



**EDUCATING OTHERS
ABOUT CHOOSING SAFER FISH
FROM THE NORTHEAST CAPE FEAR RIVER**

EPA EJ Collaborative Problem Solving Grant


Health Education Team

May 14, 2018

Cape Fear River Watch



PRE-TRAINING SURVEY

- PLEASE FILL OUT THE PAPER FORMS, AND WRITE A RANDOM NUMBER ON TOP
 - REMEMBER YOUR NUMBER! YOU WILL WRITE THE SAME NUMBER ON YOUR POST-TRAINING SURVEY, SO IT WILL BE ANONYMOUS
 - THIS WILL HELP US EVALUATE HOW THE TRAINING WENT
- 

AGENDA - PART 1

10:00 – 10:30

INTRODUCTIONS, PROJECT OVERVIEW, & GOALS

10:30 – 10:45

HEALTH BENEFITS, RISKS, & BEHAVIOR CHANGE

10:45 – 11:00

CHOOSING SAFER FISH

11:00 – 11:05

CLEANING SAFER FISH

11:05 – 11:10

COOKING SAFER FISH

The 3 “C’s”

11:10 – 11:20

BREAK

11:20 – 12:00

EDUCATING OTHERS: OUR TARGET AUDIENCES

12:00 – 1:00

LUNCH & REVIEW OF EDUCATION MATERIALS

AGENDA - PART 2

1:00 - 2:00

EDUCATING OTHERS: CASE STUDIES AND ROLE-PLAYING

2:00 – 2:30

EDUCATING OTHERS: CREATING YOUR WORKPLAN

2:30 – 2:40

BREAK

2:40 – 3:10

REPORTING BACK

3:10 – 3:45

POST-TRAINING REFLECTION AND SURVEY

3:45 – 4:00

WRAP UP, QUESTIONS & DISCUSSION

4:00

END

GROUND RULES

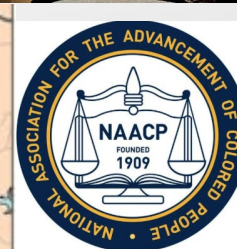
- WE ARE ALL CO-CREATORS OF THIS EFFORT
- THERE ARE NO RIGHT OR WRONG ANSWERS, OR BAD QUESTIONS
- WE WILL OFFER RESPECT TO EACH OTHER AT ALL TIMES
- WE WILL ALLOW EACH OTHER TO SPEAK WITHOUT INTERRUPTION
- WE WILL STICK TO THE SET AGENDA AND TIMELINE

GROUP INTRODUCTIONS



- Please say your name, a little about yourself, and what motivated you to work on this project!
- What do you hope to get out of today? What questions do you have going in?
- Have you ever fished in, or eaten fish from, the Northeast Cape Fear River before?
- Do you have previous experience doing community health education?

BACKGROUND: PROJECT OVERVIEW



EPA PROJECT TIMELINE

Survey
Research &
Analysis
Fall - Winter
2017

**Community
Health
Education
Training
May 2018**

Health
Educators
Lead
Outreach &
Ed. Sessions
June –
Aug/Sept.
2018

Health Educators
& EPA Project
Partners Train
Local Partner
Orgs. to do
Outreach
Summer – Fall
2018

EPA Grant
Period Ends
Spring
2019

Health education campaign

WHAT IS A COMMUNITY HEALTH EDUCATOR?

HEALTH EDUCATION MEANS HELPING INDIVIDUALS, BY THEMSELVES AND IN GROUPS, TO MAKE INFORMED DECISIONS ABOUT THINGS THAT AFFECT INDIVIDUAL, FAMILY, AND COMMUNITY HEALTH.

HEALTH EDUCATORS HELP PEOPLE TAKE MORE RESPONSIBILITY FOR LEARNING ABOUT THE BEHAVIORS THAT KEEP THEM HEALTHY OR THAT HELP THEM GET HEALTHY. HEALTH EDUCATORS HELP PEOPLE TO CHOOSE TO CHANGE THEIR BEHAVIORS TO BE HEALTHIER.*

DEFINITION ADAPTED FROM:

[HTTPS://WWW.CSUCHICO.EDU/HCSV/PROGRAMS/HE_BECOMING_HEALTH_EDUCATOR.SHTML](https://www.csuchico.edu/hcsv/programs/he_becoming_health_educator.shtml)

HEALTH EDUCATION CAMPAIGN AUDIENCES





BEHAVIOR CHANGES/OUTCOMES WE WANT TO SEE FOR HEALTH EDUCATION CAMPAIGN

1. Subsistence fish consumers who catch and/or eat fish from the Northeast Cape Fear River know rules of thumb for choosing safer fish and where to go for more information
- 

BEHAVIOR CHANGES/OUTCOMES WE WANT TO SEE FOR HEALTH EDUCATION CAMPAIGN

1. Subsistence fish consumers who catch and/or eat fish from the Northeast Cape Fear River know rules of thumb for choosing safer fish and where to go for more information
2. Women 15-44 and kids under 15 avoid eating catfish and largemouth bass caught from the Northeast Cape Fear River and/or replace with other safer fish or another source of protein

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2. Women 15-44 and kids under 15 avoid eating catfish and largemouth bass caught from the Northeast Cape Fear River and/or replace with other safer fish or another source of protein
3. Subsistence fish consumers always fillet fish they catch from the Northeast Cape Fear River, and bake and grill it instead of frying when possible

OUTPUTS WE WANT TO SEE FOR HEALTH EDUCATION CAMPAIGN

- 10 Outreach Events
- 200 Community Members Reached
 - This may include talking to individuals at fishing spots, bait shops, WIC clinics, health fairs, cooking contests, and other venues (one on one, or in a presentation) AND/OR
 - Passing out flyers, fact sheets, and other educational materials and posting them at fishing spots, bait shops, etc.



GOAL FOR THIS TRAINING

TO PROVIDE YOU WITH **KNOWLEDGE** AND **SKILLS** TO HELP YOU
SHARE HEALTH INFORMATION WITH SUBSISTENCE FISH
CONSUMERS IN THIS COMMUNITY WHO CATCH AND EAT FISH
FROM THE NORTHEAST CAPE FEAR RIVER

...BY BUILDING ON YOUR **EXISTING** KNOWLEDGE, EXPERIENCE
AND SKILLS!





