

IDENTIFYING AND ADDRESSING ENVIRONMENTAL JUSTICE ISSUES AROUND FISH CONSUMPTION ON THE DETROIT RIVER

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Eating Fish from the Detroit River

Fish are part of a healthy diet.
Most fish are safe to eat. But some fish have high amounts of chemicals in them. Eating some types of fish too often can cause health problems, especially for women and children.

These fish are lower in chemicals and are a better choice to eat.

These fish are higher in chemicals. You should not eat catfish or carp from the Detroit River.

Trim and Cook Fish
Trimming and cooking off the fat can remove up to half the chemicals. Cook fish on a rack or grill.

Better Spots for Catching Catfish
These lakes have been stocked with catfish. The catfish in these lakes have low chemical concentrations than those in the Detroit River.

- Redfish Lake, Wayne County
- Westport Lake, Wayne County
- Pettit Lake, Oakland County
- Gray Creek Impoundment, Washtenaw County
- Ford Lake, Macomb County

For details and a map, call the Michigan Department of Natural Resources Fish Division:
1-248-359-9040

For more details and a free copy of the Michigan Family Fish Consumption Guide, call the Michigan Department of Community Health:
1-800-648-6542 or visit: www.michigan.gov/fishandgamechoice

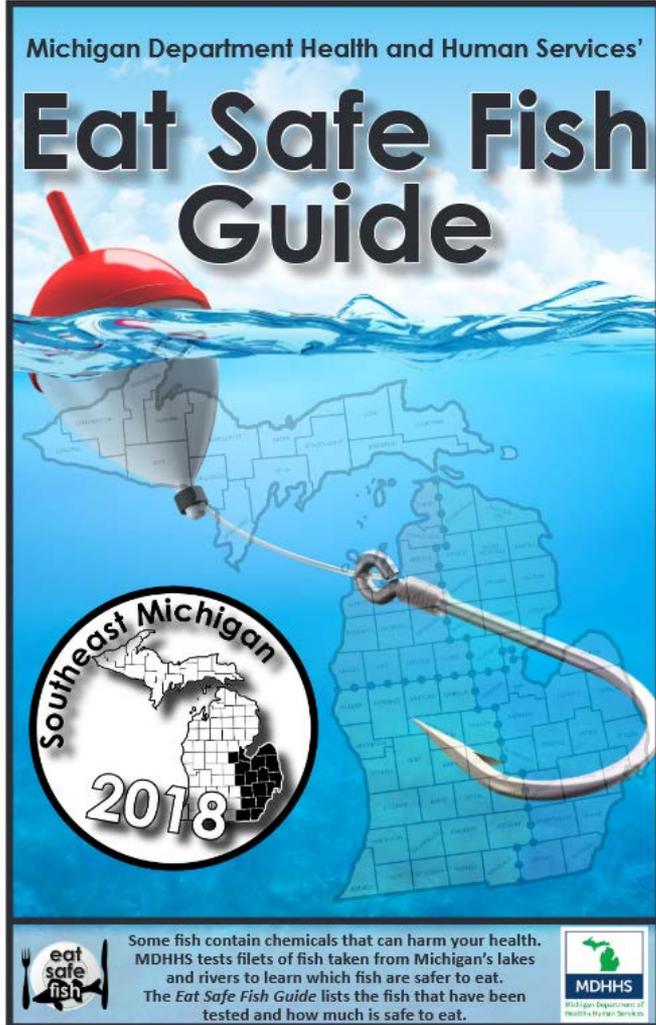
Logos for Michigan Department of Natural Resources, Michigan Department of Community Health, and other partners.



