

MAINE AND NEW HAMPSHIRE BEACHGOER SURVEY TECHNICAL REPORT



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ACKNOWLEDGEMENTS

We acknowledge the key role stakeholders, collaborators, and colleagues played in the design of the 2014 Maine and New Hampshire Beachgoer Survey and in the preparation of this technical report. We thank numerous beach and coastal stakeholders, collaborating researchers on NEST's Safe Beaches and Shellfish Project, and colleagues involved with similar research projects nationally for their excellent feedback.

We thank NSF EPSCoR, Maine EPSCoR, Maine Agricultural and Forest Experiment Station, and USDA NIFA for their support of this research.



EXECUTIVE SUMMARY

Maine and New Hampshire beaches attract loyal, repeat visitors. The majority of our respondents have been visiting beaches in Maine (74%) and New Hampshire (69%) for over 15 years. These loyal, repeat visitors expressed a strong willingness to continue to visit (and bring their families to) the Maine and New Hampshire coast. Written responses shared by our respondents suggest these beachgoers treasure their experiences visiting Maine and New Hampshire beaches. When asked about actions that could improve their experiences and entice them to continue visiting in the future, many of these respondents noted support for limited change; this nostalgic, multi-generational user base often emphasized the importance that beach regions grow and develop in a way that remains familiar and consistent with the “Maine” brand and the shared memories of these loyal, repeat visitors. Accordingly, this segment of visitors present both challenges and opportunities to the coastal tourism industry, local businesses, and resource managers. Written responses from our respondents suggest a range of approaches for building on this loyal user base and recruiting new, first-time visitors to the states’ coastal beaches and regions.

Users of Maine and New Hampshire coastal beaches come from near and far, suggesting a broad geographic market of visitors. Local (Maine and New Hampshire residents) and regional (Massachusetts and Quebec Province) visitors account for the majority of our respondents. Though our respondents were mainly from New England and southeastern Canada, some respondents were from as far west as Washington and California, and as far south as Florida. Generally, our respondents visit ocean beaches relatively frequently, and they visit beaches in Maine and New Hampshire as well as in many other East coast states and provinces.

When planning visits to coastal areas and choosing to visit particular beaches, Maine and New Hampshire beachgoers consider a range of environmental, cultural, and tourism assets. When our respondents choose to visit coastal areas and ocean beaches, they consistently place a high importance on access to various types of outdoor activities, clean waters, swimming areas, and wide, sandy beaches. Coastal tourism and recreation contribute significantly to the local economies of Maine and New Hampshire coastal communities. Knowing more details about the ways that beachgoers place importance on coastal area and beach characteristics can help inform plans for future community & economic development and natural resource management.

Beachgoers often rely on what they know and who they know to plan their coastal visits. The majority of our respondents report using knowledge from their own past experiences and recommendations from friends, family, and local residents to plan their coastal visits. The importance of social networks to planning visits presents challenges and opportunities to those who advertise to and communicate with beachgoer populations. While our respondents also rely to a lesser extent on traditional tourism resources such as brochures, websites, and tourism offices, it seems evident that diverse public education and outreach approaches may be necessary to target specific areas or networks of beachgoers.

Beachgoers share common characteristics. Our respondents share much in common. Those who take trips of different lengths (day trips, short overnight trips, long overnight trips) do not vary much in terms of demographic characteristics or rating of important coastal and ocean beach characteristics. These commonalities may help to simplify different types of public information and marketing campaigns.

Beachgoers seek different types of beach safety information. The majority of our respondents do not seek information about surf conditions & riptides and water quality. Those that do seek information rely on a variety of information sources, including signs and flags on the beach, lifeguards, family & friends, and websites. The majority of our respondents ranked the water quality at New Hampshire and Maine beaches as excellent or very good and stated that New Hampshire and Maine beaches were safer and clean than beaches in other areas. Should greater provision of beach water quality/safety information become a priority, the responses of our respondents suggest that presenting water quality information and surf conditions jointly may increase awareness of water quality issues amongst beachgoer populations.

Positive framing of beach safety issues may be worthwhile. Our respondents stated that positive framing of beach safety issues – including signs indicating that the ocean water quality is excellent today, and encouraging users to engage in water contact activities – might change their behaviors or opinions of a beach. If managers are concerned that advisories will change opinions of beaches, emphasizing strong records of good water quality through signs or information on the beach may help to minimize the impact that sporadic advisories have on beachgoers' opinions of a beach.

INTRODUCTION

Beaches and coastal tourism are hugely important economic assets to coastal communities across the United States. Nationally, coastal tourism and recreation account for \$101 billion of the GDP, and 2.1 million people are employed in jobs associated with coastal tourism and recreation. In Maine, coastal tourism and recreation contribute \$1.2 billion to the state GDP and employs over 30,000 people, while across New Hampshire's much shorter ocean coastline, it contributes \$283.2 million to the state GDP and employs over 7,000 people¹. Understanding beachgoers and coastal visitors is an important component to managing coastal resources to ensure that they remain safe, healthy, and economically productive.

This technical report shares key insights from a 2014 survey of users of Southern Maine and New Hampshire coastal beaches². Our survey is part of a collaborative effort through the New England Sustainability Consortium (NEST) that is aimed at strengthening the science behind coastal decisions. More information on the full project is available on the organization's website:

<http://www.newenglandsustainabilityconsortium.org/safe-beaches-shellfish>.

¹ National and state level statistics sourced from the National Ocean Economics Program's Ocean Economy market data, gathered by the Economics: National Ocean Watch (ENOW) program of NOAA's Coastal Services Center (CSC), for the year 2013:

National-level:

<http://www.oceaneconomics.org/Market/ocean/oceanEconResults.asp?IC=N&dataSource=E&selState=0&selCounty=All&selYears=All&selSector=6&selIndust=TO00&selValue=All&selOut=display&noepID=unknown>

State-level:

<http://www.oceaneconomics.org/Market/ocean/oceanEconResults.asp?IC=N&dataSource=E&selState=23&selState=33&selCounty=All&selYears=All&selSector=6&selIndust=TO00&selValue=All&selOut=display&noepID=unknown>

² For full survey responses see: Kaminski, A., Bell, K.P., Noblet, C., Obomsawmin, T., Fox, E., Snell, M., Evans, K. Teisl, M. Maine and New Hampshire Beach User Survey: Response Report. November 2015.

SURVEY RESEARCH METHODS

The 2014 Maine and New Hampshire Beachgoer Follow-Up Survey was a means of follow-up data collection from beachgoers who participated in a short intercept survey in the summer of 2014 led by our NEST colleague Charlie Colgan. Colgan's team surveyed beachgoers onsite over the summer of 2014 on three beach systems: the Saco Bay area, Wells-Ogunquit, and the New Hampshire Seacoast. In our web-survey, we asked these beachgoers more detailed questions about their opinions, perceptions, and visitation. Throughout this technical report, we focus on the added value from our follow-up research. Incomplete knowledge about who uses public coastal beaches and how they use beaches represents a major information gap for tourism, business, and coastal resource managers. Our survey helps to shrink this gap by providing detailed information about Maine and New Hampshire beachgoers.

SURVEY QUESTIONNAIRE DESIGN

We designed the survey questionnaire following scientific, tailored survey design principles,³ and we refined the content iteratively with input from key stakeholders and NEST colleagues across multiple disciplines and institutions. Before distributing the survey to our sample, we piloted the questionnaire on select beaches in Maine and New Hampshire and made modifications to reflect the feedback of pilot respondents. The final survey instrument included open-ended and categorical question formats that collected information on: (1) general visitation to coastal areas and beaches, (2) beach-user opinions and attitudes about coastal water quality, coastal management and beach safety, (3) detailed information on beach visits to Maine and New Hampshire, and (4) respondent demographic and household characteristics.

SAMPLING DESIGN & SURVEY ADMINISTRATION

Our sample of respondents is a subset of Colgan's team's sample. Their intercept survey represents a sample of Maine and New Hampshire beachgoers, intercepted on select beaches during particular days and times, and our follow-up survey represents a sub-sample of this intercepted group. As a part of their intercept questionnaire, respondents were asked if they would be interested in sharing their email addresses to participate in a follow-up survey about beach visitation. 1,259 intercept respondent provided valid email addresses.

We administered our follow up survey to these respondents in fall of 2014 using Qualtrics, a web-based survey software tool. We contacted respondents through email and asked them to follow a link to complete the follow-up survey. Our survey administration followed established tailored design and communication methods, and a scientifically supported timeline.³ We received responses from 437 respondents, 366 of which completed the survey in full; this yields a response rate of 36% and 29%, respectively.

³ Dillman, D., Smyth, J., & Christian, L. (2014). *Internet, phone, mail, and mixed-mode surveys: The tailored design method* (4th ed.). New Jersey: John Wiley & Sons.

Our follow-up survey respondents have comparable ages and gender proportions to the intercept group that we sampled from. Comparing our follow-up beachgoer group with that of the general population of Maine and New Hampshire, our respondents are more likely to be older and female, and are more likely to be college graduates with household incomes over \$100,000 than the general state populations (Table 1).

