## Drowning in Australia is more than coastal drowning

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The paper by Sherker and colleagues [1] (this issue of JSAMS) focused on Australian coastal drownings, highlighting dangers associated with rips, and emphasising the importance of 'swimming between the flags' as a drowning prevention strategy. The authors recommended a comprehensive approach to the development, implementation and evaluation of interventions designed to reduce coastal drownings, stressing the need for "national, coordinated and systematic" (p. ?) consideration of the problem.

While the authors [1] should be applauded for their recommendation, it must be noted that coastal drowning represents only about 10% of Australian drownings. Readers of their paper unfamiliar with details regarding death by drowning in Australia may assume erroneously that addressing coastal drownings will solve the drowning problem.

In the 12-months to June 2006, accidental drowning in Australia resulted in 265 deaths [2]. The locations and situations of drownings are many and varied [3]. Beach drownings accounted for 54 deaths (20%) [2]. Fishing deaths at beaches contributed to this category, although their circumstances are very different to those of the 'swimming/leisure activities' category. Only 20% of drownings occurred during participation in 'swimming/leisure'. Falling into the water (21%); fishing (12%); using watercraft (10%); bathing (6%); diving (4%) and attempting a rescue (1%) were precursors to other drowning incidents [2]. Among children aged under five, private swimming pools and the bathtub are the most common drowning locations [2]. Children who drown in pools typically fall or wander into the water, generally when unsupervised [3]. Accidental drowning was the cause of 19% of all child injury deaths (286 deaths) between 1999 and 2003 [4].

Significant progress has been made toward decreasing the drowning toll. Throughout the 1900s until about 1980, 500-600 people drowned in Australia annually [5]. An ongoing downward trend

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starting in the 1980s has halved this number (see RLSSA Annual Drowning Reports). Various factors contributed to this decrease, including changes to learn-to-swim curriculum from traditional 'strokes only' to a comprehensive approach encompassing water safety and survival education in addition to strokes (adopted by governmental teaching bodies in each Australian State and Territory); home pool fencing legislation changes; increased small boat safety; and improved awareness and education in recreational fishing communities.

Preventive actions and rescues by lifeguards at public pools and lifesavers at the beach are important, but deaths at these venues contribute only a small percentage to the drowning toll. To further impact on the incidence of drowning, we must prepare and encourage aquatic users to "take your safety with you" on entering unsupervised aquatic environments. We must develop, implement and evaluate intervention programs aimed to equip people for any aquatic environment with attitudes, skills and equipment necessary to minimise risk. In doing so, we must develop a culture of safety and enjoyment among those using water environments, whether for swimming, sailing, board-riding, diving or even walking or playing.

We must consider all drowning deaths preventable. Action is required to address the diverse circumstances of drowning [3,6]. A multifaceted, comprehensive approach is essential, incorporating awareness, skills and legislation, appropriate to various activities and settings. Drowning prevention must be addressed in all drowning environments, many of which are not 'lifeguardable'. Interventions should not be directed only at those who use the water for swimming and leisure, as most people who drown did not intend to enter the water [2].

Specific programs must target specific groups. Sherker et al.'s niche approach to beach recreational swimming is such an example. The National Coroners Information System provides detailed information regarding the circumstances surrounding most drownings, making it

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possible to determine common risk factors in the aetiology of drowning and hence address these factors within comprehensive interventions. Interventions should include behavioural, legislative, policy, environmental and engineering controls. They must be implemented and evaluated to determine their effectiveness. Successful interventions must be promulgated nationally, to allow uptake among other similar target groups, with appropriate modification to suit local circumstances.

Stakeholders such as the Australian Water Safety Council, Surf Life Saving Australia, Royal Life Saving Society Australia and AUSTSWIM have issued the challenge of a zero drowning toll. This poses a significant challenge – to convince water safety and injury prevention researchers and practitioners, along with the community at large, to take up this call for action.

## References

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