

# I Palekana Kākou Ma Ka Wai

*Let Us Be Safe  
in the Water*

## 2025 Hawai'i Water Safety Plan

JANUARY 2025



## Acknowledgments

The Hawai'i Water Safety Plan is a collective effort by the Hawai'i Water Safety Coalition (HWSC) based on years of conversations, meetings, conferences, and community outreach events, much of it volunteer. It was initiated by bereaved family members and supported by leaders in the water safety community.

We thank the many individuals and organizations who contributed to the writing, design, and printing of this plan. We also pay tribute to the many Hawai'i watermen and waterwomen past and present who are committed to educating others about water safety. Finally, we thank all those on the front lines — especially the lifeguards who work daily to keep us safe in the wai and the kai. Everyone who has touched this effort embodies the spirit of mālama kekahi i kekahi (to take care of each other).

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# 2025 Hawai'i Water Safety Plan

# Table of Contents

Executive Summary.....	5
<b>1. The Hawai'i Water Safety Plan.....</b>	<b>11</b>
<b>2. Key Drowning Data from the Hawai'i Department of Health.....</b>	<b>13</b>
<b>3. Drowning Rates Among Native Hawaiians and Pacific Islanders in Hawai'i.....</b>	<b>16</b>
<b>4. Our Strengths.....</b>	<b>21</b>
<b>5. Our Challenges.....</b>	<b>29</b>
<b>6. Hot Spots &amp; Black Spots.....</b>	<b>43</b>
<b>7. Hawai'i-Specific Recommendations.....</b>	<b>47</b>
7.1 Collaborating Across Our Island State.....	47
7.2 Accountability.....	48
7.3 Education and Outreach.....	48
7.4 Equity.....	49
7.5 Lifeguarding & Rescue.....	50
7.6 Aquatics.....	51
7.7 Climate Change.....	51
7.8 Data.....	52
7.9 Destination Stewardship.....	52
7.10 Funding.....	53
<b>8. National Plan Action Recommendations.....</b>	<b>55</b>
8.1 Barriers, Entrapment and Electrocutation.....	55
8.2 Data and Public Health Surveillance.....	56
8.3 Lifeguards and Supervision.....	58
8.4 Life Jackets, Personal Flotation Devices, and Other Flotation.....	58
8.5 Rescue and CPR.....	60
8.6 Water Safety, Water Competency, and Swimming Lessons.....	61
<b>9. Bereaved Family Advocates.....</b>	<b>63</b>
<b>Appendix (Acronyms, Citations).....</b>	<b>68</b>

**DROWNING** **1** CAUSE OF DEATH FOR  
 IS THE NUMBER HAWAII'S CHILDREN  
**AGES 1-15**

HAWAII'S RESIDENT **2** **ND HIGHEST**  
**DROWNING RATE** IN THE NATION  
 IS BEHIND ALASKA

**LESS THAN 2%**  
 OF HAWAII'S 2ND GRADERS HAVE  
 THE BASIC SKILLS TO AVOID OR  
 RECOVER FROM DROWNING.

ALTHOUGH **NATIVE HAWAIIANS/**  
**PACIFIC ISLANDERS** MAKE UP  
 27% OF HAWAII'S POPULATION,  
 THEY MAKE UP **36%** OF RESIDENT  
**DROWNING DEATHS**



# Executive Summary

## **Ola i Ka Wai. Water is Life.**

**Rain, *ua*, is necessary to sustain Hawai'i's lush landscapes and symbolizes the harmony between people and nature.**

**Freshwater, *wai*, flows down from mountains through the valleys into the plains and out to sea – along the way it is used to grow food.**

**The sea, *kai*, provides physical, nutritional, recreational, and spiritual sustenance.**

**The Native Hawaiians consider stream and ocean access a source of power. *Waiwai*, the word for wealth, reflects the abundance that water brings.**

***But somehow we have lost our way.***

***Water is taking too many lives in Hawai'i.***

Drowning is a tragic yet preventable cause of injury and death. Hawai'i currently has the second highest rate of deaths by drowning for residents in the nation, and drowning is the leading cause of death for children in Hawai'i, ages 1-15.<sup>1</sup> Native Hawaiians/Pacific Islanders account for nearly 36% of Hawai'i's drowning incidents despite making up less than 27% of the state's population.<sup>2</sup> Drowning also threatens Hawai'i's \$20 billion-plus tourism economy as it is the leading cause of injury-related death for visitors. Visitors comprise most drowning victims across all age groups.<sup>3</sup>

While Hawai'i is home to some of the world's best ocean safety lifeguards, policy makers are not prioritizing drowning prevention and water safety. A chronic scarcity of resources and funding prevents us from doing more to ensure that everyone is safe in, on, and around the water.



## Hawai'i Water Safety Coalition

The Hawai'i Water Safety Coalition (HWSC) was formed in 2023 to reduce drowning numbers statewide and to increase access to water safety education — results that are needed to create generational change. The HWSC grew out of several years of collaboration initiated by bereaved family advocates, the Outrigger Duke Kahanamoku Foundation, and the Hawaiian Lifeguard Association. Many members have ties to Hawai'i's ocean-going legacy; others represent state and county government officials, visitor industry professionals, educators, water safety professionals, public health providers, medical personnel, scientists, first responders, water sports enthusiasts, cultural practitioners, and nonprofits. A few members have lost family to drowning; they work passionately to ensure that no one else in Hawai'i must carry the drowning burden.

The HWSC members support each other's advocacy and programming. The 2024 Hawai'i State Legislature passed a bill (SB 2841) designating May 15th of each year as Water Safety Awareness Day. State legislators also passed a Duke Kahanamoku license plate bill (SB116) in 2024 to raise much-needed funding for water safety and swim education programs. Coalition members watched proudly as Gov. Josh Green signed both bills into law on May 15, 2024, at the Hawai'i State Capitol.<sup>4</sup>



Through the HWSC, Hawai'i stakeholders are working to insert more equity into drowning prevention and water safety education. Hawai'i is a place where every child should have a right to water safety education so that they may have a lifetime connection with the wai and the kai. No one should be marginalized, especially Native Hawaiians, especially in Hawai'i — a state where the principles of the aloha spirit dictate that each person is important to every other person for collective existence.

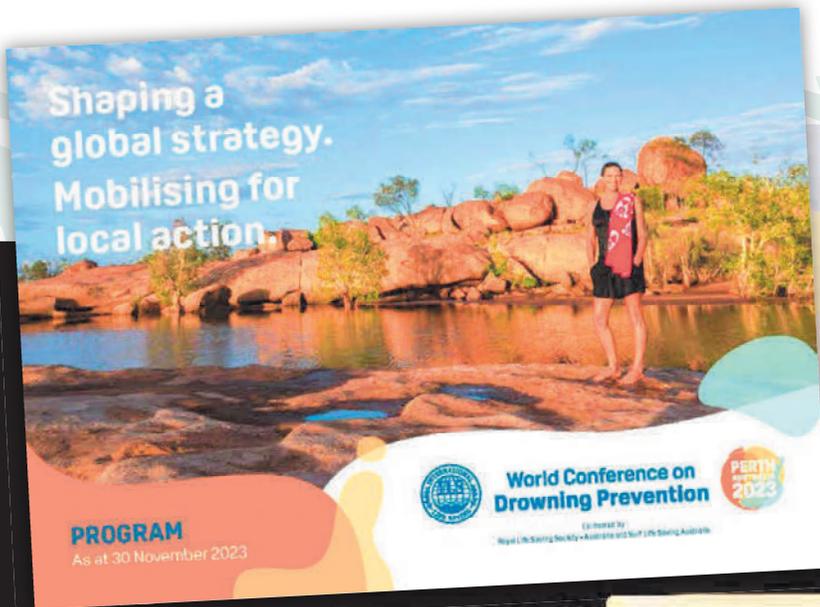
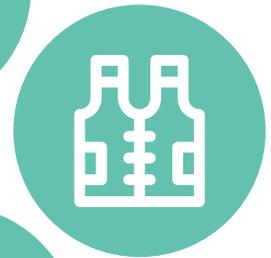
Let these collaborative efforts — which led to the HWSC's Hawai'i Water Safety Plan (HWSP) — represent a *huliau*, a *turning point*, here in Hawai'i.

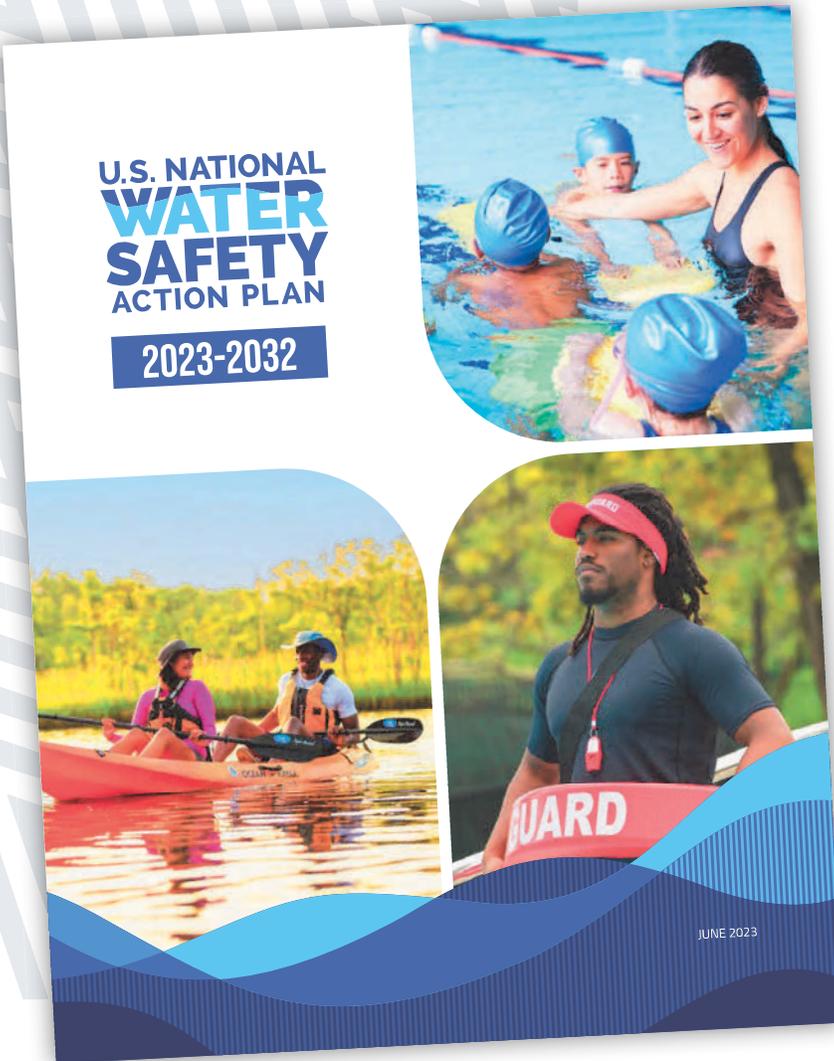
## The International and National Context

The Hawai'i Water Safety Plan (HWSP) is inspired by a growing international and national drowning prevention movement. Drowning is a silent epidemic worldwide. The World Health Organization (WHO) recognized drowning as a worldwide public health problem in 2014,<sup>5</sup> and in 2021 the United Nations adopted a resolution calling for global drowning prevention.<sup>6</sup>

The organizers and delegates of the 2023 World Conference on Drowning Prevention (WCDP) issued a closing statement under the banner of **“shaping a global strategy – mobilizing for local action”**:

- **Drowning prevention is multidisciplinary, multisectoral, and bigger than any organization or individual** — seize opportunities to collaborate, grow, and continue to expand collective impact.
- **Drowning prevention is increasingly an issue of equity, meaning the need for diverse voices is clear** — prioritize those most affected, historically marginalized, and excluded; seek out different perspectives and work to create opportunities for new and inclusive forms of leadership.
- **The drowning burden is disproportionately borne by those under 25 years of age** — future drowning prevention efforts must place children, adolescents, and young people at the center of decision-making; include, listen, and center youth in all aspects of drowning prevention.<sup>7</sup>





## The US National Water Safety Action Plan (USNWSAP)

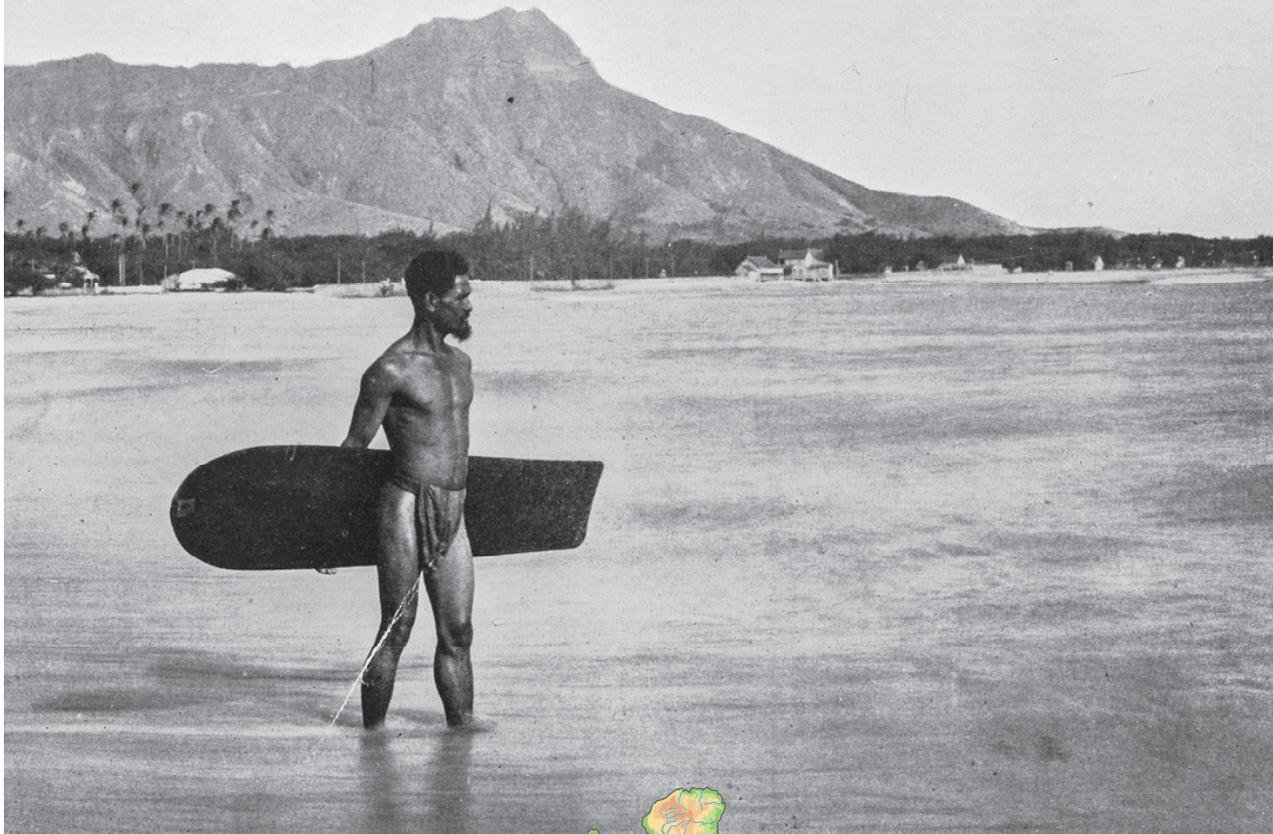
Thousands of stakeholders across the U.S. are working to address water safety and prevent drownings, which kill 11 people on average each day across the nation. Saying "enough is enough" to these dire national statistics led to the June 2023 publication of the first U.S. National Water Safety Action Plan by Water Safety USA, a roundtable of national nonprofit and governmental organizations.<sup>8</sup>

The USNWSAP is a 10-year roadmap to support collective action to reduce drowning in the U.S. The mission of the national plan, which has 99 recommendations, is to "transform the country into a nation where water safety is a natural part of everyday life and people enjoy the benefits of water, safely."<sup>9</sup>

The Hawai'i Water Safety Coalition urges implementation of this national plan, which provides the foundation for our most urgent Hawai'i recommendations.

- ➔ Visit [page 55](#) to view the **USNWSAP's** recommendations.
- ➔ Visit [page 47](#) to view our **Hawai'i-specific** recommendations.

**U.S. NATIONAL  
WATER  
SAFETY  
ACTION PLAN**

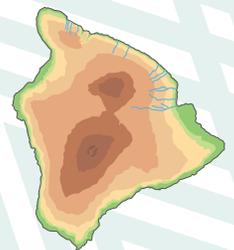
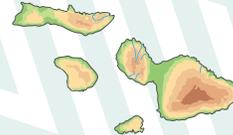


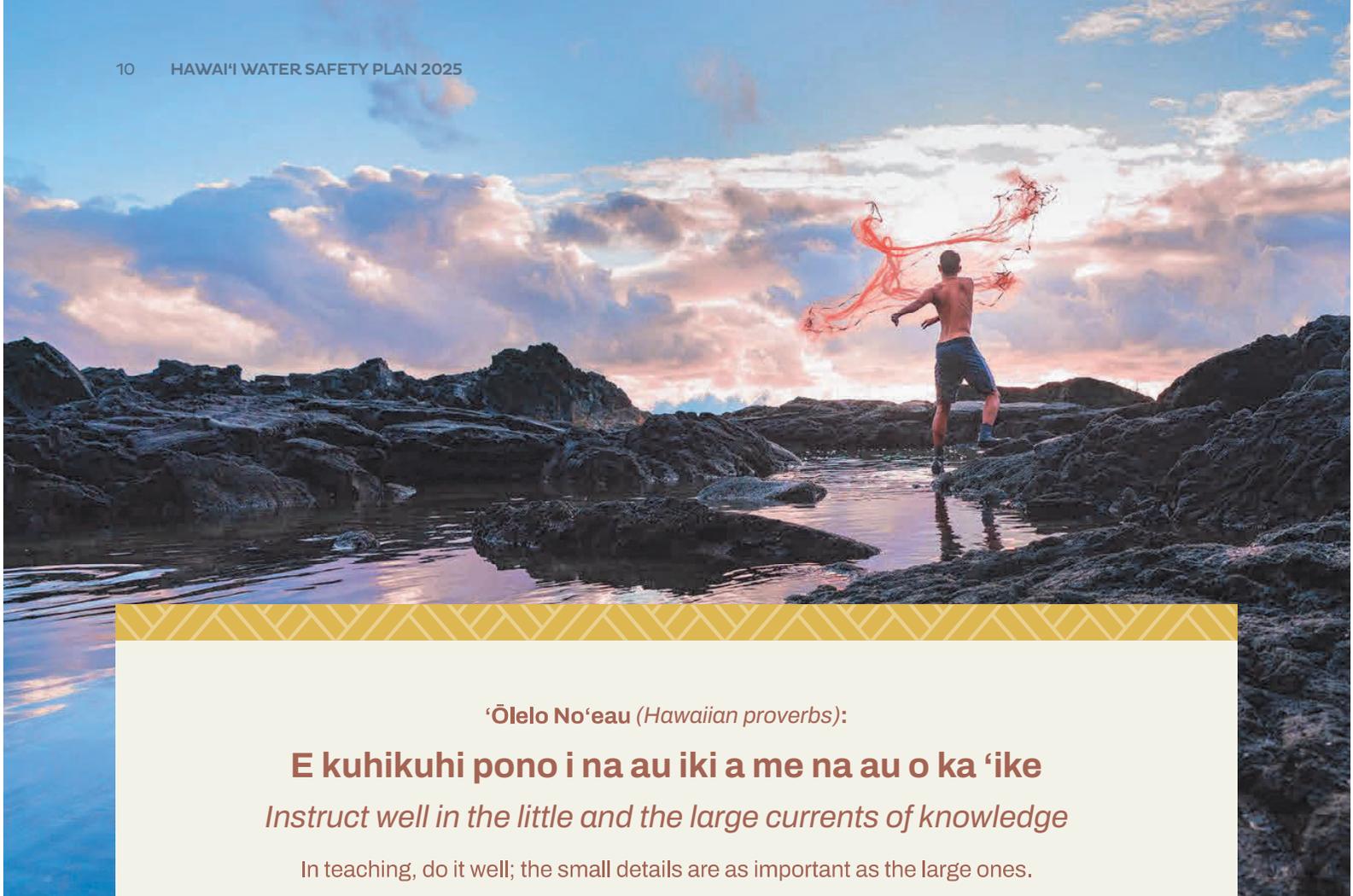
## Hawai'i

Hawai'i's rich waterman and waterwoman history, ocean-going culture, and unique geography position us to lead in addressing the global drowning epidemic.

