

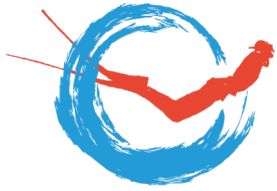
PROPOSED HAWAII STATE REQUIREMENT

FOR WARNING LABELS ON SPEARGUNS AND POLE SPEARS (HB1765, HD1)

Breath-Hold Diving Risks and Hypoxic
Loss of Consciousness

Prepared by: Niki Roderick, Freediving National Record Holder,
Founder and CEO, FreediveSafe! Hawaii, Kailua-Kona, Hawaii





EXECUTIVE SUMMARY

HB1765, HD1 Would Require Safety Warning Labels On All Spearguns And Pole Spears Sold Or Distributed In Hawaii.

These labels inform consumers that breath-hold diving carries serious risks, including hypoxic loss of consciousness (freediver blackout or shallow water blackout), which can rapidly lead to drowning.

Breath-hold diving is the predominant method of spearfishing in Hawaii due to legal restrictions on scuba-assisted spearfishing in areas such as the West Hawaii Regional Fishery Management Area (HAR §13-60.4-4). Freedive spearfishing reflects both recreational use and longstanding cultural traditions. **Between 2014 and 2023, 59 residents died in spearfishing-and freediving-related incidents**, representing a significant public health concern.

This low-cost intervention (< \$0.30 per label) has proven effective in pilot programs, with strong support from local manufacturers, retailers, and organizations such as FreediveSafe! Hawaii. Legislation ensures consistent, standardized safety information across equipment, extending protections to all users, supporting safer practices, and reinforcing statewide water safety education efforts.

BACKGROUND AND CONTEXT

2.1 Breath-Hold Diving Practices

Breath-hold diving, or freediving, is widely practiced in Hawaii for recreational, subsistence, and cultural purposes. Unlike scuba diving, freediving involves repeated submersion on a single breath, exposing participants to distinct physiological risks, including hypoxic loss of motor control and loss of consciousness, most often during ascent or shortly after surfacing. These events can occur without warning and may quickly lead to drowning if assistance is not immediate. **Hypoxia-related incidents can affect divers of any experience level.**

2.2 Cultural and Community Relevance

Spearfishing and breath-hold diving are integral to Hawaii's communities, supporting cultural traditions, subsistence practices, and recreation. Participation is high year-round, reflecting environmental conditions and longstanding connections to the ocean.

Although many residents participate in breath-hold diving, awareness of physiological risks—such as hypoxic loss of consciousness—and strategies to prevent freediver blackout is largely limited to divers who have received formal freediving training, leaving the majority without critical safety knowledge.

Since 2020, FreediveSafe! Hawaii has provided free statewide safety training, particularly for Native Hawaiian and Pacific Islander youth, reaching over 3,000 students. **Random polling at select youth events (ages 12–18) found that fewer than 10% of participants already involved in the sport were aware of freediver blackout.** This highlights a shift in how youth are entering the sport and underscores the need for broader safety education.



2.3 Shallow Water Blackout: Definition and Risks

Shallow water blackout most commonly occurs near the surface during ascent, when the rapid drop in pressure sharply reduces oxygen available to the brain. Divers may appear normal until they suddenly lose consciousness, often leaving little time for self-rescue.

The risk of drowning is significantly higher when diving alone. Without a companion to observe and intervene, the likelihood of a fatal outcome rises sharply. Shallow water blackout can occur during routine dives or repeated breath-hold attempts, particularly when divers hyperventilate or fail to allow adequate recovery between dives. Public health evidence identifies spearfishing and freediving as leading activities associated with fatal drownings in Hawaii, particularly among youth and communities that practice traditional spearfishing.

2.4 Drowning Disparities in Hawaii

Analysis of statewide drowning data reveals disparities in risk. Native Hawaiian and Pacific Islander residents, who comprise 27% of Hawaii's population, accounted for nearly 36% of drowning incidents between 2014 and 2022 (John Kaleimakali'i Thornton Clark, Resident Drowning Accidents in Hawaii: A Descriptive Analysis). Freediving was the second leading activity in these cases, responsible for 31% of incidents. These findings underscore the need for community-targeted interventions.

