

## An evaluation of a community knowledge-based intervention on beach safety: The Science of the Surf (SOS) presentations

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Community knowledge relating to surf hazards, particularly rip currents, is known to be comparatively low even in countries with a strong beach culture like Australia. The 'Science of the Surf (SOS)' community outreach program, which was initiated in 2001 in Sydney, Australia, aims to educate beachgoers by providing them with basic scientific knowledge of how beaches, waves and rip currents work, with an emphasis on beachgoer safety. SOS involves a PowerPoint presentation, which is augmented at some beach venues with an on-beach demonstration involving purple dye being released into a rip current to illustrate the trajectory and speed of the rip. Since its inception, SOS has been presented to over 5,000 members of the community and 10,000 primary and high school students in New South Wales, Australia.

This study was an evaluation of the 'Science of the Surf' information presentations conducted for community groups during the summer season in January 2009. The main research question for this study was: Does a community-based information campaign improve the beachgoers' knowledge about the risks of rips, ability to identify rips, and intentions about where they will swim? This project surveyed attendees about their knowledge of beach safety before and after the presentations and then one month later to test recall of the information presented. The audience of eight presentations were surveyed, as were around 250 beachgoers from Sydney beaches who had not been exposed to the SOS presentations. Three of the presentations involved actual rip current demonstrations using purple dye, while all of the PowerPoint presentations contained the same time sequence photographs of similar dye releases.

The results of this study showed significant improvements in beach safety knowledge immediately after the presentations which remained high at a one-month follow-up survey. In particular, knowledge improved in areas that were specifically targeted by the intervention, including checking for rip currents, and the identifying characteristics of rips. The evaluation showed that the presentations were effective in increasing beachgoer knowledge of rips and that knowledge was maintained for at least one month following the presentation. There was some evidence, however, of increased confidence in swimming choices at follow-up as respondents were more likely to choose swimming outside lifeguard-patrolled areas at follow-up compared to pre-intervention.

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