

# Misconceptions about weather and seasonality impact COVID-19 response

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Misconceptions about the way climate and weather impact exposure and transmission of SARS-CoV-2, the virus that causes COVID-19, create false confidence and have adversely shaped risk perceptions, say a team of Georgetown University researchers.

"Future scientific work on this politically-fraught topic needs a more careful approach," write the scientists in a "Comment" published today in *Nature Communications*.

The authors include global change biologist Colin J. Carlson, Ph.D., an assistant professor at Georgetown's Center for Global Health Science and Security; senior author Sadie Ryan, Ph.D., a medical geographer at the University of Florida; Georgetown disease ecologist Shweta Bansal, Ph.D.; and Ana C. R. Gomez, a graduate student at UCLA.

The research team says current messaging on [social media](#) and elsewhere "obscures key nuances" of the science around COVID-19 and seasonality.

"Weather probably influences COVID-19 transmission, but not at a scale sufficient to outweigh the effects of lockdowns or re-openings in populations," the authors write.

The authors strongly discourage policy be tailored to current understandings of the COVID-climate link, and suggest a few key points:

1. No human-settled area in the world is protected from COVID-19

- transmission by virtue of weather, at any point in the year.
2. Many scientists expect COVID-19 to become seasonal in the long term, conditional on a significant level of immunity, but that condition may be unmet in some regions, depending on the success of outbreak containment.
  3. All pharmaceutical and non-pharmaceutical interventions are currently believed to have a stronger impact on [transmission](#) over space and time than any environmental driver.

"With current scientific data, COVID-19 interventions cannot currently be planned around seasonality," the authors conclude.

**More information:** Colin J. Carlson et al, Misconceptions about weather and seasonality must not misguide COVID-19 response, *Nature Communications* (2020). [DOI: 10.1038/s41467-020-18150-z](https://doi.org/10.1038/s41467-020-18150-z)

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