

Effect of climate change on infectious diseases unknown to half of the population

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Although it is a widely known scientific fact that infectious diseases emerge and re-emerge due to climate change, a study which included the involvement of the UAB published in *PLOS ONE* reveals that 48.9% of

the population surveyed are not aware of this relation.

The transmission of specific [infectious diseases](#) have been altered by processes linked to climatic and environmental anomalies. An increase in infectious outbreaks is expected to be seen in mild climates due to [global warming](#), and the alterations in [climate patterns](#), such as El Niño, are modifying the presence, density, strength and dynamics of transmission of many viruses and pathogens.

Understanding how [climate](#) variability affects the transmission of these diseases is important for both researchers and the general public. Much has been done to raise awareness about climate change in the past years, but there still seems to be a widespread lack of knowledge of the effects climate change has on infectious diseases.

A study published recently in *PLOS ONE* and conducted by students from the international master's degree Erasmus Mundus IDOH+ (Infectious Disease and One Health) coordinated by the Université de Tours, the UAB and the Hannover Medical School, reveals that almost half of the population is unaware of the relation between climate change and its effect on infectious diseases.

The research was based on a multinational cross-sectional survey, in which a total of 458 participants from around the world were assessed to discover their knowledge of the effects climate change has on the emergence of infectious diseases.

The results reveal a lack of knowledge among the [general public](#), and with marked differences according to nationality and educational background. A total of 48.9% of the participants had never before considered the effects of climate change on infectious diseases. This percentage falls to 38.4% among those with a solid knowledge of the natural sciences, and rises to 59.2% in those who work in sectors not

related to science. Despite this difference, the survey also demonstrated that knowledge and awareness of climate change is unrelated to the educational level of participants, given that scientific dissemination of environmentally-related topics has been highly intensified in the past years.

The large majority of participants (64.6%) were afraid of contracting an infectious [disease](#). In Europe, participants were less afraid (51.7%) than their US (71.4%) and Asian (87.7%) counterparts. With regard to protection measures, the large majority (70.5%) consult the need for vaccines before traveling to a tropical country. In line with this observation, over half of those surveyed (56.1%) were afraid of contracting an infectious disease in a tropical country, although differences were detected according to nationality: in this case, European participants were more afraid (72.0%), when compared to US (41.3%) and Asian participants (37.7%).

Max van Wijk, Erasmus Mundus IDOH+ student and one of the authors of the study, says, "This data can help to establish intervention measures that can raise awareness among the public on issues related to [climate change](#) and infectious diseases, within the concept of One Health."

"The study was conducted with an academic objective, but contains [original content](#) that can be applied to other scientific studies," explains UAB Department of Animal Health and Anatomy lecturer Marga Martín, one of the program's coordinators.

More information: Max van Wijk et al. Perception and knowledge of the effect of climate change on infectious diseases within the general public: A multinational cross-sectional survey-based study, *PLOS ONE* (2020). [DOI: 10.1371/journal.pone.0241579](https://doi.org/10.1371/journal.pone.0241579)

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