FROM SEAFOOD NUTRITION TO CONSUMER ACTION: TURNING CHALLENGES INTO OPPORTUNITIES TO INCREASE SEAFOOD CONSUMPTION

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OBJECTIVES OF THIS TALK

• To define the role of seafood nutrition as a consideration for consumers

• To describe challenges that affect seafood consumption including cost, preparation and sustainability

• To identify how to transform challenges to opportunities to increase seafood consumption among consumers
A BYGONE ERA?
TURNING CHALLENGES INTO OPPORTUNITIES
STYLES

METHODOLOGY
AMERICAN’S VIEW ON THEIR DIET

How would you rate your current diet?

- Very Healthy: 9%
- Somewhat Healthy: 34%
- A Little Healthy: 20%
- A Little Unhealthy: 22%
- Somewhat Unhealthy: 12%
- Very Unhealthy: 3%

Those who rate their diet somewhat to very healthy are most likely:
- College Educated
- Over 60
- Have an above average income
CONSUMPTION OF PROTEINS

Consumption Once a Week or More

- Pork: 55%
- Beef: 72%
- Eggs: 76%
- Poultry: 81%
- Shellfish: 17%
- Fish: 42%
CONSUMPTION OF FISH

- A few times a day: 1%
- Once a day: 2%
- A few times a week: 22%
- A few times a month: 32%
- Less often or never: 25%

CONSUMPTION OF SHELLFISH

- A few times a day: 1%
- Once a day: 1%
- A few times a week: 34%
- A few times a month: 6%
- Less often or never: 49%
Seafood eaters are defined as people who report eating fish or shellfish at least once a week (43% of the population).

The typical seafood eater is:

- Older, aged 60+
- Highly educated, with at least a college degree
- Non-white (African-American)
- Higher income, $75K+ annually
- Living in the South
Seafood eaters enjoy cooking, are more drawn to new, all-natural, organic, and locally-grown foods than those who don’t eat seafood.

The fact that seafood eaters enjoy cooking is not a surprise, but is important to mention as difficulty of preparation is a barrier to seafood consumption. There is also potentially a “local” element at play in the choice to eat seafood.

<table>
<thead>
<tr>
<th></th>
<th>Seafood Eaters</th>
<th>Non-seafood Eaters</th>
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</thead>
<tbody>
<tr>
<td>I enjoy trying new foods.</td>
<td>62%</td>
<td>53%</td>
</tr>
<tr>
<td>I enjoy cooking.</td>
<td>59%</td>
<td>51%</td>
</tr>
<tr>
<td>It is important to me to buy locally-grown foods.</td>
<td>44%</td>
<td>36%</td>
</tr>
<tr>
<td>When available, I choose all-natural organic foods.</td>
<td>29%</td>
<td>21%</td>
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</tbody>
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Seafood eaters are more health-driven than non-seafood eaters, and want to set a healthy example for their peers.

- Having healthy eating habits is very important to me: 70% Seafood Eaters, 60% Non-seafood Eaters
- I am actively trying to eat a healthy diet: 68% Seafood Eaters, 59% Non-seafood Eaters
- I am actively trying to get to/stay at a healthy weight: 67% Seafood Eaters, 60% Non-seafood Eaters
- I try to eat healthy to set an example for others: 40% Seafood Eaters, 33% Non-seafood Eaters
Seafood eaters rate their current diet as healthy and consider themselves to be in relatively good health.

<table>
<thead>
<tr>
<th>How would you rate your current diet?</th>
<th>In general, would you say your health is...?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very/somewhat/a little healthy</td>
<td>Excellent/very good</td>
</tr>
<tr>
<td>69%</td>
<td>48%</td>
</tr>
<tr>
<td>58%</td>
<td>42%</td>
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</tbody>
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There exists a communications opportunity among non-seafood eaters to highlight the role of seafood in a healthy diet.
Seafood eaters also consume other healthy foods at higher rates than non-seafood eaters, such as almonds, yogurt, eggs, and meat.

