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# Briefing paper for LCA/NZ leadership

**Clarification about the Transmissibility of COVID-19 - Aerosols and Droplets.**

Responding to the question and concern:

*The WHO is now saying that the virus might be spreading through the air, not just through aerosol droplets as it spruiked previously. E.g.*[*https://www.theguardian.com/world/2020/jul/08/who-says-evidence-emerging-of-airborne-coronavirus-spread*](https://www.theguardian.com/world/2020/jul/08/who-says-evidence-emerging-of-airborne-coronavirus-spread)*,. Does this mean that the Medical Aspects paper would benefit from an update?*

Research is currently being conducted on the transmissibility of the COVID-19 pathogen. One such area of investigation is its mode of spread in various conditions. It has been found that large droplets are a significant mode of transmissibility. This is because droplets contain greater quantities of virus particles and if directly spread between close contacts are enough to overwhelm the immune system of an individual. These droplets are also believed to be heavy and fall to the ground if contact does not occur and so social distancing with hand hygiene is believed to be sufficiently preventative.

There is also evidence that the virus can spread in the air via aerosol droplets, smaller than 5 microns (microdroplets). It has been commonly held that these are rarely found in large enough quantities to undermine the immune system.

However, concern has been raised that there may be some conditions, for example in crowded spaces or premises with poor ventilation where sufficient quantities of airborne virus particles play a significant role in the spread of the infection, particularly in super-spreading events. It could present an issue in churches where members participate in singing in an enclosed and sometimes poorly ventilated space. It also raises concern for the vulnerable, the elderly and those with weakened immune systems, who may become infected from exposure to a smaller level of the virus.

A paper was published on the 6th of July 2020 in the Oxford Journal *Clinical Infectious Diseases* imploring that the medical community “recognise the potential for airborne spread of COVID-19”. *[[1]](#endnote-1)* This paper is supported by 239 scientists. This paper has been picked up by media outlets the Guardian[[2]](#endnote-2) and New York Times[[3]](#endnote-3) and has caused a stir among the public.

The paper critiqued the World Health Organisation for not acknowledging the evidence to support airborne spread in their scientific brief entitled “Modes of Transmission of Virus causing COVID-19: implications for IPC” dated 27th of March 2020.[[4]](#endnote-4) However, in a more recent document entitled “Infection prevention and control during health care when coronavirus disease (‎COVID-19)‎ is suspected or confirmed” the WHO discussed the role of airborne transmission and how studies have failed to culture the virus from air particles, which they stated is a critical step in determining the infectiousness of the virus particles.[[5]](#endnote-5)

Furthermore, the WHO held a press conference on the 8th of July 2020 in response to the Oxford paper, acknowledging that there is evidence for airborne modes of transmission in specific conditions but the research emerging was “not yet definitive” and that they plan to produce an updated scientific brief advising on airborne spread of COVID-19.

This finding is consistent with CSBQ’s *Medical Aspects* paper that there remains limited science on many matters regarding COVID-19, with this being one. If this area of transmissibility is of particular interest to the LCANZ College of Bishops, the College can request that CSBQ monitor discussions and respective findings and provide reports when the WHO releases their next brief. This can also be done with other scientific questions. It does not seem necessary to update the current Medical Aspects paper, but should it be desired that a particular issue be examined further topical briefings can be produced.

1. Morawska, L. and Milton, D., 2020. It is Time to Address Airborne Transmission of COVID-19. *Clinical Infectious Diseases*, [online] Available at: <https://academic.oup.com/cid/article/doi/10.1093/cid/ciaa939/5867798> [Accessed 9 July 2020]. [↑](#endnote-ref-1)
2. <https://www.theguardian.com/world/2020/jul/05/who-underplaying-risk-of-airborne-spread-of-covid-19-say-scientists> [↑](#endnote-ref-2)
3. <https://www.nytimes.com/2020/07/04/health/239-experts-with-one-big-claim-the-coronavirus-is-airborne.html> [↑](#endnote-ref-3)
4. <https://www.who.int/news-room/commentaries/detail/modes-of-transmission-of-virus-causing-covid-19-implications-for-ipc-precaution-recommendations> [↑](#endnote-ref-4)
5. <https://www.who.int/publications/i/item/WHO-2019-nCoV-IPC-2020.4> [↑](#endnote-ref-5)