

Using the public health approach to prevent drowning in Hawaii

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Background

Hawaii is an island state with a large visitor industry, world class beaches and warm weather conducive to recreational ocean activities year round. Drowning was the fifth leading cause of injury-related mortality in Hawaii (9%), including residents and visitors for the years 2005–2009 (1). Over the five year period of 2003–2007, Hawaii had the second highest resident drowning rate (13.3/100,000) (behind Alaska: 18.6) of all United States (2). The Ocean Safety and Lifeguard Services Division of Honolulu has been the lead in addressing drowning prevention for the state. The Hawaii State Department of Health, Injury Prevention and Control Program (IPCP) supports the efforts of drowning prevention partners including all the county ocean safety divisions (Honolulu, Hawaii, Maui and Kauai) by providing data, technical assistance and funding.

Objectives

To reduce drowning and water-related injuries in Hawaii utilizing a public health approach.

Target

Residents and visitors are both at risk of drowning in Hawaii. Between 2000–2009, nearly half of the ocean drownings were residents (48%) (1).

Implementation

The public health approach to drowning prevention requires a systematic assessment of the issue, identification of risk factors and developing, implementing and evaluating interventions to control or prevent the problem. Utilizing Haddon's Matrix, interventions are targeted at the pre-event, event and post-event phases of a potential drowning scenario (3). In Hawaii, the full-time, trained, professional lifeguards are essential to prevention efforts. Lifeguards interact with beachgoers before they enter the water, utilize personal watercraft to assist in ocean rescues and are trained as first responders. Other interventions support the work of the lifeguards. Additional pre-event strategies include a web-based real time assessment of beach hazards and conditions at all lifeguarded beaches across the state (www.hawaiibeachsafety.org) and pictogram signage at every beach.

Results

As a result of IPCP's involvement, ocean safety and public health professionals now have a better understanding of the epidemiology of drowning. IPCP utilizes a variety of databases to provide statewide and county specific reports about drownings. IPCP recently conducted a beach sign recognition survey to assess beachgoers' understanding of the pictograms and their resulting behavior. The evaluation has been available since late 2010.

Discussion

Using a public health approach in drowning prevention enhances efforts and focuses resources. Lifeguards provide a valuable, effective service and need to be viewed as essential public safety personnel (4). The visitor industry needs to understand that promoting public safety will not deter visitors. Strong partnerships and clear communication channels between other first responders, including fire and emergency service providers are important to overall public safety.

Conclusion

Drowning prevention requires many partners. Highly skilled and full-time professional lifeguards are essential to providing ocean safety for residents and visitors.

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References

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