OBJECTIVES FOR THIS TRAINING

BY THE END, YOU'LL BE ABLE TO:

- 1) DESCRIBE & APPLY THE “3 C’S” FOR EATING SAFER FISH FROM THE CAPE FEAR RIVER
- 



TRAINING OBJECTIVES

BY THE END, YOU'LL BE ABLE TO:

- 1) DESCRIBE & APPLY THE “3 C’S” FOR EATING SAFER FISH FROM THE CAPE FEAR RIVER
 - 2) LIST 3 HEALTH BENEFITS OF FISH CONSUMPTION
- 

TRAINING OBJECTIVES

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- 3) UNDERSTAND HEALTH RISKS FROM CONTAMINANTS IN FISH

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- 4) REMEMBER FISH TO EAT, LIMIT, AND AVOID FROM THE CAPE FEAR RIVER

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- 5) REMEMBER WHERE TO CHECK FISH CONSUMPTION ADVISORIES AND ADDITIONAL INFORMATION

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- 5) REMEMBER WHERE TO CHECK FISH CONSUMPTION ADVISORIES AND ADDITIONAL INFORMATION
- 6) APPLY WHAT YOU HAVE LEARNED BY TEACHING OTHERS

The image features a light gray background with a subtle gradient. In the top-left and bottom-right corners, there are several realistic-looking water droplets of various sizes, rendered with soft shadows and highlights to give them a three-dimensional appearance. The text "QUESTIONS/COMMENTS?" is centered in the middle of the page.

QUESTIONS/COMMENTS?

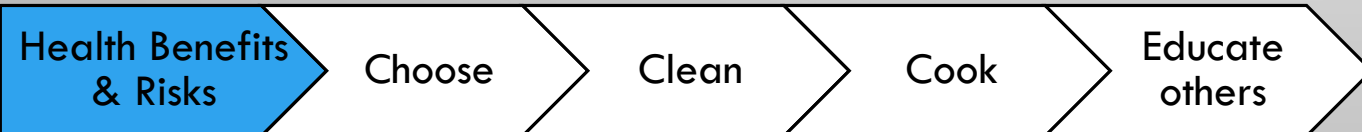
HEALTH BENEFITS OF FISH CONSUMPTION

- CAN YOU NAME A FEW??



HEALTH BENEFITS OF FISH CONSUMPTION

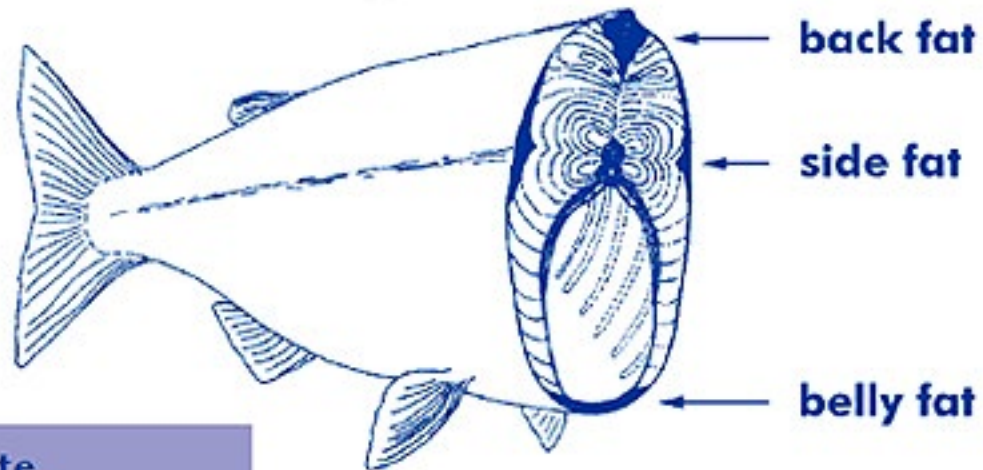
- GREAT SOURCE OF OMEGA 3 FATTY ACIDS: NURTURES THE HEART AND BRAIN
- LEAN PROTEIN – FILLS YOU UP!
- AIDS IN HUMAN DEVELOPMENT
- MAY PROTECT VISION
- SOURCE OF VITAMIN D
- FIGHTS DISEASE AND PROMOTES HEALTH IN MANY DIFFERENT WAYS
- FISHING GETS YOU OUTSIDE AND ACTIVE



CONTAMINANTS IN FISH

FOR FAT SOLUBLE CHEMICALS (PCBS, DDT, AND DIOXINS):

Trim away the skin and fatty tissue before cooking to reduce the level of some pollutants in the fish you eat.



Health Note

Mercury is found throughout the tissue in fish, so these cleaning and cooking techniques will not reduce the amount of mercury in a meal of fish.

New Mexico Department of Health

CONTAMINANTS IN THE CAPE FEAR & HEALTH RISKS

NORTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN SERVICES HAS SET CAPE FEAR RIVER FISH CONSUMPTION ADVISORIES FOR:

- **MERCURY** (INCREASED BRAIN DEVELOPMENT RISK, AFFECTS KIDNEYS)
- **POLYCHLORINATED BIPHENYLS, ALSO CALLED PCB'S** (INCREASED CANCER RISK)
- **DIOXIN** (INCREASED CANCER RISK)
- **ARSENIC** (INCREASED CANCER RISK)
- **HEXAVALENT CHROMIUM** (INCREASED CANCER RISK)

