



COVID-19

Health Evidence Summary No.9

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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 2-2.5 hours of work and is not intended to be a comprehensive summary of evidence.

Foundation for Innovative New Diagnostics (FIND): COVID-19 diagnostic evaluation update

FIND | 2 April 2020 | News

<https://www.finddx.org/covid-19/sarscov2-eval-immuno/>

FIND are independently evaluating immunoassays (manual ELISA, machine-based or lateral flow) rapid tests specific for SARS-CoV-2. Twenty-six antibody-detection rapid diagnostic tests and five antigen-detection rapid diagnostic tests have been selected - based on regulatory status and time to market, manufacturing and distribution capacity of the supplier and clinical and analytical performance - for the first round of performance evaluation. Additional tests will be reviewed on a rolling basis. Results will be made available.

Using observational data to quantify bias of traveller-derived COVID-19 prevalence estimates in Wuhan, China

Niehus, R, De Salazar, P.M., Taylor, A. & Lipsitch, M | Lancet Infectious Diseases | 1 April 2020 | Article

[https://doi.org/10.1016/S1473-3099\(20\)30229-2](https://doi.org/10.1016/S1473-3099(20)30229-2)

Imported cases detected among travellers probably underestimates the true number. This would revise and reduce estimates of case-fatality. This model supports evidence that under detected cases of COVID-19 have probably spread in most locations around the world, with greatest risk in locations of low detection capacity and high connectivity to the epicentre of the epidemic.

Virological assessment of hospitalized patients with COVID-2019

Wölfel, R. et al. | Nature | 1 April 2020 | Article

<https://doi.org/10.1038/s41586-020-2196-x>

This study shows sites of COVID-19 viral shedding and timing versus symptoms. Infectious virus was readily isolated from throat- and lung derived samples, but not from stool samples, despite high virus RNA concentration. Blood and urine did not yield virus. Active virus replication in the upper respiratory tract was detected. Seroconversion mostly occurred during the second week of symptoms and coincided with a slow but steady decline in sputum viral load.

COVID-19 pandemic in west Africa

Martinez-Alvarez et al. | The Lancet Global Health | 1 April 2020 | Comment

[https://doi.org/10.1016/S2214-109X\(20\)30123-6](https://doi.org/10.1016/S2214-109X(20)30123-6)

No strong evidence exists supporting the claim that warmer temperatures will slow the spread of SARS-CoV-2. Early comparisons between the number of confirmed cases in the worst affected European countries and the west African countries with confirmed COVID-19 cases do not support the hypothesis that the virus will spread more slowly in countries with warmer climates. Includes a Figure showing how the pandemic initially evolved by total case numbers in west African countries compared with European countries and other African countries from the first and fifth case diagnosed in the country.

SARS-CoV-2 in wastewater: potential health risk, but also data source

Lodder W. & de Roda Husman A.M. | The Lancet Gastroenterology & Hepatology | 1 April 2020 | Correspondence

[https://doi.org/10.1016/S2468-1253\(20\)30087-X](https://doi.org/10.1016/S2468-1253(20)30087-X)

This study detected SARS-CoV-2 in human wastewater in the Netherlands and could be the first report of SARS-CoV-2 in wastewater. Whether SARS-CoV-2 is viable under environmental conditions that could facilitate faecal-oral transmission is still not clear but some early reports suggest potential community spread in some geographic areas and where a newly developed case had not been exposed to anyone known to be infected with SARS-CoV-2 and had not travelled to countries in which the virus is circulating. However, it remains that enteric transmission of SARS-CoV-2 is possible and exposure to SARS-CoV-2 in wastewater could pose a health risk. Wastewater surveillance of SARS-CoV-2 could be an early warning tool to indicate if the virus is circulating in the human population which would have implications particularly in areas with poor sanitation.