@dkashian



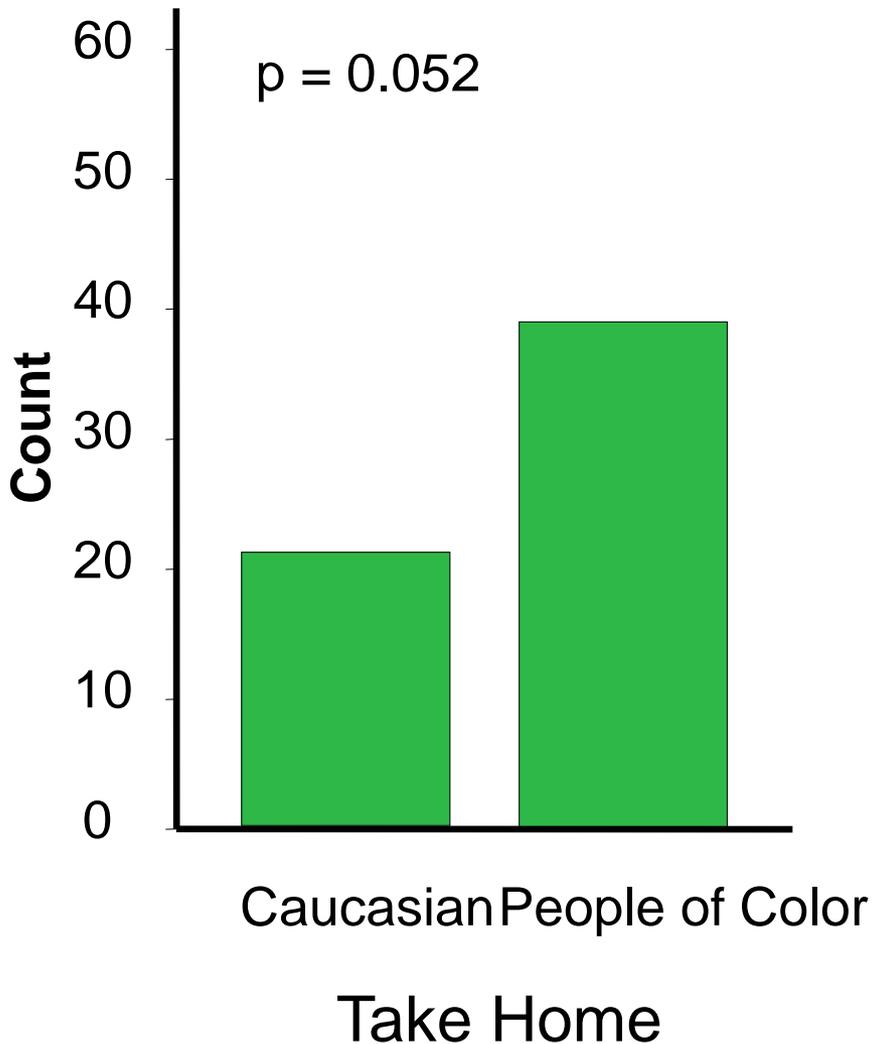
ENVIRONMENTAL JUSTICE ISSUES AROUND FISH CONSUMPTION



Consumption guidelines are frequently used to minimize risk associated with eating fish high in contaminants.

Uncertainties exist about whether vulnerable populations are aware of fish consumption guidelines.

