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SURVEY OF HOT WATER TEMPERATURES IN CAMPGROUNDS: ELEVATED SCALDING RISK AND ENERGY WASTAGE

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Background Scalds from domestic hot water are an important public health problem in New Zealand (NZ).

Aims We aimed to study the hot water hazard in a yet unstudied setting: that of campgrounds.

Methods Convenience sampling was performed involving 25~NZ campgrounds. These were sampled during summer months over a 4-year period (2008–2011) and in five different regions. We measured the temperature of hot water in basin taps and in showers.

Results There were relatively high temperatures for both basin taps and showers (n=82 samples), with 74% of measurements exceeding the maximum level in NZ's Building Code of 55° C. But if a lower maximum level, as recommended by various agencies is considered (eg, 48.9°C, equivalent to 120° F, is recommended by the American Academy of Pediatrics), then 90% of samples were too hot. A further problem was lack of cues as to which tap was for hot water. Colour-coding or word labels were partially present in 32% of basins and completely absent in 7%. For showers, the equivalent figures were: 4% and 36% respectively.

Significance The excessive temperatures identified in this study warrant action by government agencies to reduce the risk of scalding, particularly for children, who are commonly unsupervised at campground bathrooms. Reducing this risk may be more important that legionellosis prevention (given the absence of good evidence of infection via domestic hot water). Reducing hot water storage temperatures will also contribute to more efficient use of energy and save fuel costs for campground operators.