Lethal hypothermia in South Australia

To the Editor: Deaths resulting from hypothermia are not limited to colder climates or to the winter months, and have previously been highlighted as a public health problem in temperate regions in Australia.[1] We recently reported the details of a hypothermic death in a home in South Australia, and raised concerns about the contribution of poor domestic energy efficiency to such fatalities.[2]

To determine the profile of such victims in the local population, we undertook a review of all coronial cases where autopsies had been performed at Forensic Science SA over a 2-year period from 1 January 2010 to 31 December 2011. We identified 19 cases of hypothermia diagnosed at autopsy as either the sole cause of death or as a chief contributor to the terminal event (age range, 30–87 years; mean age, 64 years; 11 men and 8 women). Nearly half of the victims were aged over 70 years, and many had not been found for a number of days after their death. Underlying medical conditions were found in 18 individuals. These included cardiovascular disease (eight), alcoholism and substance misuse (eight), diabetes (five), dementia (three) and mental illness or depression (two). Seventeen of the 19 deaths occurred indoors, with 13 deaths occurring between May and October. Fifteen individuals lived alone.

Older people are particularly vulnerable to lethal hypothermia for a number of reasons, including deterioration in their ability to discern lower temperatures and failure to respond appropriately to the cold. Frugal older people living in isolation may also not adequately heat their homes.[3] Another issue may be the inadequate energy efficiency of many Australian homes. For example, it has been estimated that only 2.6% of Australian homes have double-glazed windows, compared with 100% in Finland and Sweden, and 88% in Germany.[2,4] Homes with no ceiling or wall insulation that lack double-glazed windows, have poor door and window seals and have suspended floors with high under-floor ventilation all lose remarkable amounts of heat.[2,4,5] As it is recognised that ill older people who live alone are at risk of hypothermic episodes, the role of energy-inefficient houses with inadequate heating in these preventable deaths needs further investigation.

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