DROWNING RISK AND PUBLIC HEALTH IMPACT

Between 2014 and 2023, 59 Hawaii residents died in drownings associated with freediving and spearfishing. Each fatality carries significant social and economic consequences, with the National Drowning Prevention Alliance estimating that drowning costs the U.S. economy over \$50 billion annually.

Hawaii has the second-highest resident drowning rate in the nation. Drowning is also the leading cause of death for children ages 1–15 in the state. Native Hawaiian and Pacific Islander residents are disproportionately affected, highlighting the urgency for improved outreach, awareness, and prevention.

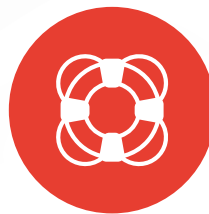
The Hawaii Water Safety Coalition and the 2025 Hawaii Water Safety Plan represent coordinated state-wide efforts. Warning labels complement these strategies, providing a low-cost, targeted intervention at the point of purchase to reduce preventable deaths.



Hawaii Department of Health. *Resident drowning incidents, 2014–2023.*



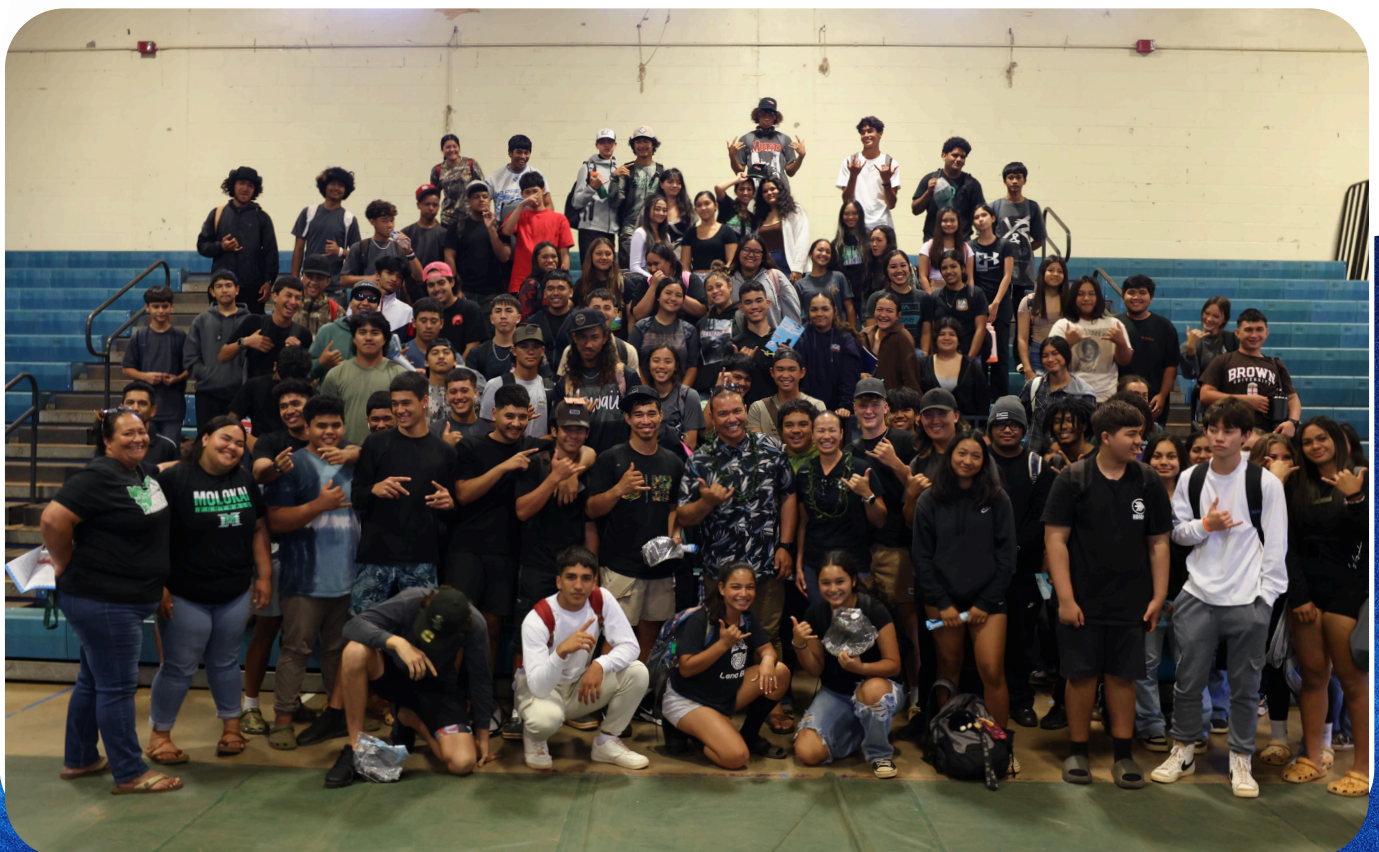
National Drowning Prevention Alliance. *Drowning costs to the U.S. economy.*