To create generational change, we must embrace our kuleana (*responsibility*) to establish water safety goals. The first Hawai'i Water Safety Plan was developed with a local lens, informed by national and international best practices, including the U.S. National Water Safety Action Plan, the California Water Safety Strategy, the Centers for Disease Control and Prevention (CDC), and the World Health Organization.

We also draw inspiration from Native Hawaiian na'auao (*wisdom*) and mo'olelo (*oral traditions*), which highlight the vital role of water safety in their ocean-going culture.





**‘Ōlelo No‘eau** (Hawaiian proverbs):

## **E kuhikuhi pono i na au iki a me na au o ka ‘ike**

*Instruct well in the little and the large currents of knowledge*

In teaching, do it well; the small details are as important as the large ones.

Kānaka lawai‘a, *Hawaiian fishermen*, were incredibly smart and deeply connected to their environment. They understood the ocean’s currents, weather patterns, and moon phases, using their knowledge to ensure both safety and success in their fishing endeavors. By closely observing the ocean, skies, winds, and tides, they could determine not only what they could catch but also how to navigate the waters safely. This expertise, passed down through generations, helped fishermen protect their families and communities, providing food while ensuring their well-being in often unpredictable ocean conditions. They balanced their responsibilities by knowing where to find specific fish and how to safely traverse the sea, a vital skill for those living on islands.

Kū‘ula, *the god of fishermen*, is the embodiment of this deep understanding and reverence for the ocean. Kū‘ula’s wisdom and connection to the gods allowed him to always catch the right fish while ensuring his own safety. His ability to read the ocean’s currents and predict its conditions meant that he could fish successfully and return safely to shore. Like Kū‘ula, Hawaiian fishermen understood that the ocean needed to be respected, and they used their knowledge of its rhythms and dangers to keep themselves and their families safe, while still fulfilling their roles as providers. This balance of knowledge, respect, and responsibility is a key part of traditional Hawaiian ocean safety practices.

# 1. The Hawai‘i Water Safety Plan

## Nā Loina. Plan Values.

### PONO

We stay pono — *do the right thing* — by addressing gaps in evidence-informed action and evaluation in drowning prevention. The Hawai‘i Water Safety Plan (HWSP) builds on Hawai‘i’s strengths while addressing challenges. A comprehensive plan includes both proactive water safety recommendations and immediate drowning prevention measures. Drowning is preventable — let’s prevent it.

### LAULIMA

The value of laulima, *cooperation*, is at the heart of the HWSP, developed through collaboration with Hawai‘i’s water safety community. By implementing the national and local water safety plans together, we aim to build a statewide culture of water safety for our children and future generations.

### KULEANA

Kuleana — *personal responsibility and accountability* — is vital in creating locally relevant actions. The HWSP aligns with the national plan while incorporating Hawai‘i-specific intentions. It offers a starting point for community-level recommendations and urges immediate policy changes to address alarming drowning rates. Shared responsibility can lead to scalable solutions.

### MĀLAMA

Mālama, or *care and connection*, is integral to drowning prevention. The Hawai‘i Water Safety Coalition’s core value, “Mālama kekahi i kekahi” — *take care of each other* — emphasizes the safe enjoyment of wai and kai as essential to emotional, physical, and spiritual well-being. This commitment underscores the importance of protecting life.

### KĀKOU

The HWSP takes a kākou — *us, inclusive* — approach, embracing diversity, equity, and inclusion for everyone in Hawai‘i, residents and visitors alike. Drowning data reveals inequities: Native Hawaiians, Pacific Islanders, and children in Title I low-income schools face higher risks due to limited swim skills and water safety access.<sup>10</sup> Programs for special needs populations, including adaptive swimming and water safety lessons for individuals with autism, are essential.<sup>11</sup> Policies with an equity lens will address these disparities.

## Our Kāhea. Answering the call

Through the Hawai‘i Water Safety Coalition, we join states like Washington, Arizona, and California in forming statewide efforts to address the drowning crisis. By starting with the 99 action recommendations from the national plan — proven effective elsewhere — we connect to evidence-based solutions that can reduce drowning rates in Hawai‘i.

Inspired by the kioea, the bird whose morning call signals paddlers to sail, we aim to become “Ka manu kahea i ka wa‘a e holo” — *the bird that calls the canoe to journey*.<sup>12</sup>

**Our destination is a Hawai‘i where everyone has the skills, knowledge, and resources to stay safe in the water, making water safety accessible to all. By reconnecting with the wai and kai, we will create generational change and reduce Hawai‘i’s tragic drowning rates.**



**83%** of Hawai'i's drownings between 2019-2023 were **ocean drownings**

**50%** of Hawai'i's **drowning victims were visitors**, which is extremely high given that visitors comprise only 12% of the de facto population

**91%** of snorkeling victims were **visitors**

**33%** One-third of pool drowning victims were **under 7 years of age**

**8x** Visitors have eight times the **drowning fatality rates** compared to residents

**26**  


Over the past five years, 26 children in Hawai'i between the ages of 1 to 15 drowned, which makes **DROWNING THE LEADING CAUSE OF DEATH FOR CHILDREN IN HAWAI'I**



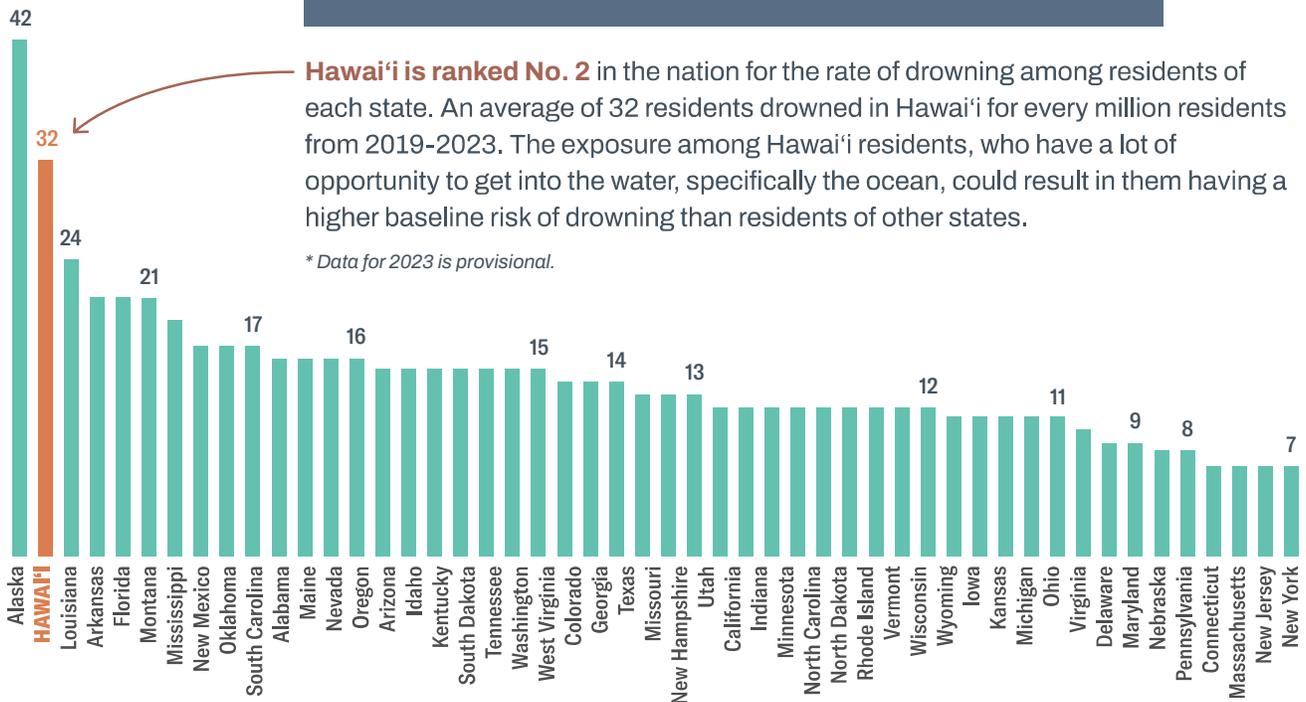
# 2. Key Drowning Data from the Hawai'i Department of Health

These sobering statistics from the Hawai'i Department of Health are not just numbers on a page; each data point represents a life lost and a lifetime of pain for families and communities.

The statistics do not include non-fatal drownings, so they do not even capture Hawai'i's full drowning burden.

Non-fatal drownings are more than twice the number of fatal drownings in Hawai'i. We must not trivialize the impact of non-fatal drownings, which often result in permanent brain damage and life-altering effects for the victim and the entire family.

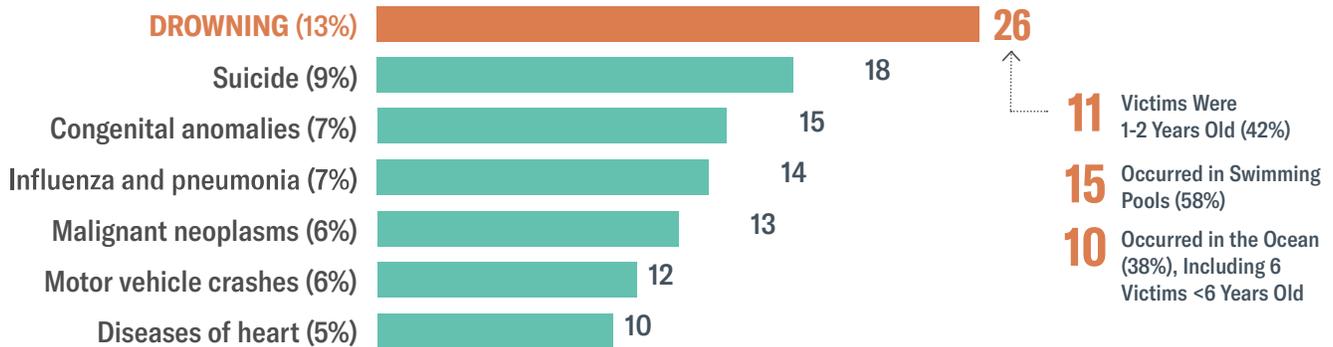
**Average Annual Drowning\* Fatality Rate**  
(/1,000,000), by State, 2019-2023



**Hawai'i is ranked No. 2** in the nation for the rate of drowning among residents of each state. An average of 32 residents drowned in Hawai'i for every million residents from 2019-2023. The exposure among Hawai'i residents, who have a lot of opportunity to get into the water, specifically the ocean, could result in them having a higher baseline risk of drowning than residents of other states.

\* Data for 2023 is provisional.

## Leading Causes of Death Among 1- to 15-Year-Olds in Hawai'i, 2019-2023



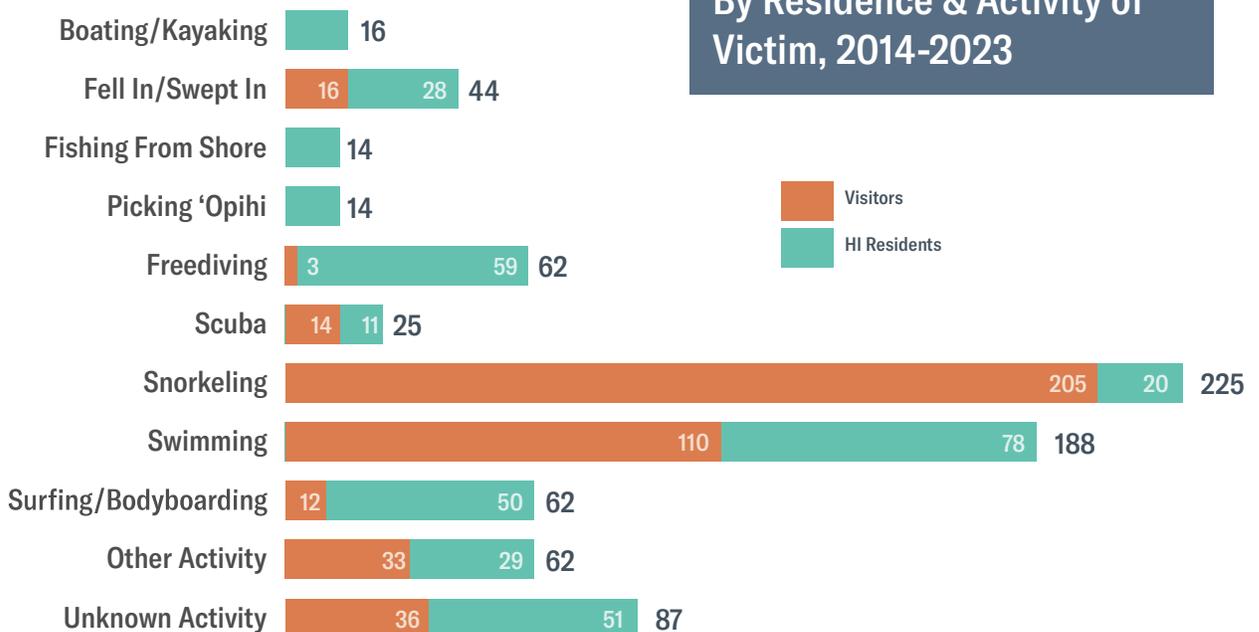
## Fatal Drownings in Hawai'i, by Environment, 2019-2023



\* Includes fatal drownings in freshwater (15), bathtubs (15), and other environments (5)



## Ocean Drownings in Hawai'i, By Residence & Activity of Victim, 2014-2023



Outside of the COVID-19 years, the number of drownings in Hawai'i have remained consistently high — although there was a drop in 2023 that was mostly due to a decline in ocean drownings. Still, some 83% of Hawai'i's drownings between 2019-2023 were ocean drownings.

One-third of pool drowning victims were under 7 years of age, which supports increased emphasis on swimming lessons, adherence to physical barriers for pool entry for toddlers, and water watcher programs, which encourage adult supervision.

Over the past five years, 26 children in Hawai'i between the ages of 1 to 15 drowned, which makes drowning the leading cause of death for children in Hawai'i. More children in Hawai'i drowned in

swimming pools than in the ocean. Drowning is the leading cause of injury-related mortality among visitors, and among pediatric-aged residents, under 16-years-old.

Snorkeling is the main cause of ocean drownings for visitors, followed by swimming. Some 91% of the snorkeling victims were visitors, which suggests that pre-and post-arrival visitor education must focus on snorkeling.

Most residents who drowned in the ocean were swimming or freediving. Accidental immersion also was a leading cause of drowning among residents. Most died after they were swept into the water; however, some died while boating or kayaking or while fishing from shore or picking 'opihi.

91%  


of Snorkeling Victims were Visitors, Suggesting the Need to Bolster Pre- and Post-Arrival Education

### Five-Year Ocean Drowning Fatality Rates in Hawai'i, 2019-2023 (Per 100,000 persons)\*

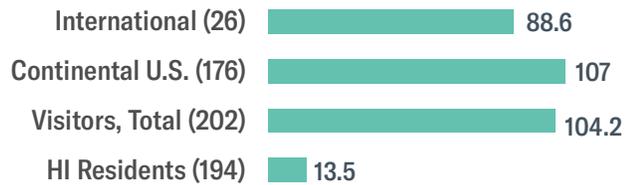
Visitors from all source markets had an equally high risk of drowning.

Visitors comprised three-quarters of the drowning victims in Kaua'i and Maui counties, contributing to significantly higher ocean drowning rates for visitors and residents combined than in Hawai'i and Honolulu counties.

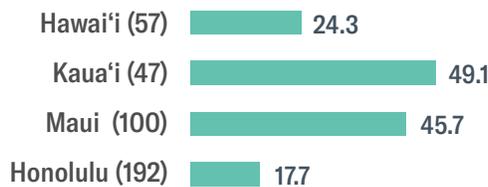
Visitors are often unaware of local risks so pre- and post-arrival education is necessary to help them make safer choices.

\*Rates reflect the number of deaths that each county would experience if they had the same population, which eases comparisons between counties.

#### By Residence of Victim



#### By County



**2x**  
 Average rate for neighbor islands (37.2) is more than double O'ahu's rate.

(Numbers in parentheses indicate the total number of drownings)



# 3. Drowning Rates Among Native Hawaiians and Pacific Islanders in Hawai'i

## More Native Hawaiians/Pacific Islanders are Drowning, *Especially Our Keiki*

Drowning is a leading cause of injury-related deaths in Hawai'i, disproportionately affecting Native Hawaiians and Pacific Islanders (NH/PI). Despite comprising about 27% of the state's population, NH/PI residents accounted for nearly 36% of all drowning incidents between 2014 and 2022. Alarming, drowning death rates for NH/PI individuals are 1.5 times higher than for other ethnic groups, with the most pronounced disparities seen among children aged 1-17, where drowning rates are more than three times higher than their peers of other ethnicities.

John Kaleimakali'i Thornton Clark, a University of Hawai'i at Mānoa graduate, explored these disparities in his 2024 master's thesis, ***Resident Drowning Accidents in Hawai'i: A Descriptive Analysis***. His research analyzed 447 drowning cases over eight years, highlighting demographic trends, age disparities, and geographical patterns, while underscoring the importance of addressing inequities in water safety education and access.

Clark's findings not only provide a sobering snapshot of the challenges faced by NH/PI communities but also offer a foundation for actionable strategies. As an epidemiologist at the Office of Health Equity within the Department of Health, Clark now works to translate such research into initiatives that promote water safety and reduce drowning risks across Hawai'i.

The accompanying graphics break down the data Clark analyzed, revealing the activities, geographic areas, and age groups most at risk, as well as the growing number of drowning incidents over time. This data reinforces the need for targeted, culturally sensitive interventions to save lives and create safer water environments for Hawai'i's communities.

# Drowning Rates Among Native Hawaiians and Pacific Islanders in Hawai'i



Native Hawaiians/Pacific Islanders (NH/PI) accounted for almost **36% of the drowning incidents**, despite making up only about **27% of Hawaii's population**.

**1.5x HIGHER**

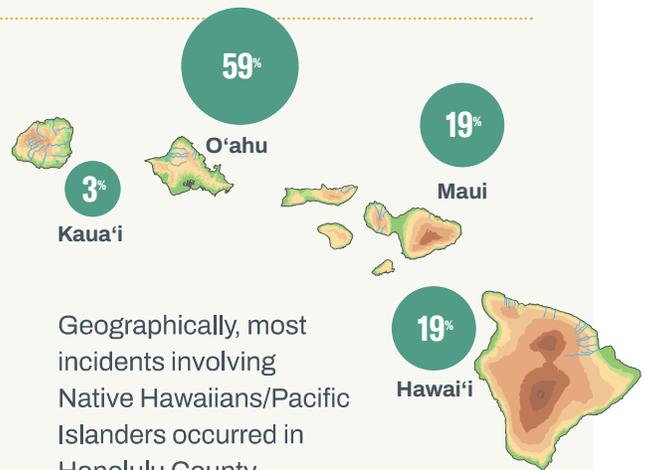
Drowning death rates for Native Hawaiians/Pacific Islanders are 1.5x higher than the rate for all other ethnicities.

**3x HIGHER**

Disparities are highest among Native Hawaiian/Pacific Islander children ages 1-17, whose percentage of drowning deaths was more than 3X higher than the percentage for all other ethnicities in the same age group.



Some 16% of the Hawaiians or other Pacific Islanders who died by drowning were pediatric-aged, versus 5% for other victims.



2014-2016: **44**  
 2017-2019: **52**  
 2020-2022: **64**

Drowning incidents increased over time for Native Hawaiians/Pacific Islanders and were evenly distributed throughout the year.

Geographically, most incidents involving Native Hawaiians/Pacific Islanders occurred in Honolulu County.

