



COVID-19

Health Evidence Summary No.1

Kerry Millington

Liverpool School of Tropical Medicine (LSTM)

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This weekly 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 half-a-day of work and is not intended to be a comprehensive summary of evidence.

1. Health Evidence Summary

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

Dong, Du & Gardner | *The Lancet Infectious Diseases* | 19 February 2020 | Correspondence
| User-friendly tool

[https://doi.org/10.1016/S1473-3099\(20\)30120-1](https://doi.org/10.1016/S1473-3099(20)30120-1)

An online interactive dashboard to visualise and track reported cases of COVID-19 in real-time illustrating the location and number of confirmed COVID-19 cases, deaths and recoveries for all affected countries. Hosted by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University and first shared publicly on 22 January 2020. The case data reported aligns with the WHO situation reports and has reported newly infected countries ahead of WHO. Here is the direct link to the dashboard:

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

How will country-based mitigation measures influence the course of the COVID-19 epidemic?

Anderson, Heesterbeek, Klinkenberg & Hollingsworth | *The Lancet* | 9 March 2020 |
Comment

[https://doi.org/10.1016/S0140-6736\(20\)30567-5](https://doi.org/10.1016/S0140-6736(20)30567-5)

Contains a useful figure of illustrative simulations of a transmission model of COVID-19.

Quarantine, social distancing, and isolation of infected populations has been shown by China to contain the epidemic, but it is unclear whether other countries can implement such stringent measures. Ongoing data collection and epidemiological analysis are essential in helping policy makers decide about mitigation strategies in a timely way that minimise morbidity and associated mortality, avoid an epidemic peak that overwhelms healthcare services and manages the effects on the economy. This is key to flattening the epidemic curve pushing the peak further into the future to provide time for the health services to treat cases and increase capacity, and longer-term, for vaccines and treatments to be developed.

Individual behaviour will be crucial, and perhaps more important than government action, to control the spread of COVID-19. Key to the individual response will be early self-isolation, seeking medical advice remotely unless symptoms are severe, and social distancing. Key to the government response will be action on broader social distancing, good diagnostic facilities, remotely accessed health advice, and specialised treatment for people with severe disease.

Contact tracing can be a successful strategy in the early stages of an outbreak, but the logistics of timely tracing on average 36 contacts per case are challenging and could be overwhelmed by super-spreading events. If prolonged contact is required for transmission (there is uncertainty in the duration of the infectious period), broad-scale social distancing is likely to be needed as this prevents transmission from symptomatic and non-symptomatic cases (currently unknown whether infectiousness starts before onset of symptoms). The case fatality rate (CFR) remains unknown in the absence of any completed large-scale serology surveys to detect specific antibodies to COVID-19 to define the number infected, but best estimates suggest a CFR of about 0.3-1%. Targeting social distancing to groups where CFR increases sharply with age and in people with COVID-19 and underlying comorbidities maybe the most effective way to reduce morbidity and concomitant mortality. School closure is unlikely to be effective given the apparent low rate of infection among children, although data are scarce. Data from the southern hemisphere will help evaluate how much seasonality will influence COVID-19 transmission.

Critical preparedness, readiness and response actions for COVID-19

WHO | 7 March 2020 | Technical interim guidance

https://www.who.int/docs/default-source/coronaviruse/20200307-cccc-guidance-table-covid-19-final.pdf?sfvrsn=1c8ee193_10

This document provides technical guidance for government authorities, health workers, and other key stakeholders to guide preparedness, readiness and response actions for COVID-19 for four transmission scenarios – no cases, sporadic cases, clusters of cases and community transmission – recognising that there is no one-size-fits all approach to managing cases and outbreaks of COVID-19. It will be updated as new information or technical guidance become

available. For countries that are already preparing or responding, this document can also serve as a checklist to identify any remaining gaps. All technical guidance can be found here: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance>

COVID-19: the gendered impacts of the outbreak

Wenham, Smith & Morgan on behalf of the Gender and COVID-19 Working Group | The Lancet | 6 March 2020 | Comment

[https://doi.org/10.1016/S0140-6736\(20\)30526-2](https://doi.org/10.1016/S0140-6736(20)30526-2)

Experience from previous outbreaks highlights the importance of including gender analysis into preparedness and response efforts to improve the effectiveness of health interventions, to understand the primary and secondary effects of a health emergency on different individuals and communities and for creating effective, equitable policies and interventions. Yet currently there is no known gender analysis of the COVID-19 outbreak by global health institutions or governments in affected countries or in preparedness phases. Current sex-disaggregated data are incomplete, cautioning against early assumptions. Consideration needs to be given to the gender implications of school closures, travel restrictions, quarantine, diverted health resources and caregiving roles. The authors ask for women to be represented at all levels of decision-making and given a voice including recognising the importance of their role and knowledge on the front line for early surveillance and response.