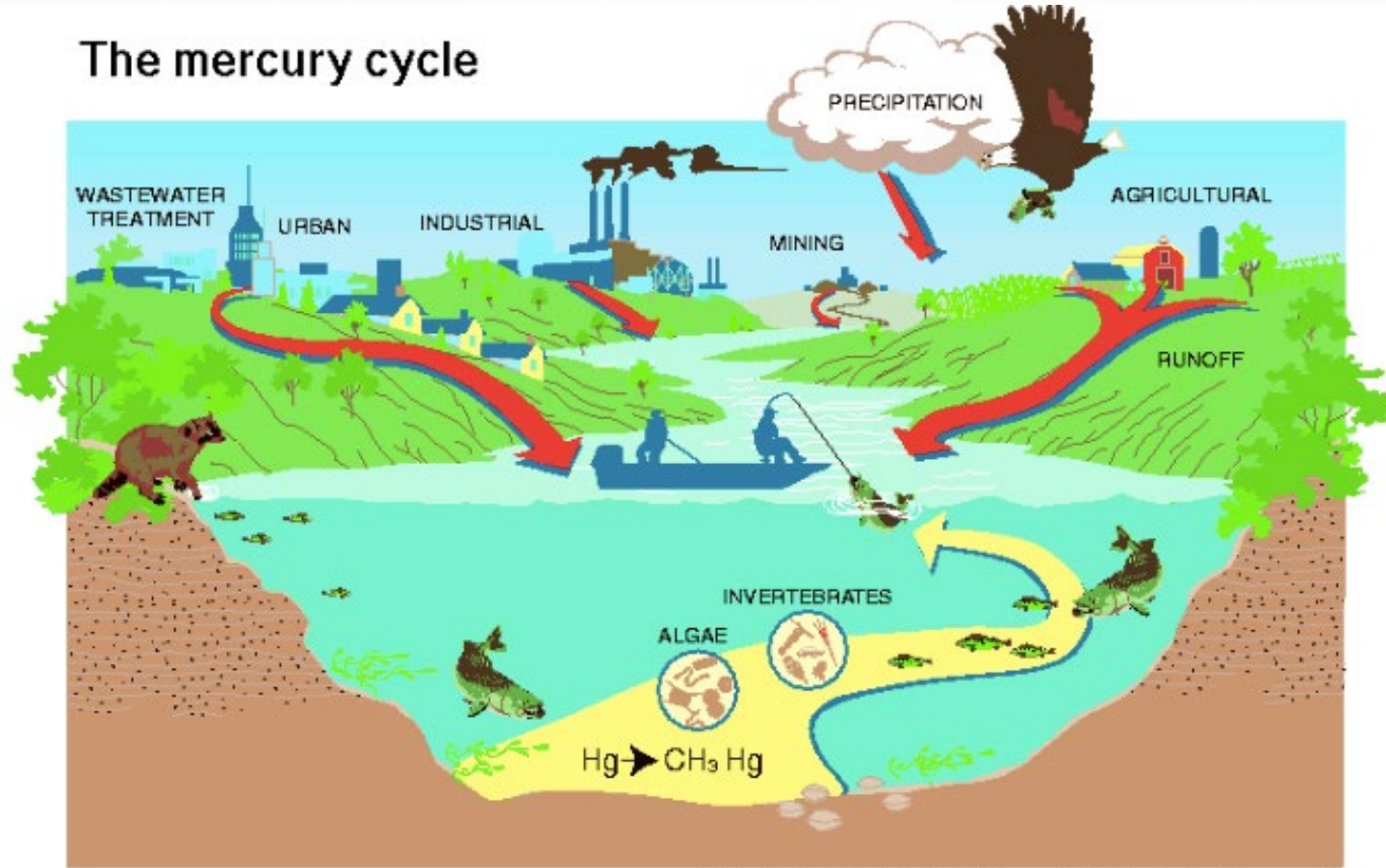
LEARN MORE ABOUT THESE CHEMICALS AT

[HTTPS://WWW.ATSDR.CDC.GOV/TOXFAQS/INDEX.ASP](https://www.atsdr.cdc.gov/toxfaqs/index.asp)



HOW DOES MERCURY GET INTO FISH?

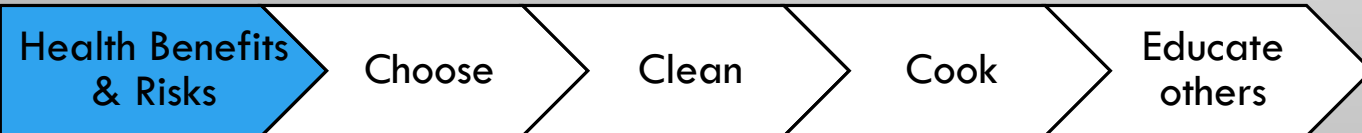
The mercury cycle



(Illustration by Connie J. Dean, U.S. Geological Survey)

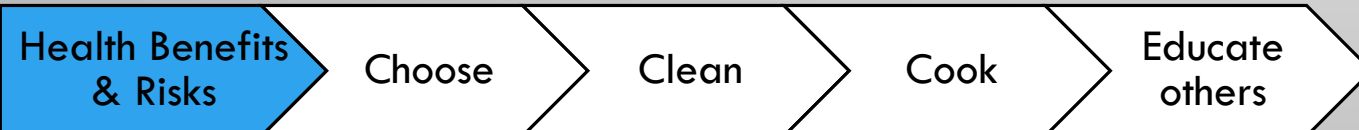
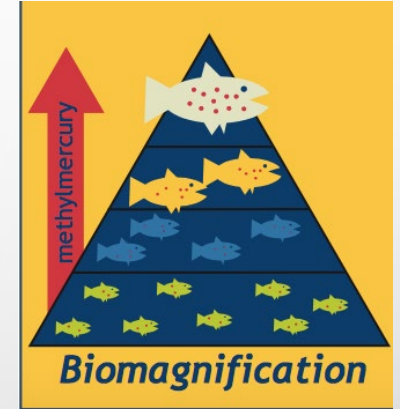
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VULNERABLE POPULATIONS



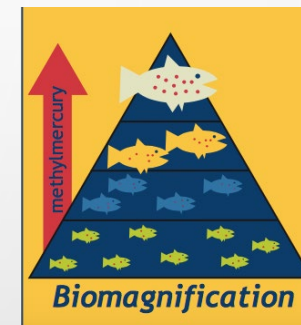
TAKEAWAYS: HEALTH RISKS

- CONTAMINANTS GET INTO FISH FROM POLLUTION
(E.G. MERCURY → AIR → WATER → SMALL FISH → BIGGER FISH → PEOPLE)



TAKEAWAYS: HEALTH RISKS

- CONTAMINANTS GET INTO FISH FROM POLLUTION
(E.G. MERCURY → AIR → WATER → SMALL FISH → BIGGER FISH → PEOPLE)
- THE NORTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN SERVICES SETS LOCAL FISH CONSUMPTION ADVISORIES FOR **MERCURY, PCBS, DIOXIN, ARSENIC, AND HEXAVALENT CHROMIUM** IN THE CAPE FEAR RIVER



Health Benefits
& Risks

Choose

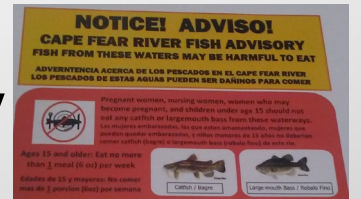
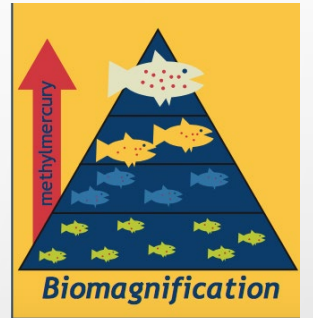
Clean

Cook

Educate
others

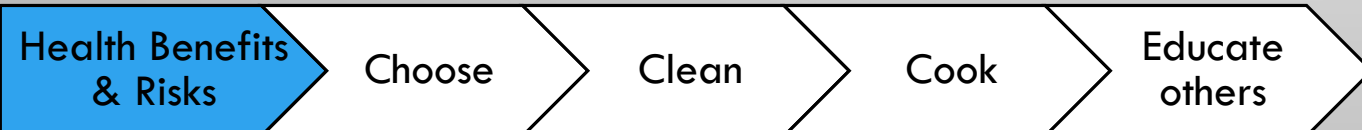
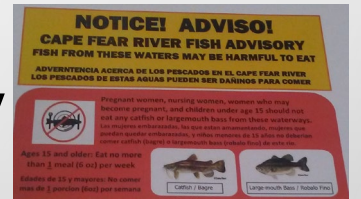
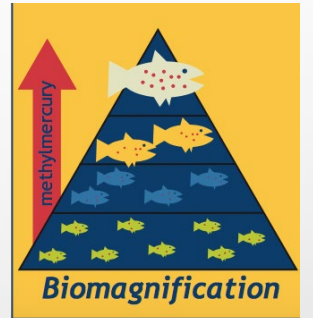
TAKEAWAYS: HEALTH RISKS