Activities leading to drowning for Native Hawaiians/Pacific Islanders



**41%**

**SWIMMING**



**31%**

**FREEDIVING**

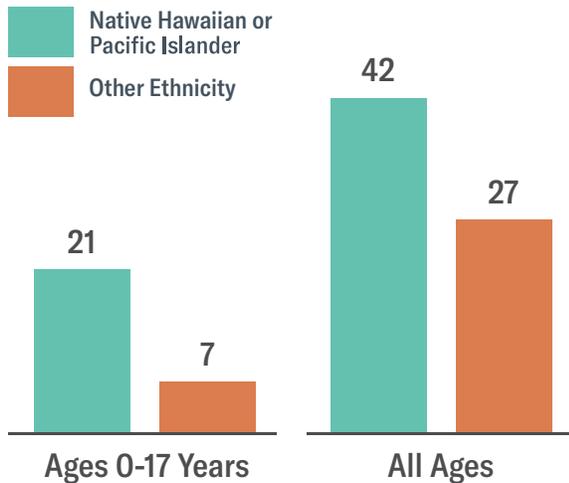


**26%**

**FALLS OR BEING SWEPT INTO THE WATER**

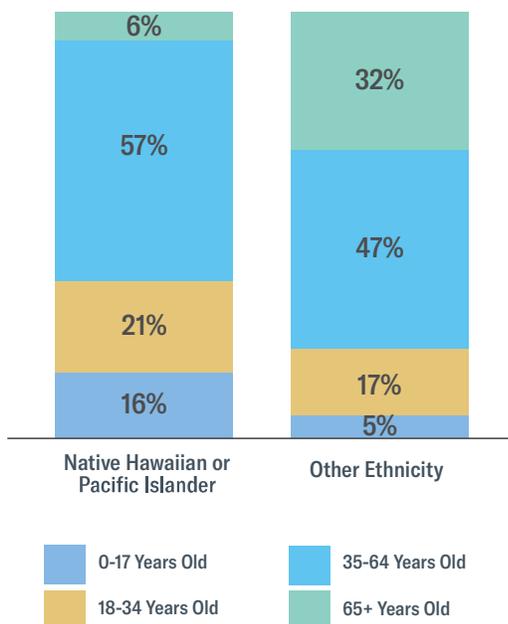


## Drowning Fatality Rates\* in Hawai'i, 2014-2022 (Per 100,000 residents)



\*The All Ages portion of the graphic is not adjusted for age distribution.

## Distribution of Age Groups of Drowning Victims in Hawai'i, 2014-2022



The drowning mortality rate from 2014-2022 was significantly higher among those who died with any Hawaiian or other Pacific Islander ancestry listed on their death certificate, compared to other drowning victims: 42 deaths/100,000 estimated residents, vs. 27/100,000, respectively. This comparison was most different among those who died that were under 18 years of age: 21 vs. 7 deaths/100,000, respectively.

Pediatric-aged people who died comprised a significantly higher proportion of the Native Hawaiian/Pacific Islander victims (16%, or 26 of 160), compared to 5% (13 of 287) of the remaining victims.

Preliminary findings\* suggest areas for further investigations and possible prevention strategies.

### Key recommendations from John Kaleimakali'i Thorton Clark's *Resident Drowning Accidents in Hawai'i: A Descriptive Analysis*:

**ADDRESS** the cultural and socioeconomic factors that increase the disproportionate impact of drowning on the Native Hawaiian/Pacific Islander populations such as inequitable opportunities for swimming education and supervision.

**INVESTIGATE** the associations between education, acculturation, activities, age, and ethnicity with drowning incidents. Consider additional variables, such as occupational deaths, drug and alcohol impairment, immigration status, cultural identity, environmental conditions, rescuer status, and access to water safety education.

**INTEGRATE** swim lessons into school curricula, expand junior lifeguard programs, and provide culturally competent water safety education.

**ENHANCE** public health interventions through collaboration with community members familiar with local water environments.

\*There are limitations to these comparisons of ethnic-specific drowning fatality rates, including methodological challenges for both the numerators and denominators.



## John Kaleimakali'i Thorton Clark

John Kaleimakali'i Thorton Clark, now an epidemiologist at the Office of Health Equity within the Department of Health, studied the drowning rates of Native Hawaiians and Pacific Islanders in Hawai'i for his 2024 master's thesis, *Resident Drowning Accidents in Hawai'i: A Descriptive Analysis*.

Clark is the great-grandnephew of Duke Kahanamoku, the legendary Native Hawaiian waterman and five-time Olympic medalist. His great-grandmother, Annie Aulani Paoa Clark, was Kahanamoku's first cousin and, like Duke, grew up in Waikiki's historic Kālia neighborhood.

Born on Norfolk Island in the South Pacific, Clark was raised in New Zealand. His mother, Sue Pearson, is a renowned artist whose work often reflects her Norfolk and Te Moana Nui a Kiwa (*Pacific*) heritage. His father, Herman Pi'ikea Clark, is a celebrated Hawaiian artist, designer, and educator whose creations are deeply inspired by Hawaiian culture and its connections across the Pacific.

Clark relocated to Hawai'i in 2018 to attend the University of Hawai'i at Mānoa, a move that allowed him to connect more deeply with his Hawaiian family and cultural roots. He said he undertook the drowning study because equity is a core value in public health, and his current role at the Department of Health enables him to use data to address these disparities.

A skilled waterman himself, Clark was a member of the University of Hawai'i Swim Team for five of his six years at the university. In July 2024, he participated in the Epic Swim Maui — the world's first expedition to swim around the island of Maui. The 134-mile swim, completed over 13 days, served as a powerful call to action for global ocean health. Clark was among an elite group of ocean swimmers from six continents who swam together to raise awareness about the challenges facing our oceans.



## Case Study

### FreediveSafe! Hawai'i



FreediveSafe! Hawai'i, a nonprofit founded in 2020, seeks to combat the rise of freediving and spearfishing-related fatalities in Hawai'i by raising awareness about the dangers of hypoxia related to freediving and spearfishing and ensuring that key safety protocols proven to save lives are free and equitable.

FreediveSafe! Hawai'i fills a vital gap in local drowning prevention efforts, particularly as freediving and spearfishing continue to grow in popularity among young people. The importance of their vital mission is underscored by the latest statistics from the state Department of Health (DOH), which show freediving drownings increased to 11 in 2023 from two in 2022. This is close to the total from 2020 when 13 freedivers drowned — the highest total since DOH started keeping statistics in 1993.

FreediveSafe! Hawai'i spearheads freediving safety initiatives across all major islands, specifically targeting Hawai'i divers aged 12 to 25, including in-school outreach, focusing on subsistence communities, and honoring Hawaiian cultural values. FreediveSafe! Hawai'i is currently the sole organization addressing this need in the state.

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[freedivesafe.org](https://freedivesafe.org)



# 4. Our Strengths

## Ocean-Going Culture

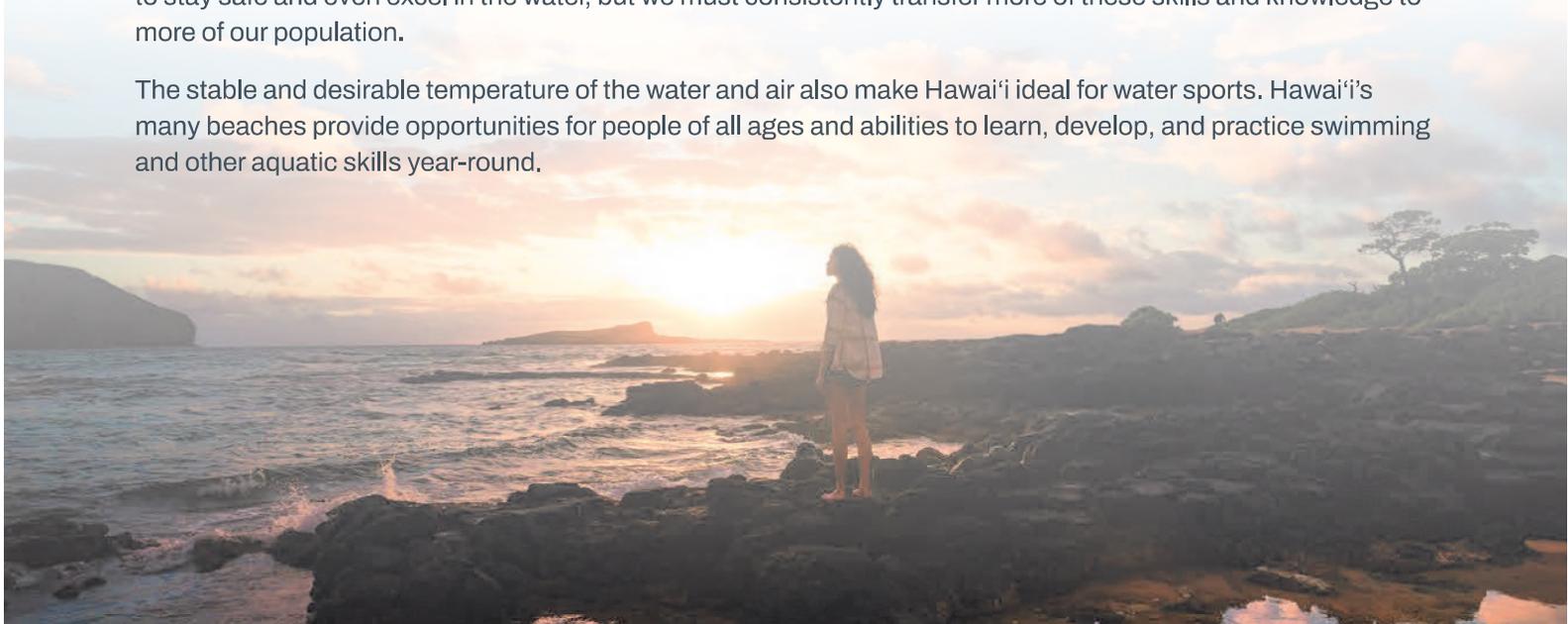
Hawai'i boasts one of the most robust ocean-going cultures globally due to its rich history deeply intertwined with the sea. For centuries, Native Hawaiians have relied on the ocean for sustenance and as a pathway for cultural exchange and exploration across vast Pacific distances. The enduring maritime heritage of the navigators who used the stars and ocean currents to traverse the world is preserved through traditional practices such as outrigger canoe racing and hula chants that honor the kai's role in shaping Hawaiian identity.



*From Left:  
Duke Kahanamoku,  
Eddie Aikau,  
Rell Sunn,  
Buffalo Keaulana,  
George Downing*

This culture has generated many great watermen and waterwomen such as Duke Kahanamoku, Eddie Aikau, Rell Sunn, Buffalo Keaulana, George Downing, and most recently Olympic Surf Champion Carissa Moore. Historically Hawai'i also produced some of the best swimmers in the world as evidenced by the compositions of the Olympic swim teams of the 1920s through the 1950s.<sup>13</sup> Clearly, our community has the collective knowledge to stay safe and even excel in the water, but we must consistently transfer more of these skills and knowledge to more of our population.

The stable and desirable temperature of the water and air also make Hawai'i ideal for water sports. Hawai'i's many beaches provide opportunities for people of all ages and abilities to learn, develop, and practice swimming and other aquatic skills year-round.





**Left:** Hawai'i swimmers at the 1924 Olympics in Paris. Front row: Sam Kahanamoku, Charlie Pung, Mariechen Wehselau, Pua Kealoha. Back row: Henry Luning, Bill Kirschbaum, Duke Kahanamoku, Warren Kealoha, Gay Harris, David Kahanamoku.

*Photo courtesy of DeLaVega family*

## Ocean Lifeguards

Modern-day Hawai'i lifeguards are making significant contributions to supervision and rescue efforts as ample employment and training opportunities have allowed them to develop their skill sets. Lifeguards are employed at the federal, county, and nonprofit levels, as well as at private schools, events, and public attractions.

Pool and ocean lifeguards have distinct certification requirements. Pool lifeguards must have standard lifeguard certification and focus on water rescue techniques, CPR, first aid, and training for pool-related accidents such as slips and diving accidents. Ocean lifeguards have the standard certification and specialized training to handle a wide variety of ocean conditions, wave accidents, and marine life encounters, as well as the operation of water rescue watercraft and offroad vehicles. They also must be very strong swimmers to perform rescues through waves, currents, and adverse weather.<sup>14</sup>

The four main counties in Hawai'i each have robust, highly respected ocean safety lifeguard organizations that operate year-round in some of the world's most challenging and hazardous open water conditions. Many of the lifeguards employed in these organizations have made a lifelong commitment. Each county department has a different organizational structure, and each has made distinct steps in ocean safety administration.



**City & County of Honolulu:** In 2024, the City & County of Honolulu established a new Honolulu Ocean Safety Department which is among the first paid stand-alone, year-round departments worldwide for a city of this size and scope. The newly created department will have a commission that will play an important role in selecting the best qualified chief to lead the department, enhance public confidence in Ocean Safety first responders, insure integrity, fairness, and respect of city lifeguards, oversee complaints and support the mission of the Ocean Safety first responders.

Despite a nationwide lifeguard shortage, the Honolulu Ocean Safety Department has not had a personnel shortage in the last several years. Their strong hiring and retention record is probably due to the public’s reverence for ocean guards, a leadership highly respected by the force, and inventive human resource improvements such as four 10-hour days. Leadership has prioritized gender equity by working with female guards to ensure that they are primed to succeed. Chelsea Kahalepauole-Bizik became the first female supervisor in the Honolulu Ocean Safety Department’s 106-year history in 2023 when she was promoted to lieutenant.<sup>15</sup> In 2024, the department certified their first female rescue operator, Kapua Chang.

**Hawai’i County:** Ocean Safety on Hawai’i Island is administered by the Hawai’i Fire Department. Two Ocean Safety Captains oversee Hilo and Kona. The Assistant Fire Chief’s position requires a background in firefighting rather than ocean safety; however, there is a movement to create an Ocean Safety supervisory position within the fire department and to recruit that person from the ocean safety ranks. A challenge for this department is that a small tax base is used to fund ocean safety patrols for a large area of mostly remote coastlines, saturated by the same visitor loads as other counties.





**Maui County:** The Maui County Department of Fire and Public Safety provides emergency and non-emergency services for Maui, Lānaʻi, Molokaʻi, and Kahoʻolawe.

The Ocean Safety Bureau in 2023 was designated as a distinct section, which manages its own division, budget, and other aspects. During this restructuring, the department created a new position of Ocean Safety Bureau Chief, to lead the bureau with ocean safety experience. The Fire Chief makes the final hiring decision for the Ocean Safety Bureau Chief, who then reports to the Assistant Chief of Operations.

The fastest response option for 911 calls along the Maui coastline is rescue watercraft, which have an expected lifespan of around five years. To stay ready, the bureau runs a replacement program for the watercraft, along with the accompanying trailers, rescue sleds, and inflatable rescue watercraft collars, which enhance buoyancy and stability and are especially useful during multi-person rescues. The bureau is also expanding lifeguard service hours by implementing four, 10-hour days.

The Maui Ocean Safety Bureau makes ongoing efforts in community engagements through the Junior Lifeguard Program on Maui, Molokaʻi, and Lānaʻi for ages 8 to 17. The bureau, in 2024, introduced a First Responders 'Ohana session. This initiative, for the family members of first responders, strengthens community connections and provides valuable skills and knowledge to those who support these vital services. The bureau also runs a Recruit Training Program, which advances the professional development of the team and encourages collaboration.



**Kauaʻi County:** The Kauaʻi Ocean Safety Bureau operates as a subsection of the Kauaʻi Fire Department, and the Ocean Safety Bureau Chief reports to the Fire Chief.

The Kauaʻi Ocean Safety Bureau increases its resources by working collaboratively with the community. For example, it has twice partnered with local rotary clubs to fundraise and build substations on the South Shore and North Shore.

The Kauaʻi Ocean Safety Bureau was Hawaiʻi's first widespread adopter of technology at lifeguard stations, which provides real-time communications between the lifeguards and the public and has the potential to monitor headcount data at beaches.



The Bureau Chief traveled to Okinawa, Japan in 2024 to assist the Okinawa Lifesaving Association & The Japan Water Patrol on beach site visits, meet with local government and first responders, and train the local community. Hawaiʻi leaders shared information on their ocean safety education and lifeguard operations to assist Okinawa, which also has challenges related to ocean-related injuries and fatal drownings, mostly among visitors.

## Case Study

### Kaua'i Junior Lifeguards

The Kaua'i Lifeguard Association (KLA) provides support to Kaua'i's Ocean Safety Bureau and delivers comprehensive ocean awareness programs to the community. KLA supports the Kaua'i Junior Lifeguards program in partnership with the County of Kaua'i Ocean Safety Bureau, welcoming children ages 8 to 17. This program, led by Kaua'i Ocean Safety Instructors, instills lifelong ocean safety awareness and essential lifesaving skills. Participants learn hands-on rescue techniques, CPR, first aid, ocean condition observation, and beach hazard awareness.



The success of the Kaua'i Junior Lifeguards program highlights the value of junior lifeguard programs, and government and community non-profit collaborations. The Kaua'i Ocean Safety Bureau is committed to expanding junior lifeguard program capacity through internship programs that partner with local high schools and community stakeholders and increase the number of available instructors.

[kauailifeguards.org/jr-lifeguards/](http://kauailifeguards.org/jr-lifeguards/)



## Case Study

### Hawaiian Lifeguard Association

The mission of the Hawaiian Lifeguard Association (HLA) is to contribute to and advocate for the professional advancement of lifeguards across the state by supporting their efforts to reduce the incidence of drownings and aquatic injuries. Some important HLA initiatives include:

**Beach Guardian Workshop:** A community workshop for locals and visitors to provide basic skills should they find themselves on scene before a first responder. The curriculum includes instruction on activating the 911 system, rescue tube locations and use, locations of beach identifiers, hands-only CPR, and how to use common floatation devices like surfboards.

**SAVE (Safety Aquatic Visitor Education):**

SAVE is a classroom program aimed at the visitor industry to provide basic information and messaging for visitors.

**SAFE (Safety Aquatic Family Education):**

is a similar to SAVE, but is a program for local families taught both in the classroom and on the beach.

**Junior Lifeguard Internship Program:** HLA is developing a statewide junior lifeguard internship program to recruit future talent directly into the lifeguarding profession, with a county-by-county rollout. Participants are gaining valuable job skills for a variety of careers, and are becoming trained citizen responders.

[hawaiianlifeguardassociation.org](http://hawaiianlifeguardassociation.org)

## Case Study

### Educational Signage Partnerships

The Kaua'i Ocean Safety Bureau in collaboration with Lihue Airport management, the Kaua'i Lifeguard Association, and the Hawaiian Lifeguard Association developed ocean safety video messaging for visitors at the airport baggage claim carousels. The video includes drowning prevention messaging from the Mayor, the Ocean Safety Bureau Chief and active duty lifeguards.

Other islands should look to the Kaua'i Ocean Safety Bureau's preventative efforts to reduce drowning through educational signage. The bureau installed graphically interesting signage at some of Kaua'i's hot spots, where there are high numbers of injuries and deaths. They also have installed signage at Kaua'i's black spots — the coastal areas where volatile conditions often result in injuries and fatalities. The signs, which educate residents and visitors with science-based information and an engaging, friendly tone, were designed by a Kaua'i firefighter. The project was a collaboration between the Kaua'i Lifeguard Association, Kaua'i Fire and Ocean Safety Bureau, and the Hawaiian Lifeguard Association.

[kauai.gov](http://kauai.gov)



Example Sign from Wanani Channel <sup>16</sup>

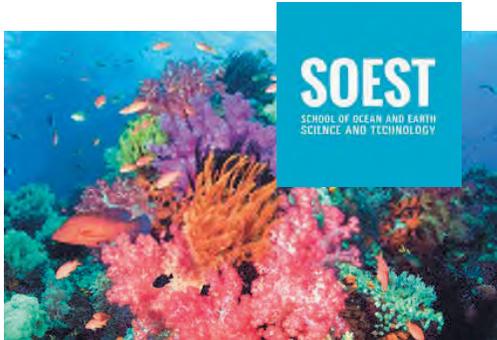


Queen's Bath is an example of a drowning hot spot that has inspired local residents to put up warning signs. Official signage is necessary at hot spots across the state.



## Innovative Water Safety Community

Hawai'i's lifestyle in and around the ocean has led to innovations in water safety, creating a fledgling water safety industry, a unique and growing sector in Hawai'i's economy. Here are some examples of this innovation:



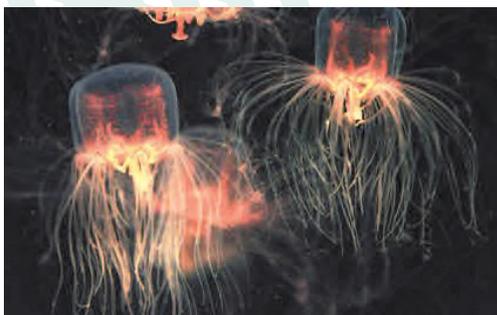
Hawai'i is a hub for ocean-based research with the University of Hawai'i at Mānoa's School of Ocean and Earth Science and Technology (SOEST) and a considerable presence of National Ocean and Atmospheric Administration (NOAA) offices and research ships. Their efforts to increase ocean and beach safety via live-weather and tidal conditions alerts are also helping to prepare for climate change response.