The species Severe acute respiratory syndrome-related coronavirus: classifying 2019-nCoV and naming it SARS-CoV-2

Gorbalenya, A.E., Baker, S.C., Baric, R.S. *et al.* | Nature Microbiology | 2 March 2020 | Consensus statement

<https://doi.org/10.1038/s41564-020-0695-z>

COVID-19 is a sister clade to SARS-CoVs and has been designated as SARS-CoV-2 by the *Coronaviridae* Study Group (CSG) of the International Committee on Taxonomy of Viruses, responsible for developing the classification of viruses and taxon nomenclature of the family *Coronaviridae*. For clear communication, the CSG proposes to use the following naming convention for individual isolates: SARS-CoV-2/host/location/isolate/date. The current outbreak is the third of an animal coronavirus spill over to humans in only two decades. The authors highlight that the independent zoonotic transmission of SARS-CoV and SARS-CoV-2 calls for research of the viruses at the species level as well as research of the individual pathogenic virus of immediate significance to better prepare for future outbreaks.

Feasibility of controlling COVID-19 outbreak by isolation of cases and contacts

Hellewell et al. | *The Lancet* | 28 February 2020 | Article

[https://doi.org/10.1016/S2214-109X\(20\)30074-7](https://doi.org/10.1016/S2214-109X(20)30074-7)

From mathematical modelling, highly effective contact tracing and case isolation is enough to control a new outbreak of COVID-19 within 3 months in most scenarios. Long delays from symptom onset to isolation, fewer cases found through contact tracing and increasing transmission before symptoms would decrease the probability of control. The model can be modified to respond to updated transmission characteristics and more specific definitions of outbreak control.

Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19)

WHO-China Joint Mission | 16-24 February 2020 | Report

<https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>

This report informs national (China) and international planning on the next steps in the response to the ongoing outbreak of COVID-19 and on the next steps in readiness and preparedness for geographic areas not yet affected. Major findings are described on the virus, the outbreak, transmission dynamics, disease progression and severity, the China response and knowledge gaps.

Persistence of coronavirus on inanimate surfaces and their inactivation with biocidal agents

G. Kampf, D. Todt, S. Pfaender, E. Steinmann | *Journal of Hospital Infection* | 6 February 2020 | Review

<https://doi.org/10.1016/j.jhin.2020.01.022>

The review analyses 22 studies about the persistence of human and veterinary coronaviruses on inanimate surfaces and inactivation strategies with biocidal agents used for chemical disinfection. Human coronaviruses such as SARS, MERS or endemic human coronaviruses (HCoV) can persist on inanimate surfaces like metal, glass or plastic for up to 9 days, but can be efficiently inactivated within 1 minute by surface disinfection with 62-71% ethanol, 0.5% hydrogen peroxide or 0.1% sodium hypochlorite. Note that other biocidal agents such as 0.05%-0.2% benzalkonium chloride or 0.02% chlorhexidine digluconate are less effective.

Coronavirus action plan

UK government | 3 March 2020 | Policy Paper

<https://www.gov.uk/government/publications/coronavirus-action-plan>

This plan outlines four phases of action – contain, delay, research and mitigate. The prime minister is chairing an emergency Cobra meeting on 9 March to decide whether the UK will move to the delay phase.

Retraction – Chinese medical staff request international medical assistance in fighting against COVID-19

The Editors | The Lancet Global Health | 26 February 2020 | Correspondence

[https://doi.org/10.1016/S2214-109X\(20\)30076-0](https://doi.org/10.1016/S2214-109X(20)30076-0)

The Lancet Global Health have retracted this Correspondence on learning that the account described therein was not a first-hand account, as the authors had claimed.

2. Resource Hubs

WHO: Coronavirus disease (COVID-19) outbreak

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

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>

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

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