COVID-19
Health Evidence Summary No. 6
Kerry Millington
Liverpool School of Tropical Medicine (LSTM)
30 March 2020

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.


Authors estimate that countries have managed to reduce their reproduction number. Across all 11 European countries and with current interventions in place to 31 March, 59 000 [95% credible interval 21 000-120 000] deaths are estimated to have been averted. By ensuring that interventions remain in place until transmission drops to low levels, many more will be averted. Between 7 and 43 million people are estimated to have been infected with SARS-CoV-2 up to 28 March, representing between 1.88% and 11.43% of the population. For most of the countries considered it remains too early to be certain that recent interventions have been effective given the lag of 2 to 3 weeks between when transmission changes occur and when their impact can be observed in trends in mortality. Estimates will change accordingly. Current interventions must remain in place and trends in cases and deaths monitored to reassure that transmission of SARS-CoV-2 is slowing.

We know how long coronavirus survives on surfaces. Here’s what is means for handling money, food and more

Mackay, A.M. & Arden, K. | The Conversation | 30 March 2020 | News article

https://theconversation.com/we-know-how-long-coronavirus-survives-on-surfaces-heres-what-it-means-for-handling-money-food-and-more-134671

Contains a useful image on ‘How long does coronavirus survive on surfaces?’
AIDS, TB and Malaria: Coronavirus threatens the endgame

Pai, M. | Forbes | 29 March 2020 |

Is the SDG goal to end the epidemics of AIDS, TB and malaria by 2030 still achievable given the coronavirus pandemic? Pai captures his interviews with several global leaders and from agencies dedicated to AIDS, TB and malaria including Peter Sands, Director of the Global Fund; Winnie Byanyima, Director of UNAIDS; Pedro Alonso, Director of the WHO Global Malaria Programme; Joanne Liu, former president of MSF; Tereza Kasaeva, Director of the WHO Global TB Programme.

Epidemic preparedness in urban settings: new challenges and opportunities

Lee et al. | 27 March 2020 | The Lancet Infectious Diseases | Comment
https://doi.org/10.1016/S1473-3099(20)30249-8

Includes a Table on the challenges, and opportunities for epidemic preparedness associated with characteristics of urban settings.

Q&A: Access to health services is key to halting COVID-19 and saving refugee lives

Clayton, J. | UNHCR | 27 March 2020 | News

The dangers of COVID-19 to refugees and internally displaced people is outlined by Ann Burton, Chief of UNHCR’s Public Health Section, and she describes how the agency is working to slow its spread, reduce its impact and save lives.

A framework for rationing ventilators and critical care beds during the COVID-19 pandemic

White, D. and Lo, B. | JAMA | 27 March 2020 | Viewpoint
https://doi.org/10.1001/jama.2020.5046

This viewpoint considers ethical concerns when demand for ventilators and other intensive treatments outnumber supply, what criteria should guide these rationing decisions and a proposal for a “framework for making allocation decision that incorporates multiple ethically relevant considerations, whilst allowing all patients in need to be eligible for access to critical care”.

WHO Director-General’s opening remarks at the media briefing on COVID-19 – 27 March 2020

The WHO Solidarity Trial has enrolled its first patient in Norway and shortly in Spain. This multi-centre, adaptive, randomised, open clinical trial will evaluate and compare the safety and efficacy of four different drugs or drug combinations against COVID-19 with standard care in hospitalised patients diagnosed with COVID-19. The trial started on 26 March and will continue until November 2020 recruiting up to 700 participants. Forty-five countries are involved, and more have expressed interest. In the meantime, the WHO DG calls on individuals and countries to refrain from using therapeutics that have not been demonstrated to be effective in the treatment of COVID-19. Learning from the Ebola epidemic where some medicines thought to be effective were found not be as effective as others when compared during a clinical trial - drug treatment must be evidence informed. Also, we need to ensure that using unproven drugs does not create a shortage of those medicines to treat diseases for which they have proven effective.