Surf, swim, and paddling competitions like the Eddie Aikau Big Wave Invitational and the Moloka'i Hoe Canoe Race World Championships utilize cutting-edge technology for forecasting, along with Native Hawaiian cultural protocols that include safety elements. The 2024 Epic Swim Maui — the first expedition swim around Maui — relied upon a team dedicated to tracking weather, swimmers, and environmental conditions as well as a team of Hawaiian cultural practitioners who offered pule (*prayer*) and kilo (*observations*) to help keep swimmers safe. Pairing science and indigenous cultural knowledge resulted in a successful finish.



In the early 1990s, after a life-threatening two-set hold down and accidental jet ski rescue at Waimea, Brian Keaulana along with fellow lifeguards including Terry Ahue began to retrofit personal watercraft such as jet skis for surf rescue.<sup>17</sup> Personal Watercraft for rescue purposes were extensively developed in Hawai'i and are now highly utilized by lifeguards. Hawai'i is now a leader in this specialized skill set and provides training to other lifeguard agencies worldwide. The Hawaiian Lifeguard Association is currently updating the second edition of the official rescue craft manual.



Jellyfish stings are common in Hawai'i and their treatment protocols have been developed and refined by Hawaiian lifeguards. Box jellyfish are more deadly to humans than sharks. Dr. Angel Yanagihara, an avid ocean swimmer and a marine biochemist with the University of Hawai'i at Mānoa, became one of the world's foremost experts after she was stung. She found that box jelly victims were dying by well-intentioned treatments of epinephrine, a drug often used for allergic reactions.<sup>18</sup> She created a new treatment, zinc gluconate, which acts as a molecular blocker or inhibitor of pore formation and has saved lives around the world.

## Case Study

### Public Access Rescue Tubes

Repeated drownings at unguarded Larsen’s Beach on Kaua’i in 2007 prompted a local water safety advocate, Jenn Tyler, to hang a lifeguard rescue tube on a tree on the beach. The public access rescue tube was intended to protect a bystander rescuer if they felt the need to swim out and offer aid to a swimmer in distress.

The buoyancy of a public access rescue tube buys rescuers and swimmers time while they wait for a lifeguard to rescue them. If needed, it will also provide support while they slowly work their way to shore.



Dr. Monty Downs, then a Wilcox Emergency Room doctor and the President of the Kaua’i Lifeguard Association (KLA), heard of this life saving idea and through KLA, joined in placing public access rescue tubes at other locations on Kaua’i.

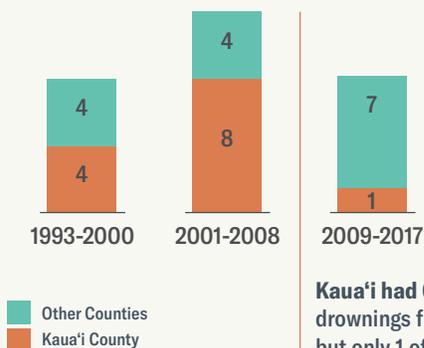
As the program grew, the Rescue Tube Foundation was started by Branch Lotspeich and John Gillen to expand this lifesaving program to the six main Hawaiian Islands. They printed instructions on each rescue tube to clearly explain their safe use.<sup>19</sup>

Hawai’i’s Good Samaritan Law was amended in 2018 to provide a liability exemption for persons who in good faith attempt to rescue a person with a public access rescue tube as well as for owners of property where they are located.

This program now places public access rescue tubes at both guarded and unguarded beaches allowing any bystander to protect themselves if they decide to aid a swimmer in distress.

Since the first public access rescue tube was installed over 14 years ago on Kaua’i, more than 200 rescue tube saves have been reported on the island, and it is estimated that over 30 drownings may have been prevented. Rotarians, Lions, and many community water safety groups helped bring the count to 700+ rescue tube stations across the U.S. and Canada, where there has been 400+ known rescues. All known rescues have been successful, and there have not been any rescuers injured using one of these public access rescue tubes.

#### Rescuer Drownings in Hawai’i<sup>20</sup>

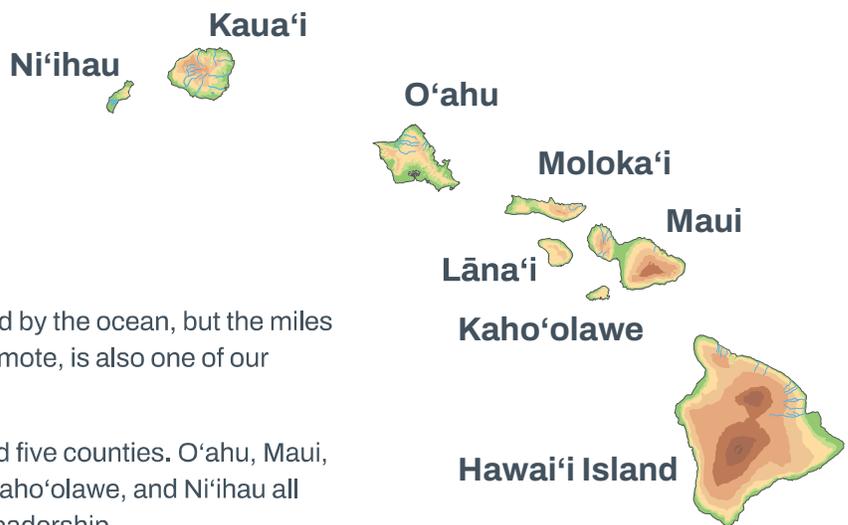


**Kaua’i had 60% of the rescuer drownings from 1993-2008, but only 1 of 8 from 2009-2017**

**BEFORE** Rescue Tubes    **AFTER** Rescue Tubes

Researchers have noted that the percentage of drownings statewide by people attempting a rescue on Kaua’i dropped from 60% before the rescue tubes were deployed to 13% after they were deployed. Professional lifeguards are the gold standard when it comes to rescues; however, sometimes they are not available or have limited hours. In these cases, research suggests that public access rescue tubes may safely supplement lifeguards to help safeguard those caring bystanders who are going to get into the water to help one way or another.<sup>21</sup>

# 5. Our Challenges



## Island Geography

We are blessed that Hawai'i is surrounded by the ocean, but the miles of coastline and waterways, much of it remote, is also one of our greatest safety challenges.

Hawai'i consists of eight main islands and five counties. O'ahu, Maui, Hawai'i Island, Kaua'i, Moloka'i, Lāna'i, Kaho'olawe, and Ni'ihau all have different needs and governmental leadership.

Each island has its own geographies, which encompass all manner of risks from the coastal waters to lakes, rivers, creeks, waterfalls, man-made water reservoirs, irrigation canals, rainwater retention and detention ponds, and other sources in and around our homes and communities from pools to bathtubs to puddles. A commonality, however, is that the ocean in Hawai'i is extremely dynamic, and significant changes occur daily and sometimes hourly. It takes years of study and experience in and around the ocean to thoroughly understand the ever-changing environment.

- Surf-related rescues are common throughout the year and on various shorelines. Injuries, including drownings, happen frequently due to powerful waves breaking in shallow water and along rocky shorelines.
- Residents in every county of Hawai'i are close to the coastline, and Hawai'i's ideal outdoor climate beckons so residents naturally have more exposure to water than residents of most other states.
- Hawai'i is far from the nation's centers of power, and delegates must work harder to remind the rest of the federal government of the needs of one of the most remote landmasses in the world.
- Hawai'i is not close enough to other states to share emergency resources, and its counties are spread apart. Emergency response times are longer in Hawai'i's remote and unguarded locations, especially where communications are limited. Sometimes drowning victims from the neighbor islands are medevaced to Oahu for long-term treatment.

## Case Study

### Waikīkī Natatorium



Twentieth Century Hawai'i prioritized water safety and swim education. The Waikīkī War Memorial Natatorium opened in 1927 with a swimming pool as a living memorial and to honor Hawai'i's 10,000 citizens who served in the Great War. The monument was also built to celebrate Hawai'i's world prominence in the sport of swimming. The legendary Native Hawaiian waterman, Duke Kahanamoku, a five-time Olympic medalist, was the first person to swim in the Natatorium pool, and it became a home for indigenous aquatics.<sup>22</sup> Thousands of Hawai'i's children learned to swim in its waters as part of the Department of Education (DOE) elementary learn-to-swim program.<sup>23</sup>

Today that pool is crumbling, and the DOE no longer has a centralized program for water safety and swim instruction. The Natatorium closed in 1979, and in 1986, the state Board of Education (DOE) deleted funds for swimming lessons from its 1987 budget request to the state legislature.<sup>24</sup> However, an effort by the City & County of Honolulu is targeting the restoration of the Natatorium. The Mayor's Office said they aim to have the design ready by late 2025, with construction underway for the monument's 100th anniversary in 2027.<sup>25</sup> This plan should also include a parallel strategy to restore the DOE water safety 'learn-to-swim' lessons.

## Lack of Equitable Access to Statewide Swim Education

Lack of equitable access to swim education has increased the drowning rate in the Hawaiian Islands. It also has had a devastating generational impact on our children’s water safety and swim skills and has reduced their ability to safely enjoy the water.

It is often estimated that “less than half of our children know how to swim in Hawai’i,” but the data is far worse.<sup>26</sup> Only 2% of second graders have the basic skills to avoid or recover from a dangerous aquatic situation, according to a 2018-19 assessment by the Hawai’i Aquatics Foundation.<sup>27</sup> Low-income students have even lower percentages.<sup>28</sup>

Hawai’i’s high cost of living means that many parents are stretched thin and most lack the financial resources to ensure that their children acquire water safety and swim skills. If a parent does not know how to swim, there is only a 19% chance that a child in their household will learn to swim.<sup>29</sup>

The dearth of available public pools statewide compounds the challenges, especially for the economically disadvantaged. The Centers for Disease Control and Prevention and U.S. National Water Safety Action Plan recommend “increasing access to basic swimming and water safety skills training for all persons, which could reduce disparities in unintentional drowning deaths.”<sup>30</sup>

The National Drowning Prevention Alliance advises that swimming should be the “First Sport” that children learn and participate in, and the nonprofit in 2024 launched a #FirstSport video and PSA campaign.<sup>31</sup>

Lower self-reported swimming skill and swimming lessons were found among some of the groups with the highest drowning death rates or the highest percentage increases in drowning death rates, according to a recent study that looked at associations between swim lessons and fatal drowning.<sup>32</sup>

In Hawai’i, the local children most at risk are those ages 1-4, children in Title 1 schools and other children who cannot afford lessons, children with autism, and Native Hawaiians and Pacific Islanders.

**The SAWS (Safety and Wellness Survey) 2017-2018**, a benchmark tool used by the state Department of Health and the state Department of Education revealed ocean and water safety knowledge gaps.<sup>33</sup>

### 88% REDUCTION IN DROWNING RISKS

One month of formal swimming lessons, which reduces the risk of drowning in children by 88%, can cost as little as \$50 for children, and as little as \$60 for adults.

Source: USA Swimming Foundation

### 2%

Of second graders have the basic skills to avoid or recover from a dangerous aquatic situation.<sup>27</sup>

Source: Hawai’i Aquatics Foundation

### 19%

Chance that a child will learn to swim if their parent does not know how.

Source: USA Swimming Foundation

#### SAWS Survey Results:

- 26% said students received instruction on ocean safety tips
- 25% said students received instruction on proper swimming techniques
- 10% said students had rip current awareness
- 68% said students were without any of this instruction
- 25% wanted more information on water safety



Even one targeted pool-based program may have a significant impact in teaching lifelong water competency skills.<sup>34</sup> Tiered swimming education, where classes progress through steps, leads to more proficient swimmers.

Policymakers in Hawai'i must ensure that water safety and drowning prevention is accessible to all regardless of race, ethnicity, socioeconomic status, language, sexual orientation, family background, family income, and geographic location. Equity also means addressing gender shortfalls and increasing support for programs specifically designed for individuals with special needs, including adaptive swimming programs and specialized water safety training.

Equity is an essential part of Hawai'i's community and culture; however, aquatic proficiency has increasingly become a privilege rather than a common skill. Greater support from state and county leaders, especially from the Hawai'i Department of Education (DOE), is needed to correct this imbalance.

However, the DOE and other state leaders have not adequately scaled up in-school lessons to match the gravity of the need. The DOE in 2021 sent out a memorandum requiring elementary school leadership to pick at least one grade level of their choice between K-5 to provide ocean safety materials to protect students, prevent drownings, and promote safety. Actual pool-based lessons were not addressed, although some materials were provided by Nā Kama Kai, a nonprofit that teaches children to swim in the ocean.



Teaching water safety and swimming in schools is not just about safety. It is also about supporting a student's connection to the wai and the kai. This vision fits into DOE framework, which was developed with a local lens.

*Nā Hopena A'o (HĀ) (learning and teaching outcomes):* "A department-wide framework to develop the skills, behaviors and dispositions that are reminiscent of Hawai'i's unique context, and to honor the qualities and values of the indigenous language and culture of Hawai'i."<sup>35</sup>

The Hawai'i State Legislature in 2019 considered a resolution to offer water safety education to students in fourth grade, but it stalled. In response, the Civil Beat Editorial Board called for Hawai'i to be the first state in the nation to require student swim lessons noting that "this is a life-and-death issue in a state surrounded by ocean that has one of the country's highest drowning rates."<sup>36</sup>

Two bills to support funding for in-school lessons stalled in 2023 and 2024 despite strong community support and efforts from water safety advocates, including several bereaved parents.

Implementing tiered in-school lessons statewide is complex. Still, we must work together to create the long-term strategy that our children deserve — for they are the keepers of our future.



## Aquatics Infrastructure (Pool Space and Access)

The scarcity of available public pools and public pool programming statewide makes it challenging to learn to swim, especially for the economically disadvantaged. Many of the public pools are closed or only open for limited hours.

Swimming may be taught in the ocean, which offers strong physical, mental health, and cultural benefits. However, weather, ocean conditions, and the availability of lifeguards affect the suitability of ocean sites for instruction, and parking at popular sites is sometimes challenging.

The Aspen Institute *State of Play Hawai'i* report notes, "Making full use of the ocean mandates that swimming, a lifesaving skill, be taught and mastered. The inability to swim has become a marker of poverty, with too few programs offering swim lessons. Too few lifeguards at beaches and pools limit access to an array of water sports."<sup>37</sup>

Opportunities for natural partnerships to provide access to swimming lessons exist between the Hawai'i Department of Education and the counties, which have built many pools next to schools. But all too often administrators and staff have hesitated to collaborate and instead blocked progress by citing easily overcome hurdles such as insurance, indemnification, and pool staffing.

Even schools with pools may not allow onsite water safety instruction. For instance, concerns about liability have prevented Kalani High School students from using their pool during the school day over the last several years. Schools without a pool within

walking distance also must address the cost and liability of transporting children to and from the pool.

On Oahu, the City & County of Honolulu Department of Parks and Recreation's pools are not open as much as they could be outside of school hours due to human resources issues. Nonprofits offering free swim lessons to the public have also been turned away repeatedly due to a lack of pool staffing. The pool lifeguard hiring process often takes six months or longer for a job that pays like an entry-level food service industry job that does not have hiring delays. New hires must also pay for their own initial certifications and are not reimbursed, which is off-putting especially for young people. Meanwhile, Honolulu Ocean Safety has had a surplus of lifeguard applicants for years. Many applicants pass the physical tests but are turned away. Students, who cannot immediately commit to the full-time preference of Ocean Safety, comprise a high portion of those who are not selected. The city's Ocean Safety and Parks and Recreation departments should work together to capture these skilled applicants and retain them as potential future ocean guards.

State and county leadership must work to provide more access to public pools and programming to support in-school swimming programs and opportunities that fall outside of the educational system. To make this happen, City & County aquatics administrators and staff must have a clear mandate to work with the community. Investment is needed to maintain and preserve existing pools and to support the construction of new pools, especially in places where scarcities exist.



## Case Study

### Nā Kama Kai: Empowering Keiki, Preserving Culture, Protecting the Ocean



This is what Nā Kama Kai's children say about taking swim classes through the nonprofit's Nā Pua 'Ama O Ke Kai program with Lili'uokalani Trust and Leahi Swim School:



"I like it cause it's fun. My swim skills improved a lot. I'm the first child to have swimming lessons. I have four brothers and three sisters."

- **NAHMIAH ESTRELLA, 9**

"I like learning about making ice cream scoops for swim strokes. This is the first time that I had swimming lessons, and I feel safer in the water."

- **LEGACY-ROSE MAKEKAU-BROWN, 8**



"We partnered with The Aspen Institute to produce the State of Play Hawai'i report in 2019, which showed once you pass Kapolei, there is no public pool access. The kids often have nuanced socioeconomic challenges, and they have to be driven 45 minutes to swim in a pool. When you look at these kids, they are naturals in the water, but we partnered with Nā Kama Kai so that they could learn about water safety and reconnect to the ocean. They love it, and their behavior shows it."<sup>38</sup>

- **KRISTI MEDEIROS, Lili'uokalani Trust case worker**

Founded in 2008 by pro-surfer Duane DeSoto, this nonprofit's mission is to nurture a deep, lifelong relationship between keiki and the kai, while perpetuating the rich cultural heritage of Hawai'i.

The need for Nā Kama Kai's work is urgent and undeniable. Drowning rates in Hawai'i are among the highest in the nation, with a disproportionate impact on Native Hawaiian communities. At the same time, the rapid erosion of traditional knowledge and practices threatens the fabric of Hawaiian identity. By providing keiki from all backgrounds with the opportunity to learn about ocean safety, conservation, and stewardship through the lens of Hawaiian culture, Nā Kama Kai is addressing these critical issues head-on.

Since its inception, Nā Kama Kai has touched the lives of over 41,000 keiki through its programs, which include ocean safety clinics, a community center, mentorship initiatives, and partnerships with schools. These programs equip children with the practical skills they need to stay safe in the water. They also foster a profound sense of kuleana and aloha for the ocean and the 'āina.

The impact of Nā Kama Kai's work extends far beyond Hawai'i's shores. By cultivating a new generation of ocean stewards rooted in Hawaiian values, the organization is protecting and preserving our marine environments. Through collaborations like the Nā Pua 'Ama O Ke Kai program with Lili'uokalani Trust and Leahi Swim School, Nā Kama Kai is sharing kupuna knowledge and traditional practices of ho'okele (*navigation*). A partnership with Leahi Swim School is providing swim lessons in the ocean.

[nakamakai.org](http://nakamakai.org)

## Case Study

### Hawai'i In-School Lesson Models

*"In order to reduce the risk of childhood drowning in our state, we believe every child should be provided equal access to a standards-based water safety education during school hours."*

**- HAWAI'I AQUATICS FOUNDATION**

Hawai'i is home to several water safety education organizations that offer in-school water safety programming. The Hawai'i Aquatics Foundation (HAF) offered a standards-based curriculum and pool lessons during school hours from 2017-2023. HAF also had a strategic plan to offer K-12 lessons statewide, including Career Technical Education in Lifeguarding. The nonprofit served students from 25 public and charter elementary schools on Hawai'i island,

Kaua'i, Maui, and O'ahu; however, without access to long-term state funding, they had to pause operations indefinitely in 2023.

The pre- and post-program data that HAF gathered from each student showed that a majority of Hawai'i's children lack the skills to avoid or recover from a dangerous aquatic situation. The data noted that children from Hawai'i's lower-income households also had fewer personal aquatic safety competencies. In both cases, however, measurable progress was achieved after one program series. This successful model could be used throughout Hawai'i, but it will take state leadership and the state Department of Education backing and state funding.

## Case Study

### VASH



The Visitor Aloha Society of Hawai'i (VASH), a HWSC member, is a "second responder" for visitors who have been victims of a crime or other adversities, including drownings.

VASH President and CEO Jessica Lani Rich said a goal of the nonprofit is to highlight the number of water-related incidents and work to prevent these incidents from occurring. From 2021 through May 2024, VASH O'ahu received 62 cases involving water incidents (medical and death cases). Most of VASH O'ahu's death cases are attributed to drownings.