Hawaii Water Safety Coalition. *2025 Hawaii Water Safety Plan.*



Hawaii Department of Health. *Focus Areas: Drowning Prevention.*



Problem Statement

Spearguns and polespears are typically sold without standardized warnings about hypoxia, loss of consciousness, or other freediving dangers. While some voluntary warnings exist, coverage is inconsistent, particularly for entry-level equipment sold in big-box retailers or imported products.

This gap in standardized labeling is concerning because, unlike products such as bicycle helmets, which carry mandatory safety warnings and have demonstrated measurable reductions in injuries, spearfishing equipment is typically sold without consistent risk information. Pairing labels with current educational outreach strengthens messaging and has been shown to encourage safer behaviors through increased awareness. **Providing consumers with clear, actionable information is a fundamental safety right.** Legislated warnings ensure consistent, statewide protection, reinforce accountability for manufacturers and retailers, and support the long-term adoption of safe practices across the diving community.

Proposed Solution

HB1765, HD1 requires spearguns and pole spears sold or distributed in Hawaii to carry clear, standardized warning labels. Labels inform users about:

- ✓ A well-documented danger
- ✓ Risks of hypoxia, freediver blackout, and drowning
- ✓ Discourages solo diving



Pilot programs demonstrate feasibility and low cost: labeling a polespear costs less than \$0.30 per label on a \$100 polespear. Local manufacturers and retailers have shown strong support, and FreediveSafe! Hawaii has distributed free labels and provided freediver blackout educational materials.

While voluntary programs help, legislation ensures consistent protection for all users. Manufacturers may label Hawaii-bound products or adopt product-wide labeling, providing flexibility while maintaining compliance. This measure complements other efforts to improve safety in the sport.

Pilot Program and Industry Collaboration

A two-year pilot with **Skeepstrong**, a Hilo-based polespear manufacturer, applied safety labels and educational outreach. Users reported:

- ✓ Improved awareness of freediver blackout
- ✓ Interest in seeking safety education
- ✓ High acceptance of the labels

This demonstrates that labels are practical, well-received, and effective at building safety awareness .



Conclusion

Requiring safety warning labels on spearguns and pole spears is a practical, evidence-based, and cost-effective public safety measure. Freediving is the second leading activity linked to fatal ocean drownings in Hawaii, disproportionately affecting Native Hawaiian and Pacific Islander communities. Importantly, this measure does not alter how divers participate or require activity monitoring; it is strictly a consumer-based warning designed to inform users of known risks and encourage safer practices.

Pilot programs confirm feasibility, low cost, and community support. Legislation ensures consistent, standardized safety information, promotes informed decision-making, and reinforces buddy system practices.



HB1765, HD1 aligns with Hawaii law, public health data, and cultural practices, positioning the state as a national and global leader in water safety. The measure is culturally sensitive, sustainable, and actionable, offering a meaningful opportunity to save lives and improve ocean safety outcomes.

References

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