Improving beach safety: The Science of the Surf research project
Stage 1: Collection of baseline data to inform a tailored intervention.

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More than 80 people drown at Australian beaches each year and up to 600 are hospitalised due to near-drowning. There are also countless 'near misses': lifesavers perform more than 11,000 rescues and provide first aid on more than 40,000 people each year. The aim of this research project is to develop, implement and evaluate an educational intervention aimed at reducing the risk of beach related drowning. Education campaigns that tell people what they already know are unlikely to be effective. Therefore, an effective educational intervention needs to provide new knowledge. This presentation focuses on stage 1 of the project which aimed to determine what beachgoers know about beach safety. We administered 375 structured interviews with beachgoers in two regional areas of NSW over the 2007 Easter period. Eighty-five percent of respondents reported that they would swim between the flags and 90 percent were aware that flags are positioned in the safest place on the beach. In contrast, only 40 percent of people could correctly identify a rip current, despite 80 percent believing that they could. Of concern was that, when shown a photograph of a beach, nearly half of respondents selected a rip current as the safest place to swim. The results of the baseline survey were critical for informing a tailored intervention. These results indicated low recognition of rips characterized by calm water between breaking waves, and high intention to swim in places where rips occurred. These findings highlighted the need for better education on rip currents and their dangers. This became the focus of the second phase of the project; the development and implementation of a beach safety education campaign.

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Stage 2: Development and process evaluation of the "Don't get sucked in by the rip" campaign

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Stage 1 results of the Science of the Surf program indicated low recognition of rips characterized by calm water between breaking waves, and high intention to swim in places where these rips occurred. These findings are consistent with anecdotal media reports of recent drownings and informed the campaign we developed. Our key intervention message warned people about calm looking rips using an attention-grabbing slogan and message: "Don't get sucked in by the rip - Don't be fooled by calm, flat sections in the surf, because these are often rips". We reinforced peoples' strong intentions to swim between the flags (observed in Stage 1), by highlighting the difficulty of identifying rips. Based on Stage 1 process questions, the campaign used several components. A media release and campaign launch achieved exposure in local print, radio and television. A poster, conveying our key message, was hung in most local retail outlets. The same image was distributed as a postcard, and was the front of a brochure. The brochure, distributed via retail outlets and rental accommodation agents, provided more scientific substance to our key messages and included a "spot the rip quiz" to encourage reading. The brochure also reinforced peoples' knowledge about what to do in a rip (shown to be high in Stage1) and primed thoughts to prevent panic. Results indicated that 32% of beachgoers interviewed could spontaneously recall seeing our beach safety messages, while an additional 10% could recall the safety message when prompted. Females and English speakers were most likely to see intervention materials.

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Stage 3: Evaluation of the effectiveness of the "Don't get sucked in by the rip" campaign

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The overall purpose of any community safety education campaign is to increase knowledge of the best approaches to maintaining safety. This was also one of the main aims of our "Don't get sucked in by the rip" campaign. In the third presentation about the Science of the Surf project we will discuss the results of the outcome evaluation for the project. In order to assess the efficacy of the intervention, beachgoers in intervention (n=539) and control (n=400) areas were compared on changes in key outcomes, including knowledge of the safest places to swim on the beach and knowledge of rips and how to handle them. Results indicated improvements about: where to swim in presence of a rip ($p<0.014$); identifying a rip ($p<0.001$); and being more confident about identifying rips ($p<0.001$). In the intervention area, those who saw the intervention were significantly more likely to be able to identify a rip ($p<0.001$) and to swim in the right place in the presence of a rip ($p<0.001$). Some of these improvements were maintained six months following the intervention. The intervention had no significant effect on beachgoers' swimming intentions with respect to swimming in the flagged area. Most beachgoers understood that the safest place to swim was in between the flags, but a large proportion often did not comply. The presentation will also discuss the lessons-learned from this project that are important for designing future beach or water safety campaigns.