"We deal first-hand with drowning or near-drowning victims. Water incidents also impact the survivor(s): spouses, family, and friends here and back home. Drownings are a very serious problem that impact a disproportionate number of visitors. We feel that many of these incidents can be prevented."

**- JESSICA LANI RICH, VASH President/CEO**

[visitoralohasocietyofhawaii.org](http://visitoralohasocietyofhawaii.org)

## Case Study

### Hawai'i Tourism Authority (HTA)

Destination stewardship was codified as part of the Hawai'i Tourism Authority's statutory duties by the 2024 Hawai'i State Legislature. Destination stewardship is a multi-stakeholder approach to managing Hawai'i's cultural, economic, and environmental integrity.

HTA issued its first contract for destination stewardship services to the Council for Native Hawaiian Advancement (CNHA) in 2024, which provides post-arrival visitor education. The agency also has expanded responsibility for destination stewardship in most other major marketing contracts. For instance, HTA's largest contractor, the Hawai'i Visitors and Convention Bureau (HVCB), provides pre-arrival visitor education. HVCB's island bureaus have long supported visitor education initiatives.

HTA also has added destination managers, who work with community partners to implement recommendations in the Destination Management Action Plans (DMAPs), a community-driven guide on each of the major islands for managing Hawai'i tourism in a responsible and regenerative manner.

Expanding HTA's destination stewardship kuleana provides new opportunities to elevate drowning prevention, which already is part of HTA's safety and security mission.



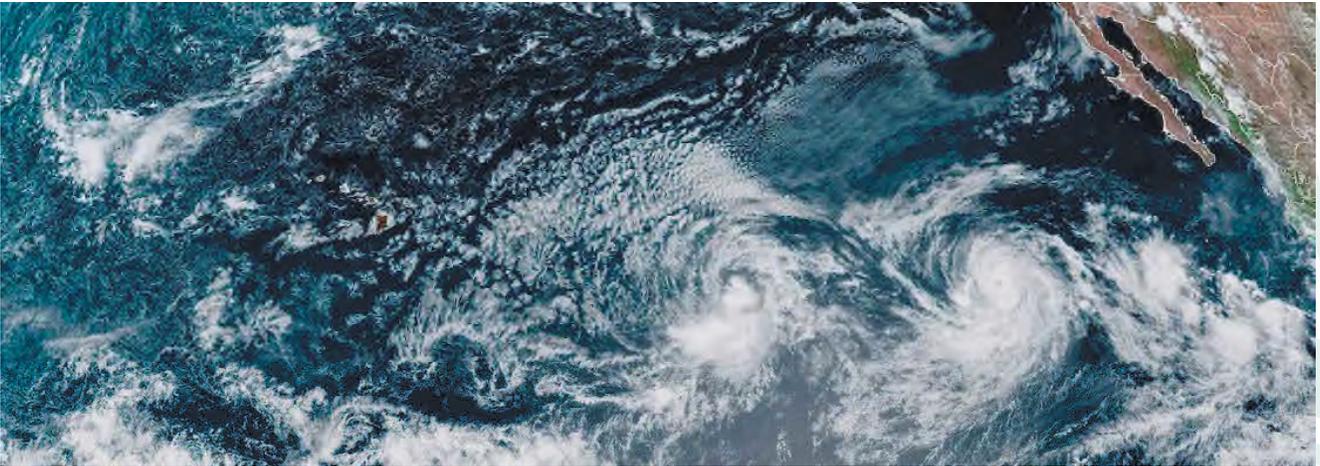
HTA provides funding to safety and security initiatives such as the junior lifeguard program, which teaches children statewide essential ocean safety skills.

It also supports the Visitor Assistance Program (VASH), which responds to visitors in crisis, including drownings. VASH has identified places of concern for visitor drownings on O'ahu, including Hanauma Bay, Ko Olina lagoons, Waikiki, Maunalua Bay, the North Shore, and the Windward Coast.

HTA says on its website that they support the Drowning and Aquatic Injury Prevention Advisory Committee (DAIPAC), and recognizes that "it is imperative that HTA collaborate with other departments and experts in the private sector on preventing (drowning) tragedies from occurring."<sup>39</sup>

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[gohawaii.com](http://gohawaii.com)



## Climate Change

Hawai‘i is vulnerable to the impacts of climate change, including drowning, which must become a disaster reduction priority.

**“Water-related disasters increasingly affect millions of people globally owing in part to the escalating adverse impacts of climate change and that flooding affects more people than any other natural hazard, with drowning being the main cause of death during floods.”**

- 2021 United Nations’ *Resolution on Drowning*

Two reports from the World Health Organization, *Regional Status Report on Drowning in the Western Pacific* and *Regional Status Report on Drowning in South-East Asia*, warn that the frequent and extreme weather events of climate change can lead to more regular and intense floods, increasing populations’ exposure to potentially hazardous interactions with water.

Moreover, the reports state that “Current global estimates for drowning do not include deaths from climate-related extreme weather events or disasters, which could increase the burden by as much as 50% in countries where extreme weather events and incidents are common, including this (Asia-Pacific) region.”<sup>40</sup>

Hawai‘i is experiencing climate change. The U.S. Environmental Protection Agency observes that “in the last 50 years, sea level has risen along Hawai‘i’s shores, increasing erosion and threatening coastal communities and infrastructure.”<sup>41</sup>

The University of Hawai‘i at Mānoa Sea Grant College Program also notes, “Hawai‘i’s coastal communities and ecosystems are exposed to a wide variety of coastal hazards including high wave events, hurricanes, tsunamis, and extreme tides. The impacts of these events are exacerbated by the rise of sea level and may be further amplified by accelerated rise and changing storm and cyclone patterns.”<sup>42</sup>

Hawai‘i has recognized climate change and its potential impacts by settling *Navahine v. Hawai‘i Department of Transportation*. This lawsuit, which was the world’s first youth-led constitutional climate case, addressed climate pollution from the transportation sector.

It also affirmed that Hawai‘i’s youth have a right to a sustainable environment, which given the link between climate change and drowning must include the right to a basic swimming and aquatic safety education. After all, to fully enjoy the ocean, and to find true therapeutic solace in it, to exercise, play, and explore, to traverse and navigate it, to fully understand the responsibility of sustaining its resources and wonder for future generations, one must first know how to swim proficiently.

A growing challenge to drowning prevention concerning climate change is ensuring that the structures that manage stormwater and prevent floods are built with safety in mind and are subject to scheduled maintenance and inspections. Hawai'i needs to join other jurisdictions across the U.S. in developing safety programs, especially since more frequent and intense rainfall is increasing the use of retention ponds, which are designed to hold water year-round, and detention ponds, which remain dry until a major rain.

**“Although retention and detention ponds can be effective for storm water management and flood control, they can also pose risks to public health, safety, and welfare.”<sup>43</sup>**

- *Essential Safety Considerations for Urban Stormwater Retention and Detention Ponds*, published in the January 2006 issue of *Stormwater Magazine*.

**“Among the types of aquatic environments, it can be argued that retention ponds are the most dangerous.”<sup>44</sup>**

- John Fletemeyer, *International Water Safety Alliance*

The authors of the paper published in *Stormwater Magazine* advise that, “Urban storm drainage system planners, designers, facility owners, maintenance staff, and municipalities, including their elected officials and governing bodies, must be aware of such risks and insist on the use of recommended techniques to minimize them.”

John Fletemeyer, an aquatics expert with the International Water Safety Alliance, called attention to the hidden dangers of these ponds in an article for *Aquatics International*, which said flood-control ponds without barriers or other safeguards pose a drowning risk, especially for children, who are highly attracted to water. Fletemeyer said retention ponds are a hidden hazard because they often are represented as lakes and people do not understand that they are not intended for recreational use.



## Centralized Authority Needed for Drowning Prevention

The Centers for Disease Control and Prevention (CDC) has been a leader in drowning prevention efforts at the federal level, but the federal government does not have a single government department serving as the mandated lead for drowning prevention and water safety.<sup>45</sup> In Hawai'i, the state Department of Health (DOH) has some oversight and accountability for Hawai'i's drowning rates but lacks adequate resources and staffing.

The DOH Emergency Services and Injury Prevention System Branch (EMSIPB) has a Hawai'i Injury Prevention Plan 2018-2023 with a Core Focus Area

of Drowning Prevention but there is not enough authority, coordinated collaboration across sectors, or funding to implement this plan effectively.<sup>46</sup>

The Drowning and Injury Prevention Action Committee (DAIPAC) was established in 2014 and for a time met regularly with a full-time Drowning Prevention Coordinator. Around the COVID-19 pandemic it lost funding and paused; however, in 2024 it was restarted with a part-time temporary Drowning Prevention Coordinator. Restoration of this position to full-time is critical.



The Hawaiian Lifeguard Association (HLA) was founded by various retired and active ocean safety leaders as a non-government nonprofit organization in 1991 when deep government budget cuts put junior lifeguard programs at risk. For more than 20 years, HLA has championed a “community driven, government supported” mindset. While great strides have been made, there is still much room for innovative community and government collaborations with potential to greatly impact drowning prevention.

Hawai'i does not have centralized oversight and coordination of pools and other closed-water venues, including county swimming pools.

ACT 190 created the Hawai'i Water Safety Task Force to regularly bring together safety officials and experts from the state and counties to create cohesive signage and warning policies. However, the Hawai'i Water Safety Task Force at the time of this writing had not convened in several years, which has resulted in a lack of signage updates. The Department of Land and Natural Resources (DLNR) is obligated to convene this task force, but in 2024 pushed to dismantle the requirement due to limited resources. Lawmakers deferred the bill to provide time to identify a solution and additional funding.

More funding is needed because effective signage and warning solutions must include the latest digital platforms and technology to inform the public of known risks, including live weather and tidal conditions. Technology itself displays the lack of coordination between government agencies, which have missed the opportunity to align resources. At the time of this writing, Hawai'i water safety information was spread across multiple websites, including:



**Hawai'i Ocean Safety (DOH):** [hioceansafety.com](http://hioceansafety.com)

**SafeBeachDay:** [safebeachday.com/state/](http://safebeachday.com/state/)

**DLNR:** [outdoor.Hawaii.gov](http://outdoor.Hawaii.gov)

**GoHawai'i:** [goHawaii.com](http://goHawaii.com)

**Hawai'i Visitors and Convention Bureau (HVCB):** [hvcb.org](http://hvcb.org)

**Various County Ocean Safety Departments**

A higher-level, centralized solution with authority and funding is needed to enact change throughout the state via relevant agencies and within the various counties, including a centralized website or app where locals and tourists may obtain real-time information. True multisectoral success requires public sharing of drowning prevention strategies between agencies, coordinated collaboration at all levels, and openness to public/private partnerships.



## Drowning prevention costs money, but it is cost-effective.

While drowning and injury prevention has a notably high return on investment, Hawai'i has not prioritized funding in this area nor built federal funding pathways. A statewide funding solution is needed to bring scalable, equitable change.

**\$1x9**

Each dollar invested into drowning prevention can return up to 9 times the original value – protecting societal health and well-being, while benefiting the economy.<sup>47</sup>

Source: World Health Organization (WHO)

Local nonprofits raise funds through grants and donations to operate water safety programming. These programs require consistent funding streams for staff training, lifeguarding, facilities access, and transportation. State and county Grants-in-Aid are not dependable enough to sustain nonprofit programs, and applying for grants places a significant burden on them. Several nonprofits including the Hawai'i Aquatics Foundation have paused their programming due to lack of consistent funding streams.

**\$5.68  
BILLION**

Fatal unintentional drownings in 2022 in the (United States) cost a combined \$5.68 billion dollars (or \$11.24 million per life lost).<sup>48</sup>

Source: Centers for Disease Control and Prevention (CDC)

The federal government's medical definition of traumatic injury technically excludes drowning because it is considered a "submersion injury" rather than a "traumatic injury." This technicality makes drowning prevention ineligible to receive designated "injury prevention" funding at the federal and state level.

Funding for drowning prevention is not available through Hawai'i's trauma system special fund, created in 2006 to support the operation of a comprehensive state trauma system. In fiscal year 2023, the Hawai'i Department of Health reported that the trauma system special fund had nearly \$5.6 million in revenues from cigarette taxes, traffic fines, and investment gains. In the same period, nearly \$4.6 million was spent to improve the trauma system.<sup>49</sup>

The state Department of Health's Emergency Medical Services Injury Prevention Branch has access to some trauma funding for the prevention of spinal cord injuries that occur in or around the water, but the amount is insufficient to meet the need.

Federal Core State Injury Prevention Program (Core SIPP) grants work primarily with health departments to use data and partnerships to identify and respond to existing and emerging injury threats. Each recipient receives about \$250,000 annually; however, Hawai'i was not one of the states that received CORE SIPP funds during the 2021-2025 cycle. In the past, Hawai'i has received this grant, and some funds were allocated to drowning prevention. Hawai'i is up for another round of funding consideration, but the area of focus is determined by the CDC.

### Pool Safely Grant

The Pool Safely grant, established by the Virginia Graeme Baker Pool and Spa Safety Act,<sup>50</sup> is one of the only federal grants for drowning prevention that is available to states and counties. To be eligible Hawai'i would need to adopt the International Swimming Pool and Spa Code (ISPSA) or a comparable code that meets the alternative requirements:

**a) The enclosure of all outdoor residential pools and spas in the state or locality by barriers to entry that will effectively prevent small children from gaining unsupervised and unfettered access to the pool or spa.**

**b) Pools and spas built in the state or locality more than one year after the date of enactment of such a state or local law should have:**

- More than 1 drain
- 1 or more unblockable drains
- or no main drain

**c) The applicant must provide for enforcement of the law(s).**



## More visitors, more drowning

The number of visitors to Hawai'i increases the state's exposure to drowning risk.

Hawai'i Department of Health data for 2018 to 2023 shows that drownings reached a peak of 112 in 2019, which with 10.4 million visitors was also a peak year for visitor arrivals. Drownings during this cycle dropped to their lowest point of 68 in 2020, when visitor arrivals were significantly lower due to COVID-19.<sup>51</sup>

The World Health Organization (WHO) recognizes that tourists generally are “at increased risk of drowning as not all travelers have adequate water safety skills and not all tour providers are trained to ensure their clients’ safety while swimming, kayaking, snorkeling or diving.”

**“Participating in water-based activities in unfamiliar environments can expose people to unknown dangers, particularly if signage or other forms of public information are not present to warn about potential risk or suggest minimum required water safety skills.”<sup>52</sup>**

- World Health Organization

**<15%**

**VISITORS COMPRISE MOST DROWNING VICTIMS** in Hawai'i across all age groups despite making up less than 15% of the state's daily population

Source: Hawai'i Data Book

**48%**

**DROWNING** is the only injury cause for a significant proportion of non-resident victims (48%), compared to any other major causes such as traffic crashes (7%), homicides (3%), unintentional falls (4%)

Source: 2021-2023 Data from the State of Hawai'i Department of Health

**#1**

**DROWNING IS THE LEADING CAUSE OF FATAL INJURIES AMONG VISITORS**; whereas it's the 5th leading cause of fatal injuries among Hawai'i residents

Source: 2021-2023 Data from the State of Hawai'i Department of Health

Mitigating drowning through visitor education is challenging but is a critical part of destination stewardship. Social media tends to popularize remote unguarded locations. Snorkeling is considered by many visitors as a safe and fun activity, even if they have limited swimming ability and do not have any previous ocean exposure.



## Drowning data is limited, and collection varies.

Strong data is foundationally important to understanding the true human and economic costs of drowning. It also plays a significant role in capturing the information necessary to reduce drowning through onsite interventions, targeted outreach, and education, including signage.

However, developing a comprehensive system to link data together is very challenging in Hawai'i. Each agency has its own reporting system, spokesperson, and paperwork. Some systems do not communicate with each other, and not all agencies are willing to share data.

The state Department of Health's Emergency Medical Services Injury Prevention Branch gathers data from state ambulance reports, billing data from every hospital in the state except for Tripler, death certificates, and related autopsy records. But the Health Insurance Portability and Accountability Act (HIPAA) and Personally Identifiable Information (PII) requirements in data sharing are sometimes seen as roadblocks across states.

Successful collaborations often involve both governmental and private entities working together to improve water safety and health outcomes. For example, the National Drowning Prevention Alliance (NDPA) gathers anonymized data on drowning cases from various regional health departments and hospitals so that it may analyze drowning cases and promote safety measures. Aggregated data is used to ensure that PII is not shared, and some other nonprofits rely on de-identified or anonymized data.

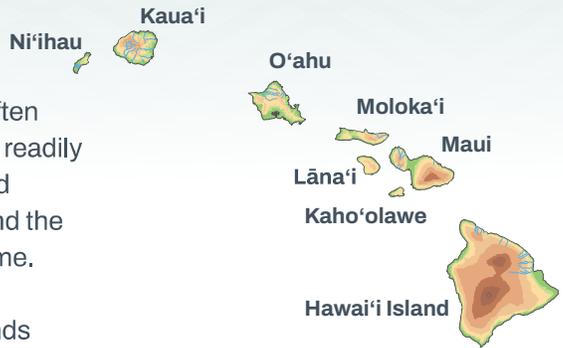
Establishing a comprehensive system requires examining a broad range of factors, including equipment, participation, standardized reporting (with unanimous agreement), maintenance, cost, and responsibility.

# 6. Hot Spots & Black Spots

**Hot Spots:** Locations with the highest number of drownings.

**Black Spots:** Areas with high risk for drowning or injury. These often have unique and volatile conditions with hazards that may not be readily apparent, such as coastal shelves, slippery rocks, blowholes, and extreme tide or weather variables. Victims often do not understand the risk and multiple fatalities and near misses have occurred over time.

Assessments of lifesaving resources, usage, and population trends are needed in hot spot and black spot areas to develop protocols for drowning and injury prevention.