Table 1: Comparing demographics across beachgoer samples and the general state populations

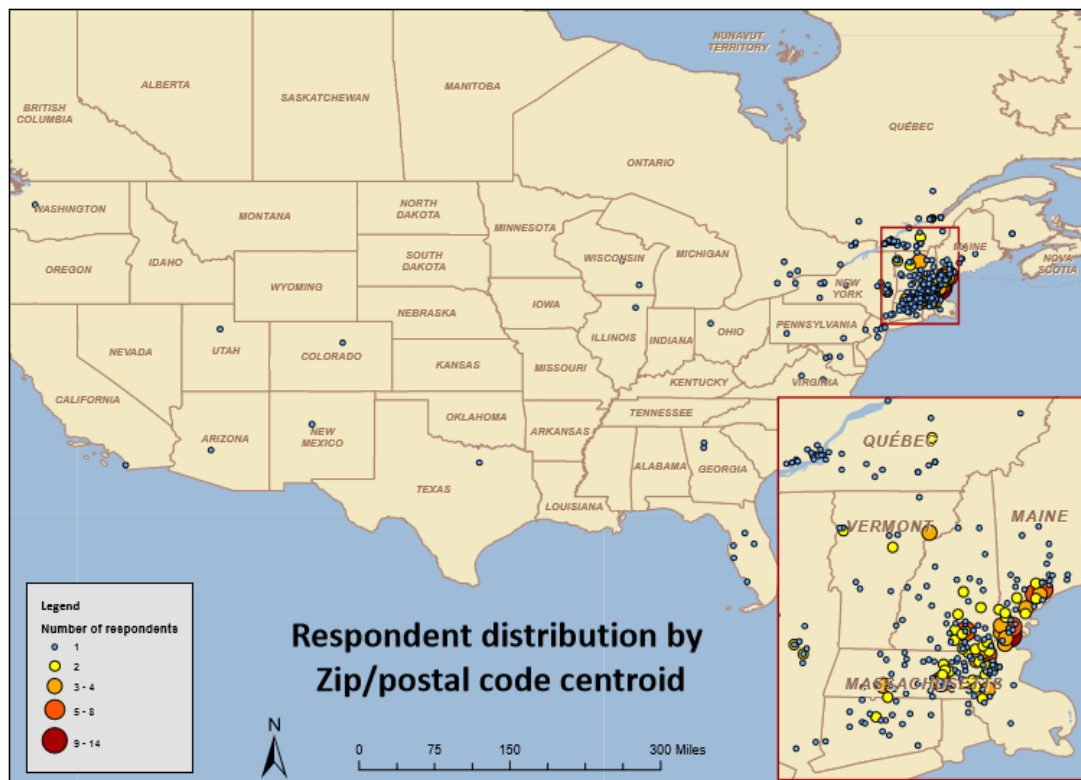
	Follow-up Beachgoer Survey (n=366)	Intercept Beachgoer Survey (n=3183)	Maine Population ^a	New Hampshire Population ^a
Median age	51*	48**	43.2	41.5
Male	36%	38%	48.9%	49.4%
Employed full time	61%	NA	--	--
Retired	16%	NA	--	--
College graduate	68%	NA	27.9%	33.7%
Household income >\$100,000	54%	NA	16.8%	28.5%

^a – Statistics sources from the American Community Survey, 2013

*Mean age

**Intercept respondents were not asked a precise age; mean age is calculated as the midpoint of 6 age ranges

While our sample respondents reported home town zip codes from as far west as Washington and as far south as Florida, most respondents were from zip codes in New England and southeastern Canada. These areas were closest to the beaches where Colgan’s team performed their intercept survey.



ANALYSIS

We analyzed the survey results using SAS 9.4. Exploratory analytical methods include: summary statistics, differences of means, and regression modeling. We used ArcGIS to map responses and R to perform spatial statistical analyses of response and sampling distributions.

DIVERSE CHARACTERISTICS ARE IMPORTANT TO MAINE AND NEW HAMPSHIRE BEACHGOERS.

People visit coastal areas and ocean beaches for a variety of reasons. Better understanding the characteristics that beachgoer’s find important in coastal areas and ocean beaches may help to prioritize management decisions in communities that are economically reliant on beachgoer populations.



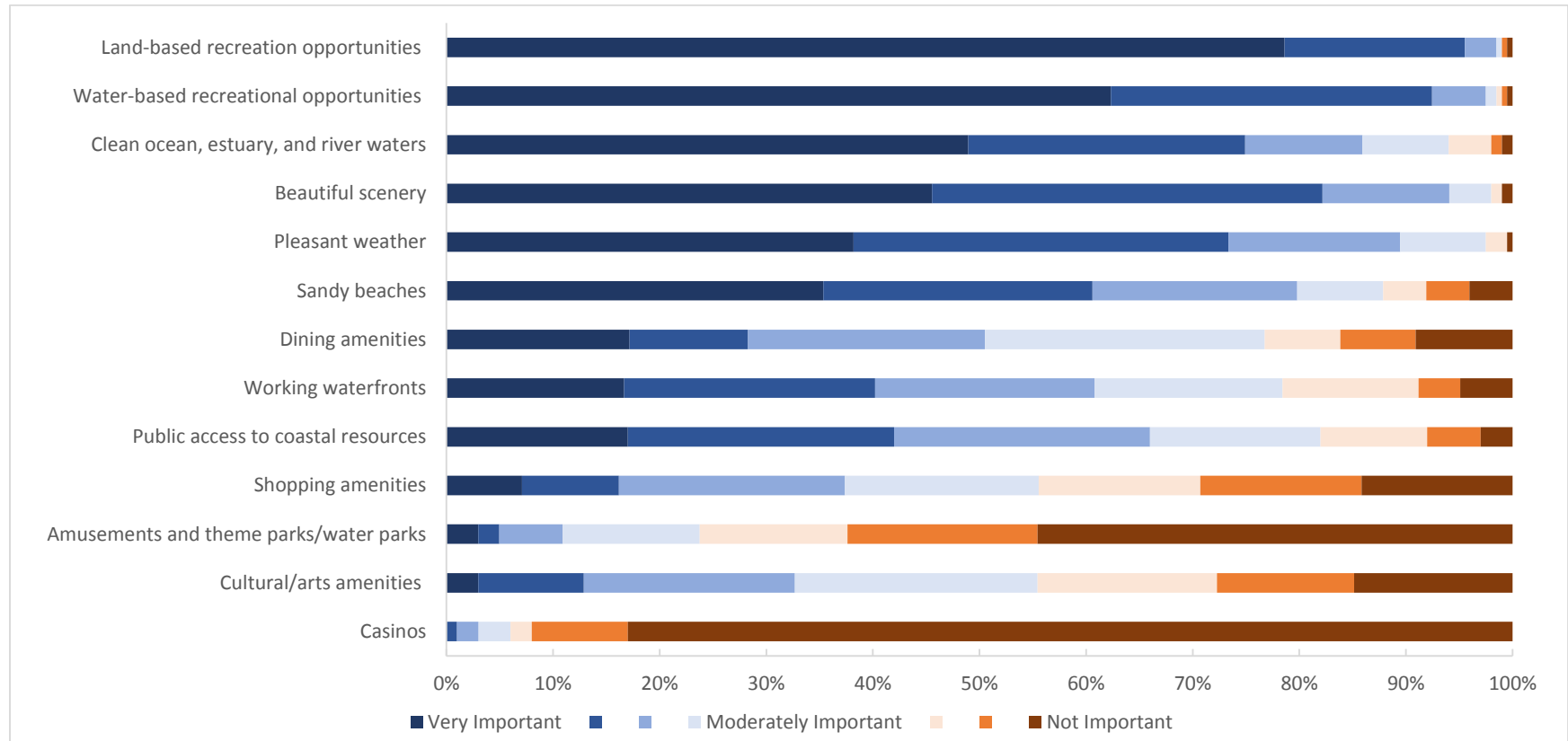
Clockwise from top: Hampton Beach, NH; Old Orchard Beach, ME; Foxboro Beach, ME; Seabrook Beach, NH



Word cloud of respondents’ answers to the question ‘What activities do you like to do on or near coastal waters?’