High consumption of beef implies that seafood eaters are not, in fact, eating seafood as a red meat substitute, but may simply be consuming a greater variety of foods than non-seafood eaters.
Almost every day, people ask for my advice about what to buy, where to shop, places to visit, or restaurants to try.

“I am usually among the first of my friends to try new food/nutrition products.”

22% of seafood eaters
(14% non-seafood eaters)

21% of seafood eaters
(13% non-seafood eaters)

CHALLENGE:
How do we get seafood eaters to start talking about seafood?
Seafood eaters rely more on nutrition fact labeling and health professionals when they need information or advice on their diet.

When you need information or advice about personal nutrition or diet, how do you find it?

- **Read Nutrition Facts labels**
  - Seafood Eaters: 49%
  - Non-seafood Eaters: 41%

- **Ask a Professional (Doctor or Dietitian)**
  - Seafood Eaters: 46%
  - Non-seafood Eaters: 39%

- **Read Newspaper or Magazine Articles**
  - Seafood Eaters: 23%
  - Non-seafood Eaters: 17%

Seafood eaters again demonstrate a health-driven approach to food and nutrition choices.

58% of seafood eaters state that information on nutrition labels influences their decision to purchase.
Seafood eaters seek out Omega-3 fatty acids in their diets, but are less concerned with protein intake than non-seafood eaters.

*Which do you think are very important for YOU to have in your diet?*

- **Seafood Eaters**
  - Omega-3 fatty acids: 61%
  - Protein: 73%

- **Non-seafood Eaters**
  - Omega-3 fatty acids: 54%
  - Protein: 76%

Communications outreach to seafood eaters should focus on benefits of Omega-3 fatty acids, while protein content is an important point to make to non-seafood eaters.
Seafood eaters actively avoid processed foods, food additives, and other chemicals.

*When choosing food you eat and drink, which of the following do you actively avoid?*

- **Pesticides**
  - Seafood Eaters: 61%
  - Non-seafood Eaters: 55%

- **Processed Foods**
  - Seafood Eaters: 50%
  - Non-seafood Eaters: 39%

- **Food Additives**
  - Seafood Eaters: 44%
  - Non-seafood Eaters: 33%
I feel it is important or very important that companies:

- Buy Environmentally Friendly Products
  - General: 41%
  - Fish: 45%
  - Shellfish: 43%

- Provide Environmentally Friendly Products
  - General: 48%
  - Fish: 52%
  - Shellfish: 52%

- Reduce their Impact on the Environment
  - General: 47%
  - Fish: 51%
  - Shellfish: 50%
WHAT DOES THIS TELL US?
SO WHAT ARE CONSUMERS LOOKING FOR?

• Health and nutrition
• Sustainable environment, transparency, quality, safety
• Cooking tips, new ideas, peer influences
• Lifestyle view on life
• Variety
FACING THE BARRIERS

• Familiarity with seafood
  o Older people are seafood consumers

• Cost

• Choosing seafood

• Preparing seafood

• Environmental concerns

• Health risks
  o Mercury
  o Dioxins
  o Cholesterol
TRANSFORMING CHALLENGES INTO OPPORTUNITIES
We struggle with eating healthily, obesity, and access to good nutrition for everyone. But we have a great opportunity to get on the right side of this battle by beginning to think differently about the way that we eat and the way that we approach food.

— MARCUS SAMUELSSON
Percent of adults (19+ yo) who miss the 250 mg goal for EPA+DHA Omega-3

Fulgoni, NHANES 2001-2012
“For the general population, consumption of about 8 ounces per week of a variety of seafood, which provide an average consumption of 250 mg per day of EPA and DHA, is associated with reduced cardiac deaths among individuals with and without preexisting CVD.”
“The recommendation to **consume 8 or more ounces per week** (less for young children) of seafood is for the **total package of nutrients** that seafood provides, including its EPA and DHA content.”