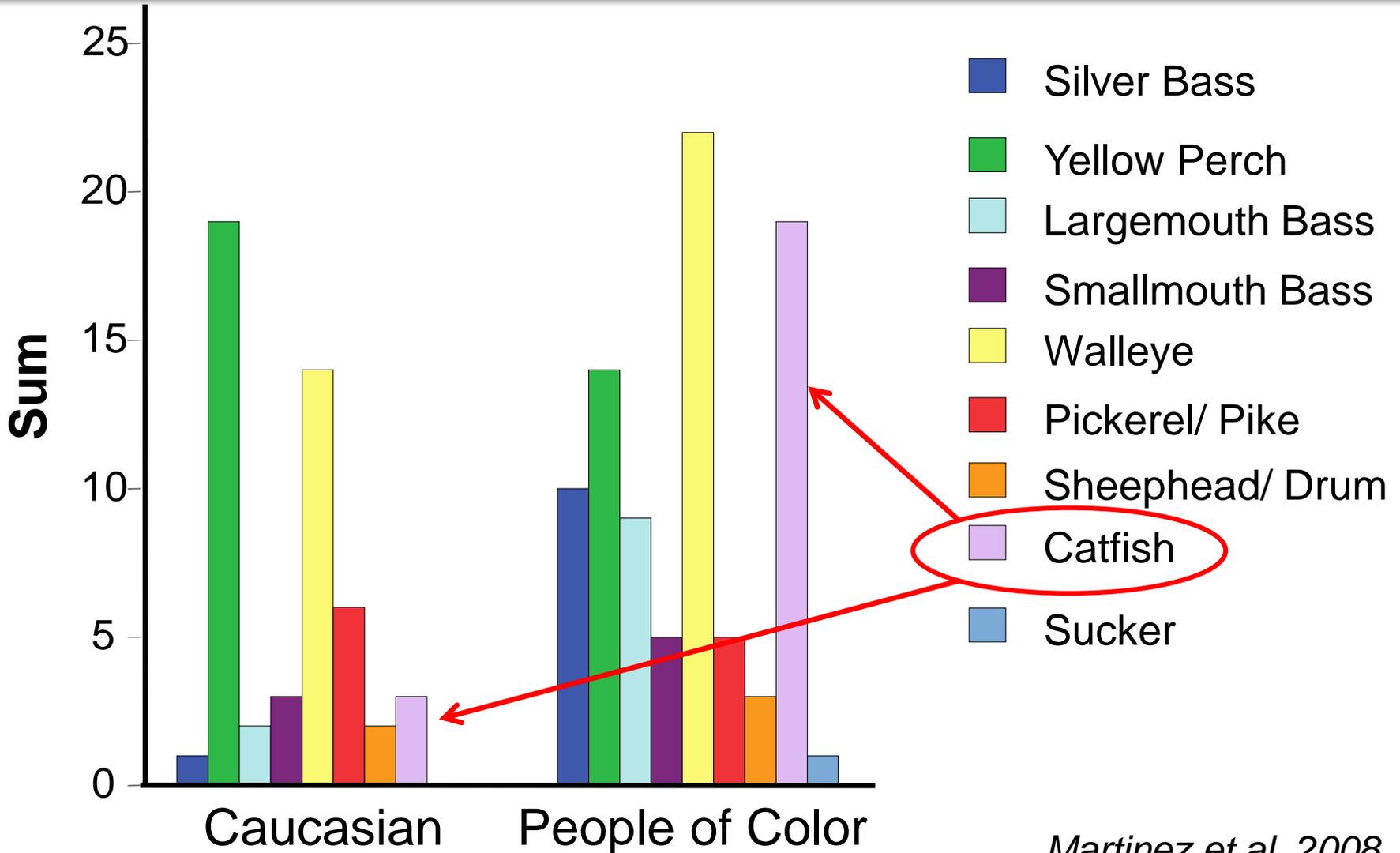
2007: Who is eating the fish



Compared with caucasians
people of color :

- 1) take home more types of fish
- 2) take home a higher quantity of fish

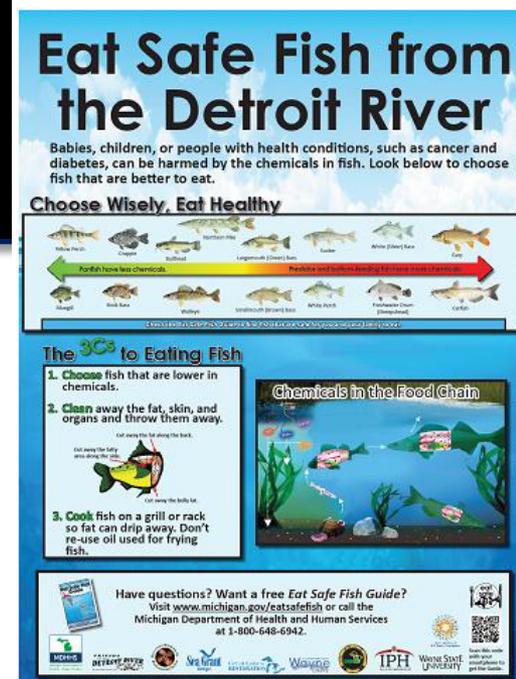
2007: What are people eating?



Martinez et al. 2008

2008: Actions Taken

- Added catfish to Detroit River Advisory
- Re-designed advisory and messaging
- Posted signs along the Detroit River
- Started an educational campaign- River Walkers
- Produced educational handouts



Signs posted

Objectives of Current Work

- **Determine if there are on-going environmental justice issues related to fish consumption on the Detroit River**
- **Evaluate the effectiveness of consumption guidelines.**

Methods

Conducted repeated* in-person surveys of active shoreline anglers to determine the effectiveness of education and outreach efforts.

- 1) Signage
- 2) On-site educators- River Walkers
- 3) Informational Pamphlet

* Surveys were conducted 3 and 5 years after implementation of the 3 education and outreach efforts.