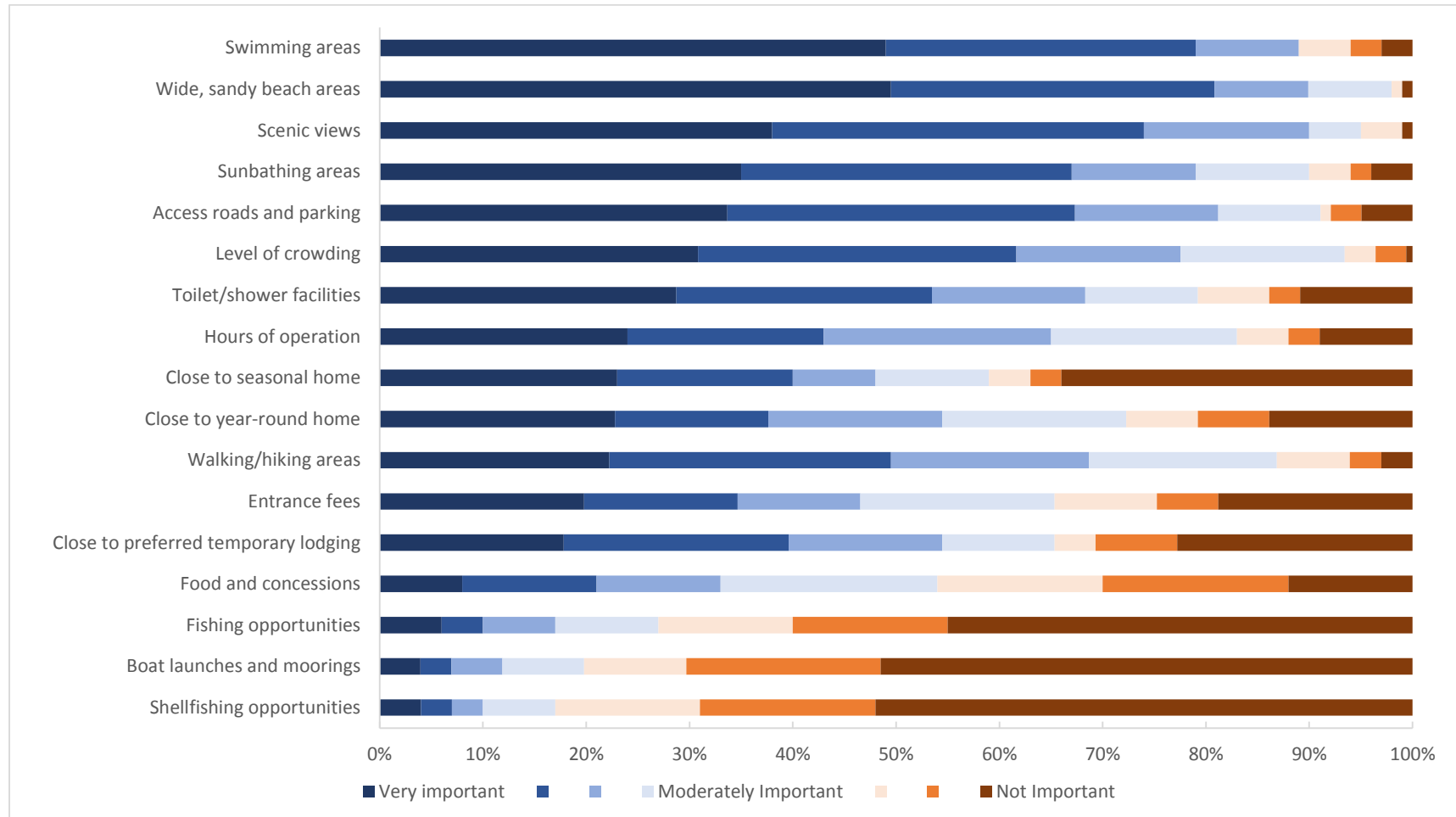
When visiting coastal areas, respondents consider land-based recreation opportunities, water-based recreation opportunities, and clean ocean, estuary, and river waters to be the most important characteristics among those listed (Figure 1).

Fig 1. Respondents answer the question, ‘How important are the following characteristics to you when visiting ocean beaches?’



When visiting ocean beaches, our beachgoer sample rate wide, sandy beaches, swimming areas, and scenic views as very important characteristics among those listed (Figure 2).

Fig 2. Respondents answer the question, ‘How important are the following characteristics to you when you visit ocean beaches?’



Our respondents place high importance on various types of outdoor activities, clean waters, and certain ocean beach characteristics like swimming areas and wide, sandy beaches. The characteristics that respondents value in coastal areas and ocean beaches may help tourism bureaus better understand what to emphasize in their marketing campaigns, and may help regional decision-makers and resource managers to advocate for the protection of coastal water resources. Improved knowledge of the importance of clean water and beaches may help individuals involved in coastal renovation, conservation, and/or development projects.

"I think people either love the beach or they do not. I think it starts as a child when your parents bring you in the summer and you just feel the wonder of it all. I have wonderful memories. BUT as an adult I now come to feel good. It is as close to heaven on earth as one can be. I love the ocean. New Hampshire beaches are unspoiled with spectacular views all along the coast. You can stop, usually, and take a stroll or continue on and find a place to set up and walk or swim and just take it all in. There is nothing quite like floating in the chilly or slightly warm waters and feeling completely refreshed and new. You become a child again."



Photo taken on Foxboro Beach, ME

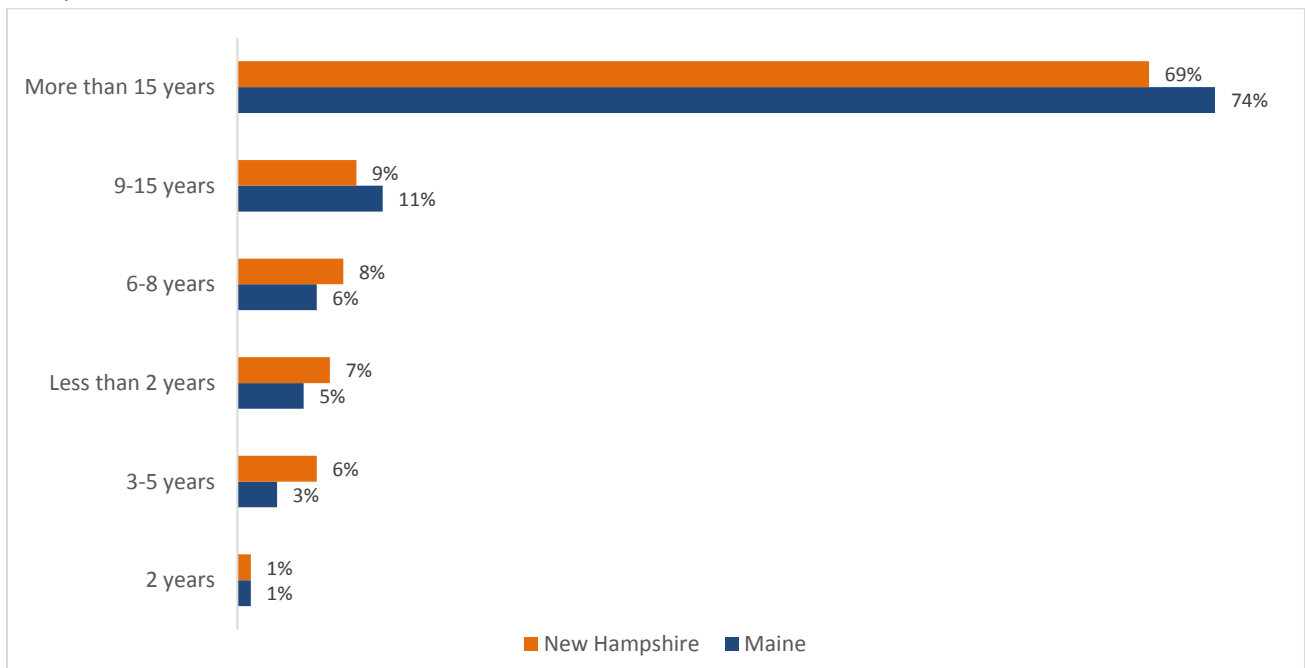
"Ever since my children were little we have always vacationed near the ocean. The ocean experience has always brought with it a sense of well-being and contentment. Now that my children are adults with children of their own we continue to vacation together for a week every year. The experience of being together in such a beautiful and scenic location touches all of us. / Wonderful memories."

BEACHGOERS' CLOSE CONNECTIONS TO ME & NH COASTAL BEACHES

Our results reveal long-lasting, generational connections to coastal beaches and beach regions in Southern Maine and New Hampshire

The majority of our beachgoer sample have been visiting ocean beaches in Maine and New Hampshire for over 15 years.

Fig 3. Responses to the question, 'for how many years have you been visiting an ocean beach in New Hampshire/Maine?'



325 respondents (75%) provided open-ended responses when asked the qualities that will continue to bring them to beaches in Maine and New Hampshire, and 361 (83%) provided open-ended responses when asked, generally, to explain why they choose to recreate, vacation and relax on ocean beaches. Beachgoers frequently cited 'family tradition' as a reason for visiting beaches in Maine or New Hampshire, or the reason that they will continue to visit Maine and New Hampshire beaches.



Photo taken on Hampton Beach, NH

The representative quotes included in Figure 4 illustrate some of the deep, long-established relationships that users have with beaches and coastal areas in Maine and New Hampshire.

Fig 4. Select quotes from survey respondents about their experience visiting Maine and New Hampshire. (Spelling is presented in context, but emphasis is added)

*"If an ocean beach is inviting, then a Maine beach is downright magical. It offers a combination of varying weather condition, rugged beauty, and solace that few places can. **Maine ocean beaches are generational and timeless in the minds of many repeat** visitors. It allows New Englanders a chance to smell the salty air and crisp water on their feet without having to drive a long way."*

*"My family has been visiting the beaches of Seabrook and Hampton since the early 1900's....**It's a tradition** and it's relaxing."*

*"We will always **enjoy days at the beach with multi-generations** of my family. Plan to always do this."*

*"The ocean has been my "go to" recreation spot. Ever since I was a baby **it was always the place that vacation memories were made. This has been passed down through many generations in my family.**"*

*"**Pine Point has been a family tradition for over forty years.** Even in years when my children were born (all summer babies) or we visited the Outer Banks for vacation we managed to visit Pine Point even for just an overnight trip."*

*"I have been coming to Ocean Park, Maine since 1935...In 1964 I had a cottage built. **My family has spent its summers here all these years....It is more than a place. Preserving its beauty and way of life is important to our whole family. To us it is home, even more so than where we live in the winter months...**"*

*"My family has always enjoyed Wells for the past 39 years. **My adult children and families return to Wells for their vacations.**"*

The comments and memories that our respondents shared represent both challenges and opportunities to the tourism industry, local business, and resource manager's in coastal communities. They suggest a solid base of beachgoers who will continue to visit (and bring their families) to the Maine and New Hampshire coast. Maintaining this user base and recruiting new visitors to the states' coastal areas may require encouraging beach regions to recognize this user nostalgia and consider preserving features, so that multiple generations will be able to have consistent experiences over time.

