

# Higher rate of hypothermia deaths in South Australia than in Sweden

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South Australia has a higher rate of deaths from extreme cold compared with the northern European nation of Sweden, according to new research from the University of Adelaide.

The study, by a team from the University's School of Medical Sciences, analysed forensic cases of hypothermia deaths from 2006-2011 in both South Australia and Sweden.

The results show that South Australia had a rate of 3.9 deaths for every 100,000 people, compared with Sweden's 3.3 deaths per 100,000. In total, there were 62 fatal cases of hypothermia in South Australia and 296 cases in Sweden over the six-year period.

"Despite considerable demographic, geographic and climate differences, the death rate from hypothermia was slightly higher in South Australia than in Sweden, which is a very surprising result," says the leader of the project, the University's Professor Roger Byard AO.

Hypothermia is defined as a decrease in [core body temperature](#) below 35°C, with fatal hypothermia occurring at body temperatures of 26°C to 29°C.

"Most of the deaths from hypothermia in South Australia involved elderly women indoors who were living alone, often with multiple underlying illnesses and limited contact with the outside world. Many of them had been dead for at least a day before they were discovered,"

Professor Byard says.

"This is in contrast with the majority of hypothermia deaths in Sweden, which usually occur outdoors and involve middle-aged males, commonly under the influence of alcohol. These bodies are often uncovered from snow drifts.

"The fact that South Australia has a much warmer climate than Sweden, with higher average temperatures and milder winters, does not stop people from being at risk of [death](#) from [hypothermia](#). Elderly, socially isolated people are at greatest risk in this State," Professor Byard says.

Medical Sciences PhD student Fiona Bright says descriptions of the houses were not available in the South Australian cases, so the reasons for the higher rates of indoor deaths in SA can only be speculated on.

"In addition to the many underlying medical conditions involved in these cases, it's likely that poor heating and insulation, and lack of energy efficiency, are playing a role here. For example, only 2.6% of Australian homes have double-glazed windows compared with 100% of homes in Finland and Sweden," Ms Bright says.

The results of this research will be published in the *Journal of Forensic Sciences* later this year.

Provided by University of Adelaide

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