Environmental Justice Issues Around Fish Consumption



Produced by Erb Family Foundation

Methods: Sign and Sign locations

Eat Safe Fish from the Detroit River

Babies, children, or people with health conditions, such as cancer and diabetes, can be harmed by the chemicals in fish. Look below to choose fish that are better to eat.

Choose Wisely. Eat Healthy

← For fish with less chemicals. Perch-like and bottom feeding fish have more chemicals. →

The 3Cs to Eating Fish

- 1. Choose** fish that are lower in chemicals.
- 2. Clean** away the fat, skin, and organs and throw them away.
 - Cut away the fatty area along the ribs.
 - Cut away the belly fat.
- 3. Cook** fish on a grill or rack so fat can drip away. Don't re-use oil used for frying fish.

Chemicals in the Food Chain

Have questions? Want a free *Eat Safe Fish Guide*? Visit www.michigan.gov/eatsafefish or call the Michigan Department of Health and Human Services at 1-800-648-6942.

Logos: MDHHS, DETROIT RIVER, SVA, WALKER, IPH, WEST STATE UNIVERSITY.



Survey took place at sign locations

Methods: Pamphlet



Get to know the 3Cs

Choose, Clean, Cook

By choosing the right fish and then cleaning and cooking it the right way, you can reduce some of the chemicals in the fish by nearly half!

1 Choose

This quiz will help you find the best way for you to choose your fish. Read each sentence and mark 'T' for true or 'F' for false.

- I only eat fish caught in Michigan a few times each year.
- I'm 15 years old or older.
- I **DON'T** plan on having children in the next several years.
- I **DON'T** have health problems, like cancer or diabetes.
- I **DON'T** eat fish from a lake or river that has posted signs with "Do Not Eat" guidelines from MDCH.

If **ALL** are **TRUE** for you:

You're at lower risk from chemicals in fish. The S.A.F.E. tips will help you choose fish to eat once in a while without worry!

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.

If **ONE** or **MORE** are **FALSE**:

You might be at higher risk. The *Eat Safe Fish Guide* will lead you to fish that are safer to eat on a regular basis.

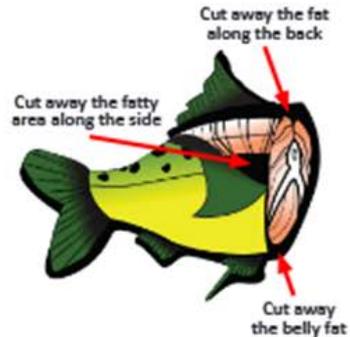
The *Eat Safe Fish Guide*:

- lists fish species that have had filets tested for chemicals by MDCH.
- protects people who eat Michigan fish often.
- protects anyone who has health problems, is young, is pregnant, or is planning on having children in the future.



Need a Guide? Call MDCH at 1-800-648-6942 or visit www.michigan.gov/eatsafe/fish.

2 Clean



Some chemicals, like PCBs and dioxins, collect in the fat of the fish.

- When cleaning the fish, trim away any of the fat you can see. Remove and throw away the organs, too.

Careful cleaning can remove a lot of the chemicals from the fish.

3 Cook

Even after trimming away the fat that you can see on the fish, some fat will still be hidden inside the fish filets.

- Poke holes in the skin or remove it completely so that fat can drip away from the fish filet as it cooks.
- Cook your fish on a grill or on a broiler pan in the oven. Any fat left can now drip away from the fish through the grates.