COVID-10 Research in Brief: 20 March to 27 March 2020

Carvalho T | Nature Medicine | 27 March 2020 | News
https://doi.org/10.1038/d41591-020-00006-0

Nature Medicine summaries COVID-19 research on clinical trials, serology, preclinical studies, viral origin and structure from this week.

Open health facility location data for Africa to support COVID-19 efforts

South A. & van der Walt A | Afrimapr | 26 March 2020 | Data
https://afrimapr.github.io/afrimapr.website/blog/2020/healthsites-app/

The afrimapr approach aims to improve access to the best-available health facility data for Africa to support the response to the coronavirus pandemic, for example, in COVID Care Map, an open source project to support health system capacity (beds, staffing, ventilators, supplies) which is currently USA-centric but intends to become globally applicable. This approach is currently drawing on two datasets – a spatial database of health facilities managed by the public health sector in SSA now curated by the WHO Global Malaria Program and a dataset from the global project healthsites.io – but welcome input on other potential data sources or how it would be useful to improve these tools.

Clinical characteristics of 113 deceased patients with coronavirus disease 2019: a retrospective study

Chen et al. | BMJ | 26 March 2020 | Article
https://doi.org/10.1136/bmj.m1091

This retrospective case series of 113 who died among a cohort of 799 patients diagnosed with COVID-19 (data collected until 28 February 2020) found that SARS-CoV-2 can cause both pulmonary and systemic inflammation, leading to multi-organ dysfunction in patients at high risk. The most common critical complications were acute respiratory distress syndrome and respiratory failure, sepsis, acute cardiac injury, and heart failure.
The effect of human mobility and control measures on the COVID-19 epidemic in China

Kraemer et al. | Science | 25 March 2020 | Article

https://doi.org/10.1126/science.abb4218

This study shows that the combination of control measures implemented in China, including travel restrictions, substantially mitigated the spread of COVID-19. Using real-time mobility data from Wuhan and detailed case data including travel history, this study shows that travel restrictions are useful in the early stage of an outbreak when it is confined to a certain area that acts as a major source but less effective once the outbreak is more widespread. It was not possible in this study to definitively determine the impact of each intervention and more work is required on how to optimally balance expected positive effect on public health with the negative effect on movement, the economy and society in general.

COVID-19 – the social science response to the pandemic

IDS | 23 March 2020 | News


A useful summary linking to opinion pieces from social scientists, including those from IDS, working to respond to COVID-19. Includes links to drawing on lessons from Ebola, SARS and the initial outbreak in Wuhan; the importance of pandemic responses from 'bottom-up'; COVID-19 and Africa; understanding the impacts on people in slums and informal settlements; impact on informal work; importance of connecting policy networks; and COVID-19 and religious practices.

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

Africa Centres for Disease Control and Prevention (Africa CDC)

http://www.africacdc.org/covid-19-and-resources
Coronavirus in Africa Tracker: How many covid-19 cases & where?

South African Government COVID-19
https://www.gov.za/Coronavirus

UK

COVID-19: PHE track coronavirus cases in the UK

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

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

Coronavirus: the science explained
https://coronavirusexplained.ukri.org/en/

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

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

Global research on COVID-19

WHO R&D Blueprint

WHO: Coronavirus disease (COVID-19) outbreak resources
https://www.who.int/emergencies/diseases/novel-coronavirus-2019

Latest information and advice from the UK Government

CDC COVID-19 Resources
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

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

Suggested citation

About this report
This daily COVID-19 health evidence summary is based on 2 to 2.5 hours of desk-based research. 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).

This evidence summary was prepared for the UK Government’s Department for International Development (DFID) and its partners in support of pro-poor programmes. It is licensed for non-commercial purposes only. K4D cannot be held responsible for errors, omissions or any consequences arising from the use of information contained in this health evidence summary. Any views and opinions expressed do not necessarily reflect those of DFID, K4D or any other contributing organisation.