Lessons from COVID-19: building more effective health services for a complex future

Bloom, G. | IDS | 1 April 2020 | Opinion

<https://www.ids.ac.uk/opinions/lessons-from-covid-19-building-more-effective-health-services-for-a-complex-future/>

A greater willingness to act quickly and experiment at scale with approaches to organising services during the emergency response to COVID-19 will offer lessons that can be applied to creating more effective health systems going forward. Five aspects are particularly important - (1) the importance of government leadership; (2) the appropriate mix of good quality hospitals, primary healthcare services and public health; (3) measures that enable people to manage their own health

effectively; (4) the need for all parts of the health service to contribute to national goals; and (5) the potential contribution of new treatments, vaccines, diagnostic test and applications of communications technology.

'We have no choice.' Pandemic forces polio eradication group to halt campaigns

Roberts L | Science | 1 April 2020 | News

<https://www.sciencemag.org/news/2020/04/we-have-no-choice-pandemic-forces-polio-eradication-group-halt-campaigns>

On 24 March, the Global Polio Eradication Initiative (GPEI) recommended suspending polio vaccine campaigns until at least the second half of this year to help stop the spread of COVID-19. Door to door delivery of oral polio vaccine would put both communities and health workers at risk of infection with SARS-CoV-2. This suspension will free up GPEI's extensive resources, including surveillance systems and frontline health workers. On 26 March, WHO's SAGE on Immunisation recommended all preventive mass vaccination campaigns for other diseases, including measles and yellow fever, be temporarily suspended. Routine immunisations at clinics and doctor's offices should continue.

Off-label use of medicines for COVID-19

WHO | 31 March 2020 | Scientific brief

https://apps.who.int/iris/bitstream/handle/10665/331640/WHO-2019-nCoV-Sci_Brief-Off-label_use-2020.1-eng.pdf

No pharmaceutical products have yet been shown to be safe and effective for the treatment of COVID-19, yet in many countries, doctors are giving COVID-19 patients medicines that have not been approved for this disease. Any "Off-label" use by doctors, outside of clinical trials, must be on a case-by-cases basis and must comply with national law. Unnecessary stockpiling and the creation of shortages of approved medicines that are required to treat other diseases should be avoided.

An investigation of transmission control measures during the first 50 days of the COVID-19 epidemic in China

Tian et al. | Science | 31 March 2020 | Report

<https://doi.org/10.1126/science.abb6105>

This analysis shows that non-pharmaceutical measures initiated during Chinese Spring Festival holiday, including the Wuhan city travel ban and the Level 1 national emergency response, were strongly associated with, though not necessarily the cause of, a delay in epidemic growth and a reduction in cases numbers during the first 50 days of the COVID-19 epidemic in China. The Wuhan shutdown was associated with the delayed arrival of COVID-19 in other cities by 2.91 days (95% C: 2.54-3.29), and fewer cases, on average, were seen in cities in the first week of outbreak that pre-emptively implemented control measures (13.0; 7.1-18.8) compared to cities that started control later (20.6; 14.5-26.8). Whether outcomes of control can be replicated outside of China remains to be determined.

Blocking information on COVID-19 can fuel the spread of misinformation

Larson, H. | Nature | 30 March 2020 | World View

<https://www.nature.com/articles/d41586-020-00920-w>

Governments or their leaders repressing information in the hope of calming anxious publics, or deliberately releasing supposedly reassuring misinformation, risk undermining their own credibility and their abilities to help people respond to a health threat. This is about relationships between publics and politicians - a lack of trust in the motives of governing powers and fears among leaders that the truth would spark public disorder and dissent. Examples are provided within the COVID-19 context.

1. Tracking COVID-19 cases

Global

WHO COVID-19 daily situation reports

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>

An interactive web-based dashboard to track COVID-19 in real time

<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

Live data tracker: sex-disaggregated COVID-19 data from the 25 most-affected countries

<http://globalhealth5050.org/covid19>

Africa

Coronavirus in Africa Tracker: How many covid-19 cases & where?

<https://africanarguments.org/2020/03/23/coronavirus-in-africa-tracker-how-many-cases-and-where-latest/>

UK

COVID-19: PHE track coronavirus cases in the UK

<https://www.gov.uk/government/publications/covid-19-track-coronavirus-cases>

UK case tracing infographic

<https://www.arcgis.com/apps/opsdashboard/index.html#/f94c3c90da5b4e9f9a0b19484dd4bb14>

2. Online course

Responding to COVID-19: Real-time training for the coronavirus disease outbreak

WHO | Available now | multiple self-paced courses

<https://openwho.org/channels/covid-19>

Note that courses are available in English and other languages including French, Portuguese and Spanish.

