

COVID-19

Health Evidence Summary No.117

Kerry Millington

Liverpool School of Tropical Medicine (LSTM)

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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
20.03.2021	Seroprevalence and humoral immune durability of anti-SARS-CoV-2 antibodies in Wuhan, China: a longitudinal, population-level, cross-sectional study	The Lancet Article	<ul style="list-style-type: none"> This longitudinal cross-sectional study suggests that vaccinations will be required to effect herd immunity A longitudinal cross-sectional study was conducted in 100 communities from the 13 districts of Wuhan. This included 9542 individuals from 3556 families Blood samples were tested for the presence of pan-immunoglobulins, IgM, IgA, and IgG antibodies against SARS-CoV-2 nucleocapsid protein and neutralising antibodies were assessed. A cross-sectional sample of the population of Wuhan 	Longitudinal cohort study, herd immunity, Wuhan

			<p>developed antibodies against SARS-CoV-2, 6.92%(95% CI 6.41–7.43) with 39.8% of this population seroconverting to have neutralising antibodies.</p> <ul style="list-style-type: none"> • The authors report that over 80% of antibody-positive individuals were asymptomatic. • The authors report that their data suggest that most individuals remain susceptible to SARS-CoV-2 infection after the first-wave epidemic in Wuhan. 	
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Epidemiology and modelling

Publication date	Title/URL	Journal/Article type	Summary	Keywords
17.03.2021	Assessment of protection against reinfection with SARS-CoV-2 among 4 million PCR-tested individuals in Denmark in 2020: a population-level observational study	The Lancet Article	<ul style="list-style-type: none"> • Analysis Danish population-level surveillance data from approx.. 4 million people (69% of the population) who underwent 10.6 million PCR tests in 2020 • Estimated protective immunity in people <65y approx. 80 to 83% • Estimated protective immunity in people =>65y approx. 47% • Findings could inform vaccination strategies including vaccination of previously infected individuals, especially among older people, given the observed low natural immunity in people aged 65y and older 	Protective immunity, vaccination strategies

Testing

Publication date	Title/URL	Journal/Article type	Summary	Keywords
16.03.2021	<p>Antibody Response After SARS-CoV-2 Infection and Implications for Immunity</p> <p>A Rapid Living Review</p>	Annals of Internal Medicine Literature review	<ul style="list-style-type: none"> A literature review was conducted to synthesize evidence on the prevalence, levels, and durability of detectable antibodies after SARS-CoV-2 infection and whether antibodies to SARS-CoV-2 confer natural immunity. The literature review includes 66 observational studies. Most studies included IgM and IgG most frequently, followed by neutralising antibodies and IgA. The authors conclude that from the evidence, most adults with RT-PCR confirmed SARS-CoV-2 infection, develop antibodies. Levels of IgM peak early in the disease course and then decline, whereas IgG peaks later and may remain detectable for at least 120 days. 	Literature review, antibodies, IgM, IgG, neutralising antibodies, IgA

Therapeutics

Publication date	Title/URL	Journal/Article type	Summary	Keywords
12.03.2021	Therapeutic anticoagulation in critically ill patients with Covid-19 – preliminary report	medRxiv preprint (not peer reviewed)	<ul style="list-style-type: none"> Thrombosis may contribute to morbidity and mortality in Covid-19 Open-label, adaptive, multiplatform, randomised, clinical 	Therapeutic anticoagulation

