

COVID-19

Health Evidence Summary No.113

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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
10.02.2021	Symptom reporting in over 1 million people: community detection of COVID-19	ICL preprint (not peer reviewed)	<ul style="list-style-type: none"> Using data from the Real-time Assessment of Community Transmission-1 (REACT-1) study in England to investigate symptom profiles for PCR positivity at different ages a wider range of symptoms beyond the 'classic 4' were associated with COVID-19 In addition to fever, loss of smell, loss of taste and new persistent cough, other symptoms – chills, loss of appetite, headache and muscle aches - either alone or in combination were associated with SARS-CoV-2 infection The more symptoms people showed the more likely they were to test positive Also, there was variation in symptoms with age. Chills were linked with testing positive across all ages, headaches were reported in young people aged 5-17, appetite loss in 18-54 and 55+, and muscle aches in 	COVID-19 symptoms

			<p>people aged 18-54. Infected 5-17 year olds were also less likely to report fever, persistent cough and appetite loss compared with adults</p> <ul style="list-style-type: none"> • These new findings suggest that many people with COVID-19 won't be getting tested, and therefore self-isolating, and using this extended list of symptoms three-quarters of symptomatic infections could be detected, if everyone eligible were tested, up from around half of all symptomatic infections with the current list of 4 symptoms. • The research also explored whether the emergence of the UK's new variant linked with a different profile of symptoms • While symptoms were broadly similar, loss of sense of smell was less predictive of having COVID-19, while the proportion of people testing positive with a new persistent cough appeared to be increased
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Infection Prevention and Control

Publication date	Title/URL	Journal/Article type	Summary	Keywords
19.02.2021	Inferring the effectiveness of government interventions against COVID-19	Science Research Article	<ul style="list-style-type: none"> • This study estimated the effects of nonpharmaceutical interventions on COVID-19 transmission in 41 countries during the first wave of the pandemic • Some interventions were more effective than others and by using effective interventions, some countries could control the 	nonpharmaceutical interventions

			<p>epidemic whilst avoiding stay-at-home orders</p> <ul style="list-style-type: none"> • Authors caution that given the observational study design, these estimates should not be seen as final but contribute to the body of evidence 	
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Therapeutics

Publication date	Title/URL	Journal/Article type	Summary	Keywords
19.02.2021	Prospective mapping of viral mutations that escape antibodies used to treat COVID-19	Science Report	<ul style="list-style-type: none"> • Several antibodies are in use or under development to treat COVID-19 • It is important to predict if new variants remain susceptible to these antibody treatments • Here a yeast library that covers all mutations to the SARS-CoV-2 receptor binding domain that do not strongly disrupt binding to the host receptor (ACE2) were mapped to see how these mutations affected binding to three leading anti-SARS-CoV-2 antibodies • Mutations were identified that escape antibody binding, including a single mutation that escapes both antibodies in the Regeneron antibody cocktail • Many of the SARS-CoV-2 mutations that evade antibodies are already circulating in the human population, including one mutation that evades both antibodies used in the Regeneron treatment cocktail 	Viral escape, antibody treatment

Vaccines

Publication date	Title/URL	Journal/Article type	Summary	Keywords
19.02.2021	Effectiveness of first dose of COVID-19 vaccines against hospital admissions in Scotland: National prospective cohort study of 5.4 million people	SSRN preprint (not peer reviewed)	<ul style="list-style-type: none"> • A 'real-world' prospective cohort study to estimate the effectiveness of the first dose of the BNT162b2 (Pfizer-BioNTech) and ChAdOx1 (Oxford-AstraZeneca) COVID-19 vaccines using the Early Pandemic Evaluation and Enhanced Surveillance of COVID-19 (EAVE II) database linking vaccination, primary care, RT-PCR testing, hospitalisation and mortality records for 5.4 million people in Scotland • The first dose of the BNT162b2 vaccine was associated with 85% (95% CI 76 to 91) drop in risk of COVID-19 hospital admission at 28-34 days post-vaccination • The first dose of the ChAdOx1 vaccine was associated with 94% (95% CI 73 to 99) drop in risk of COVID-19 hospital admission at 28-34 days post-vaccination • Combined vaccine effect for preventing COVID-19 related hospital admission were comparable (81%; 95% CI 65 to 90) in those aged 	COVID-19 vaccines, first-dose efficacy, real-world

			<p>>=80y at 28-34 days post-vaccination</p> <ul style="list-style-type: none"> • A single dose of the BNT162b2 and ChAdOx1 vaccines resulted in substantial reductions in the risk of COVID-19 related hospitalisation in Scotland 	
19.02.2021	<p>Single-dose administration and the influence of the timing of the booster dose on immunogenicity and efficacy of ChAd Ox1 nCoV-19 (AZD1222) vaccine: a pooled analysis of four randomised trials</p>	The Lancet Article	<ul style="list-style-type: none"> • Data is from all four studies of the three single-blind randomised controlled trials from the UK, Brazil and South Africa • Results of this primary analysis of two doses of ChAdOx1 nCoV-19 were consistent with those seen in the interim analysis of the trials and confirm that the vaccine is efficacious, with results varying by dose interval. The interim report included 131 cases of primary symptomatic COVID-19. This report includes 332 cases of primary symptomatic COVID-19 • Exploratory analyses suggest 3-month interval between doses of Oxford vaccine results in higher efficacy than 6-week interval with first dose offering 76% protection in the 3 months between doses 	Oxford-AstraZeneca vaccine, first-dose efficacy, second-dose timing

