



## Mortality from cardiovascular diseases and its relationship to air temperature during the winter months in Dublin and Oslo/Akershus.

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Abstract: In many countries increased winter mortality from cardiovascular diseases (CVD) has been documented. A causal relationship between change in air temperature and change in number of deaths has been suggested. There is also evidence for a delay between a fall in air temperature and death (lag effect). We have investigated these relationships using mortality data for CVD (ICD-9: 390-459) and daily air temperatures in selected winter months (December to March) from two densely populated areas in Norway and Ireland, Oslo/Akershus and Dublin. A specially designed computer programme was used to select data from specific days in the ten years period. The days selected depended on the temperature change chosen between two consecutive days. We examined 2 types of temperature change, a large change and little or no change. An analytical technique involving the use of Spearman's correlations coefficients was used to investigate delays in mortality following a particular change in temperature. For groups of selected days, an inverse relation between mortality and air temperature was found. For neither the Oslo/Akershus nor the Dublin data was it possible to see a sudden increase in mortality following a large, sudden decrease in temperature and no evidence for a delay between a change in temperature and a change in mortality rate was found.

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