Voices from the frontline: findings from a thematic analysis of a rapid online global survey of maternal and newborn health professionals facing the COVID-19 pandemic	BMJ	Article	• Global, cross-sectional study of maternal and newborn health professionals via an online survey • 714 responses • Conclusion: Substantial knowledge gaps exist in guidance on management of maternity cases with or without COVID-19. Formal information-sharing channels for providers must be established and mental health support provided. Surveys of maternity care providers can help track the situation, capture innovations and support rapid development of effective responses.	maternity
10.07.2020	Exploring COVID-19 stress and its factors in Bangladesh: A perception-based study	Heliyon	• An online based survey was carried out among 340 Bangladeshi adults. • About 85.60% of the participants are in COVID-19-related stress, which results in sleep shortness, short temper, and chaos in family. Fear of COVID-19 infection (i.e., self and/or family member(s), and/or relatives), hampering scheduled study plan and future career, and financial difficulties are identified as the main causes of human stress.	Stress, Bangladesh

Leadership and governance

Publication date	Title/URL	Journal/Article type	Summary	Keywords
15.07.2020	Covid-19 response in Sub-Saharan Africa: lessons from Uganda	Disaster Medicine and Public Health Preparedness	• The prolongation of the Ebola epidemic may have allowed some countries to prepare and respond to the COVID-19 outbreak. In Uganda, the surveillance structure built for Ebola Virus Disease(EVD) has become a pillar in the COVID-19 response. This testing and tracing apparatus has limited disease spread to clusters with zero mortality compared to her East African neighbours. As more sub-Saharan countries implement social distancing to contain the outbreak, the interventions should be phased and balanced with health risk and socio-economic situation. However, having a decision-making matrix would guide the response team better. These initial lessons from EVD experienced Uganda may be helpful to other countries in the region.	Uganda

Health systems

Publication date	Title/URL	Journal/Article type	Summary	Keywords
15.07.2020	Systems and implementation science should be part of the COVID-19 response in low resource settings	BMC Medicine	• Researchers should be as rigorous as possible in designing, conducting and reporting their work with the specific purpose of generating needed inputs to local policy as well as generalizable insights. Generating transferable knowledge would be facilitated by multi-country research	•

| | | | collaborations that share expertise, methods and priorities as WHO is promoting through the Quality of Care Network focused on peripartum care.
• Another such initiative is the proposed QuEST Network, a follow-on body to the Lancet Global Health Commission on High Quality Health Systems. Such consortia may provide models for jointly tackling large-scale, high-priority research that supports health system reform toward high-quality, people-centred care during and after the COVID-19 pandemic. In promoting and conducting such work, there is an opportunity to build much needed capacity amongst LRS scientists and foster the continued growth of fields that the COVID-19 pandemic illustrates are key to supporting evidence-informed high-quality health systems in the long run. | |

Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Journal	Article type
09.07.2020	COVID-19 Testing in the Philippines: Enhancing Testing Productivity	BMJ	Blog
10.07.2020	Community health workers reveal COVID-19 disaster in Brazil	Lancet	Comment
09.07.2020	The Lancet COVID-19 Commission	Lancet |Comment

09.07.2020	COVID-19 in northern Uganda: Resistance, defiance and hospitalising asymptomatic cases	BMJ | Blog
09.07.2020	The Lancet COVID-19 Commission	Lancet |Comment
12.07.2020	A crisis of accountability for women's, children's, and adolescents' health	Lancet | Comment
10.07.2020	The mathematical strategy that could transform coronavirus testing	Nature | News
09.07.2020	Covid-19: Deaths in Mexico triple since reopening began in June	BMJ | News
07.07.2020	Pre-existing immunity to SARS-CoV-2: the knowns and unknowns	Nature | Comment
10.07.2020	Cities — try to predict superspreading hotspots for COVID-19	Nature | Comment
15.07.2020	Time Is Brain: A Call to Action to Support Stroke Centers in Low- and Middle-Income Countries during the COVID-19 Pandemic	Clinical Neurology | Letter
14.07.2020	Overlapping of locust swarms with COVID-19 pandemic: a cascading disaster for Africa	Pathogens and Global Health |Commentary
14.07.2020	Emergency Care Systems: The missing link for effective treatment of COVID-19 in Africa	Disaster Medicine and Public Health Preparedness
14.07.2020	COVID-19 outbreak and decreased hospitalisation of pregnant women in labour	Lancet Global Health | Comment
15.07.2020	Plug COVID-19 research gaps in detection, prevention and care	Nature | World View
14.07.2020	Dexamethasone for COVID-19: data needed from randomised clinical trials in Africa	Lancet Global Health | Commentary

13.07.2020	HIV, tuberculosis, and malaria: how can the impact of COVID-19 be minimised?	Lancet Global Health | Comment

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			
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	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
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

Suggested citation

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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