The Marine Mammal Center is guided and inspired by a shared vision of a healthy ocean for marine mammals and humans alike. One of The Marine Mammal Center’s education programs, Nā Kōkua o ke Kai, is an academic year-long marine science program that provides middle school teachers access to curriculum, resources, and professional development. Middle school students explore the science of the Center, examine patient charts, and create action projects relevant to their community.

Approximately 541 students from across Hawai‘i Island completed a minimum of 40 classroom hours plus connected experiences at Mokupāpapa Discovery Center and Ke Kai Ola. In partnership with the evaluation firm Public Profit, The Marine Mammal Center fielded a survey of youth participating in the Nā Kōkua o ke Kai program on Hawai‘i Island. Below are the results of the survey organized by the intended program outcomes.

### Youth Demographics

<table>
<thead>
<tr>
<th>Grade</th>
<th>Gender</th>
<th>Race/Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>7th</td>
<td>Male</td>
<td>American Indian/Alaska Native</td>
</tr>
<tr>
<td>8th</td>
<td>Female</td>
<td>Native Hawaiian/Pacific Islander</td>
</tr>
<tr>
<td></td>
<td>Transgender</td>
<td>Black/African American</td>
</tr>
<tr>
<td></td>
<td>Identify in a way not listed</td>
<td>Hispanic/Latino</td>
</tr>
<tr>
<td></td>
<td>Prefer not to say</td>
<td>Asian</td>
</tr>
<tr>
<td></td>
<td></td>
<td>White</td>
</tr>
</tbody>
</table>

*Note: Students could select more than one race/ethnicity.

### Knowledge

- **81%** know more about science because of the Nā Kōkua o ke Kai program.
- Students are able to correctly identify key ocean principles:
  - **99%** know the ocean is mostly unexplored.
  - **90%** know the ocean is one large body of water with many features.
  - **91%** know that the ocean supports many different forms of life.
- Students are able to correctly identify ways the ocean helps people survive:
  - **87%** know that the ocean provides vital resources.
  - **69%** know that the ocean affects weather and climate.
  - **53%** know that the ocean ecosystem produces the oxygen we breathe.

### Confidence

- **86%** feel like they can do science when in the Nā Kōkua o ke Kai program.
- Do students demonstrate increased confidence in their ability to engage in science now and in the future?
  - I feel confident doing science.
    - Before, 67%
    - After, 82%
  - I think about getting a job in science someday.
    - Before, 30%
    - After, 52%

### Belonging

- **86%** want to learn more about other islands in Hawai‘i (including Northwest Hawaiian Islands).
- Do students identify Papahānaumokuākea Marine National Monument as well as the main Hawaiian islands as part of Hawai‘i?
  - I know about the Northwestern Hawaiian Islands.
    - Before, 43%
    - After, 70%
  - I feel connected to the Northwestern Hawaiian Islands.
    - Before, 40%
    - After, 70%

### Responsibility

- **94%** care about the topics explored in the Nā Kōkua o ke Kai program.
- Do students express intent to take kuleana (responsibility) for stewardship of their local marine wildlife and coastal environment?
  - My actions can impact marine wildlife in my community.
    - Before, 86%
    - After, 95%
  - I talk to family and friends about the importance of local marine wildlife.
    - Before, 44%
    - After, 71%
What are two helpful actions (pono practices) you hope to use to impact marine mammals and the 'āina?

“I really enjoyed learning about the animals that get trapped in our trash. This is an eye-opener and it makes me want to make a change and help.”
- Nā Kōkua o ka Kai 7th grade student

“The one thing that I liked best about this program was that it really gave students a chance to learn about marine mammal life in a fun and helpful way.”
- Nā Kōkua o ka Kai 7th grade student

What are two helpful actions (pono practices) you hope to use in the future and I have learned are, to not used barbed hooks, this is extremely important to me and I hope that I will use this in the future. I also learned to keep my distance from monk seals, this is an important fact that I can use in the future.”
- Nā Kōkua o ke Kai 7th grade student

“Two pono actions I hope to use is giving marine animals plenty of space and educate others about the effects we are having on these creatures.”
- Nā Kōkua o ke Kai 7th grade student

The most memorable experience for me was learning what to do when you see a monk seal on the beach.”
- Nā Kōkua o ke Kai 7th grade student

“The barbless fishhook lesson. My family goes fishing almost every week and learning more about barbless hooks helped me feel like I can make a difference.”
- Nā Kōkua o ke Kai 8th grade student

What can we do to make the Nā Kōkua o ke Kai program even better?