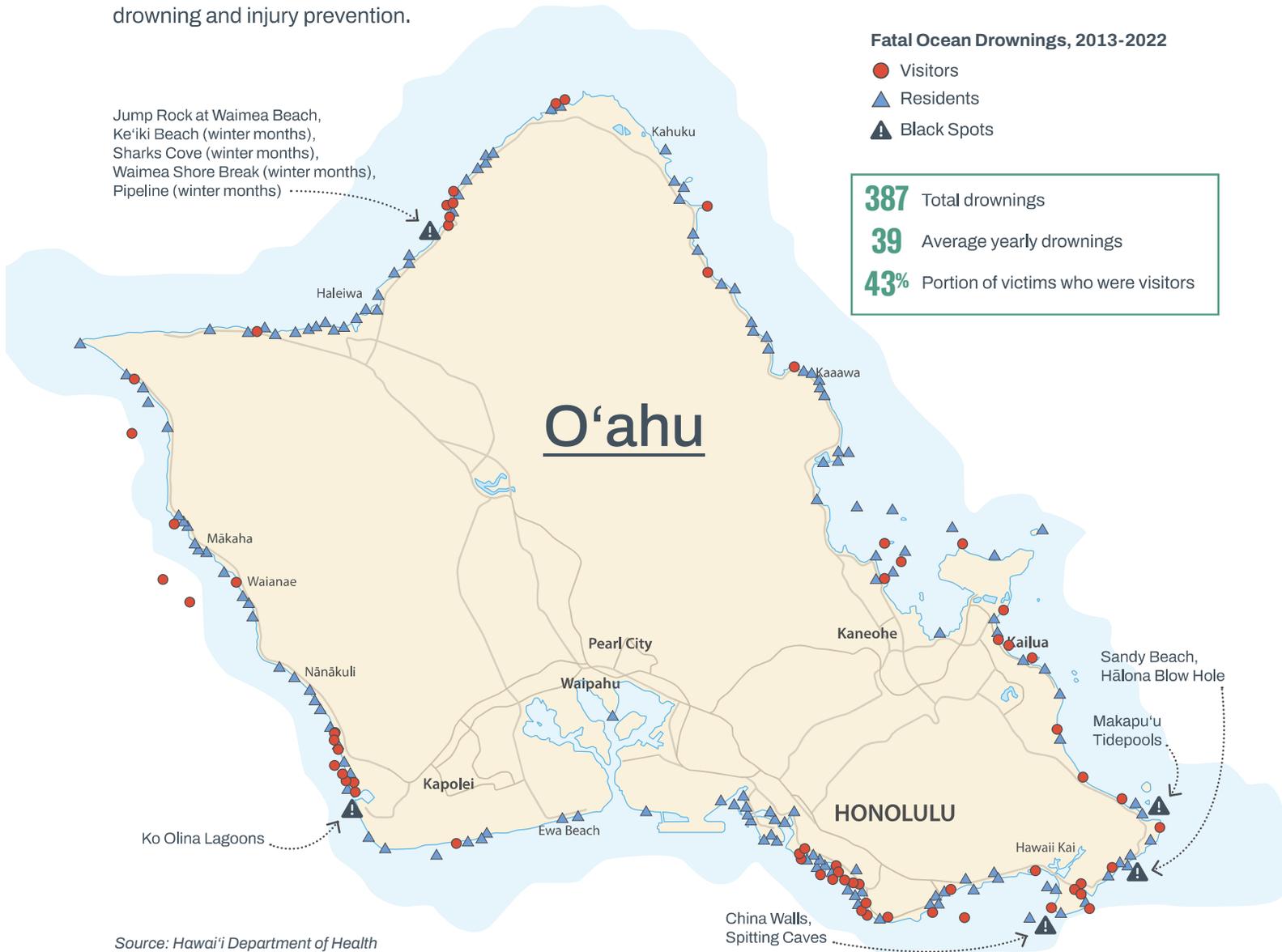
**Fatal Ocean Drownings, 2013-2022**

- Visitors
- ▲ Residents
- ▲ Black Spots

**387** Total drownings

**39** Average yearly drownings

**43%** Portion of victims who were visitors

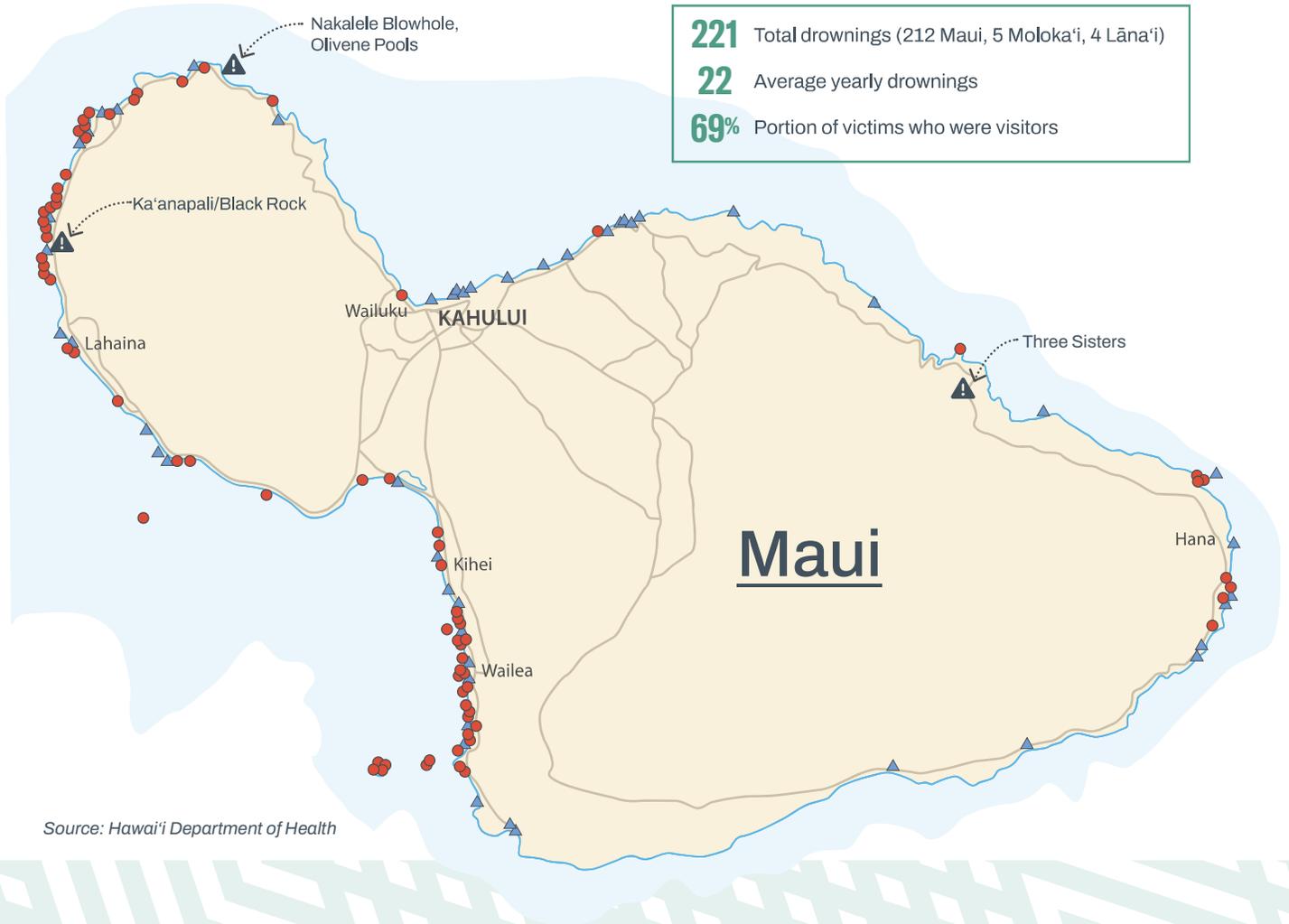


Source: Hawai'i Department of Health

Fatal Ocean Drownings, 2013-2022

- Visitors
- ▲ Residents
- ▲ Black Spots

**221** Total drownings (212 Maui, 5 Moloka'i, 4 Lāna'i)  
**22** Average yearly drownings  
**69%** Portion of victims who were visitors



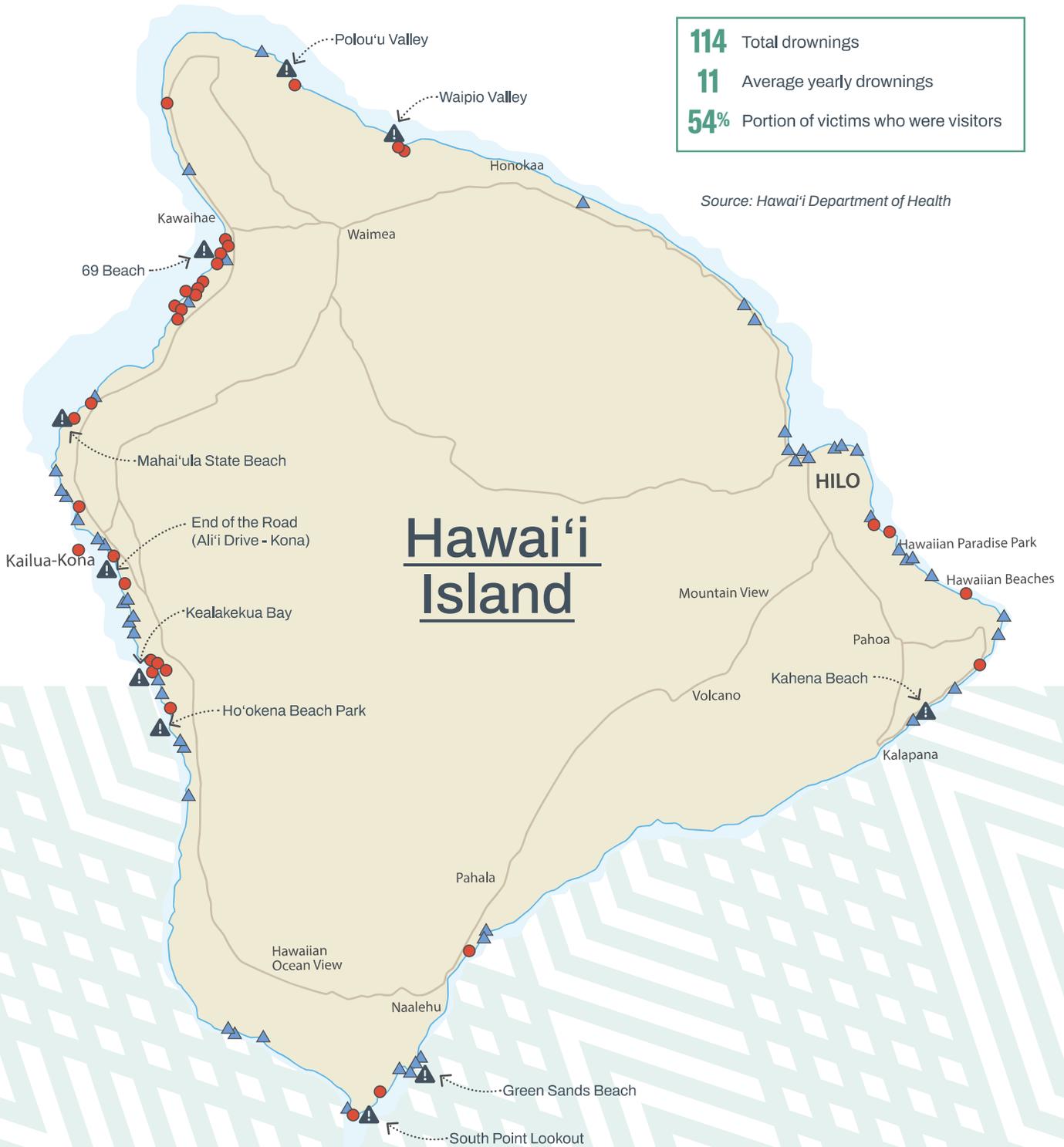
Source: Hawai'i Department of Health

**Fatal Ocean Drownings, 2013-2022**

- Visitors
- ▲ Residents
- ▲ Black Spots

**114** Total drownings  
**11** Average yearly drownings  
**54%** Portion of victims who were visitors

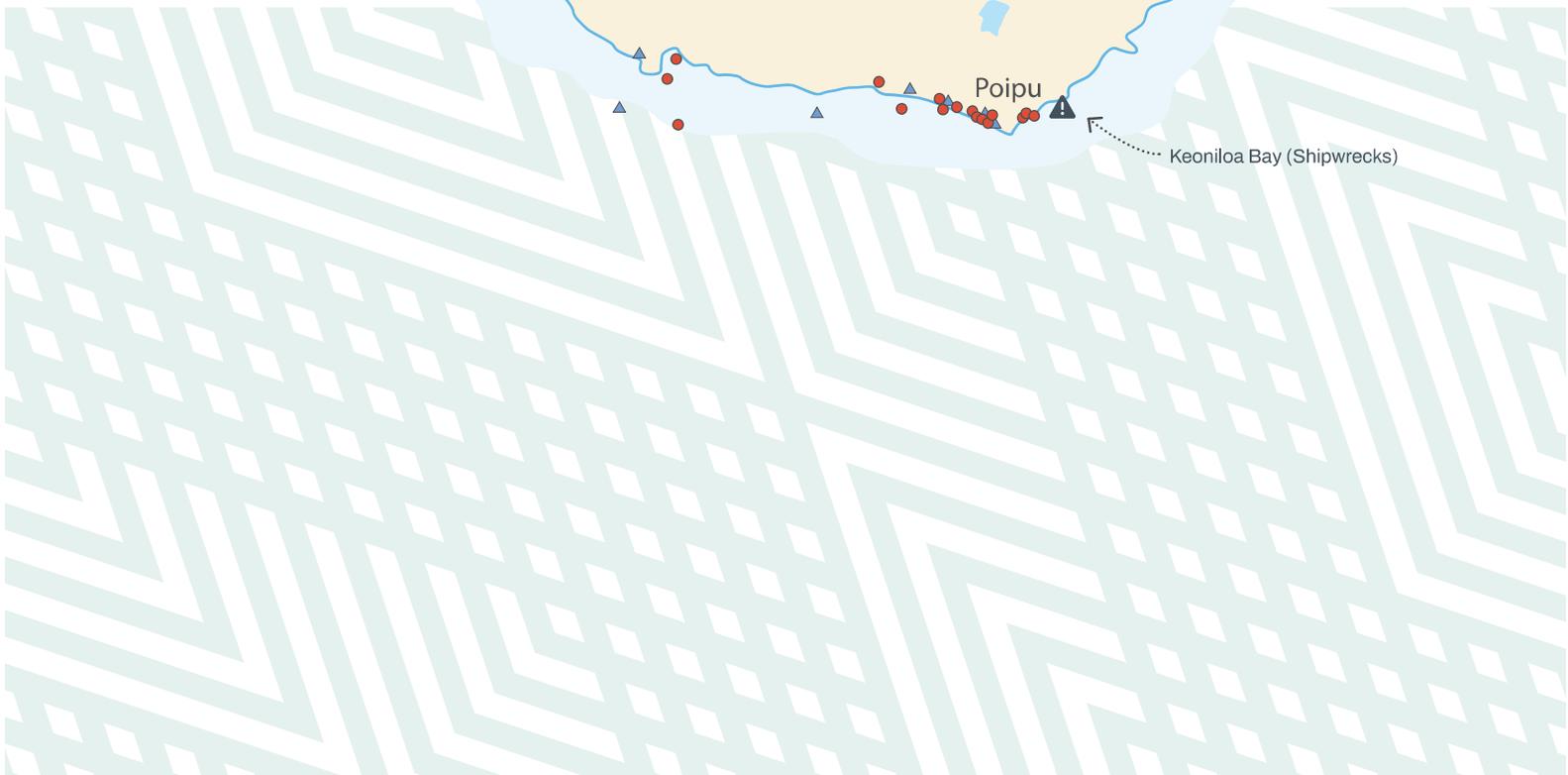
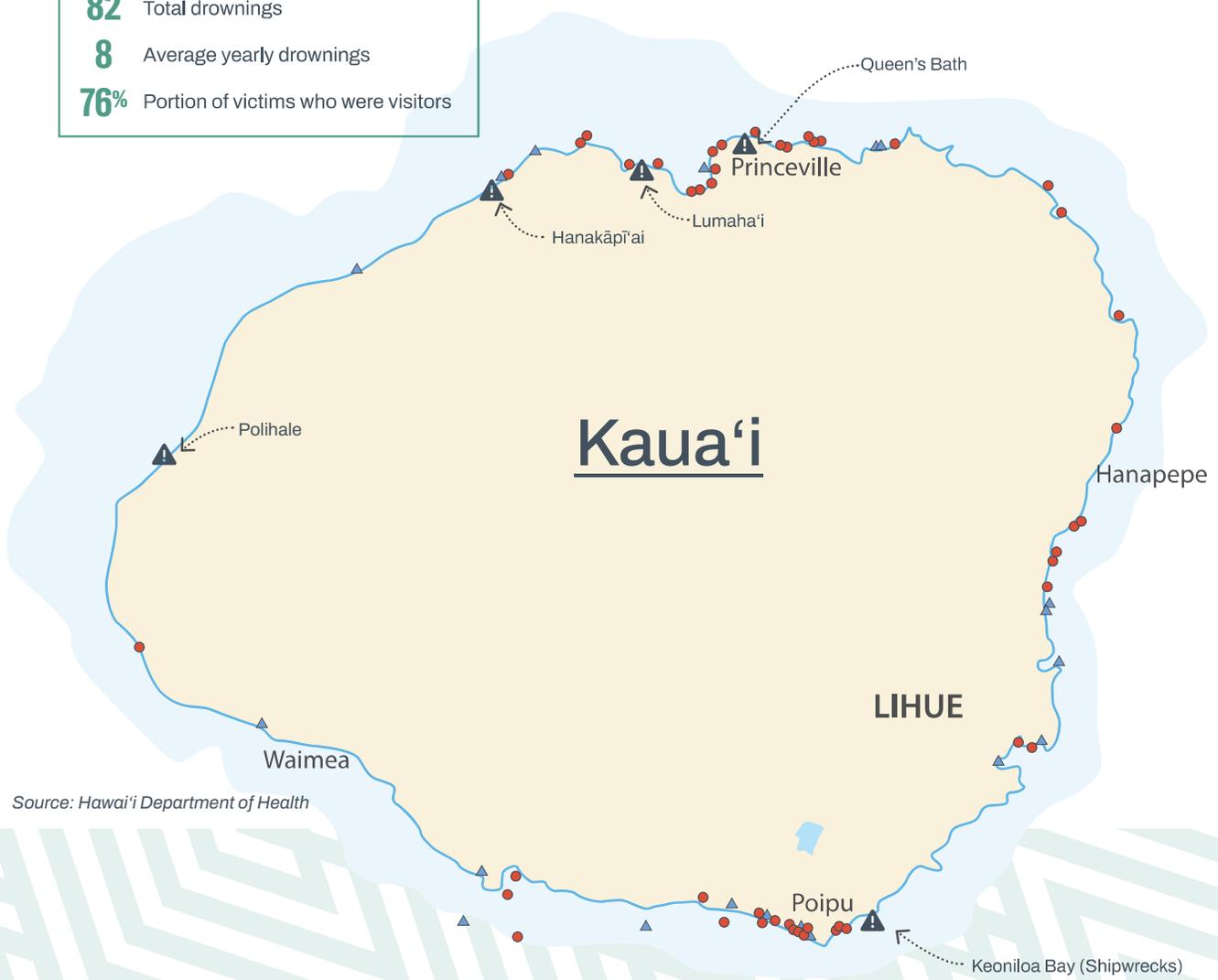
Source: Hawai'i Department of Health



**Fatal Ocean Drownings, 2013-2022**

- Visitors
- ▲ Residents
- ▲ Black Spots

**82** Total drownings  
**8** Average yearly drownings  
**76%** Portion of victims who were visitors



# 7. Hawai'i-specific Recommendations

## PA'A KA WAHA, *Observe and then act*

These are our most urgent recommendations to address Hawai'i's water safety challenges:



### 7.1 Collaborating Across Our Island State

- 7.1.1 Create a statewide authority for drowning prevention that increases water safety collaboration, and creates a lasting culture of water safety, through consideration of these scenarios:
  - A governor-created Task Force for Water Safety, Education, and Access.
  - A Water Safety Marshall (for both open and closed water) to coordinate ocean safety and aquatic safety, and to advise on education with the State of Hawai'i Department of Education.
  - A policy priority implemented through the State of Hawai'i Office of Planning and Sustainable Development.
- 7.1.2 The new authority should ensure that initiatives complement and integrate with existing programs and resources rather than duplicating efforts.
- 7.1.3 Assess the need for statewide ocean safety facilities via a master plan.
- 7.1.4 Encourage state harbors to allow county lifeguards and fire rescue to use facility space to store and launch rescue craft free of charge.



## 7.2 Accountability

- 7.2.1 Advocate for policies and legislation that support a foundation for drowning and aquatic injury prevention statewide.
- 7.2.2 Expedite restoration of a full-time Drowning Prevention Coordinator position for the Department of Health's Emergency Medical Services Injury Prevention Branch (EMSIPSB), including access to a grant writer. As of this writing, the EMSIPSB Chief, Injury Prevention Manager, and other positions also are vacant.
- 7.2.3 Continue regular Drowning and Injury Prevention and Advisory Committee (DAIPAC) meetings and increase outreach funding.
- 7.2.4 Build upon the recommendations in the HWSP with a second action planning phase which drills down to community-level recommendations.
- 7.2.5 Hawai'i should act immediately to adopt the International Pool and Spa Safety Code (ISPSC) for private pools which could help spur hundreds of thousands of dollars in federal drowning prevention funding via the Virginia Graeme Baker Act's Pool Safety Grant. Hawai'i should ensure that there are regular inspections of public pool and spa drains per the requirements of the Virginia Graeme Baker Pool and Spa Safety Act.
- 7.2.6 Hawai'i should adopt cohesive aquatic health codes, such as the Centers for Disease Control and Prevention's (CDC) Model Aquatic Health Code (MAHC), which are guidelines for preventing illness, injury, and drowning at public aquatic facilities.
- 7.2.7 The Governor should enforce Act 190 to ensure that the Water Safety Task Force is reconvened immediately and meets regularly to update safety signage. The task force should be funded under the Department of Land and Natural Resources (DLNR) with resources to support it.



## 7.3 Education and Outreach

- 7.3.1 Create a statewide water safety and drowning prevention awareness outreach campaign for beaches, waterways, and pools using evidence-based messaging. One culturally competent concept for injury prevention is "Be maka'ala, be aware."
- 7.3.2 Teach basic water safety skills as young as possible with emphasis for younger children to ask for permission before entering water, and teaching children to "reach and throw, don't go."
- 7.3.3 Educate adults about the importance of child supervision and the layers of protection against drowning and expand "water watcher" programs that work much like "designated driver" programs.
- 7.3.4 Increase the number of children in Hawai'i who are trained in basic water safety skills and have access to swim lessons.