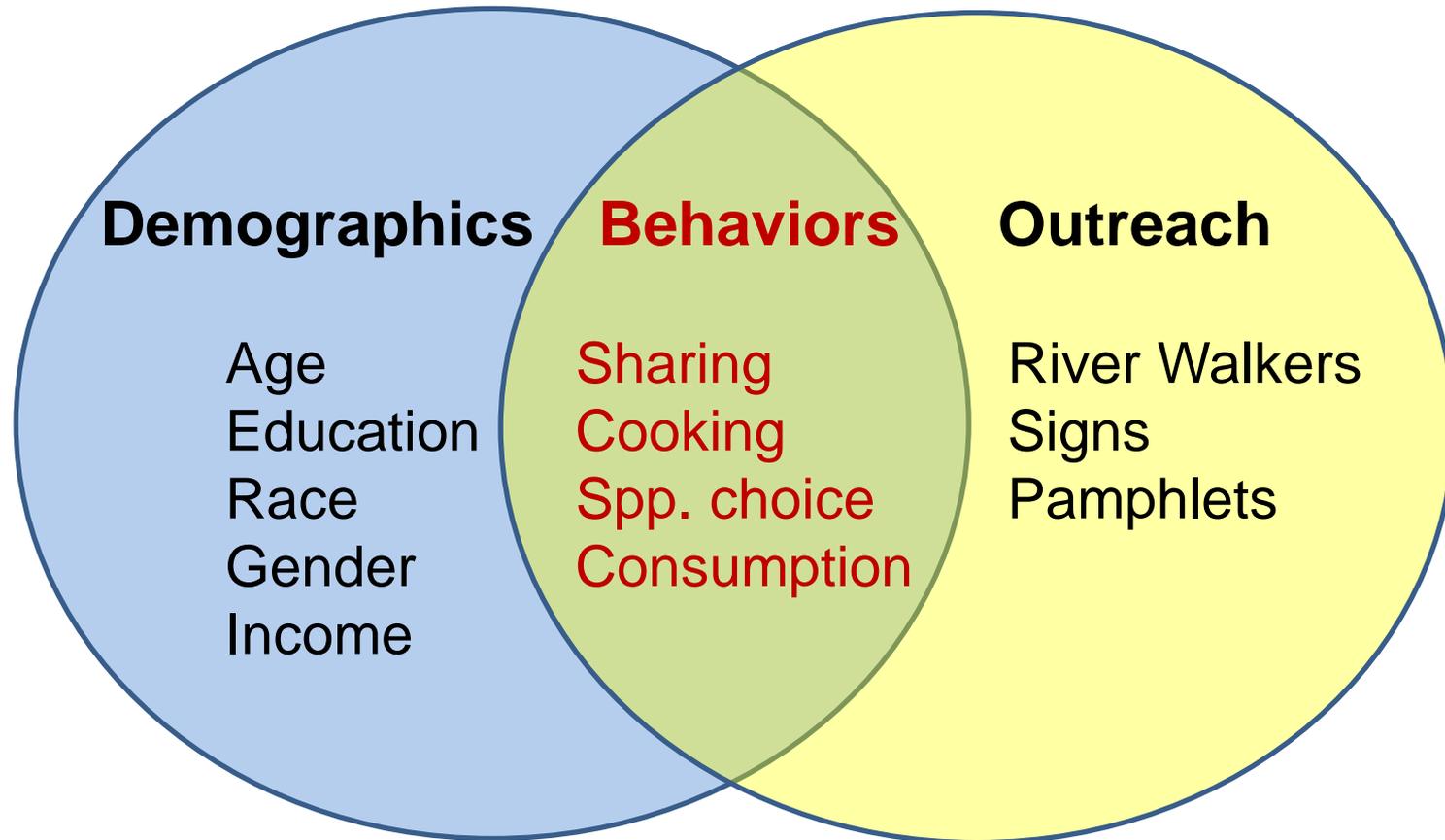
If you cook your fish like this, you can get rid of even more of the chemicals that can be in the filet...except mercury, of course!