“Maybe we can do some sort of mini-project so that we feel we are making a contribution.”
- Nā Kōkua o ke Kai 7th grade student

“I would suggest having more hands-on activities because those were the activities that are most memorable.”
- Nā Kōkua o ke Kai 7th grade student

The Marine Mammal Center is guided and inspired by a shared vision of a healthy ocean for marine mammals and humans alike. One of The Marine Mammal Center’s education programs, Nā Kōkua o ke Kai, is an academic year-long marine science program that provides middle school teachers access to curriculum, resources, and professional development. Through the Nā Kōkua o ke Kai program, The Marine Mammal Center aims to support teachers, while inspiring the next generation of informed and engaged citizens who will care for the health of the oceans and environment.

Seventeen teachers contributed a minimum of 50 classroom hours and 15 professional development and coaching hours plus additional planning time. Of the 17 participating teachers, three were returning to the program while the other 14 teachers were new participants this school year. In partnership with the evaluation firm Public Profit, The Marine Mammal Center fielded a survey of teachers participating in the Nā Kōkua o ke Kai program on Hawai‘i Island. Below are the results of the survey organized by the intended program outcomes.

### Skills and Confidence

<table>
<thead>
<tr>
<th>Skill</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% feel more confident to teach other science content.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100% are better at incorporating ocean literacy principles into their teaching.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100% plan to apply the skills they learned into their other science content and lessons.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100% are more knowledgeable about how to seek out other science curriculum and resources.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Ability to Connect

<table>
<thead>
<tr>
<th>Ability</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% are better at engaging youth with conservation topics because of participation with Nā Kōkua o ke Kai.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am prepared to discuss with students how ocean conservation issues impact our community.</td>
<td>80%</td>
<td>100%</td>
</tr>
<tr>
<td>I am prepared to engage youth with marine science topics.</td>
<td>40%</td>
<td>100%</td>
</tr>
<tr>
<td>I am prepared to respond to student inquiries related to marine science.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Collaboration

<table>
<thead>
<tr>
<th>Collaboration</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>I collaborated with other educators at my school as part of the Nā Kōkua o ke Kai program.</td>
<td>0%</td>
<td>20%</td>
</tr>
<tr>
<td>I have recommended the Nā Kōkua o ke Kai program to a colleague.</td>
<td>0%</td>
<td>20%</td>
</tr>
<tr>
<td>My administration at school supported me in implementing the Nā Kōkua o ke Kai program.</td>
<td>0%</td>
<td>20%</td>
</tr>
</tbody>
</table>

### General Feedback

**What did you like best about the Nā Kōkua o ke Kai program?**

“The hands on inquiry based activities and that it incorporated local and cultural knowledge and values.”

**What can we do to make the Nā Kōkua o ke Kai program even better?**

“I think that many of our students struggled on the Pono Project because they don’t have enough understanding of the types of problems that exist in the world and they struggled in finding innovative solutions.”

**What is something you’d want other people to know about participating in the Nā Kōkua o ke Kai program?**

The best part about this program is that it allows students to be aware of their environment in which we live, and teaches students to care for our island and preserve the lives of all that live here. These are things that are not found in our textbooks, which were written in the mainland. It allows students to have a better connection with their home.

Source: Nā Kōkua o ke Kai Teacher Survey, 2018-19 (N=5). Percentages represent the proportion of teachers who responded “Agree” or “Strongly Agree” or the proportion who indicated they collaborated with each type of partner.