- CONTAMINANTS GET INTO FISH FROM POLLUTION
(E.G. MERCURY → AIR → WATER → SMALL FISH → BIGGER FISH → PEOPLE)
- THERE ARE FISH CONSUMPTION ADVISORIES FOR **MERCURY, PCBS, DIOXIN, ARSENIC, HEXAVALENT CHROMIUM** IN THE CAPE FEAR RIVER
- SOME OF THESE CONTAMINANTS AFFECT HOW OUR BODIES DEVELOP AND/OR INCREASE RISK OF CANCER



TAKEAWAYS: HEALTH RISKS

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- SOME OF THESE CONTAMINANTS AFFECT HOW OUR BODIES DEVELOP AND/OR INCREASE RISK OF CANCER
- WOMEN AGES 15-44 AND KIDS ARE ESPECIALLY VULNERABLE TO THESE HEALTH RISKS

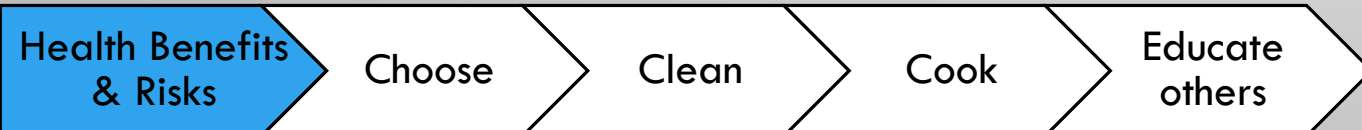


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QUESTIONS/COMMENTS?

ACTIVITY: HEALTH BEHAVIOR CHANGE

- Think about a time in your life when it was hard to change a behavior. What were some barriers for you?
- What might be barriers for this audience to choosing safer fish?
- How might you talk about the issue of long-term, low dose health risks with someone?



GENERAL RULES FOR MERCURY ADVISORY

WOMEN OF CHILDBEARING AGE (15-44 YEARS), PREGNANT WOMEN, NURSING MOTHERS, AND CHILDREN UNDER 15:

- SHOULD NOT EAT FISH FROM THE “HIGH IN MERCURY” LIST.
- MAY EAT UP TO **2 MEALS PER WEEK** (6 OZ. PER MEAL FOR A WOMAN, 2 OZ. PER MEAL FOR A CHILD) OF FISH FROM THE “LOW IN MERCURY” LIST.

ALL OTHER PEOPLE:

- EAT ONLY **1 MEAL PER WEEK** (6 OZ. PER MEAL) FROM THE “HIGH IN MERCURY” LIST.
- EAT UP TO **4 MEALS PER WEEK** (6 OZ. PER MEAL) FROM THE “LOW IN MERCURY” LIST.

[Bit.ly/eatsafefish](https://bit.ly/eatsafefish)

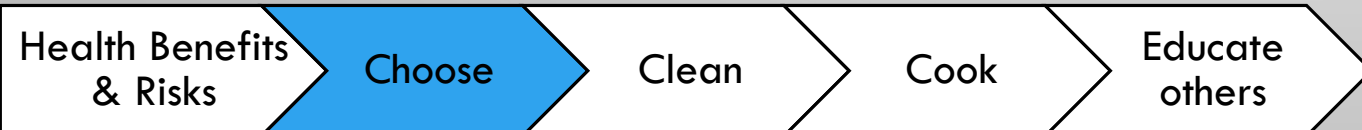
SERVING SIZES



NC DHHS: says one meal = 6 ounces, which is a little bit more than is pictured. This is an adult sized hand.

6 ounces = two checkbooks

2 ounces = deck of cards





WOMEN 15-44, PREGNANT/NURSING WOMEN AND KIDS UNDER 15: FISH TO AVOID FROM CAPE FEAR RIVER

- **WILD-CAUGHT CATFISH**



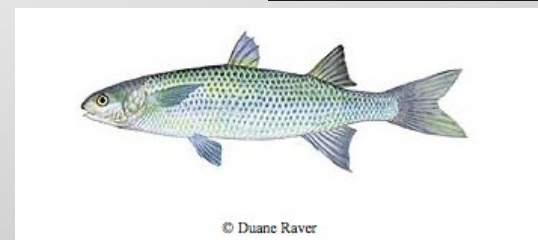
- **LARGEMOUTH BASS**



- **STRIPED BASS (ALSO LAW AGAINST CATCHING IT)**



- **STRIPED MULLET (DUE TO HEX. CHROMIUM)**



- **BLUE CRAB**



Health Benefits
& Risks

Choose

Clean

Cook

Educate
others



WOMEN 15-44, PREGNANT/NURSING WOMEN AND KIDS: BEST CHOICES (LOW MERCURY) FROM THE CAPE FEAR RIVER

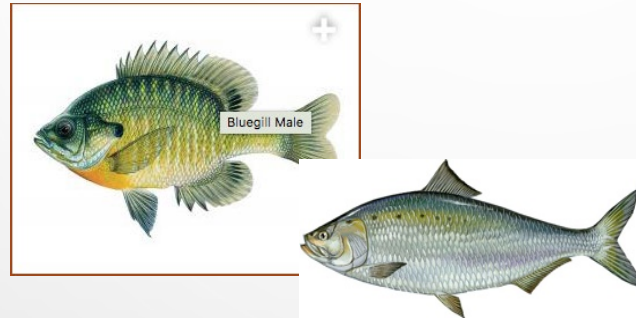
- BLUEGILL SUNFISH
- PUMPKINSEED SUNFISH
- REDBREAST SUNFISH
- REDEAR SUNFISH
- SHAD (BE AWARE OF CATCH LIMIT)
- MORE ON NC DHHS LIST...

Hey, that's
me at the
top!

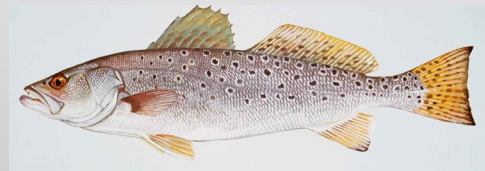


HEALTHY ADULTS: BEST CHOICES FROM THE CAPE FEAR RIVER

- BLUEGILL SUNFISH
- HERRING (SHAD)
- TILAPIA
- TROUT

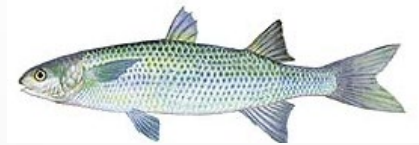


- MORE ON NC DHHS LIST...



HEALTHY ADULTS: LIMIT CONSUMPTION FROM THE CAPE FEAR RIVER

- STRIPED MULLET – 3 MEALS/WEEK



- BLUE CRAB – 3 MEALS/WEEK



- BOWFIN (BLACKFISH)



- BLACK CRAPPIE



- WARMOUTH



- MORE ON NC DHHS LIST.....



