# Climate change impacts on heat-stress-related mortality

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## Abstract

The heat stress related mortality is among the main impacts of periods of high summer temperature (heat waves) on society. Enhanced frequency and severity of heat waves are expected to occur in connection with a likely increase in the mean temperature in a future climate. The aims of the project are (A) to analyze the observed heat stress related mortality in relation to meteorological conditions in the Czech Republic using (i) models of relationships between meteorological variables and mortality and (ii) the synoptic approach based on objective classification of air masses, (B) to apply the relationships found in observations on the time series of meteorological variables obtained from climate models (using general circulation models, statistical downscaling and stochastic generator) for current greenhouse gases concentrations in the atmosphere and to specify a model (models) that reproduces the situations with an increased heat stress related mortality best, and (C) to construct a scenario of a change in the heat stress related mortality in the Czech Republic under perturbed (e.g. $2xCO_2$) conditions based on the outputs of climate models.