

**HEALTH CONSEQUENCES OF EXTREME TEMPERATURES DRIVEN BY CLIMATE CHANGE**

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**Introduction.** Climate change and climate variability, particularly of the weather patterns, affect the environmental determinants of health such as clean air, food, water, shelter and security. At the same time, climate change, along with other factors, might greatly affect human health and well-being. One of the 10 major health impacts of climate change publicly reported by WHO are the extreme temperatures. This third effect suggests that short-term intense fluctuations of weather can seriously affect health, causing heat stress (hyperthermia) or excessive cooling (hypothermia), which might particularly increase the mortality rate due to cardiovascular and respiratory diseases. Episodes of extreme temperatures pose a threat on the health systems. In terms of methodology, the most important study aspects on the impact of extreme temperatures on health status is to determine the temperature threshold, when climatic conditions become fatal for population. Many studies confirm that temperature threshold should be based on the human body's response to extreme heat or cold, resulting in increased number of deaths and overall morbidity due to certain diseases, as well as due to an increased need for urgent medical assistance.

**Material and methods.** The present study is a literature review of 34 sources (scientific articles, WHO reports, IPPC, WMO, monographs) from the Republic of Moldova, Romania, Ukraine, USA, Canada, and Portugal.

**Results.** Extreme temperatures are both extremely high (heat waves) and low temperatures (cold waves).

A heat wave is defined as a period of marked unusual hot weather over a region persisting for at least two consecutive days. They occur all over the globe, although might manifest differently depending on the location. The impact of heat waves on public health depends on the level of exposure (frequency, severity and duration), the number of people exposed to this factor, and the individual's sensitivity. The direct effects of exposure to excessive heat are heat exhaustion and hyperthermic shock, manifested in profuse sweating, pallor and clammy skin, excessive thirst, nausea, weak pulse, headache, blurred vision, exhaustion, weakness, muscle spasms, etc. Extremely high temperatures often lead to death of patients suffering from cardiovascular and/or respiratory diseases, especially among the elderly people.

A winter cold wave is a period of unusually cold weather over a region, which lasts at least two consecutive days. Exposure to cold can lead to a variety of cold-related illnesses, common symptoms and signs, as well as injuries and accidents, including circulatory, respiratory and cardiovascular disorders. The unfavourable cold outdoors conditions can lead to multiple injuries resulting from slipping and falling. The impact of cold weather on the health sector involves hospital and emergency facilities, primary health care services, mental health care, public health protection and immunization and social care companies.

**Conclusions.** Many of the adverse health effects of hot/cold weather can be prevented by individual action or the actions of health professionals, including government.