ADDITIONAL RESOURCES

NORTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN SERVICES (NC DHHS)

- **CURRENT FISH CONSUMPTION ADVISORIES:**
[HTTP://EPI.PUBLICHEALTH.NC.GOV/OEE/PROGRAMS/FISH.HTML](http://epi.publichealth.nc.gov/OEE/PROGRAMS/FISH.HTML) - [BIT.LY/EATSAFEFISH](http://bit.ly/eatsafefish)
- **WHAT FISH ARE SAFE TO EAT (MERCURY)?**
[HTTP://EPI.PUBLICHEALTH.NC.GOV/OEE/MERCURY/SAFEFISH.HTML](http://epi.publichealth.nc.gov/OEE/MERCURY/SAFEFISH.HTML)

What fish are safe to eat?

From the North Carolina Division of Public Health

Most fish are good to eat and good for you - high in protein and other nutrients, and low in fat. But some kinds of fish contain high amounts of mercury, which can cause health problems in people, especially children. To help you make the healthiest choices, North Carolina offers the following advice. For more information, see www.epi.state.nc.us/epi/fish/ or call (919)707-5900.

| Avoid or limit fish consumption based on the following: | |
|---|--|
| Women of childbearing age (15 to 44 years), pregnant women, nursing mothers and children under age 15 | All other people |
| Do not eat fish from the HIGH in mercury list. | Eat only 1 meal of fish per week from the HIGH in mercury list. |
| Eat up to 2 meals per week of fish from the LOW in mercury list. | Eat up to 4 meals of fish per week from the LOW in mercury list. |

Eat Fish LOW in mercury

| Ocean Fish | Freshwater Fish |
|-------------------|------------------------------------|
| Black drum | Pollock |
| Canned light tuna | Pompano |
| Cod | Red drum |
| Crab | Salmon (canned, fresh or frozen) |
| Croaker | Scallops |
| Flounder | Sheepshead |
| Haddock | Shrimp |
| Hallibut | Skate |
| Herring | Southern kingfish (sea mullet) |
| Jacksmelt | Spot |
| Lobster | Speckled trout (spotted sea trout) |
| Mahi-mahi | Tripletail |
| Ocean perch | Whitefish |
| Oysters | White grunt |

Avoid Fish HIGH in mercury

| Ocean Fish | Freshwater Fish |
|--|-------------------------|
| Albacore (white) tuna** | Blackfish (bowfin)* |
| Almaco jack | Marlin |
| Banded rudderfish | Orange roughy |
| Cobia | Shark |
| Crevalle jack | Spanish mackerel |
| Greater amberjack | Swordfish |
| South Atlantic grouper (gag, scamp, red and snowy) | Tilefish |
| King mackerel | Tuna, fresh or frozen** |
| Ladyfish | Yellow perch* |

*High mercury levels have been found in blackfish (bowfin), catfish, jack fish (chain pickerel), warrmouth, and yellow perch caught south and east of Interstate 85.
 **Different species from canned light tuna
 ***High mercury levels have been found in black crappie caught south and east of Interstate 95.

Spanish version: "¿Cuáles pescados son seguros para comer?"
 North Carolina Department of Health & Human Services • Division of Public Health • Occupational & Environmental Epidemiology
www.ncdhhs.gov • <http://oee.ncdhhs.gov>
 NC DHHS is an equal opportunity employer and provider 3/2013

DHHS Home | A-Z Site Map | Divisions | About Us | Contacts

Health and Human Services

Epidemiology

Home North Carolina Public Health

OEE HOME
 A-Z Contaminants
 Facts & Figures
 Programs & Services
 Fish Consumption Advisories
 Current N.C. Advisories
 How Advisories are Developed
 Reports by County
 Contact Us

Quick Links
 Health Assessment, Consultation and Education
 Medical Evaluation and Risk Assessment
 Toxic Substance Incidents
 Related Programs
 Environmental Health Section
 Water Quality (DEQ)
 State Laboratory of Public Health
 Related Sites
 Local Health Dept. by County
 U.S. Environmental Protection Agency

Search: [] Submit

Fish Consumption Advisories

Current Advisories for N.C.

Fish consumption advisories are issued by the Occupational and Environmental Epidemiology Branch, N.C. Division of Public Health. Learn more about this OEE program. Find current fish advisories for the state of North Carolina and for specific bodies of water in North Carolina. You may also use the [Reports by County](#) index to browse all available OEE reports, including fish advisories, hazardous site assessments, and community health studies.

Learn more about lakes and rivers in North Carolina:

- NC Department of Cultural Resources: [North Carolina Geography in a Snap: Bodies of Water](#)
- NC Department of Cultural Resources: [Rivers](#)

Statewide Advisories

Pollutant: Mercury
 Date Issued/Updated: April 2, 2008

Advisory:
 Women of Childbearing Age (15-44 years), Pregnant Women, Nursing Women, and Children under 15:
 Do not eat fish high in mercury, including largemouth bass caught in the state. Eat up to two meals per week of fish low in mercury. A meal is 6 ounces of uncooked fish for adults, or 2 ounces of uncooked fish for children under 15.

All Other Individuals:
 Eat no more than one meal per week of fish high in mercury, including largemouth bass caught in the state. Eat up to four meals per week of fish low in mercury. A meal is 6 ounces of uncooked fish for adults, or 2 ounces of uncooked fish for children under 15.

Affected Fish: Fish high in mercury

Selected List of High and Low Mercury Fish Found in the Northeast Cape Fear River

Women of childbearing age (15-44 years), pregnant women, nursing mothers, and children under 15:

- Should not eat fish from the **High in Mercury** list.
- May eat up to 2 meals per week (6 oz. per meal for a woman, 2 oz. per meal for a child) of fish from the **Low in Mercury** list.

All other people:

- Eat only 1 meal per week (6 oz. per meal) from the **High in Mercury** list.
- Eat up to 4 meals per week (6 oz. per meal) from the **Low in Mercury** list.

Find the North Carolina Department of Health and Human Services full list of high- and low-mercury fish at bit.ly/eatsafefish or call 919-707-5900.
 **Note: There is a moratorium on catching striped bass from the Cape Fear River.
 ***Note: There is a per-person catch limit of 5 American shad or 10 Hickory Shad per day from the Cape Fear River.

| High in Mercury Fish (Name) | High in Mercury Fish (Image) | Low in Mercury Fish (Name) | Low in Mercury Fish (Image) |
|--|------------------------------|---------------------------------------|-----------------------------|
| Catfish (caught wild) Note: Farm-raised catfish is a lower-in-mercury choice. | | Bluegill sunfish (bream, or bluegill) | |
| Largemouth Bass | | Shad** | |
| Striped Bass* | | Pumpkinseed sunfish | |
| Blackfish (bowfin) | | Redbreast sunfish | |
| Black crappie | | Redear sunfish | |



ADDITIONAL RESOURCES

US FOOD AND DRUG ADMINISTRATION (FDA)

- *EATING FISH: WHAT PREGNANT WOMEN AND PARENTS SHOULD KNOW:*
[HTTPS://WWW.FDA.GOV/FOOD/RESOURCESFORYOU/CONSUMERS/UCM393070.HTM](https://www.fda.gov/food/resourcesforyou/consumers/ucm393070.htm)

Advice About Eating Fish

What Pregnant Women & Parents Should Know

Fish and other protein-rich foods have nutrients that can help your child's growth and development.