VISITATION PATTERNS

We asked respondents about their visits, generally, to ocean beaches and, specifically, to beaches in Maine and New Hampshire.

45% of our respondents visit coastal areas a few times a year, but many of our respondents are more frequent visitors, reporting that they visit coastal areas once a month or more (50%).

Fig 5. Respondents answer the question, ‘In a typical year, how often do you visit an ocean beach to vacation, recreate or relax?’

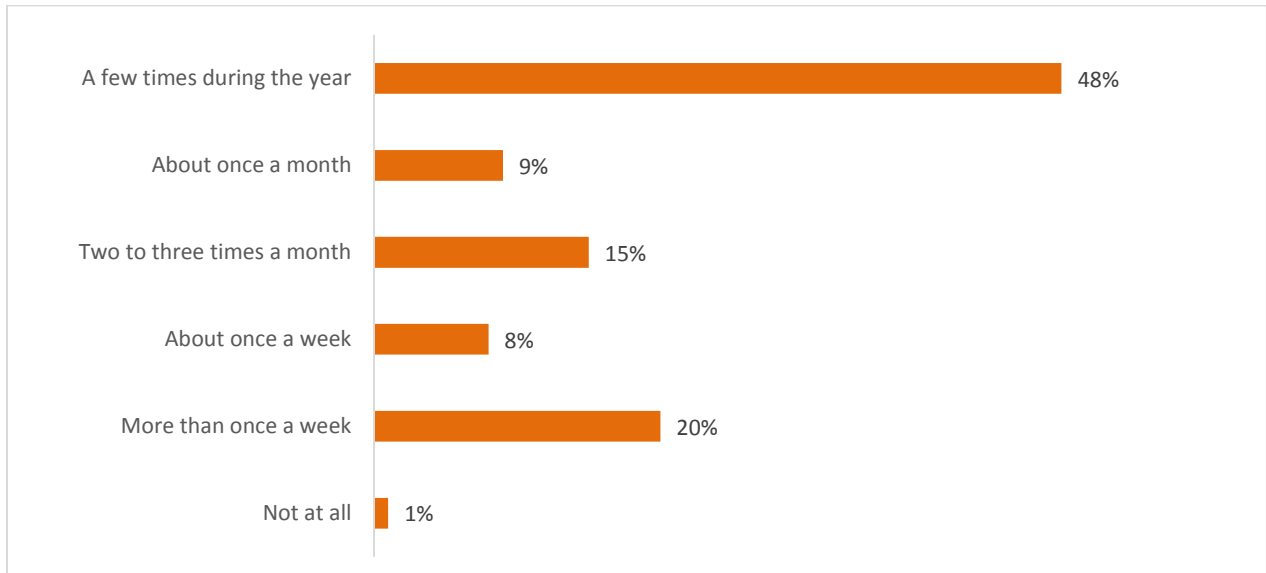
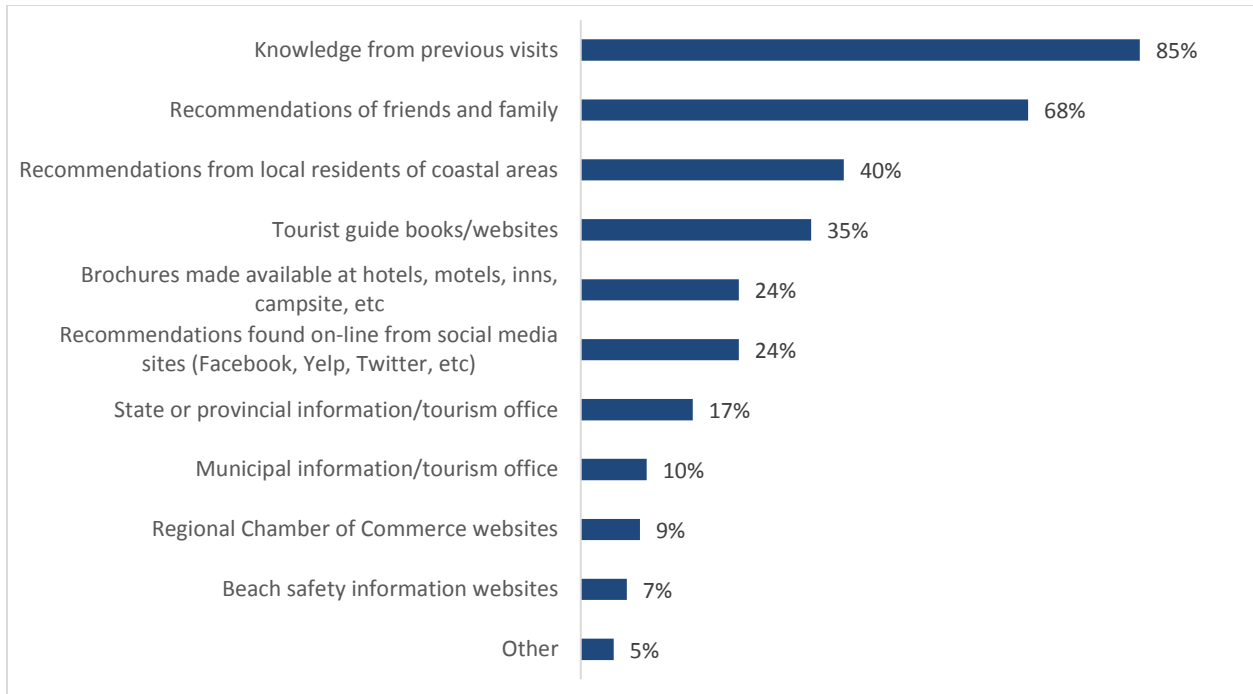


Photo taken on Wells Beach, ME

“I typically went on two-week vacations to Hampton Beach as a kid, but my wife grew up with camping vacations in Maine, and we have had a seasonal site at a Wells campground for more than 20 years. We live in Massachusetts, and it typically takes us less than 2 hours to get to Maine, so it's an easy ride to make every weekend.”

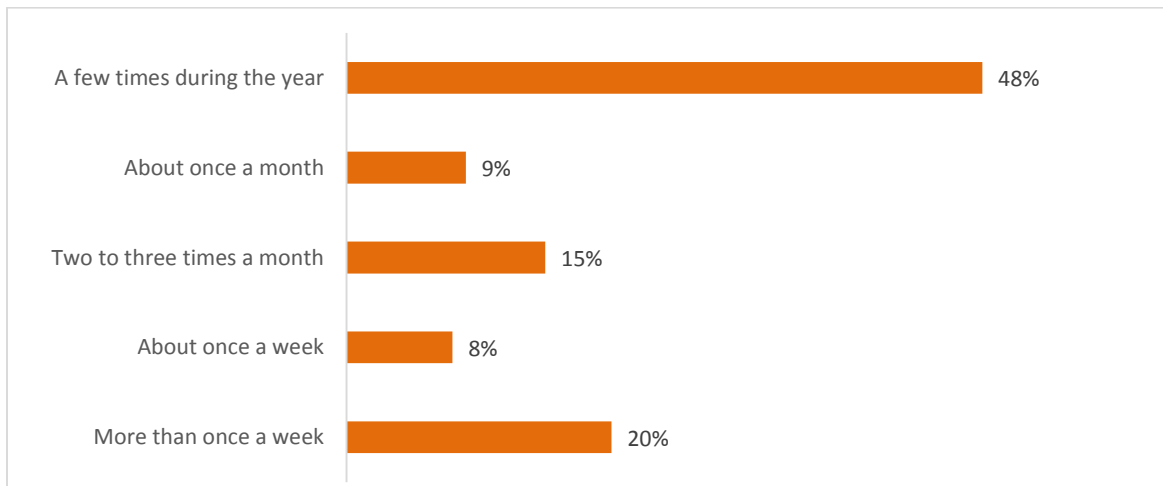
While respondents use many resources to plan their trips, most respondents reported that they use knowledge from previous visits and recommendations from friends, family, and local residents to help plan visits to coastal areas.