			<ul style="list-style-type: none"> trial of therapeutic anticoagulation In patients with severe Covid-19, therapeutic anticoagulation did not improve hospital survival or days free of organ support compared with usual care pharmacological thromboprophylaxis 	
18.03.2021	<p>Effect of Intermediate-Dose vs Standard-Dose Prophylactic Anticoagulation on Thrombotic Events, Extracorporeal Membrane Oxygenation Treatment, or Mortality Among Patients With COVID-19 Admitted to the Intensive Care Unit</p> <p>The INSPIRATION Randomized Clinical Trial</p>	JAMA Original Investigation	<ul style="list-style-type: none"> A multicentre randomized trial in 10 academic centres in Iran compared intermediate-dose vs standard-dose prophylactic anticoagulation Intermediate-dose (enoxaparin, 1 mg/kg daily) (n = 276) vs standard prophylactic anticoagulation (enoxaparin, 40 mg daily) (n = 286), with modification according to body weight and creatinine clearance. The assigned treatments were planned to be continued until completion of 30-day follow-up. The primary efficacy outcome was a composite of venous or arterial thrombosis, treatment with extracorporeal membrane oxygenation, or mortality within 30 days. Among 600 randomized patients, 562 (93.7%) were included in the 	Randomised trial, prophylactic anticoagulation, thrombosis

			<p>primary analysis. The primary efficacy outcome occurred in 126 patients (45.7%) in the intermediate-dose group and 126 patients (44.1%) in the standard-dose prophylaxis group</p> <ul style="list-style-type: none"> • These results do not support the routine empirical use of intermediate-dose prophylactic anticoagulation in unselected patients admitted to the ICU with COVID-19. 	
17.03.2021	<p>Common variants at 21q22.3 locus influence MX1 and TMPRSS2 gene expression and susceptibility to severe COVID-19</p>	iScience	<ul style="list-style-type: none"> • Potential therapeutic targets in patients with COVID-19 could be MX1 • The study conducted an in-depth genetic analysis of chromosome 21 exploiting the genome-wide association study data, including 6,406 individuals hospitalized for COVID-19 and 902,088 controls with European genetic ancestry from the COVID-19 Host Genetics Initiative. • Five SNPs within TMPRSS2/MX1 locus (chr.21) are associated with severe COVID-19. • The minor alleles of the five SNPs correlated with high level of MX1 expression in blood. 	<p>TMPRSS2, MX1, SNP genotyping</p>

Vaccines

Publication date	Title/URL	Journal/Article type	Summary	Keywords
16.03.2021	Efficacy of the ChAdOx1 nCoV-19 Covid-19 Vaccine against the B.1.351 Variant	NEJM Original article	<ul style="list-style-type: none"> • Multicentre, double-blind, randomized, controlled trial in South Africa was conducted to assess the safety and efficacy of the ChAdOx1 nCoV-19 vaccine (AZD1222) in people not infected with the human immunodeficiency virus (HIV) (aged 18-65 years). • 2026 HIV-negative adults were included; 1010 and 1011 participants received at least one dose of placebo or vaccine, respectively. • In the primary end-point analysis, mild-to-moderate Covid-19 developed in 23 of 717 placebo recipients (3.2%) and in 19 of 750 vaccine recipients (2.5%), for an efficacy of 21.9% (95% confidence interval [CI], -49.9 to 59.8) • Among the 42 participants with Covid-19, 39 cases (92.9%) were caused by the B.1.351 variant; vaccine efficacy against this variant, analyzed as a secondary end point, was 10.4% (95% CI, -76.8 to 54.8) 	B.1.351 variant, randomised control trial, South Africa
16.03.2021	Association between live childhood vaccines and COVID-19 outcomes: a national-	Epidemiology and Infection. Accepted Manuscript, pre-editing	<ul style="list-style-type: none"> • Data from 140 countries explored the death rate from COVID-19 and coverage rates of BCG and measles-containing vaccines (MCV). • The authors report marginal associations between BCG and MCV 	COVID-19 deaths, BCG, Measles vaccine, HAQI

	level analysis		<p>coverage and COVID-19 deaths.</p> <ul style="list-style-type: none"> • However the magnitude of association reduced once adjusted for Healthcare Access and Quality Index. The authors conclude that the differences in health metrics may explain associations of vaccines with COVID-19 deaths. 	
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Leadership and governance

