

CLIMATE CHANGE AND HEALTH IN THE EASTERN MEDITERRANEAN: POTENTIAL EFFECTS AND POSSIBLE SOLUTIONS

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Background and Aims: The effects of climate change on human health are varied and dependent on geographical location. These effects include alteration of infectious disease distribution, air pollution, extreme weather events, increased incidence of certain diseases, desertification, drought, and food insecurity (Haines 2004). Many of these effects are pronounced in arid climates such as the Eastern Mediterranean where water scarcity has historically been a source of political, social and economic instability. Our aims are 1) to present the literature on the health effects of climate change and its relevance to health in the Eastern Mediterranean; 2) to discuss potential for collaboration, specifically amongst Israelis and Palestinians, in addressing the shared public health hazards of climate change.

Methods: We present a literature review on the impacts of climate change on desertification, access to potable water, frequency of dust events, and prevalence of disease in the Eastern Mediterranean. Climate models for the Eastern Mediterranean region and their relevance to public health outcomes are assessed. Current mitigation strategies and potential for collaboration in adaptation measures amongst Israelis and Palestinians are explored.

Results: Recent models predict a mean temperature increase of 1.6° to 1.8°C, a 4 to 8% precipitation reduction, and 12-88cm increase in sea level in the region by 2100 (Pe'er 2000). Collaborations on the health impacts of climate change include: coordination of meteorological, CO₂ concentration, and air pollution monitoring; coordination of disease registries and databases; and shared surveillance of water, food and vector-borne disease outbreaks.

Conclusions: National borders do not serve as protection from the potential effects of climate change on human health. The Eastern Mediterranean, given its arid climate and limited water supply, is likely to have significant public health consequences related to climate change. Further collaboration in understanding and addressing climate change is crucial to ensure the health of all people in the region.

References:

Pe'er G, Safriel U. Climate Change; Israel National Report. The United Nations Framework Convention on Climate Change. 2000.

Haines A, Patz J. Health Effects of Climate Change. JAMA 2004; 291: 99-103.