Fig 6. Respondents answer the question ‘What resources do you rely on when planning visits to coastal areas?’ Respondents were able to choose multiple resources



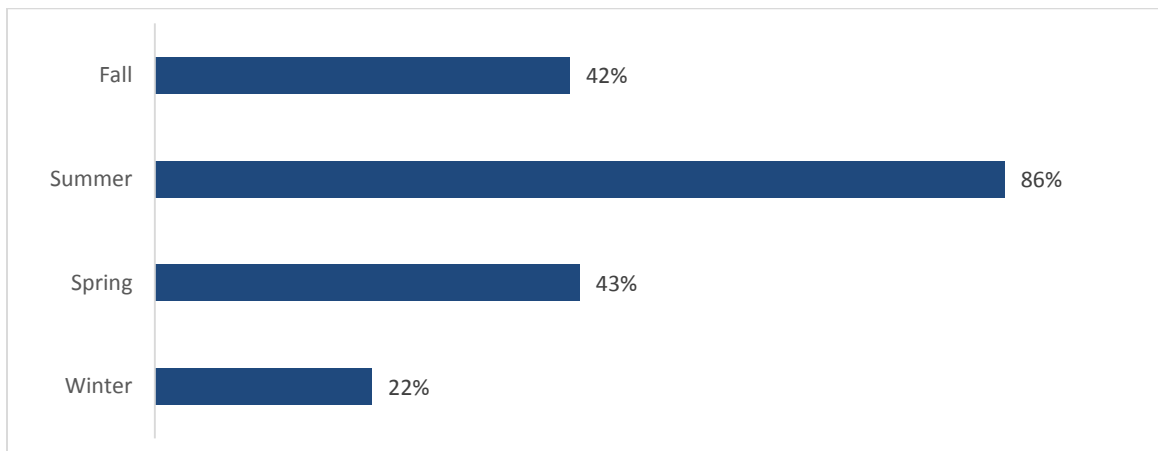
When asked how often they visit ocean beaches, our respondents’ answers aligned closely to responses to how often they visit coastal areas. Over half (52%) report that they visit ocean beaches once a month or more.

Fig 7. Respondents answer the question, ‘In a typical year, how often do you visit an ocean beach to vacation, recreate or relax?’



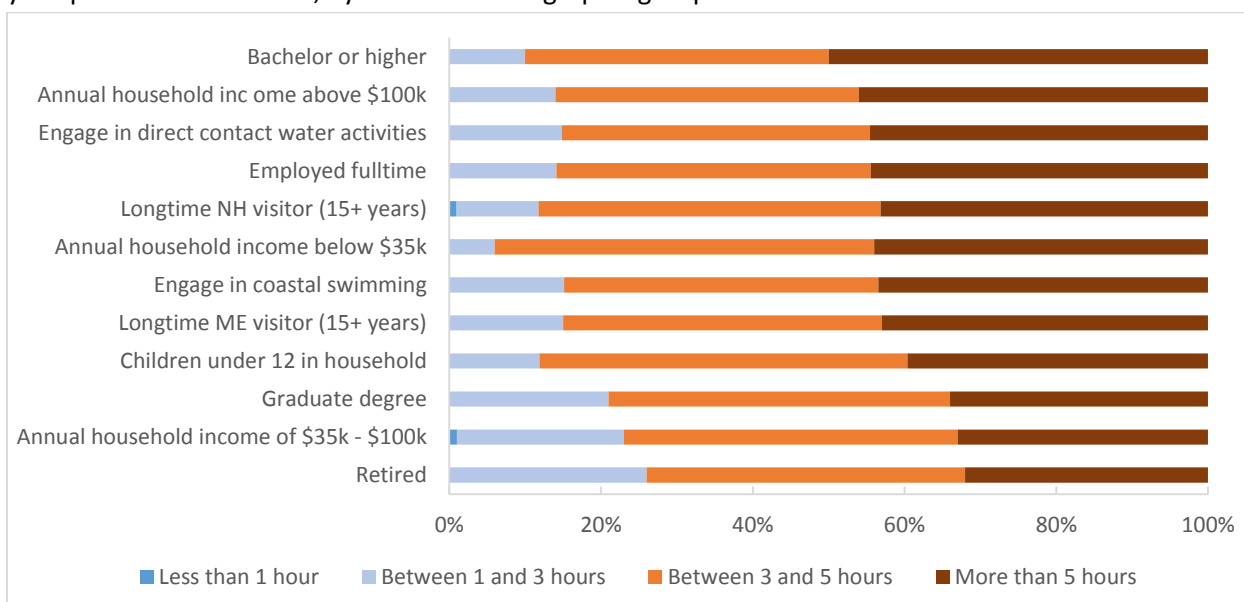
The majority (86%) of our Southern Maine and New Hampshire Seacoast beachgoer sample choose to visit ocean beaches in the summer, and more than half report that they visit an ocean beach in at least one other season.

Fig 8. Respondents share the seasons in which they visit ocean beaches, in a typical year. *Respondents were able to choose more than one season.*



On visits to ocean beaches, the majority (83%) of our users report that they spend more than 3 hours on the beach, with 40% of users reporting that they spend more than 5 hours at the beach. Across many demographic groups, time spent on the beach is comparable. Users rarely report spending less than one hour on the beach on a typical summer visit, and retired users are the least likely to spend 5 hours or more on the beach.

Fig 9. Respondents answer to the question ‘On a typical summer ocean beach visit, how much time do you spend on the beach?’, by different demographic groups



"I'm 75 and I've been coming down to the beaches since 1953 with my parents. It's in my way of life. I need to see and feel the ocean more than once a year either here on the coast or on the west coast, on the Pacific, on the Islands all over the world including Polynesia."

While all of our surveyed beachgoers have visited a beach in either Maine (97%) or New Hampshire (67%), we also asked these beachgoers whether they had visited ocean beaches in other states in the past 10 years. Most commonly, respondents reported visiting beaches in Massachusetts (61%), Florida (56%), and Rhode Island (35%).

Fig 10. Responses to the question ‘During the last 10 years, in which of these U.S. States or Canadian provinces have you visited ocean beaches?’

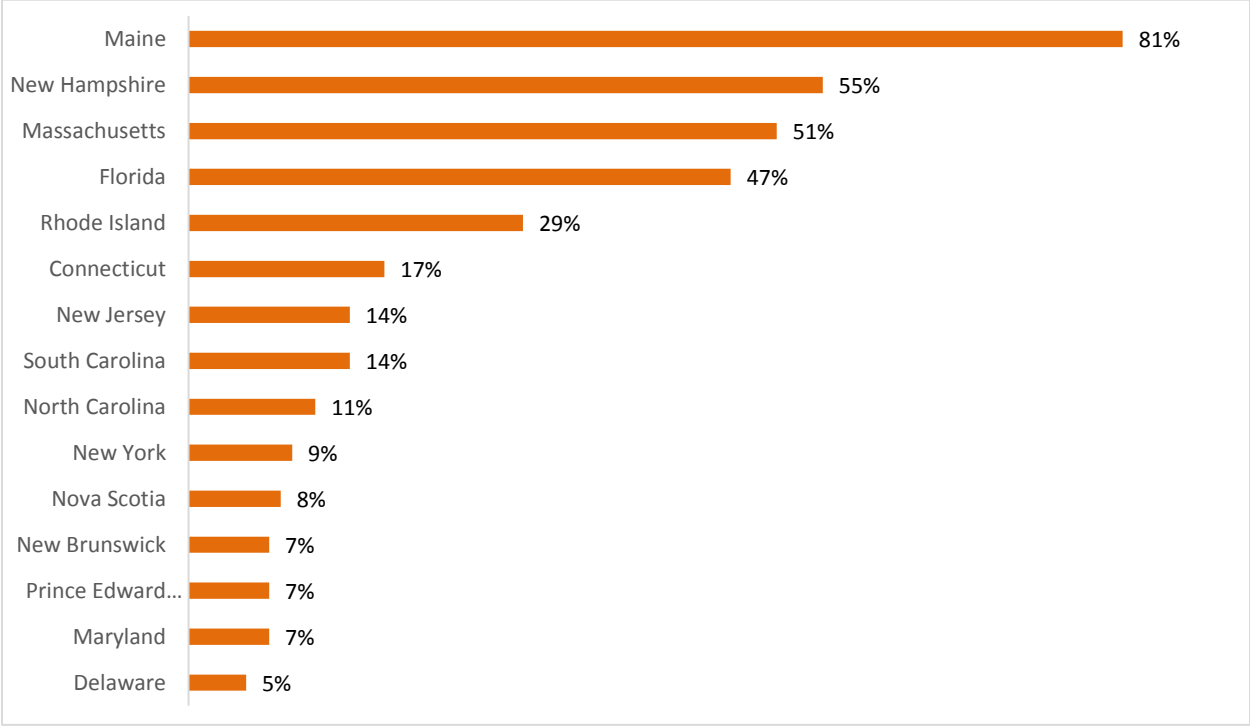


Photo taken on Short Sands Beach, ME

We asked our respondents to share more details about their trips to ocean beaches in Maine and New Hampshire in more detail. For the purposes of this survey, we divided coastal Maine and New Hampshire into 5 beach regions. In Maine, this includes ‘Downeast,’ ‘Midcoast,’ ‘Greater Portland,’ and ‘Southern Maine.’ We treated the New Hampshire Seacoast as a single region⁴.



More than 62% of our sampled Southern Maine and New Hampshire Seacoast users reported that they took at least one long overnight⁵ beach trip to a Maine or New Hampshire beach region. Of these users, 75% of these users visited one beach region on a long overnight trip, while others visited 2 or more beach regions for a long overnight trip in 2014. Half of our surveyed users reported taking a short overnight or day trip to a beach in New Hampshire or Maine. Of these users, only about 20% reported visiting more than one beach region for short overnight or day trips⁶.

⁴ We used [Maine Coastal Public Access guides](#), published by the Maine Coastal Program, to help inform our division of beach regions in Maine.