Publication date	Title/URL	Journal/Article type	Summary	Keywords
19.03.2021	Lessons from co-production of evidence and policy in Nigeria's COVID-19 response	BMJ Global Health Practice	<ul style="list-style-type: none"> • Account of the Nigerian COVID-19 response based on co-production of evidence between political decision-makers, health policymakers and academics from Nigerian and foreign institutions – a multidisciplinary group to collaborate on issues arising in real time • Challenges of the co-production model included limited transparency, bureaucratic obstacles and an overly epidemiological focus on direct impacts of the disease compared with the social and economic effects of response measures • Authors recommend that Nigeria should strengthen the integration of the national response within existing health decision bodies and implement strategies to mitigate the social and economic impact, particularly on the poorest Nigerians 	

Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Journal Article type
March 2021	Gender, COVID-19 and water	Gender and COVID-19 Blog
March 2021	Reclaim the Gains	Global Financing Facility Case for Investment
22.03.2021	AZD1222 US Phase III trial met primary efficacy endpoint in preventing COVID-19 at interim analysis	AstraZeneca Press release
20.03.2021	First Person: Prepare for the next pandemic, says WHO scientist	United Nations New
19.03.2021	Learning from COVID-19 to reimagine tuberculosis diagnosis	The Lancet Microbe Comment
19.03.2021	Between the high ideals and reality: Managing the Covid-19 vaccine nationalism	European Journal of Risk Regulation
19.03.2021	Covid-19: What do we know about Sputnik V and other Russian vaccines?	The BMJ: Feature
19.03.2021	COVID-19 Treatment versus Mycobacterial Infections: Better Safe than Sorry?	Cambridge University Press: Letter to Editor
18.03.2021	Key success factors of Mauritius in the fight against COVID-19	BMJ GH Commentary
18.03.2021	Nurses at the frontline of public health emergency preparedness and response: lessons learned from the HIV/AIDS pandemic and emerging infectious disease outbreaks	Personal View (Nurse)
18.03.2021	Free licensing of vaccines to end the COVID-19 crisis	The Lancet: Correspondence

18.03.2021	12 months of COVID-19 eliminated 12 years of progress in the global fight against tuberculosis	Stop TB News
17.03.2021	WHO statement on AstraZeneca COVID-19 vaccine safety signals	WHO News
17.03.2021	Innovators target vaccines for variants and shortages in global South	Nature biotechnology News article
17.03.2021	Vaccinating the world against COVID-19: getting the delivery right is the greatest challenge	BMJ GH Editorial
17.03.2021	COVID-19 Vaccines vs Variants—Determining How Much Immunity Is Enough	JAMA Network: Medical News and perspective
16.03.2021	Covid vaccine could be rolled out to children by autumn	The BMJ: News
16.03.2021	Covid-19: WHO says rollout of AstraZeneca vaccine should continue, as Europe divides over safety	The BMJ: News
16.03.2021	Covid-19: EU looks to speed up vaccine rollout	The BMJ: News analysis
16.03.2021	Summary for Patients: What is the Antibody Response and Role in Conferring Natural Immunity After SARS-CoV-2 Infection? Rapid, Living Practice Points From the American College of Physicians (Version 1)	Annals of Internal Medicine: Summary for Patients
16.03.2021	Report Weighs Toll of COVID-19 on Women in Academic Medicine, Other Science and Technical Fields	JAMA Network: News

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	Southern Voice	Covid Collective Research Platform

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	Health systems Global		
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
25 March 2021	UK Public Health Rapid Support Team: Latest research & scientific insights	Webinar	1h	LSHTM
18 March 2021	Africa taking charge of its future: prioritizing gender equality in the path to recovery	Webinar	1h 30	CGD
10 March 2021	Equity and scale in global immunization: new evidence from Nigeria on cash transfers for vaccination	Webinar	1h 15	CGD
9 March 2021	COVID-19 vaccines and Africa: where do we stand in the race for vaccines?	Virtual conference webinar	1h	AHAIC
8 March 2021	Chronic Respiratory Diseases in the COVID era	Webinar		GARD, WHO
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 services during (and after) the pandemic	4-week discussion starting 16 Nov		HIFA
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	Online courses	Varies	WHO

	emergencies, now offers 10 online courses related to COVID19.			
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	Online learning	3 hours	WHO

	COVID-19: methods for detection, prevention, response and control			
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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