For women of childbearing age (about 16-49 years old), especially pregnant and breastfeeding women, and for parents and caregivers of young children.

- Eat 2 to 3 servings of fish a week from the "Best Choices" list OR 1 serving from the "Good Choices" list.
- Eat a variety of fish.
- Serve 1 to 2 servings of fish a week to children, starting at age 2.
- If you eat fish caught by family or friends, check for fish advisories. If there is no advisory, eat only one serving and no other fish that week.*

Use this chart!

You can use this chart to help you choose which fish to eat, and how often to eat them, based on their mercury levels. The "Best Choices" have the lowest levels of mercury.

What is a serving?



To find out, use the palm of your hand!

For an adult
4 ounces

For children,
ages 4 to 7
2 ounces

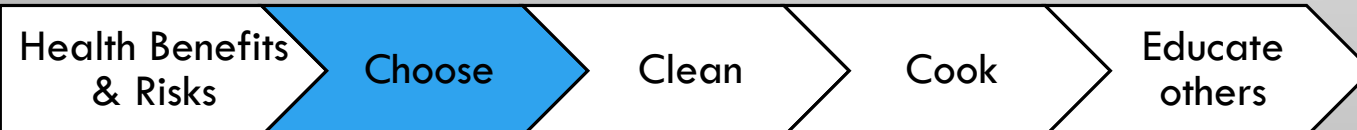
| Best Choices EAT 2 TO 3 SERVINGS A WEEK | | | OR | Good Choices EAT 1 SERVING A WEEK | | |
|--|-----------------------------|--|----|---------------------------------------|----------------------|--|
| Anchovy | Herring | Scallop | | Bluefish | Monkfish | Tilefish (Atlantic Ocean) |
| Atlantic croaker | Lobster | Shad | | Buffalofish | Rockfish | |
| Atlantic mackerel | American and spiny Mullet | Shrimp | | Carp | Sablefish | Tuna, albacore/white tuna, canned and fresh/frozen |
| Black sea bass | Oyster | Skate | | Chilean sea bass/Patagonian toothfish | Sheepshead | Tuna, yellowfin |
| Butterfish | Pacific chub mackerel | Smelt | | Grouper | Snapper | Weakfish/seatrout |
| Catfish | Parch, freshwater and ocean | Sole | | Halibut | Spanish mackerel | White croaker/Pacific croaker |
| Clam | Pickrel | Squid | | Mahi mahi/dolphinfish | Striped bass (ocean) | |
| Cod | Plaice | Tilapia | | | | |
| Crab | Pollock | Trout, freshwater | | | | |
| Crawfish | Salmon | Tuna, canned light (includes skipjack) | | | | |
| Flounder | Sardine | Whitefish | | | | |
| Haddock | | Whiting | | | | |
| Hake | | | | | | |
| Choices to Avoid HIGHEST MERCURY LEVELS | | | | | | |
| King mackerel | Shark | Tilefish (Gulf of Mexico) | | | | |
| Marlin | Swordfish | Tuna, bigeye | | | | |
| Orange roughy | | | | | | |

*Some fish caught by family and friends, such as larger carp, catfish, trout and perch, are more likely to have fish advisories due to mercury or other contaminants. State advisories will tell you how often you can safely eat those fish.

www.fda.gov/fishadvice
www.epa.gov/fishadvice



THIS ADVICE REFERS TO FISH AND SHELLFISH COLLECTIVELY AS "FISH" / ADVICE UPDATED JANUARY 2017



ADDITIONAL RESOURCES

US ENVIRONMENTAL PROTECTION AGENCY (EPA)

- *SHOULD I EAT THE FISH I CATCH? BROCHURE (ENGLISH & SPANISH)*
- *CHOOSE FISH AND SHELLFISH WISELY:*

WWW.EPA.GOV/CHOOSE-FISH-AND-SHELLFISH-WISELY

Learn



- [Fish and shellfish advisories](#)
- [Should I be concerned about eating fish and shellfish?](#)
- [What is EPA doing to protect you?](#)

Act



- [Stay healthy by eating wisely](#)
 - [Protect yourself](#)
 - [Protect your children](#)

Technical Resources



- [Fish Tissue Contamination Studies](#)
 - [Fish Tissue Data Collected by EPA](#)
 - [Fish Tissue Data Collected by EPA Partners](#)
- [Reports and Fact Sheets](#)
- [Guidance for Developing Fish Advisories](#)
- [National Forum on Contaminants in Fish](#)

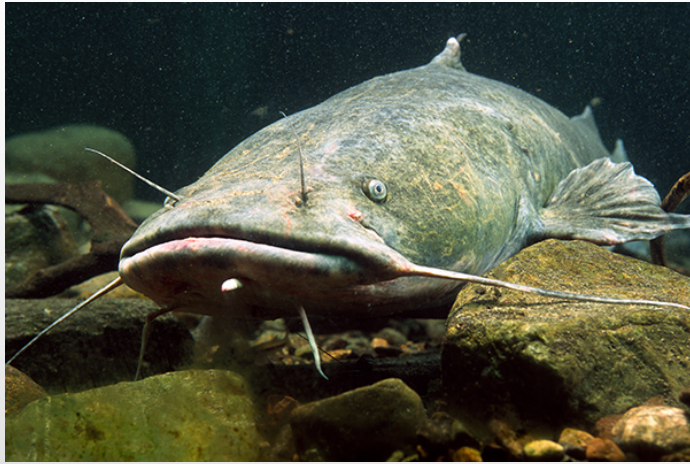




**IT'S
GAME
TIME!**

NAME THESE FISH THAT PREGNANT WOMEN AND KIDS SHOULD AVOID EATING:

#1



#2

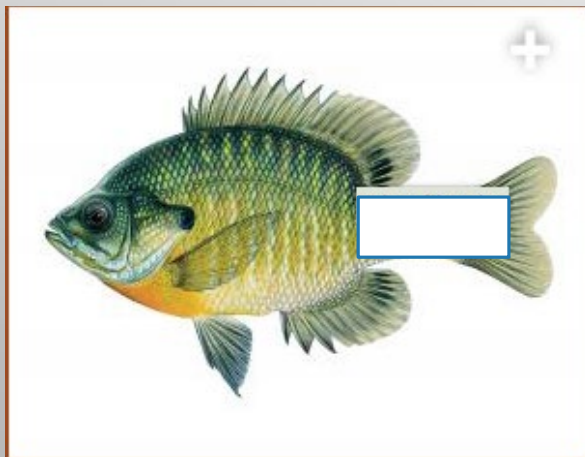


#3

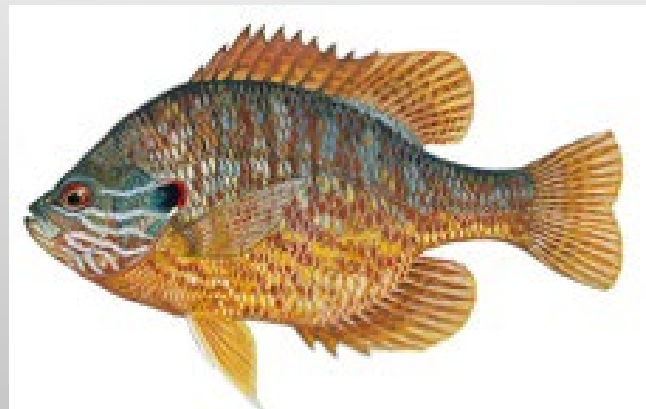


NAME THESE SAFER FISH FROM THE CAPE FEAR RIVER:

#4



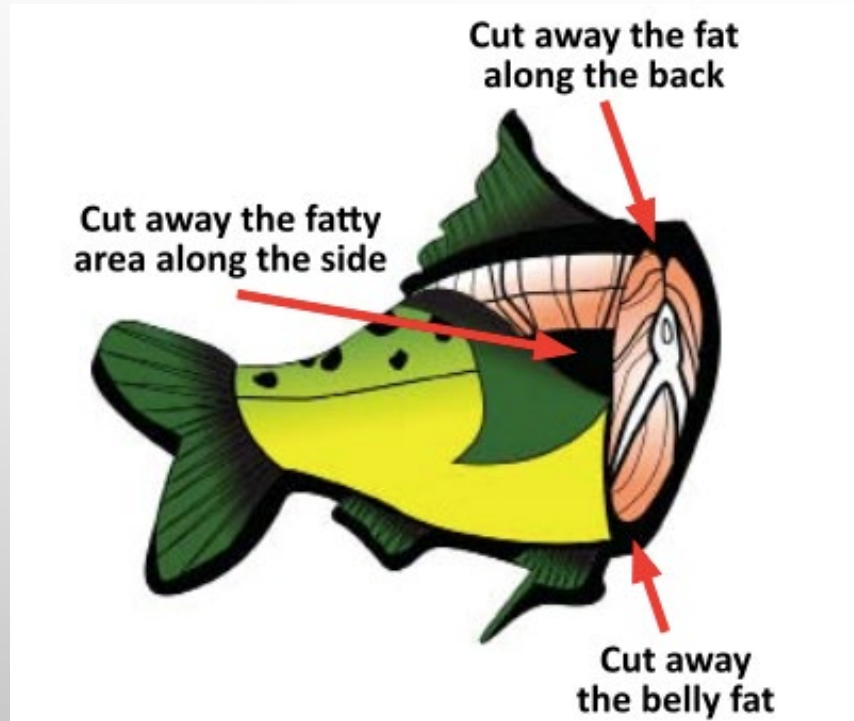
#5



#6



CLEANING SAFER FISH



Make the first cut down and into the fish just behind the pectoral fin.



Filleting fish this way will reduce the amount of contaminants by 40 - 50%.

- Filleting works for fat-loving chemicals like PCBs and certain pesticides
- **Does NOT remove mercury from fish!**

COOKING SAFER FISH



Grilling (top) or baking (bottom)



- Frying seals in chemicals
- Grilling or baking removes fat as it drips off the fish
- Stewing is another popular method that does not involve frying fish
- Also reduces fat from cooking oil
- Again, these methods reduce amount of fat-loving chemicals but **DOES NOT REMOVE MERCURY**



GENERAL RULES TO STAY **S.A.F.E.**

S

Smaller fish are better.

They tend to have fewer chemicals.

GENERAL RULES TO STAY **S.A.F.E.**

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GENERAL RULES TO STAY **S.A.F.E.**

S

Smaller fish are better.

They tend to have fewer chemicals.

a

**Avoid large predator fish &
bottom-feeders.**

Always check the *Eat Safe Fish Guide* before eating these fish.

GENERAL RULES TO STAY **S.A.F.E.**

S

Smaller fish are better.

They tend to have fewer chemicals.

a

**Avoid large predator fish &
bottom-feeders.**

Always check the *Eat Safe Fish Guide* before eating these fish.

f

Fat should be removed.

GENERAL RULES TO STAY **S.A.F.E.**

S

Smaller fish are better.

They tend to have fewer chemicals.

a

Avoid large predator fish & bottom-feeders.

Always check the *Eat Safe Fish Guide* before eating these fish.

f

Fat should be removed.

Some chemicals are stored in the fat of the fish.

GENERAL RULES TO STAY **S.A.F.E.**

S

Smaller fish are better.

They tend to have fewer chemicals.

a

Avoid large predator fish & bottom-feeders.

Always check the *Eat Safe Fish Guide* before eating these fish.

f

Fat should be removed.

Some chemicals are stored in the fat of the fish.

e

Eat fish that have been broiled or grilled on a rack.

GENERAL RULES TO STAY S.A.F.E.

I think I can remember how to stay S.A.F.E.!



S

Smaller fish are better.

They tend to have fewer chemicals.

a

Avoid large predator fish & bottom-feeders.

Always check the *Eat Safe Fish Guide* before eating these fish.

f

Fat should be removed.

Some chemicals are stored in the fat of the fish.

e

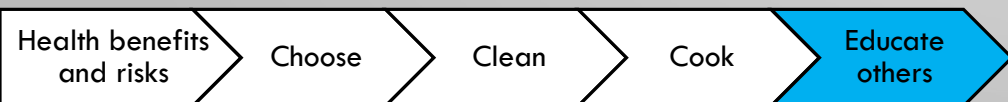
Eat fish that have been broiled or grilled on a rack.

More fat can drip away during cooking.

10-MINUTE BREAK

EDUCATING OTHERS: LEARNING ABOUT OUR TARGET AUDIENCE

- DATA COLLECTORS: WHAT DID YOU LEARN FROM DOING THE SURVEY?
- HOW WOULD YOU DESCRIBE THE PEOPLE YOU TALKED TO WHO CAUGHT AND ATE FISH FROM THE RIVER?
 - WHAT DO YOU THINK MADE THEM WANT TO FISH IN THE RIVER?
 - WHAT CHALLENGES DO YOU THINK THEY FACED IN LIFE, IF ANY?
 - WHAT WERE SOME OF THEIR POSITIVE QUALITIES?