⁵ We define long overnight trip in this survey as a trip where you: “spent more than 3 nights away from your residence; primary purpose of the trip is recreation or pleasure at the beach”

⁶ This likely reflects the sampling design, all of our users were intercepted on a coastal beach in either Southern Maine or New Hampshire.

The most common type of visit in our focal region across our sample is long overnight, with 60% of users reporting this type of trip. 32% of users reported taking a day trip to an ocean beach in Maine and or New Hampshire, and 22% reported taking a short overnight trip. Across the three user groups, there don't seem to be many significant differences in demographics. Short overnight users have higher education proportions of users with a Bachelors or graduate degree, and short overnight and long overnight users are more typically higher income households.

Table 2. Demographic characteristics of varying user types.

	Trip Groups*			
	Full Sample	Day Trip Users	Short Overnight Trip ^a Users	Long Overnight Trip ^b Users
Annual household income above \$100k	53.5%	55.2%	61.6%	61.9%
Annual household income of \$35k - \$100k	42.0%	41.9%	35.6%	34.0%
Annual household income below \$35k	4.7%	2.9%	2.7%	4.1%
College degree (Bachelor or higher)	67.4%	66.7%	82.5%	69.9%
Longtime ME visitor (15+ years)	74.1%	78.8%	75.9%	71.4%
Longtime NH visitor (15+ years)	68.9%	74.1%	70.2%	65.9%
Employed fulltime	61.0%	57.0%	61.3%	58.6%
Retired	16.3%	21.1%	18.8%	20.3%
Engage in coastal swimming	78.5%	84.2%	90.0%	84.8%
Engage in direct contact water activities	67.3%	70.2%	70.0%	71.2%
Children under 12 in household	13.2%	7.9%	11.3%	9.5%
Day trip user	31.4%	--	61.3%	29.5%
Short overnight user	22.0%	43.0%	--	28.6%
Long overnight user	61.9%	54.4%	75.0%	--
Number of users in group	366	117	82	219

**Users may appear in multiple groups, depending on the types of trips they reported taking in our survey*

^a We defined a short overnight trip to our respondents as a trip where: "you spent 1-3 nights away from your residence; primary purpose of the trip is recreation the beach"

^b We defined a long overnight trip to our respondents as a trip where: "you spent more than 3 nights away from your residence; primary purpose of the trip is recreation at the beach"

The following page (Figs 11-12) shows a breakdown of the importance of coastal area characteristics and beach characteristics by users who reported taking different trip types⁷. Again, users who reported taking multiple types of trips may appear in more than one group.

There are not many differences between user groups in terms of what they see as the most important characteristics in a coastal area (Figure 11). Across all groups, the most users consider ‘clean ocean, estuary, and river waters’ as a ‘very important’ characteristic for coastal areas. The secondmost ‘very important’ characteristic across all users groups was sandy beaches. From there, preferences diverge: day users and short overnight users consider beautiful scenery as their thirdmost ‘very important’ characteristic, while long overnight users consider public access to coastal resources as their thirdmost ‘very important’ characteristic.

Swimming areas and wide, sandy beaches are most commonly considered very important beach characteristics across all users groups (Figure 12). A higher proportion of short overnight and long overnight users find it important for an ocean beach to be close to their seasonal home when compared to day users, while a higher proportion of day users find it very important for an ocean beach to be close to their year-round home. A higher proportion of long overnight users find sunbathing areas to be a very important characteristic for an ocean beach than short overnight or day users.



Photo taken on Seals Harbor Town Beach, ME

⁷ The categories fishing opportunities, boat launches/moorings, food and concessions, and shellfishing opportunities were not included in these graphs, and fell in the bottom 4 in importance for all user groups

Fig 11. Importance of coastal area characteristics by user group

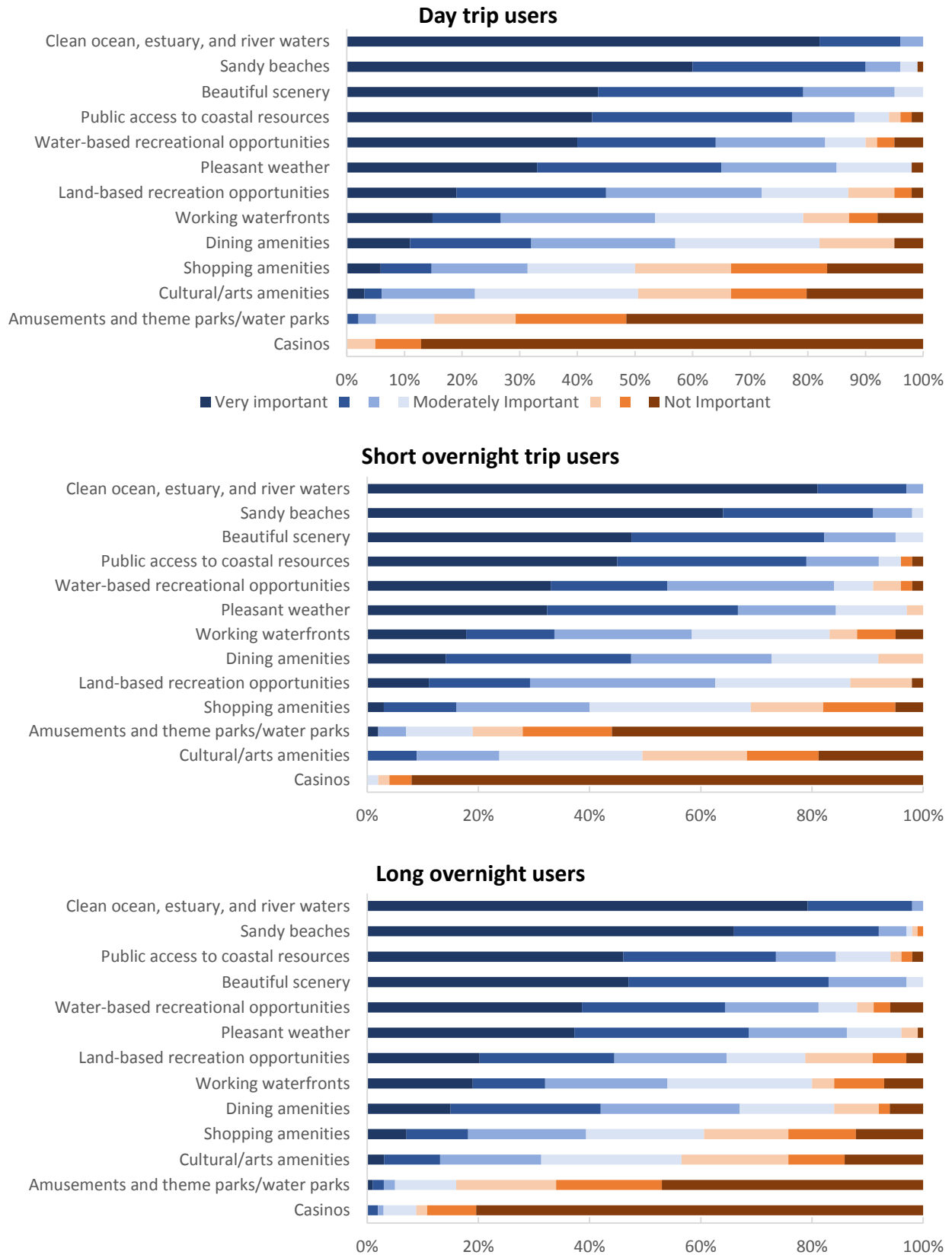
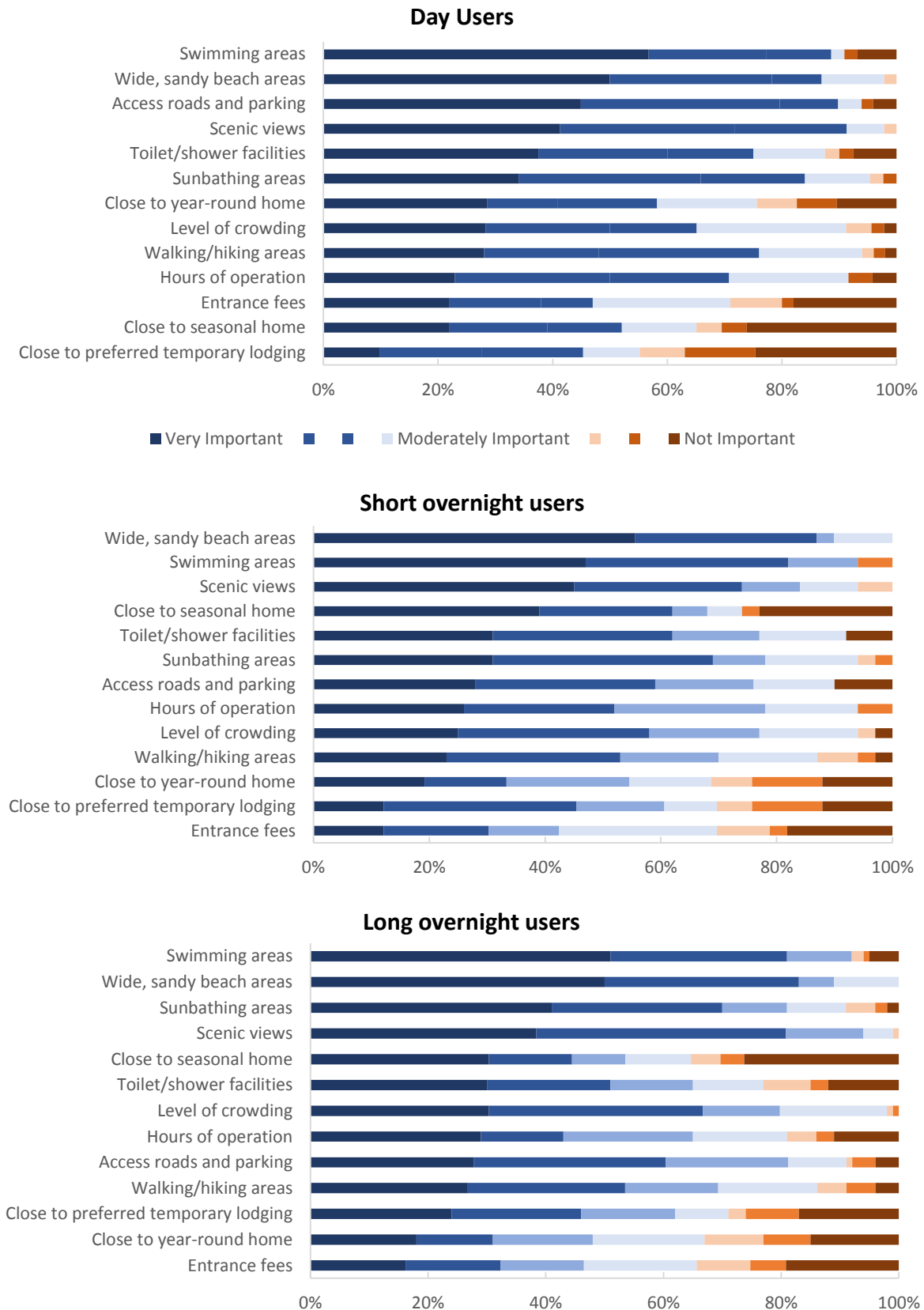


