

## Climate change and health in the Eastern Mediterranean countries: a systematic review

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**Abstract:** OBJECTIVES: To summarize the existing knowledge of the impact of climate change on health from previous research in the Eastern Mediterranean region (EMR) and identify knowledge and research gaps. METHODS: Different databases were searched for relevant studies published in the region between 2000 and 2014. The review was limited to studies reporting the impacts of climate change on health or studying associations between meteorological parameters and well-defined human health outcomes. RESULTS: This systematic review of 78 studies identified many knowledge and research gaps. Research linking climate change and health is scarce in the most vulnerable countries of the region. There is limited information regarding how changes in temperature, precipitation and other weather variables might affect the geographic range and incidence of mortality and morbidity from various diseases. Available research has many limitations and shortcomings that arise from inappropriate study designs, poor assessment of exposure and outcomes, questionable sources of data, lack of standardized methods, poor adjustment of confounders, limited geographical area studies, small sample sizes, poor statistical modeling and not testing for possible interactions between exposures. CONCLUSIONS: Research and information on the effect of climate change on health are limited. Longitudinal studies over extended periods of time that investigate the link between climate change and health are needed. There is a need for studies to be expanded to include more countries in the region and to include other environmental, social and economic factors that might affect the spread of the disease.