			<ul style="list-style-type: none"> In participants who received two standard doses, after the second dose, efficacy was higher in those with a longer time prime-boost interval (vaccine efficacy 81.3% [95% CI 60.3-91.2] at ≥ 12 weeks) than in those with a short interval (vaccine efficacy 55.1% [33.0-69.9] at < 6 weeks) A 3-month dose interval may have advantages over a short dose interval for roll-out of a pandemic vaccine to protect the largest number of individuals in the population as early as possible when supplies are scarce, while also improving protection after receiving a second dose 	
18.02.2021	Early rate reductions of SARS-CoV-2 infection and COVID-19 in BNT162b2 vaccine recipients	The Lancet Correspondence	<ul style="list-style-type: none"> A retrospective cohort study to assess BNT162b2 (Pfizer-BioNTech) vaccine-associated rate reductions in 9109 vaccine-eligible healthcare workers (HCWs) in the Sheba Medical Centre, Israel's largest hospital, compared to those unvaccinated from Dec 2020 to Jan 2021 Active daily symptom reporting and immediate same-day testing allowed for prompt (< 24h) detection 	Pfizer-BioNTech vaccine, efficacy, real-world

			<p>and investigation of exposed or symptomatic HCWs</p> <ul style="list-style-type: none"> • There were 170 SARS-CoV-2 infections among HCWs between 19 Dec 2020 and 24 Jan 2021 of which 99 (58%) HCWs reported symptoms (COVID-19 cases) • Data suggest early reductions in COVID-19 infection and symptomatic rates following first dose 	
12.02.2021	<p>Safety and efficacy of the ChAdOx1 nCoV-19 (AZD1222) Covid-19 vaccine against the B.1.35 variant in South Africa</p>	<p>medRxiv preprint (not peer reviewed)</p>	<ul style="list-style-type: none"> • Randomised, multicentre, double-blinded controlled trial on safety and efficacy of ChAdOx1-nCoV19 in 2026 HIV uninfected adults (18 to <65y) in South Africa • A two-dose regimen of ChAdOx1-nCoV19 did not show protection against mild-moderate Covid-19 due to the B.1.351 variant • Vaccine efficacy against severe Covid-19 is undetermined 	<p>Oxford-AstraZeneca vaccine, South African variant</p>
09.02.2021	<p>Patterns of COVID-19 pandemic dynamics following deployment of a broad national immunization program</p>	<p>medRxiv preprint (not peer reviewed)</p>	<ul style="list-style-type: none"> • Retrospective analysis of data originating from the Israeli Ministry of Health from March 2020 to February 2021 on the temporal dynamics of the number of new COVID-19 cases and hospitalisation in Israel following a BNT162b2 	<p>Israel, Pfizer-BioNTech vaccine, real-world</p>

			<p>vaccination campaign initiated on 20 Dec 2020</p> <ul style="list-style-type: none"> • In mid-January the number of COVID-19 cases and hospitalisations started to decline, with a larger and earlier decline among older individuals • This trend was more evident in early-vaccinated compared with late-vaccinated cities • This pattern was not observed in the previous lockdown • This is early evidence for the 'real world' effectiveness of a national vaccination campaign 	
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Comments, Editorials, Opinions, Blogs, News

Publication date	Title/URL	Journal Article type
22.02.2021	What makes new variants of SARS-CoV-2 concerning is not where they come from, but the mutations they contain	BMJ Views and Reviews
22.02.2021	Tanzania's president admits country has COVID-19 problem	AP News
20.02.2021	Severe mental illness: reassessing COVID-19 vaccine priorities	The Lancet World Report
20.02.2021	Covid-19: UK should send vaccines to poorer nations now – WTO chief	BBC News

19.02.2021	Jeremy Farrar: Make vaccine available to other countries as soon as our most vulnerable people have received it	BMJ Feature
19.02.2021	Covid-19 in Africa	BMJ Editorial
19.02.2021	Can COVID vaccines stop transmission? Scientists race to find answers	Nature News
19.02.2021	Can we do for other essential medicines what we are doing for the COVID-19 vaccine?	BMJ Global Health Commentary
19.02.2021	Delayed second dose of the BNT162b2 vaccine: innovation or misguided conjecture?	The Lancet Correspondence
19.02.2021	Country readiness for COVID-19 vaccines	WHO Newsroom Feature stories
19.02.2021	G7 backs Gavi's COVAX Advance Market Commitment to boost COVID-19 vaccines in world's poorest countries	GAVI News
19.02.2021	A universal coronavirus vaccine	Science Editorial
19.02.2021	Deaths in health workers in Africa highlight vaccine inequity	Science In Depth
18.02.2021	World's largest clinical trial for COVID-19 treatments expand internationally	University of Oxford News
18.02.2021	Rationale to continue approved placebo-controlled COVID-19 vaccine trials in LMICs	The Lancet Correspondence
18.02.2021	What do we really know about COVID-19's impact on essential health services?	CGD Blog
17.02.2021	Unprotected African health workers die as rich countries buy up COVID-19 vaccines	Science News

17.02.2021	Covid-19: World's first human challenge trials to start in UK	BBC News
16.02.2021	Covid-19: Vaccine as good in 'real world' as in trial in Israel	BBC News
16.02.2021	The coronavirus is here to stay – here's what that means	Nature News feature

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		

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
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	4-week discussion starting 16 Nov		HIFA

	services during (and after) the pandemic			
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 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

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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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