Fig 12. Importance of ocean beach characteristics by type of trip



Generally, our sample report visiting ocean beaches relatively frequently, with 20% visiting more than once a week. A majority of our sample (which was intercepted on a beach in New Hampshire or southern Maine), have visited a beach in Maine in the last 10 years, and our respondents also report visiting ocean beaches in many other East coast states and provinces. The fact that our respondents report using past experience, and recommendations from friends, family, and local residents to plan their coastal visits may offer a challenge to those who try to advertise to beachgoer populations. Coastal managers may be able to use this information to help structure public education campaigns to target specific areas or networks of users. In our sample, different trip length user groups do not vary much in terms of demographic characteristics or rating of important characteristics may help to simplify different types of information and marketing campaigns.



Photo taken at Popham Beach State Park, ME

WATER QUALITY & INFORMATION ACCESS

Perceptions of the quality of Maine and New Hampshire coastal waters, overall, are high for both newer beachgoers and established users. Nearly 70% of users rate water quality in Maine and New Hampshire as ‘Very good’ or ‘Excellent.’ Over half (54%) of our surveyed beachgoers agreed with the statement “Maine beaches are cleaner and safer to swim at than other ocean beaches,” but only about a third (32%) agreed with the statement “New Hampshire beaches are cleaner and safer to swim at than other ocean beaches.” Those who did consider New Hampshire beaches cleaner and safer were also more likely to consider Maine beaches as cleaner and safer.

Fig 13. Responses to the question ‘In general, how would you rate the water quality at Maine and New Hampshire beaches?’

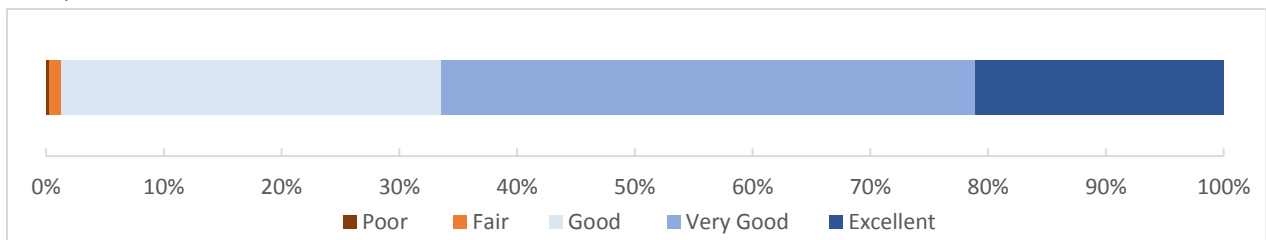


Fig 14. Responses to the statement ‘Please express your opinion by choosing the answer that matches the extent to which you agree or disagree with each statement.’

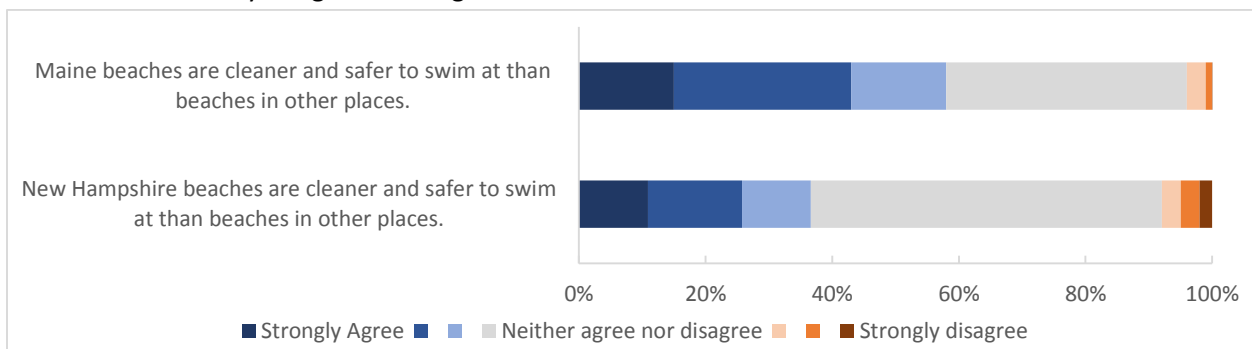
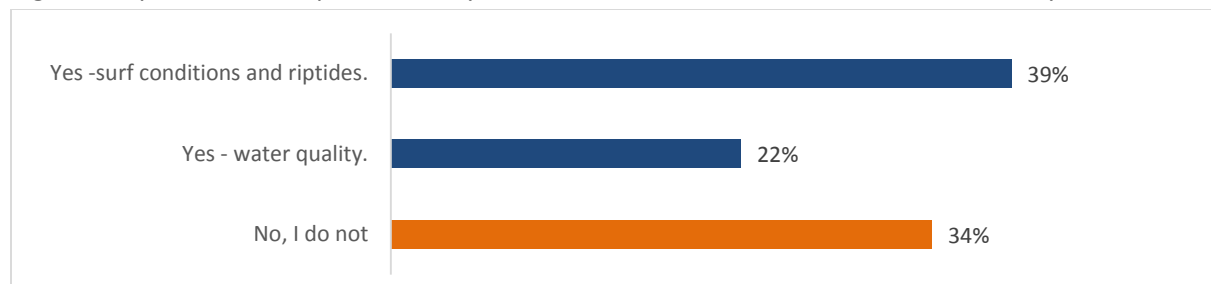


Photo taken on Higgins Beach, ME

Perhaps because they rate water quality so highly in Maine and New Hampshire, our respondents were not likely to seek out information about water quality safety. Only about a quarter (26%) of the surveyed beachgoers reported that they seek out information about water quality, while a bit less than half of users (46%) seek out information on surf conditions and riptides.

Fig 15. Responses to the question ‘Do you ever seek out information about beach safety?’



Though we might expect that people with children or the elderly, both higher risk groups for water-borne illnesses, would be more likely to seek out water quality information, our survey results show no significant difference between the behavior of these groups and that of lower risk populations. Those who reported that they engage in coastal swimming for recreation were more likely to seek out water quality information, and, again, the proportion who actually seek out information is relatively low (28%).

Of those who do seek out information about beach safety, most rely on on-site methods to access this information; 55% report they get their beach safety information from signs or flags on the beach and 33% reported that they consider lifeguards on the beach a source of this information. Other popular methods for obtaining beach safety information include: news/media (34%), surf conditions websites (23%), and family/friends (21%).