- 7.3.5 Restart the DOE "Learn to Swim Program" or a similar initiative through physical education and possibly a partnership with qualified nonprofits. Mandate schools with existing pools to implement this program.
- 7.3.6 Partner with county parks and recreation departments to make their pools, which are often located near or next to schools, available for water safety skills training and swimming lessons. Work through perceived insurance and liability barriers by using established best practices.
- 7.3.7 Offer CPR and automated external defibrillator (AED) training where appropriate, including in schools.
- 7.3.8 Expand the duration and scale of junior lifeguard programs and integrate them into DOE schools.
- 7.3.9 Support aquatics instructor and lifeguard training programs at DOE schools, including offering lifeguard training as a for-credit career technical education class in high schools.
- 7.3.10 Encourage and fund surfing as an interscholastic sport and expand the requirements for lifesaving training to all participants.
- 7.3.11 Encourage canoe racing associations to develop statewide safety standards for canoe paddling; explore requiring compact personal floatation devices (PFDs) for paddlers.
- 7.3.12 Encourage the City & County of Honolulu to offer pool-based water safety and swimming programs and a beach safety curriculum during its Summer Fun program and seek adoption by similar neighbor island programs.
- 7.3.13 Stand up visitor industry partnerships that provide swimming lessons to hotel staff and their children.
- 7.3.14 Encourage military bases to require water and ocean safety orientation classes for all personnel upon moving to Hawai'i.



## 7.4 Equity

- 7.4.1 Support organizations offering programming that addresses the water safety and educational needs of disabled populations.
- 7.4.2 Make water venues more accessible for those with disabilities by including tools like blue mats and beach wheelchairs, as well as specialized swim programs for those with special needs.
- 7.4.3 Enforce inspection of accessible equipment at public pools.
- 7.4.4 Address transportation challenges for public school students to get to in-school lessons at nearby pools or beaches.
- 7.4.5 Prioritize culturally competent drowning prevention solutions for all ages, including adults, to ensure that no one in Hawai'i is left behind.
- 7.4.6 Ensure neighbor island residents and visitors have the same access to ocean and aquatic lifeguards, pools, and other drowning prevention resources as O'ahu.



## 7.5 Lifeguarding & Rescue

7.5.1	Place guards at more locations where people frequent, especially those with many visitors or that have higher levels of injuries and drownings.
7.5.2	Do not limit resources to traditional beaches. Prioritize hot spot and black spot locations.
7.5.3	Consider allowing lifeguard agencies to enter into sponsorship agreements for equipment.
7.5.4	Embrace technology such as surf cams that feed to ocean safety dispatch and a drone program to monitor for predatory sharks and other dangers, assist in search & rescue, and collect data.
7.5.5	Use existing technology to disperse data collected from ocean buoys with warning systems for large wave sets in black spots.
7.5.6	Encourage the county or state to build rescue hubs to store lifeguard trucks and other equipment in beach parks with county lifeguards.
7.5.7	Encourage federal/military beaches to meet the county standards with their beach lifeguards.
7.5.8	Support competitive wages and robust benefits for lifeguards.
7.5.9	Review supplies for lifeguards, including “stop the bleed” packs as well as proper tools to safely pick up and dispose of needles found on the beach.
7.5.10	At the county level, strengthen the Critical Incident Stress Management process for active lifeguards. Offer a holistic or privately supported assistance program to retiring lifeguards to include mental health services, career planning, and employment counseling.
7.5.11	Provide Moloka‘i and Lāna‘i with mobile PWC (personal watercraft) ocean rescue teams staffed with lifeguards.
7.5.12	Expand access to personal floatation devices such as rescue tubes for the public (with standard precautions) to serve as adjuncts to lifeguards, particularly at known hot spots and black spots.
7.5.13	Start a program to place lifebuoys — ring or horseshoe-shaped personal flotation devices — at pools or other bodies of water, including rainwater retention and detention ponds.
7.5.14	Implement a statewide life jacket loaner program, which other states already have, in collaboration with the state Department of Land and Natural Resources’ Division of Boating and Ocean Recreation (DOBOR) and ocean safety departments across the counties. .
7.5.15	Consider aligning Hawai‘i with other states by requiring that stand-up paddlers and kayak paddlers always use personal flotation devices, and personal locator beacon (PLB) or emergency position indicating radio beacon (EPIRB) when at sea.



## 7.6 Aquatics

- 7.6.1 Improve coordination among all county parks and recreation aquatics programs statewide; this could be achieved with regular meetings, for example via a Drowning and Aquatic Injury Prevention Advisory Committee (DAIPAC) subcommittee.
- 7.6.2 Conduct a study to identify places and populations in the state that do not have public pools and plan to address it.
- 7.6.3 Explore public/private partnerships to use homeowner associations, military, and hotel pools to provide public water safety lessons, especially in areas where public pools are not available.
- 7.6.4 Improve maintenance and access to existing public pools, including facilitating access for nonprofits teaching water safety and swim lessons.
- 7.6.5 Increase access to water safety and swim classes by funding mobile, above-ground swimming pools.
- 7.6.6 Support the (expedited) hiring, training, and retention of county pool lifeguards. Directly recruit pool lifeguards from nearby schools. Make the job advertisement process more transparent and user-friendly. At least on O‘ahu, create a hiring pipeline for Parks & Rec pools by offering direct hire to applicants who pass the Ocean Safety testing, and a preferred hire route to Ocean Safety after working for the pools for some time.
- 7.6.7 Pool managers should double-check that all pool lifeguard training is current as certifications don't always guarantee this.<sup>53</sup>
- 7.6.8 Ensure compliance with the CDC's Model Aquatic Health Code to prevent illness and injury at aquatic facilities open to the public.



## 7.7 Climate Change

- 7.7.1 Recognize that Hawai'i is vulnerable to climate change and include drowning prevention in disaster risk reduction plans.
- 7.7.2 Recognize that Hawai'i's children have a right to a sustainable environment, which given the link between climate change and drowning, must include the right to a basic water safety and swim education.
- 7.7.3 Conduct a study to identify where retention ponds and detention ponds are in the state and to assess their condition and make maintenance recommendations where appropriate.

- 
- 7.7.4 Require warning signage, four-sided fencing, and onsite safety tools such as ring buoys for flood control structures such as retention and detention ponds, reservoirs, and dams, and the development of maintenance schedules.
- 
- 7.7.5 Designate a state agency to conduct periodic inspections of flood control structures such as retention and detention ponds, reservoirs, and dams, and to enforce solutions.
- 
- 7.7.6 Amend building codes to incorporate the latest recommendations for safe sloping of retention and detention ponds.
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- 7.7.7 Add hazard awareness of drainage canals and retention and detention ponds to the water safety curriculum in schools.
- 
- 7.7.8 Train lifeguards and first responders in proper swift water rescue protocols for flood events.
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## 7.8 Data

- 7.8.1 Conduct systematic risk assessments of waterways based on geomorphological features of the environment, access, social profiles of frequent visitors, and anecdotal/experiential insights from key stakeholders (e.g., lifeguards and local surfers). Tie to signage and outreach including via live condition alerts and an app.
- 7.8.2 Work to resolve roadblocks from HIPAA/PII requirements in data sharing by implementing solutions already in use elsewhere such as using anonymized, aggregated, or de-identified data.
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## 7.9 Destination Stewardship

- 7.9.1 Recognize the importance of drowning prevention in destination stewardship.
- 7.9.2 Provide additional funding to the Hawai'i Tourism Authority to increase the mandated percentage of its budget that goes to safety and security, which should include drowning prevention. Consider unsolicited, direct grants to ocean lifeguards for visitor safety programming, recognizing that they are already first-degree ambassadors to our visitors and that their departments have limited grant writing capacity.
- 7.9.3 Increase public education and awareness around drowning and spinal cord injury through data-driven messaging targeting high-risk resident and visitor populations with an emphasis on the dangers of locations.
- 7.9.4 Include water safety in pre- and post-visitor education, including at airports, hotels, and beach services.
- 7.9.5 Expand lifeguarded beaches and hours, especially on neighbor islands.
- 7.9.6 Direct swimmers to lifeguarded beaches.
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- 7.9.7 Advocate for legislation for a state law to mandate water safety awareness information, including tips for safer snorkeling, to visitors on all arriving flights and airports.
- 7.9.8 Consider legislation or an outreach program for all snorkel and dive gear rental outlets to provide a standardized, state-approved snorkel safety awareness document with all rentals, featuring infographics on high-risk demographics and health risks associated with snorkel fatalities (e.g., middle age, cardiovascular disease) and key safety protocols.
- 7.9.9 Consider legislation that addresses liability issues for lifeguarding at public/private jurisdictions so that resort areas such as Ko Olina, Fort DeRussy, Hilton Hawaiian Village, Kā'anapali, and Kona Coast are not hesitant to provide lifeguards.
- 7.9.10 Create an open-water lifesaving training program for ocean recreation commercial operators such as surf schools and scuba companies that goes beyond Red Cross swimming pool certifications since most do not qualify for United States Lifesaving Association (USLA) agency-based certification.
- 7.9.11 Discourage sales of inexpensive blow-up rafts, tubes, and adult water wings in Hawai'i, especially at shops tourists frequent, as they create a false sense of security. Encourage the use of U.S. Coast Guard-approved life jackets.



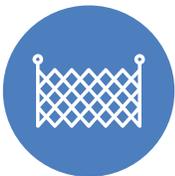
## 7.10 Funding

- 7.10.1 Fund in-school swimming lessons for physical education departments and qualified nonprofits.
- 7.10.2 Fund aquatics, surfing, and lifeguard career and technical education (CTE) training at state Department of Education (DOE) schools.
- 7.10.3 Fund lifeguards and maintenance for pools at DOE schools.
- 7.10.4 Fund lifeguards and maintenance for pools at county pools.
- 7.10.5 Raise the starting pay for county lifeguards.
- 7.10.6 Support and contribute to robust scientific inquiry and research that identifies risk factors for drowning, and protective factors that reduce drowning rates in Hawai'i.
- 7.10.7 Provide funding to set up a safety and inspection program for retention and detention ponds.
- 7.10.8 Assign an agency to set up a hotline for public reporting of private pools that are not fenced and to investigate and correct deficiencies.
- 7.10.9 Fund water safety and drowning prevention public service announcements.
- 7.10.10 Fund resources to implement the Water Safety Task Force as required by Act 190.
- 7.10.11 Fund a statewide Safe Access App with more place-based content for safer access to beaches, coastlines, and trails, and integrate with signage, the state Department of Land and Natural Resources website, the HiOceansafety.com website, and HNL.info push alerts. Direct traffic to App with onsite QR codes.

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- 7.10.12 Fund technology such as drones, buoys, and surf cams for use by lifeguards and public health scientists.
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- 7.10.13 Fund mental health support for lifeguards and other first responders, especially noting that Hawai'i is a trauma-informed state.
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- 7.10.14 Fund a community-driven place-based 2.0 version of the HWSP much like the Hawai'i Tourism Authority's Destination Management Action Plans. Other areas, organizations, and agencies that should be included in future surveys include the United States Coast Guard, harbor safety, boating, fishing, diving, and other forms of open water recreation such as canoe racing, and more.
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- 7.10.15 Fund county ocean safety infrastructure such as headquarters and onsite facilities and storage.
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- 7.10.16 Fund and maintain public aquatics facilities, especially in communities with no public pools.
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- 7.10.17 Fund the restoration of the Waikiki Natatorium and develop onsite water safety and swim education programs for the public.
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- 7.10.18 Use a portion of the ocean recreation fee that commercial ocean recreation operators must pay the state's Department of Land and Natural Resources as well as a portion of the commercial use permit (CUP) fees to help support county lifeguard agencies that generally respond to calls for service.
- 
- 7.10.19 State trauma funding should continue to be reviewed and allocated to implement further drowning and injury prevention efforts, and further funding should be secured for submersion injury.
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- 7.10.20 Consider other fees to support ocean and aquatic safety in Hawai'i.
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# 8. National Plan Action Recommendations



## 8.1 Barriers, Entrapment, and Electrocutation

Barriers, Entrapment, and Electrical Safety (BEE) — using pool fencing, alarms, and emerging technologies to reduce unsupervised access to water, and employing measures to reduce entrapment and electrocution.

- 8.1.1 Require the use of four-sided isolation fencing with self-closing and self-latching gates around residential pools and spas as the critical layer of protection to prevent drownings. Those fences and barriers should align with the Consumer Product Safety Commission’s Safety Guidelines for Residential Pools. (BEE 1)
- 8.1.2 Require government-mandated inspections upon change of ownership or substantial remodel or renovation of residential pools and spas to ensure they meet all federal, state, and local laws, regulations, and standards. (BEE 2)
- 8.1.3 Expand the mandate of, and human and financial resources available to, federal government agencies to reduce drownings. (BEE 3)
- 8.1.4 Require initial and continuing education for licensed or certified professionals involved with pools or spas to support enforcement of current laws or ordinances addressing water safety and barriers, entrapment, and electrical hazards. (BEE 4)
- 8.1.5 Require that building code officials and home inspectors receive regular continuing education to properly enforce current state and local requirements that are intended to prevent drowning, entrapment, and electrocution. (BEE 5)
- 8.1.6 Require that new and existing residential pools and spas have mechanisms to prevent suction entrapment, in alignment with the federally mandated requirements for public pools and spas in the Virginia Graeme Baker Pool and Spa Safety Act (VGBA). (BEE 6)
- 8.1.7 Update the federal consumer protection regulatory process to ensure that pool and spa environments and product features are properly engineered to prevent drowning and entrapments. (BEE 7)
- 8.1.8 Adopt the International Swimming Pool and Spa Code for new and substantially remodeled residential pools and spas in its entirety, including the PHTA-7 Standard for Suction Entrapment Avoidance. (BEE 8)

8.1.9	Adopt the most recent edition of the National Electric Code (NEC) for construction and maintenance of residential pools, spas, other home aquatic venues, marinas, boat docks, and boat yards, to prevent water-related electrocution. (BEE 9)
8.1.10	Require annual inspection of commercial aquatic facilities that use electricity, including pools, spas, docks, and marinas, to ensure maintenance and proper working order of all electrical systems, including the bonding system and other electrocution prevention measures. (BEE 10)
8.1.11	Develop and implement national labeling standards for barriers and other pool and spa safety products. (BEE 11)
8.1.12	Require a Certificate of Conformity by manufacturers to document that their pool and spa barrier and safety products meet the applicable standards and requirements defined in federal or state law. (BEE 12)
8.1.13	Require that pool safety covers for in-ground and larger storable aftermarket pools are powered and comply with the ASTM F1346-91 Performance and Labeling Standard for the safety device. (BEE 13)
8.1.14	Recommend an alarm system as an adjunct layer of protection for residential and semi-private pools and spas, secondary to an existing isolation fence with a self-closing, self-latching gate. (BEE 14)
8.1.15	Develop and implement national minimum standards for targeted educational programs addressing pool and spa barriers, entrapment, and electrical safety for consumers, homeowners, and relevant professional groups. Relevant professional groups include contractors (builders and service companies), home inspectors, and real estate professionals. (BEE 15)
8.1.16	Require the production and dissemination of information to insurance companies, mortgage companies, and homebuyers regarding pool and spa safety devices mandated by law. (BEE 16)
8.1.17	Require manufacturers of pool fences and secondary safety barriers (e.g., pool safety covers, alarms) to provide easily accessible hard copy or digital instructions on product installation, use, and maintenance. Ensure instructions are available to consumers. (BEE 17)



## 8.2 Data and Public Health Surveillance

Data and Public Health Surveillance (DS) — developing comprehensive drowning data surveillance to assist in prevention of fatal and nonfatal drownings, identify risk groups, and develop and monitor data-driven interventions.

8.2.1	Develop and implement a national surveillance system that includes collecting, analyzing, and sharing data from standardized incident reports at aquatic venues and services to inform the design and implementation of drowning prevention efforts. (DS 1)
8.2.2	Develop and implement a National Drowning Reporting System that links relevant data systems across the drowning spectrum, like the National Violent Death Reporting System (NVDRS) and Child Death Review. (DS 2)
8.2.3	Develop a panel of stakeholders to link existing data systems across the drowning spectrum (e.g., lifeguarding, law enforcement, emergency medical service, emergency department, hospitalization, and medical examiner data) to allow more complete analysis of risk and protective factors for drowning prevention. (DS 3)

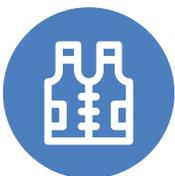
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- 8.2.4 Develop and implement a standardized data collection tool for use in drowning investigations by law enforcement, pre-hospital care, hospitals, coroners, and similar investigators. (DS 4)
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- 8.2.5 Develop and disseminate a tool to enhance media reporting of fatal and nonfatal drowning to include details on known risk factors, such as water conditions and alcohol or drug use, and evidence-based prevention strategies, such as isolation fencing, swim ability, life jacket use, and lifeguard presence. (DS 5)
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- 8.2.6 Support the use of syndromic surveillance to identify emerging trends in drowning. (DS 6)
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- 8.2.7 Standardize assessment and reporting of alcohol, medication, and drug use among drowning victims, those who were supervising the victim, and boat operators as a factor in drowning incidents. (DS 7)
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- 8.2.8 Develop and implement guidance on standardized assessment and reporting of sensitive data, like alcohol, medication, and drug use in drowning victims, those who were supervising the victim, and boat operators involved in drowning incidents. (DS 8)
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- 8.2.9 Collect and disseminate verified drowning and rescue narratives to provide context to quantitative data for water safety education. (DS 9)
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- 8.2.10 Create and disseminate a bank of standardized questions on water safety knowledge, attitudes, and behaviors for use in program evaluation and for integration into existing behavioral surveillance systems, such as the Youth Risk Behavior Surveillance System (YRBSS) and Behavioral Risk Factor Surveillance System (BRFSS). (DS 10)
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- 8.2.11 Develop and implement a minimum standardized data set to track enrollment and skills achieved through swim lessons, water safety training, swim instructor training, CPR certification, lifeguard certification, and boating safety certification. (DS 11)
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- 8.2.12 Develop and implement a mechanism to increase the quality, quantity, availability, and accessibility of information on existing programmatic efforts in water safety. (DS 12)
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- 8.2.13 Improve surveillance of attitudes, beliefs, and wear habits for life jackets during boating, swimming, and other water recreation to better understand life jacket effectiveness in different circumstances. (DS 13)
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- 8.2.14 Develop and implement a local partnership strategy between community organizations working to prevent and those who respond to drowning incidents to improve drowning surveillance, enhance data sharing, and encourage data-informed prevention efforts. (DS 14)
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- 8.2.15 Create and disseminate a comprehensive annual national drowning report composed of fatal and nonfatal data from multiple sources, including, but not limited to: WISQARS, WONDER, USCG Boating report, CPSC. (DS 15)
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- 8.2.16 Create and disseminate a comprehensive annual state drowning report composed of fatal and nonfatal data from multiple sources, including, but not limited to: WISQARS, WONDER, USCG Boating report, CPSC, state injury databases. (DS 16)
- 
- 8.2.17 Disseminate information to organizations managing existing data sources regarding how drowning-related data can be shared to support drowning prevention while staying within regulatory guidelines, including, but not limited to, the Health Insurance Portability and Accountability Act of 1996 (HIPPA) Privacy Rule. (DS 17)
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- 8.2.18 Convene multidisciplinary partners to identify, review, and discuss fatal drowning incidents among all ages to inform the development and evaluation of actionable data-driven and evidence-informed prevention strategies. (DS 18)
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## 8.3 Lifeguards and Supervision

Lifeguards and Supervision (LG SUP) — improving protection and supervision by parents, group leaders, and lifeguards of those in and near all types of open water, pools and around the home.