Vitamins B12, D, Omega-3, Protein, Low Saturated Fat
“Seafood varieties commonly consumed in the United States that are higher in EPA and DHA and lower in methyl mercury include salmon, anchovies, herring, shad, sardines, Pacific oysters, trout, and Atlantic and Pacific mackerel (not king mackerel, which is high in methyl mercury).”
“Women who are pregnant or breastfeeding should consume at least 8 and up to 12 ounces\textsuperscript{[18]} of a variety of seafood per week, from choices that are lower in methyl mercury.”
COST
Cost for 12 ounces of farm-raised salmon:

- Protein: 22g
- Magnesium: 37mg
- Phosphorus: 218mg
- Potassium: 534mg
- B-12: 2.59ug
- EPA+DHA: 180mg

Cost:
- $5.99 total
- $0.59 per ounce

Per 3 oz. serv.:
- $1.50

(More than half of the recommended 250mg for Potassium)
CHOOSING AND PREPARING SEAFOOD
To be able to serve and eat a whole fish, especially a trout, is part of civilized dining. This applies particularly to the young, who should take to it as soon as they can handle a knife and fork; this is a fine way for them to begin taking pride in themselves and their abilities.

— JULIA CHILD
ENGAGE CONSUMERS WHERE THEY ARE

- Older consumers need to fall in love again.
- Selecting and preparing seafood is visual.
  - Show them what to do
- Product innovations
- Traditional, Digital and Social media
HEALTH AND ENVIRONMENTAL CONCERNS
MERCURY: FACT OVER FEAR

But What Fish Can I Eat?

Despair not, fish lovers! Plenty of varieties of seafood are safe to eat, and many others can be enjoyed from time to time. For more precise guidance—especially for women who are or may soon become pregnant—consult an online mercury calculator such as the one at gotmercury.org. You might also want to check the fish advisory for your particular state at epa.gov/ost/fish. The figures below indicate mean mercury levels in parts per million.

Low
- Clams 0.009
- Oysters 0.012
- Tilapia 0.015
- Sardines 0.023
- Squid (calamari) 0.025
- Catfish 0.029
- Shad (American) 0.045
- Haddock (Atlantic) 0.055
- Sole 0.056
- Croaker (Atlantic) 0.065
- Butterfish 0.058
- Flounder 0.056
- Pollock 0.031
- Mackerel (N. Atlantic, chub) 0.050
- Hake 0.079
- Whitefish 0.089
- Trout 0.071
- Herring 0.084

Moderate
- Lobster 0.009
- Car 0.10
- Cod (Alaskan) 0.111
- Tuna (canned chunk light) 0.120
- Perch (ocean) 0.137
- Buffalo fish 0.13
- Perch (freshwater) 0.130
- Bass (striped, sea, saltwater) 0.152
- Grouper 0.448
- Tilefish 1.42
- Mackerel (Spanish, Gulf) 0.454

High
- Tuna (canned albacore) 0.350
- Sea bass (Chilean) 0.354
- Tuna (yellowfin) 0.354
- Sablefish 0.361
- Mackerel (king) 0.735
- Marlin 0.485
- Orange roughy 0.571
- Tuna (bigeye, ahi) 0.619
- Shark 0.979

Very high
- Tuna (bluefin) 1.50

• Rooted in misinformation and fear mongering
• Eating a variety of seafood
• Tell your story, Seafood Industry!
Seafood is safe.

Monitoring and responsible industry practices ensure safe seafood.

The Dietary Guidelines Advisory Committee supported the safety of seafood and its controllable impact on the environment.

Tell your story!
SO NOW WHAT?
HERE’S WHAT’S AHEAD

• Think of eating seafood as part of a lifestyle.
• Nutrition/Health is a key equity.
• Find the early-adopters who can become influencers.
• When there is a vacuum, something will fill it and it won’t be your story.
• None of the challenges are insurmountable if there is a data-driven, strategic approach.
A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty.

— WINSTON CHURCHILL
QUESTIONS