Fig 16. Responses to the question ‘Where do you get information about beach safety?’ *Only respondents who answered ‘Yes’ to ‘Do you seek out information on beach safety?’ were shown this question.*

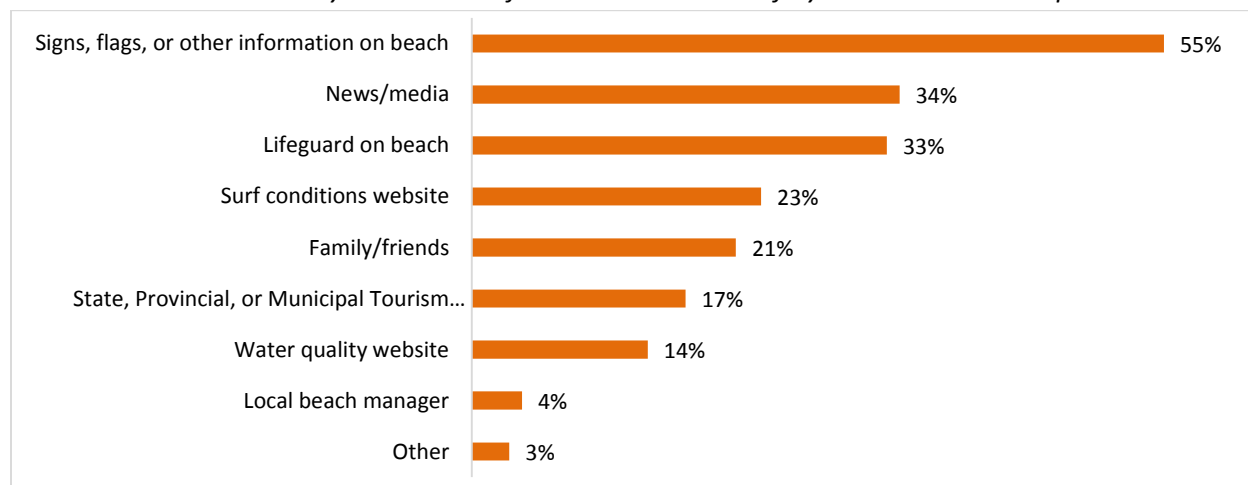




Fig 17. These are two examples of advisory signs that are posted on a beach if testing detects high bacteria levels in the water, indicating that contact with water poses a risk to human health.

On left: *Maine Healthy Beaches’ example advisory sign*
On right: *New Hampshire Department of Environmental Services’ example advisory sign*

About 44% of our beachgoer sample have seen an advisory sign on an ocean beach, though we did not ask specifically whether they saw a sign on a beach in Maine or New Hampshire. Nonetheless, this suggests that these users are at least aware that water quality is monitored and it is possible for ocean water to be impaired.

Fig 18. Respondents answer the question ‘Have you ever visited an ocean beach and seen a sign advising you to limit your contact with ocean water?’

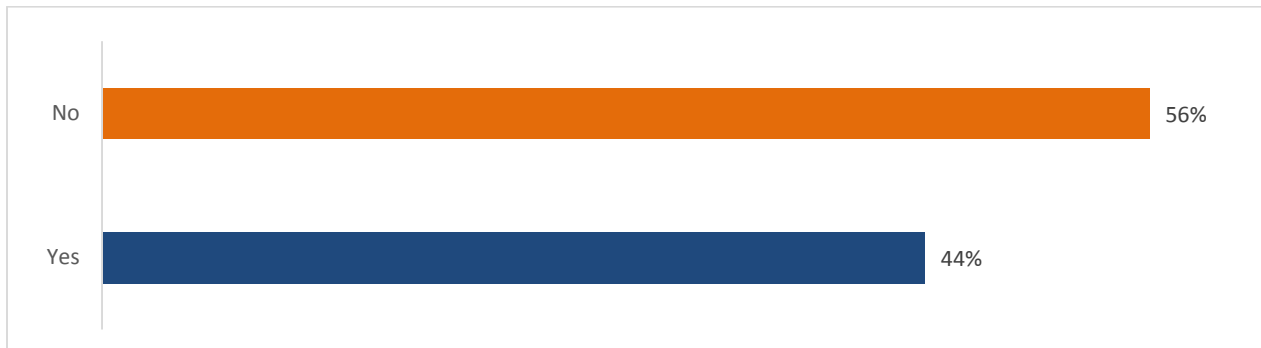


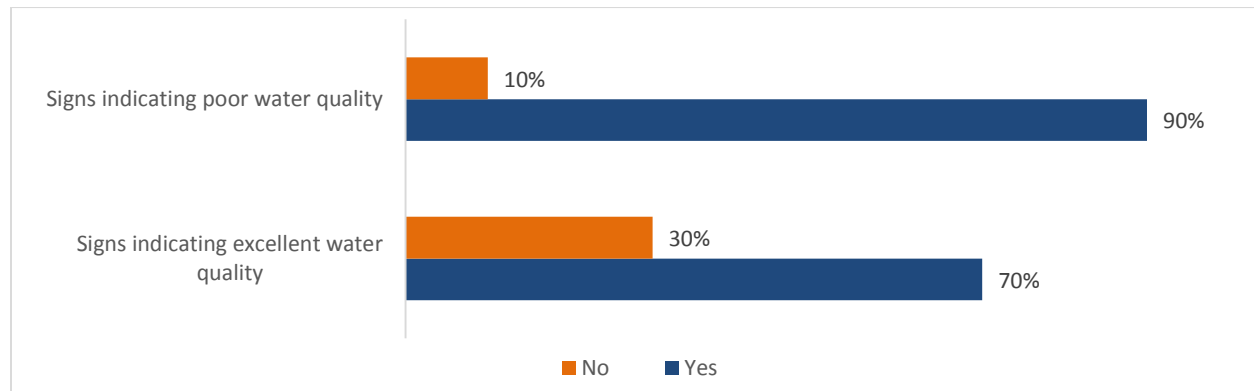
Photo taken on Goochs Beach, ME



Fig 19. Two sample Maine Healthy Beaches informational signs, posted at beaches to notify the public of the factors impacting ocean water quality

An overwhelming majority (90%) of our sampled users reported that if they *were* to see a sign on an ocean beach that advised them to stay out of the water, it would impact their behavior or opinions at the beach. Respondents with household incomes above \$100,000 and those who reported engaging in water contact behaviors were more likely to report that an advisory would impact their behavior or opinions on a beach than other beachgoer groups. We also asked users whether a positive sign would impact their behavior or opinions of the beach, a lower proportion (70%) reported that an ‘excellent water quality’ sign might change their behavior or opinions on a beach.

Fig 20. Responses to two questions asking if respondents would change their behavior or opinions of a beach if they saw signs indicating excellent or poor ocean water quality.



When asked how an advisory posting would impact behavior or opinions, most users commented that they would not enter the water if there were a posted advisory, and some indicated that their opinion of the beach with the advisory would be altered to the point where they would not return.

Users indicated that they appreciate that the information was available, but there were patterns in the comments that suggested there might be two types of user groups: (1) those who feel that the occasional advisory can happen at any beach, and is acceptable if it happens infrequently; representative quotes from this group are shown on the left in Figure 20, and (2) those who feel that any amount of contamination, especially during their vacation, is too much; representative quotes from this group are shown on the right in Figure 21.

Fig 21. Select comments to the question: How would it [seeing a sign on a beach advising you to limit contact with ocean water] affect your behavior or opinions of the beach? *Spelling shown in context*

Group 1: Users who feel that advisories can happen at any beach, and are acceptable if they happen infrequently	Group 2: Users who feel that any amount of contamination, especially during their vacation, is too much contamination
<p><i>"If this were a beach that I went to often and it was a rare occurrence then my opinion wouldn't change...."</i></p> <p><i>"Depends if there was, say, a one time event - sewer main break, for ex. Or if it were in regard to a frequently occurring thing. Frequently occurring would cause me to go elsewhere"</i></p> <p><i>"...If the pollution was manmade, I would plan to only go to beaches with a good record of water quality. I live in Maryland and the main reason I travel over five hundred miles to Well for vacation is the quality of the water at the Beach and Webhannet River and the great surf conditions."</i></p> <p><i>"I would choose not to swim that day, but it wouldn't sway my opinion of the beach since a change in quality might be brought on by nature."</i></p> <p><i>"... It can happen to any beach. Would stop visiting that beach if this becomes a recurrent issue"</i></p> <p><i>"Actually saw this for the first time this summer at North Hampton State beach...went north to enjoy our day at the beach...now avoid that particular beach after heavy rains...in general our beaches appear clean...weather brings turbidity and always makes us suspect!!"</i></p>	<p><i>"If I saw signs that showed low water quality, I would be displeased. It happened once, to my knowledge at Wallis Sands and I was appalled that the city/town was not doing a better job about restricting polluted water run from the mainland onto the beach area"</i></p> <p><i>"I would think twice before choosing to go to that beach again."</i></p> <p><i>"I would be less inclined to drive 100 minutes again if I had just done it only to find there is a water closure."</i></p> <p><i>"I wouldn't go in the water and it would be a less pleasant day. I wouldn't go to that beach again"</i></p> <p><i>"I wouldn't want to go swimming or let the kids play in the water. I would not want to return. I would feel that I wasted our vacation time traveling to such a destination."</i></p> <p><i>"Fearful and disappointed. I would think twice about visiting again until the water safety was secured."</i></p> <p><i>"It would gross me out, I wouldn't enjoy my stay"</i></p> <p><i>"I would probably decide to not go there for a few years and after would make sure to check out the quality of the water before"</i></p>

Results suggest that presenting water quality information and surf conditions jointly may increase awareness of water quality issues amongst beachgoer populations. Though the goal of an advisory posted on an ocean beach is to communicate caution to beachgoers, it may be misinterpreted to some visitors as a reflection of beach management or long-term beach cleanliness. Our responses suggest a need for public education so that users better understand the causes of water quality issues on ocean beaches. Our respondents showed that positive signs – signs indicating that the ocean water quality is excellent today, and encouraging users to engage in water contact activities – might change their behaviors or opinions of a beach. If opinions of beaches with an advisory are a concern, emphasizing strong records of good water quality through signs or information on the beach may help to minimize the impact that sporadic advisories have on beachgoers’ opinions of a beach.



Photo taken on Sand Beach, Acadia National Park