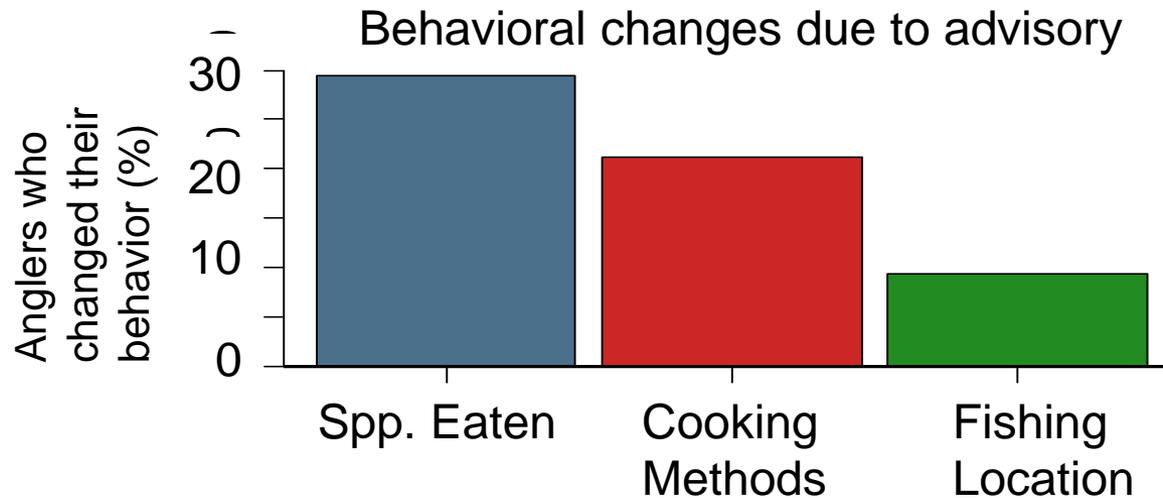
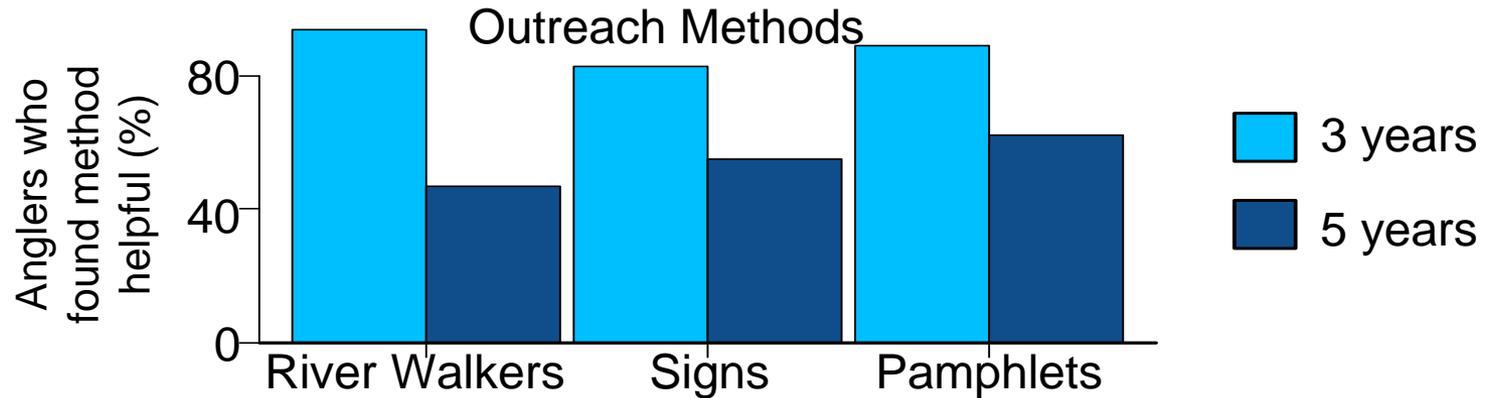
You can't remove mercury from fish by cleaning and cooking. Always choose your fish wisely!

