

Evaluation of heat wave related mortality and adaptation measures in Switzerland

The heat wave in 2003 caused approximately 7% more deaths. As a result, the Swiss Federal Office of Public Health developed an information campaign for the behaviour during heat waves which has been adopted by various cantonal health authorities. The project has several objectives: 1) Assessment of preventive measures which have been recommended or implemented by various stakeholders (communities, cantons, confederacy, MeteoSuisse, international authorities) to reduce heat-related mortality. 2) Analysis of the effect of heat waves on mortality in Switzerland on the basis of empirical data on a national level and stratified by region. The hypothesis will be tested the effect of comparable heat episodes on mortality is reduced since 2003. 3) Evaluation of regional adopted measures on the heat-related excess mortality in single cantons/regions where preventive measures have already been implemented. 4) Identification of the meteorological indicator which best describes the heat effect on mortality and identification of the highest groups at risk. 5) Preparation and dissemination of epidemiological studies on the topic for interested stakeholders with newsletters and workshops.

In a first step an assessment of the adopted and recommended measures aiming to reduce heat-related mortality will be executed. In a second step, Swiss mortality data (1990-2012) from the Federal Office of Statistics will be linked with the corresponding regional meteorological data provided by MeteoSwiss. The heat-related excess mortality will be investigated using Poisson regression analysis. Furthermore, various meteorological indicators will be investigated for the health effect of heat episodes. An important part of the project addresses the knowledge transfer. During the project, new relevant epidemiological studies will be identified, summarized and evaluated regarding to the practice. Information is made available to the relevant agencies and stakeholders by means of a newsletter.

The project will provide an overview of adaptation measures for the prevention of heat-related mortality. It will show which meteorological parameters have the greatest effect on mortality and which age groups are particularly affected. The projects will generate evidence whether an increased sensitivity to the issue and adopted measures in the recent years had an impact on the extent of heat-related mortality.