LUNCH & REVIEW MATERIALS

PLEASE FILL OUT THE “MATERIALS FEEDBACK HANDOUT” WITH QUESTIONS ABOUT THE PRINTED DRAFT EDUCATION MATERIALS AND RETURN TO CATHERINE TODAY

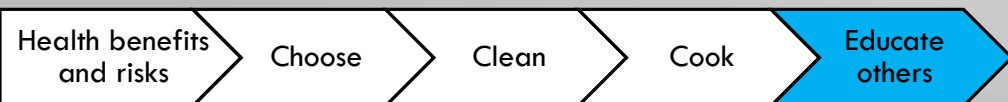
- WHAT ARE SOME WAYS WE COULD IMPROVE THEM?
 - WHAT ARE OTHER WAYS TO GET THEM OUT INTO THE COMMUNITY?
 - WHAT ARE OTHER NAMES FOR FISH THAT ARE NOT ON THESE MATERIALS?

 - FILL OUT W-9S
- 

CASE STUDY & GROUP DISCUSSION

A MAN SAYS HE HAS RECENTLY CAUGHT 10 CATFISH FROM THE NORTHEAST CAPE FEAR AND STORED THEM IN HIS FREEZER, AND HE PLANS TO SERVE IT AT HIS GRANDCHILD'S 7TH BIRTHDAY PARTY.

- **WHAT COULD HE DO INSTEAD?**
- **WHAT CHALLENGES OR LIMITATIONS MIGHT HE BE FACING IN CHANGING HIS BEHAVIOR, AND HOW COULD HE OVERCOME THEM?**
- **WHAT WILL YOU SAY TO HIM?**

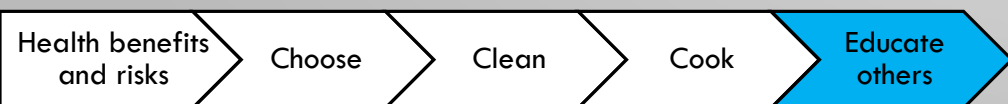


ROLE-PLAYING

SCENARIO #1: YOUR GRANDFATHER, WHO CATCHES FISH FROM THE NORTHEAST CAPE FEAR RIVER WEEKLY, HAS NEVER FILLETED A FISH. HOW DO YOU SHOW HIM WHAT TO DO, AND HOW WOULD YOU EXPLAIN WHY HE SHOULD TRY THIS PRACTICE?

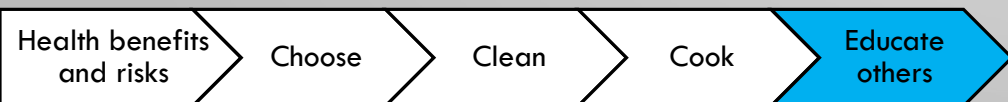
SCENARIO #2: YOU ARE AT A HEALTH FAIR AND A WOMAN WHO IS OVER 50 YEARS OLD SAYS TO YOU, “WHY SHOULD I CARE ABOUT THIS? I CATCH AND EAT THESE FISH FROM THE RIVER ALL THE TIME, AND I AM NOT SICK.” HOW WOULD YOU RESPOND?

SCENARIO #3: YOU ENCOUNTER A YOUNG MOM WITH KIDS WHO REACTS TO THE INFORMATION YOU ARE SHARING BY SAYING, “I CAN’T AFFORD TO BUY MEAT AT THE STORE ALL THE TIME, SO WHAT ARE MY OTHER OPTIONS FOR GETTING FOOD BESIDES FISHING?” WHAT WOULD YOU SAY TO HER?



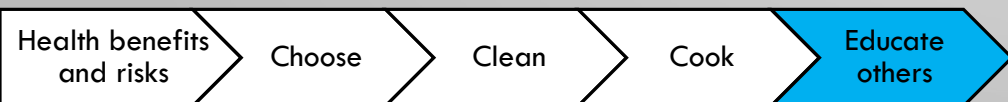
CREATING YOUR WORKPLAN

- REVIEW LIST OF POTENTIAL OUTREACH EVENTS, VENUES, AND PARTNERS: WHAT/WHO/WHERE WOULD YOU ADD TO THE LIST?
- REVIEW TIMELINE (APPROX. START DATE = JUNE 15)
- REVIEW BUDGET
- GROUP GOAL: REACH 200 COMMUNITY MEMBERS (TOTAL) AT 10 OUTREACH SESSIONS BY THE END-OF-SUMMER MEETING
- REQUIRED ACTIVITIES:
 - REPORTING BACK ON GOOGLE DOCUMENT
 - OUTREACH EVENTS/VENUE VISITS, POSTING FLYERS, PASSING OUT MATERIALS
 - **END OF SUMMER MEETING (LET'S GET A DATE RANGE NOW AND SET THE DATE SOON)**



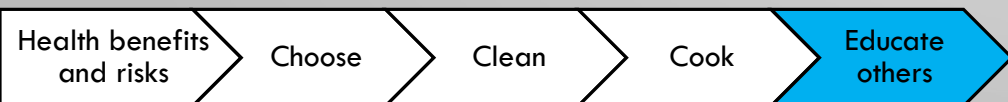
REPORTING BACK

- **GOOGLE DOCS DEMONSTRATION AND SETUP**
- THIS IS TO HELP US MEASURE THE OUTPUTS AND OUTCOMES OF THE CAMPAIGN
- SEE PRINTED SIGN-IN SHEETS FOR EVENTS
- WE WILL ALSO BE ASKING FOR YOUR FEEDBACK ON HOW THIS PROCESS WORKS!



ACTION STEPS

1. THINK OF QUESTIONS YOU HAVE AND EITHER INCLUDE THEM IN THE POST-TRAINING EVALUATION FOR TODAY OR ASK THEM ALOUD NOW!
2. TEACH ONE FAMILY MEMBER OR FRIEND THIS INFORMATION AND SHARE THE MATERIALS WITH THEM .
3. COOK AND PREPARE ONE SUNFISH OR OTHER SAFER CHOICE FISH RECIPE AND GATHER ONE RECIPE FROM A FRIEND OR FAMILY MEMBER FOR A “SAFER CHOICE” FISH.
4. CARRY OUT WORKPLAN STARTING AROUND JUNE 15, AND CHECK IN WITH US BEFORE THAT IF YOU HAVE QUESTIONS CATHERINE, KAY LYNN, AND MADI (SEE CONTACT INFO ON LAST SLIDE)



POST-TRAINING SURVEY AND REFLECTION

1. PLEASE FILL OUT THE POST-TRAINING SURVEY & GIVE IT TO ME

2. DISCUSSION:

- **WHAT WERE YOUR “AHA MOMENTS” TODAY? WHAT WERE YOUR “HEADSCRATCH MOMENTS” OR QUESTIONS?**
- **WHAT OTHER SUPPORT, INFORMATION, RESOURCES, ETC. DO YOU NEED IN ORDER TO BE SUCCESSFUL?**

THANK YOU!

CATHERINE KASTLEMAN

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