Activ
Go to

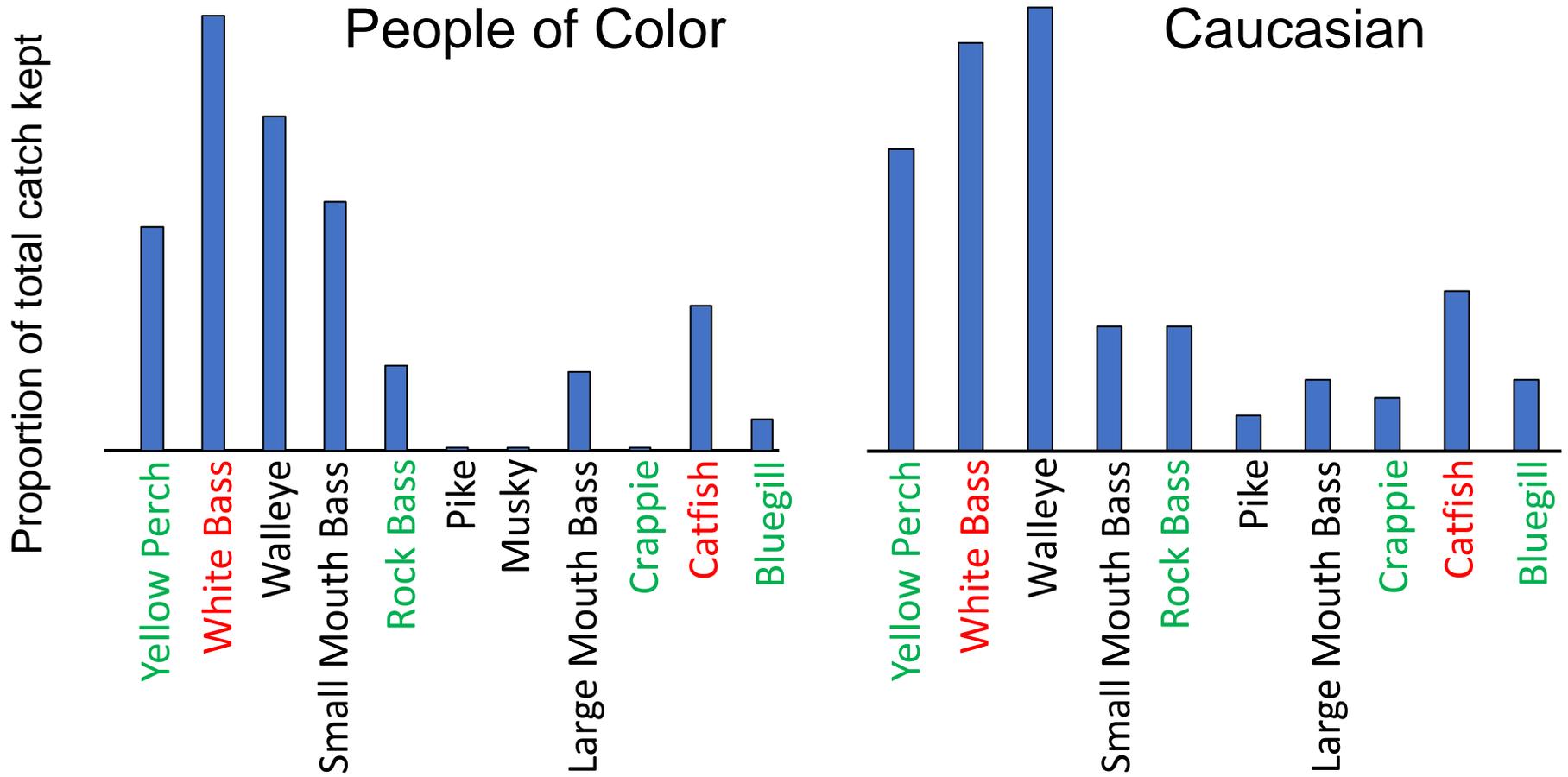
Methods: Survey Questions



Results: What works best?

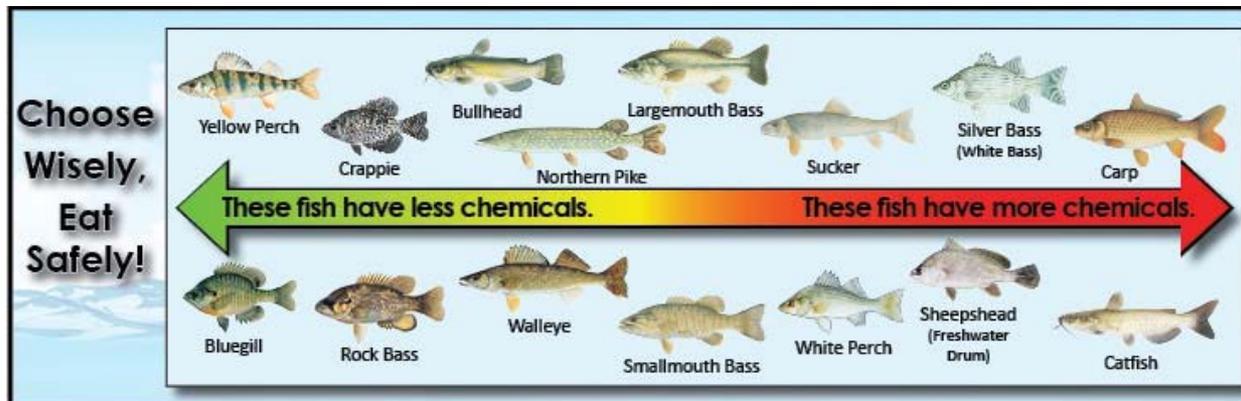


What are people eating? 5 years after initial outreach efforts



Conclusions

- By year five 55% of anglers were aware of the guidelines.
- People of color are still disproportionately consuming fish high in contaminants, but less of those are catfish.



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Thanks to the many surveyors, river walkers, faculty, agencies, and graduate students who contributed to this research.