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| 8.3.1 | Extend adoption by authorities having jurisdiction over public pools and spas of the Model Aquatic Health Code (MAHC), specifically the lifeguard and water safety provisions. (LG SUP 1)   |
| 8.3.2 | Convene a panel of lifeguard training agencies, aquatic facility operators representing all environments, and regulators to consider the standards of care for supervision of designated swim areas in natural bodies of water, like how the Model Aquatic Health Code (MAHC) has impacted the standard of care for public pools and spas. (LG SUP 2) |
| 8.3.3 | Advocate for lifeguard services at designated open water swimming sites and public pools, prioritizing locations with high volumes of incidents and/or use. (LG SUP 3)  |
| 8.3.4 | Convene a panel to develop and implement national minimum educational standards for lifeguard supervision courses, including pre-service and in-service lifeguard training, applicable for various man-made and open water venues, like the format in the Model Aquatic Health Code (MAHC) for public pools and spas. (LG SUP 4)                      |
| 8.3.5 | Recommend that aquatic facilities conduct regular lifeguard assessments and audits. (LG SUP 5)  |
| 8.3.6 | Recommend that swimming facilities with lifeguards, both public and private, administer validated swim tests, based on models successfully incorporated by similar venues, before allowing patrons to enter water over armpit depth unless they are wearing properly fitted U.S. Coast Guard-approved life jackets. (LG SUP 6)                        |
| 8.3.7 | Recommend that lifeguard training organizations integrate multiple scanning strategies into their training. (LG SUP 7)  |
| 8.3.8 | Recommend that facilities with lifeguards conduct in-depth review training at least quarterly to reinforce lifeguard professionalism and effectiveness. (LG SUP 8)  |
| 8.3.9 | Develop and implement consistent national messaging for supervision strategies for parents and caregivers who have responsibility for individuals when in, on, and around the water. (LG SUP 9)   |



## 8.4 Life Jackets, Personal Flotation Devices, and Other Flotation

Life Jackets, Personal Flotation Devices, and other Flotation (LJ) — increasing the use of U.S. Coast Guard-approved life jackets by boaters and those engaging in recreation in or near the water.

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| 8.4.1 | Require all individuals participating in any activity involving a vessel less than 26 feet in length, including water sports, to wear a properly fitted U.S. Coast Guard-approved life jacket, except when below decks or in enclosed compartments. (LJ 1) |
|-------|--|

- 8.4.2 Require that everyone wear a properly fitted U.S. Coast Guard-approved life jacket while on or in any human-propelled vessel. Human-propelled vessels are powered only by its occupants (e.g., canoes, kayaks, rafts, stand-up paddle boards [SUPs]). (LJ 2)
- 8.4.3 Require that all individuals under the age of 18 wear U.S. Coast Guard-approved life jackets on all vessels under 26 feet in length, except when below decks or in enclosed compartments. (LJ 3)
- 8.4.4 Require that states adopt or exceed the minimum federal age requirements for U.S. Coast Guard-approved life jacket wear for vessels under 26 feet in length (currently with any child under 13 years old). (LJ 4)
- 8.4.5 Develop and implement national minimum educational standards for teaching life jacket fit, type, and style; when to wear; and demonstrations, to include practice fitting and use for both boating and non-boating water recreation. (LJ 5)
- 8.4.6 Develop and implement a national minimum standard for testing flotation devices used for nonboating water recreation, including swimming, to ensure they reduce potential risk of drowning when used properly. (LJ 6)
- 8.4.7 Develop and implement a standard for a singular connection type for carbon dioxide (CO<sub>2</sub>) cartridges for inflatable flotation devices. (LJ 7)
- 8.4.8 Develop and implement national recommendations for use of life jackets, personal flotation devices (PFDs), rescue devices, and other flotation devices while boating, swimming, or participating in other water-related activities. (LJ 8)
- 8.4.9 Develop and implement national recommendations for use of life jackets and flotation aids while participating in open water recreational activities, including, but not limited to swimming, jumping, and floating during non-boating related activities, or while swimming off boats, platforms, aquatic play structures, or other watercraft under the auspices of organizations and agencies. (LJ 9)
- 8.4.10 Develop and implement a risk assessment process to identify situations and locations where required life jacket wear and enforcement would have the greatest impact on drowning rates. (LJ 10)
- 8.4.11 Increase access to life jackets for all ages through life jacket loaner stations at boat ramps, open water swimming venues, and designated water access points. (LJ 11)
- 8.4.12 Increase access to lifesaving equipment and usage instructions at key locations (life jacket loaner stations; public water access points for boating, swimming, and other types of water recreation). (LJ 12)
- 8.4.13 Increase year-round availability of, and access to, affordable U.S. Coast Guard-approved life jackets through retail outlets and community-based organizations. (LJ 13)
- 8.4.14 Work with manufacturers to ensure that affordable and comfortable life jackets are available for both individual and bulk purchases. (LJ 14)
- 8.4.15 Develop and market new life jackets and flotation aids that meet safety standards and requirements and are more comfortable, affordable, and appealing. (LJ 15)
- 8.4.16 Obtain national consensus on consistent terminology for life jackets, personal flotation devices (PFDs), rescue devices, and other flotation devices while boating, swimming, or participating in other water-related activities, and disseminate widely. (LJ 16)
- 8.4.17 Integrate education that meets the national minimum life jacket educational standards into learn-to-swim programs, both on dry land and in water safety programs, and instructor or provider training for swim instructors, health care providers, boating instructors, teachers, and other instructors (such as childcare providers, camp staff, parks and recreation staff, boat clubs and rentals staff). (LJ 17)

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- 8.4.18 Integrate education that meets the national minimum life jacket educational standards at watercraft point of sale or rental services. (LJ 18)
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- 8.4.19 Develop and implement awareness campaigns based on national minimum life jacket educational standards to address the importance of life jacket use among high-risk groups who are boating, paddling, swimming, or recreating in the water. (LJ 19)
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- 8.4.20 Create an easily accessible centralized resource about water safety, U.S. Coast Guard-approved life jackets, and adaptive aquatics flotation devices for people with special needs, physical disabilities, neurological conditions, or developmental disabilities who need adaptive life jackets or are at higher risk for drowning (e.g., those with ADHD, autism spectrum disorder, epilepsy, and cardiac conditions). (LJ 20)
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- 8.4.21 Integrate education that meets national minimum life jacket educational standards into K-12 water safety programming. (LJ 21)
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## 8.5 Rescue and CPR

Rescue and CPR (RES CPR) — promoting and improving rescue and resuscitation of drowning victims by laypersons, lifeguards, EMS personnel, and other medical personnel.

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- 8.5.1 Develop and implement policies that integrate aquatic response of professional aquatic rescuers with lay rescuers within National Incidence Management System (NIMS) and local National Response Frameworks. (RES CPR 1)
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- 8.5.2 Develop and implement national standard operating procedures for responding to water rescues for all Public Safety Personnel. Include, for example, use of specialized personnel to evaluate hazards and perform certain functions (i.e., swift water, ocean, ice, mud rescue). (RES CPR 2)
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- 8.5.3 Recommend lifeguards and water rescue emergency medical system professionals have in-person training, certification, and recertification by an agency approved by a national body or government organization. (RES CPR 3)
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- 8.5.4 Develop and implement a template for an evidence-based drowning treatment protocol for Emergency Medical Services (EMS) agencies that include basic life support (BLS), advanced life support (ALS), and other credentialed certification levels. (RES CPR 4)
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- 8.5.5 Incorporate access to a physician medical director, as defined by National Association of Emergency Medical Service Physicians (NAEMSP), into all EMS agencies that provide lifeguard services. (RES CPR 5)
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- 8.5.6 Develop and implement age-appropriate classroom-based K-12 drowning prevention curriculums and programs that focus on water competency, while considering the local geography and aquatic environments. Where aquatic venues are available, include in-water survival and swimming skills, basic rescue skills, and lifeguarding education. (RES CPR 6)
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- 8.5.7 Expand CPR training in schools with age-appropriate content for grades K-12. (RES CPR 7)
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- 8.5.8 Highlight the importance of both compressions and ventilations for cardiac arrest due to drowning or other hypoxic etiologies in all CPR training beyond the level of compression-only CPR. (RES CPR 8)
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- 8.5.9 Teach public safety personnel the risks, benefits, and alternatives in performing safe water rescues in varied conditions. (RES CPR 9)
- 8.5.10 Develop and implement a centralized resource to house and provide access to national policies, minimum standards, guidelines, and water rescue training for professionals responding in aquatic environments. (RES CPR 10)
- 8.5.11 Develop and implement or expand existing watercraft-based emergency response training for lay people, including search and rescue. (RES CPR 11)
- 8.5.12 Provide community-based opportunities for water rescue skills training for laypersons. (RES CPR 12)
- 8.5.13 Expand public awareness of boating safety resources for local waters. For example, provide databases with information on environments, coastal topography, river conditions, and unique marine weather conditions. (RES CPR 13)
- 8.5.14 Develop and implement public awareness campaigns and educational programs on how to respond to atypical and increasing environmental aquatic hazards. This includes, but is not limited to, natural and manmade floodways, flooded roads, drainpipes, and fire hydrant clearing. (RES CPR 14)
- 8.5.15 Develop and disseminate a decision-making tool for laypersons regarding the selection and effective use of life-saving water rescue equipment. (RES CPR 15)



## 8.6 Water Safety, Water Competency, and Swimming Lessons

Water Safety, Water Competency, and Swimming Lessons (WS WC) — enhancing water safety, water competency, and swimming lessons with a particular focus on reducing existing inequities.

- 8.6.1 Develop and implement standardized operational definitions and national minimum standards for the objective assessment of the skills and behavioral components of water competency (water smarts, swimming skills, and helping others). (WS WC 1)
- 8.6.2 Develop and implement national minimum standards, benchmarks, and evaluation criteria for evidence-informed, land- and water-based water safety education curriculums. (WS WC 2)
- 8.6.3 Build or revitalize publicly accessible pools and designated swimming areas to meet the needs of populations at higher risk of drowning. (WS WC 3)
- 8.6.4 Provide affordable water safety and swim lesson programming to meet the needs of populations at higher risk of drowning. (WS WC 4)
- 8.6.5 Enforce adherence to Americans with Disabilities Act (ADA) guidelines by all public aquatic facilities, particularly with respect to equipment and facility design. (WS WC 5)
- 8.6.6 Develop and implement national minimum standards for adaptive aquatics learn-to-swim instructor training and certification. (WS WC 6)
- 8.6.7 Develop and implement minimum national educational standards that include considerations to ensure water safety programs are delivered in a culturally competent, trauma-informed, anxiety sensitive, and historically and socially relevant manner. (WS WC 7)

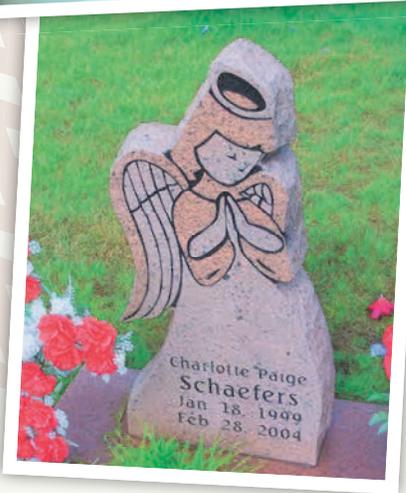
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- 8.6.8 Implement and embed diversity, equity, inclusion (DEI) and cultural training in all aquatics, water safety, and marine safety organizations, beginning with leadership and expanding to all employees, volunteers, and instructor training programs. (WS WC 8)
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- 8.6.9 Adapt and implement existing water safety programs so they are delivered in a culturally competent, trauma-informed, anxiety sensitive, and historically and socially relevant manner to the communities they serve. (WS WC 9)
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- 8.6.10 Develop and implement standardized measures to assess the drowning risk of all persons with disabilities (i.e., epilepsy, autism spectrum disorder, and other disabilities). (WS WC 10)
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- 8.6.11 Include imagery of people of color demonstrating competency in all aquatic activities, including athletes, teams, families, organizations, and communities. (WS WC 11).
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- 8.6.12 Promote diversity in any imagery depicting swimming, aquatic activities, and water sports, including advertising, film, print, television, and social media. (WS WC 12)
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- 8.6.13 Create an easily accessible, centralized, culturally and linguistically diverse online portal for water safety, drowning prevention, and learn-to-swim information and curriculums. (WS WC 13)
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- 8.6.14 Hire and train diverse aquatic staff to support community needs. (WS WC 14)
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- 8.6.15 Promote the involvement of aquatics, education, and health and safety organizations, and specifically aquatic sport governing bodies, to invest in, and collaborate with, Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), and Tribal Colleges and Universities (TCUs) to advance water safety, develop aquatic leaders, expand community education, and conduct land- and water-based training within the college and university system and the surrounding communities. (WS WC 15)
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- 8.6.16 Develop and implement an annual comprehensive coordinated national water safety awareness campaign. (WS WC 16)
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- 8.6.17 Make existing water safety information and resources easily available and accessible to people of all ages, cultures, and abilities through a wide variety of access points, sources, local languages, and affordability, including scholarships and low-cost options where possible. (WS WC 17)
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- 8.6.18 Deliver water competency training that meets the needs and resources of specific communities. This includes, but is not limited to, training that considers language, culture, local bodies of water, socioeconomic factors, and disabilities. (WS WC 18)
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# 9. Bereaved Family Advocates

The first Hawai'i Water Safety Plan was vigorously supported by the bereaved family members, who belong to the Hawai'i Water Safety Coalition. We see the faces of our loved ones in Hawai'i's alarming drowning rates.

This plan is dedicated to **Sharkey, Mark, Mina, Duke, and Alex**, and all those who have lost their lives to drowning. May the lessons that we have learned from their stories prevent other families from having to walk this "longest of journeys."

We are thankful for the support of other bereaved family advocates nationally and internationally, who are the foundation of the drowning prevention movement. We are stronger together.



## In memory of Charlotte “Sharkey” Schaefer

by Allison Schaefer

Charlotte “Sharkey” Schaefer, 5, died in an improperly maintained detention pond in the Pearl City Navy military housing in 2004 after a major winter storm hit the Hawaiian Islands causing flash flooding, high winds, high surf, and severe thunderstorms.

A clogged pipe in the detention pond suddenly turned rolling hills near a playground into a death pit filled with dark polluted water that was over six feet in places. Without signage or fencing, the pond was a hidden hazard.

Sharkey’s friend, who could not swim, was struggling in the water, and she drowned while pushing him into the safety of another child’s arms. She was a swimmer; however, she did not have rescue training.

The developers of our military community knew that the drainpipe was 89% clogged but decided that “the cost to fix it outweighed the liabilities.” If annual inspections had been required, perhaps, the system would not have malfunctioned, and my daughter might still be alive.

Writing this plan with the Hawai‘i Water Safety Coalition is hard for me because it stirs up so many painful memories. My daughter’s courage inspires me to keep going. After all, “If a 5-year-old can be a hero, we can all be heroes.”

*Right: This is the flooded detention pond where Charlotte "Sharkey" Schaefer, 5, drowned on Feb. 28, 2004 in U.S. Navy family housing in Pearl City. Detention ponds are dry until they are needed to hold water and slowly release it to prevent flooding.*

*However, the day that Sharkey died a clogged pipe caused the water to rise far above the drain. The fencing was put up because she drowned, and the picture was taken after the water had already begun to recede.*

*Credit: Honolulu Star-Advertiser*

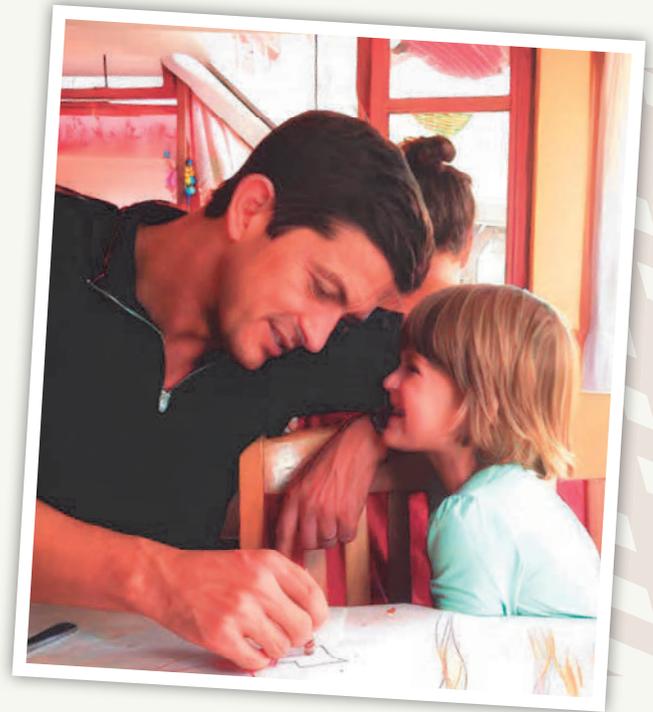


## In memory of Mark and Mina Hornor

by Jessamy Town Hornor

Mark (46) and Mina Hornor (6) died at the Makapu‘u Tidepools on O‘ahu in 2016. When Mark took our three daughters down to the tidepools the conditions appeared safe, but he did not know about the last remnants of Hurricane Celia many miles offshore in the vast Ka‘iwi Channel. When the tide shifted, a sudden, massive wave swept through the tidepools and took Mina out to sea. Before the next wave hit, Mark jumped in to save her but the conditions were not survivable. Mina’s older sisters were rescued from the inner tidepools by a Good Samaritan, Scott Kato.

That day Honolulu Ocean Safety and Department of Land and Natural Resources were aware of the offshore storm conditions, but no onsite warning or closure protocols were in place even though the tidepools have become very popular in recent years. If a warning had been noted in the parking lot or trail turn off, Mark would not have taken the girls to the tidepools. Despite my advocacy work in this area over the years, no protocol exists even now. As the founder of Ocean Safety ‘Ohana and co-founder of the Hawai‘i Water Safety Coalition, one of my goals is to ensure that state and county agencies are communicating and informing the public about known risks, especially in extreme weather events. It is also my hope that together we can envision a future with a significantly reduced drowning rate and ZERO child drownings.





## In memory of Alex and Duke De Rego

by Shirley De Rego

On September 24, 2005, we lost our 12-year-old son, Alexander. While on a family camping trip in a remote area in South Kona, we believe Alex fell into the ocean at night while crossing a plank in the dark. We searched for him for five days with the help of family, friends, and rescue personnel but never found his body.

Then, on May 31, 2010, our 14-year-old son, Duke, was involved in a fatal accident. He was thrown from a golf cart, sustaining massive head trauma, when the 15-year-old driver made an unexpected sharp left turn at a high speed. His young friends panicked and did not know what to do at the moment. The paramedics were not called until some 10-15 minutes after the accident. Luckily, an off-duty police officer was nearby and started administering CPR on Duke. Although Duke regained a heartbeat, he suffered irreparable brain damage and was pronounced dead on June 3, 2010. He became a “hero” that day as we donated his organs, and he saved the lives of three people as well as gave sight to two others.

Our faith sustained us through these incredibly dark times. In grieving the loss of our two vibrant young sons who were so full of life, we were moved to find a way to turn this tragedy into hope. We needed to find a way to transmute the pain and hardship into a gift we could share with others. The Alex and Duke De Rego Foundation was born in 2011 in honor of our sons’ lives.

*‘Ōlelo No‘eau (Hawaiian proverb):*

**He lei poina ‘ole ke keiki**

*A lei never forgotten is the beloved child.*

## Acronyms

**CDC** - (Federal) Centers for Disease Control and Prevention

**CTE** - Career and Technical Education

**DAIPAC** - (State) Drowning and Aquatic Injury Prevention Advisory Committee

**DLNR** - (State) Department of Land and Natural Resources

**DMAP** - Destination Management Action Plan

**DOBOR** - (State) Division of Boating and Ocean Recreation

**DOH** - (State) Department of Health

**EPIRB** - Emergency Position Indicating Radio Beacon

**HAF** - Hawai'i Aquatics Foundation

**HIPAA** - (Federal) Health Insurance Portability and Accountability Act

**HLA** - Hawaiian Lifeguard Association

**HTA** - (State) Hawai'i Tourism Authority

**HWSC** - Hawai'i Water Safety Coalition

**HWSP** - Hawai'i Water Safety Plan

**ISPSC** - International Swimming Pool and Spa Code

**KIPC** - Keiki Injury Prevention Coalition

**KLA** - Kaua'i Lifeguard Association

**MAHC** - (Federal) Model Aquatic Health Code

**NH** - Native Hawaiians

**PFD** - Personal Flotation Device

**PI** - Pacific Islanders

**PII** - Personally Identifiable Information

**PLB** - Personal Locator Beacon

**PWC** - Personal Watercraft

**USNWSAP** - United States National Water Safety Action Plan

**VASH** - Visitor Aloha Society of Hawai'i

**WCDP** - World Conference on Drowning Prevention

**WHO** - World Health Organization

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**Mālama kekahi i kekahi**  
*Take care of each other*

# I Palekana Kākou Ma Ka Wai

*Let Us Be Safe in the Water*

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## 2025 Hawai'i Water Safety Plan

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