COVID-19: Tackling the Novel Coronavirus

LSHTM | FutureLearn course | Starts 23 March 2020 | 3 weeks | 4 hours weekly study | Free

<https://www.futurelearn.com/courses/covid19-novel-coronavirus>

A reminder that this course is currently running. On this course you will learn what is known about the outbreak of COVID-19 (week 1); what the practical implications for responding to COVID-19 are (week 2); and what we need to find out about COVID-19 (week 3).

3. Resource Hubs

COVID-19: Resources and research on epidemics and pandemics

<https://steps-centre.org/covid-19-coronavirus-resources-research-epidemics-pandemics/>

Stop TB Partnership TB and COVID-19

<http://www.stoptb.org/covid19.asp>

EPI-WIN: WHO information network for epidemics: COVID-19 public health emergency

<https://www.who.int/teams/risk-communication>

COVID-19: Research ethics

<https://ethicsresource.ringsgenderresearch.org/covid-19-resources/>

LSTM: COVID-19

<https://www.lstmed.ac.uk/covid-19>

LSHTM: COVID-19

<https://www.lshtm.ac.uk/research/research-action/covid-19>

International Disability Alliance: COVID 19 and the disability movement

<http://www.internationaldisabilityalliance.org/content/covid-19-and-disability-movement>

Africa Centres for Disease Control and Prevention (Africa CDC)

<https://africacdc.org/covid-19/>

UNICEF: Latest news and updates on coronavirus disease 2019 (COVID-19)

<https://www.unicef.org/coronavirus/covid-19>

Coronavirus: the science explained

<https://coronavirusexplained.ukri.org/en/>

Social Science in Humanitarian Action: Updates on the novel COVID-19 outbreak

<https://www.socialscienceinaction.org/update-novel-covid-19-outbreak/>

Special Collection: Coronavirus (COVID-19): evidence relevant to critical care

<https://www.cochrane.org/news/special-collection-coronavirus-covid-19-evidence-relevant-critical-care>

NICE UK: Rapid guidelines and evidence reviews

<https://www.nice.org.uk/covid-19>

Imperial College London MRC Centre for Global Infectious Disease Analysis COVID-19 reports

<https://www.imperial.ac.uk/mrc-global-infectious-disease-analysis/news--wuhan-coronavirus/>

Global research on COVID-19

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/global-research-on-novel-coronavirus-2019-ncov>

WHO R&D Blueprint

<https://www.who.int/blueprint/priority-diseases/key-action/novel-coronavirus/en/>

WHO: Coronavirus disease (COVID-19) outbreak resources

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

Latest information and advice from the UK Government

<https://www.gov.uk/guidance/coronavirus-covid-19-information-for-the-public>

CDC COVID-19 Resources

<https://www.cdc.gov/coronavirus/2019-ncov/index.html>The Global Health Network Coronavirus outbreak knowledge hub

The Lancet COVID-19 Resource Centre

<https://www.thelancet.com/coronavirus>

Elsevier's Novel Coronavirus Information Center

<https://www.elsevier.com/connect/coronavirus-information-center>

Cell Press Coronavirus Resource Hub

<https://www.cell.com/2019-nCoV>

Cochrane Special Collections - COVID-19: infection control and prevention measures

<https://www.cochranelibrary.com/collections/doi/SC000040/full>

The BMJ Coronavirus (covid-19): Latest news and resources

https://www.bmj.com/coronavirus?int_source=wisepops&int_medium=wisepops&int_campaign=DAA_CoronaVirus_Jan24

Johns Hopkins Coronavirus Resource Centre

<https://coronavirus.jhu.edu>

Global Partnership for Sustainable Development – COVID-19 resources

<http://www.data4sdgs.org/resources/covid-19-resources>

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