

Climate Change and Health: Scoping Review of Scientific Literature 1990-2015

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Abstract : In the recent decades, there has been an increase in the number of publications both in the scientific and grey literature on the potential health risks associated with climate change. Though interest in climate change and health is growing, there are still many gaps to adequately assess our future health needs in a warmer world. Generating a greater understanding of the health impacts of climate change could be a key step in inciting the changes necessary to decelerate global warming and to target new strategies to mitigate the consequences on health systems. A long term and broad overview of existing scientific literature in the field of climate change and health is currently missing in order to ensure that all priority areas are being adequately addressed. We conducted a scoping review of published peer-reviewed literature on climate change and health from two large databases, PubMed and Web of Science, between 1990 and 2015. A scoping review allowed for a broad analysis of this complex topic on a meta-level as opposed to a thematically refined literature review. A detailed search strategy including specific climate and health terminology was used to search the two databases. Inclusion and exclusion criteria were applied in order to capture the most relevant literature on the human health impact of climate change within the chosen timeframe. Two reviewers screened the papers independently and any differences arising were resolved by a third party. Data was extracted, categorized and coded both manually and using R software. Analytics and infographics were developed from results. There were 7269 articles identified between the two databases following the removal of duplicates. After screening of the articles by both reviewers 3751 were included. As expected, preliminary results indicate that the number of publications on the topic has increased over time. Geographically, the majority of publications address the impact of climate change and health in Europe and North America, This is particularly alarming given that countries in the Global South will bear the greatest health burden. Concerning health outcomes, infectious diseases, particularly dengue fever and other mosquito transmitted infections are the most frequently cited. We highlight research gaps in certain areas e.g climate migration and mental health issues. We are developing a database of the identified climate change and health publications and are compiling a report for publication and dissemination of the findings. As health is a major co-beneficiary to climate change mitigation strategies, our results may serve as a useful source of information for research funders and investors when considering future research needs as well as the cost-effectiveness of climate change strategies. This study is part of an interdisciplinary project called 4CHealth that confronts results of the research done on scientific, political and press literature to better understand how the knowledge on climate change and health circulates within those different fields and whether and how it is translated to real world change.

Keywords : climate change, health, review, mapping

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