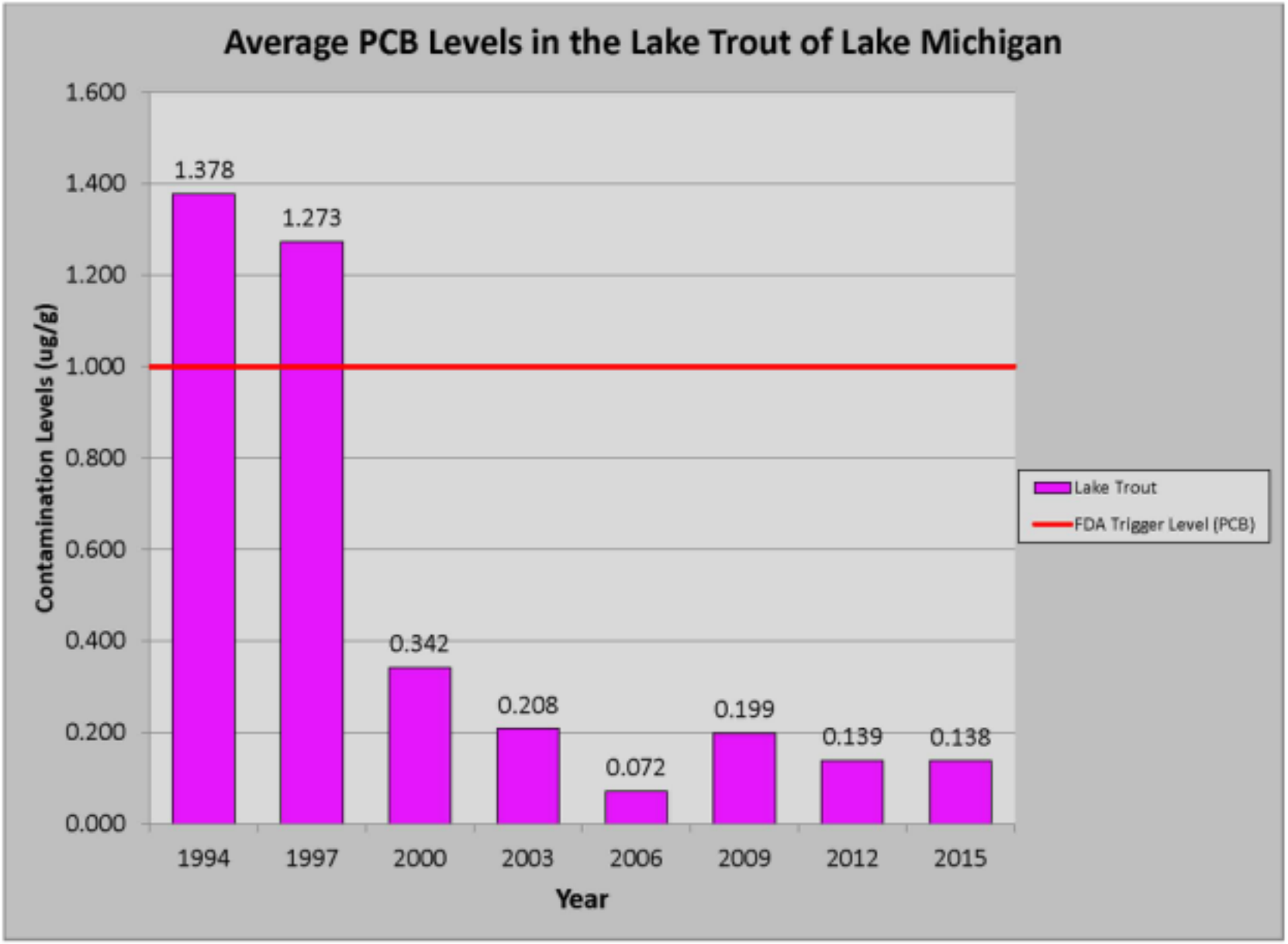
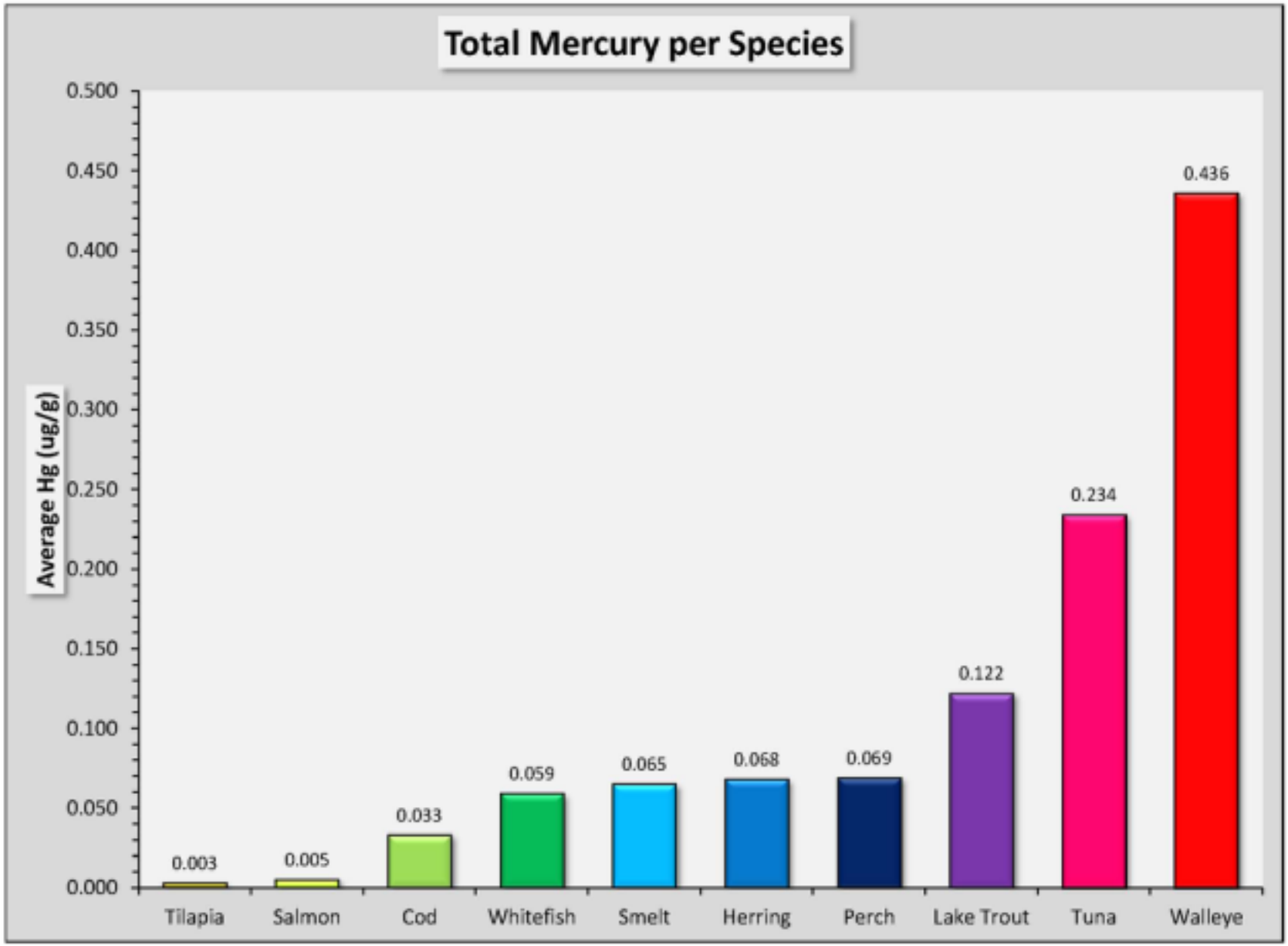
Declining Contaminants in Tribal Commercial Fish Harvest
Benefits vs. Risks

By Mike Ripley
Chippewa Ottawa Resource Authority
2016 Michigan Good Food Summit
East Lansing, MI
October 28, 2016


BREAD MILK SODA BEER
Snapple
79¢
thirsty?


Average PCB Levels in the Lake Trout of Lake Michigan
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
Contamination Levels (ug/g)
1.378
1.273
0.342
0.208
0.072
0.199
0.139
0.138
1994
1997
2000
2003
2006
2009
2012
2015
Year
Lake Trout
FDA Trigger Level (PCB)


Total Mercury per Species
Average Hg (ug/g)
0.500
0.450
0.400
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
0.003
0.005
0.033
0.059
0.065
0.068
0.069
0.122
0.234
0.436
Tilapia
Salmon
Cod
Whitefish
Smelt
Herring
Perch
Lake Trout
Tuna
Walleye

Eating fish is more than healthy — it's essential

Nutrients in fish are important for people of all ages. Fish is a source of lean protein, vitamins and minerals, and omega-3 fatty acids. Babies need omega-3 fatty acids for brain development. Omega-3s help cut the risk of diabetes, heart disease, Altheimer's, arthritis and stroke.

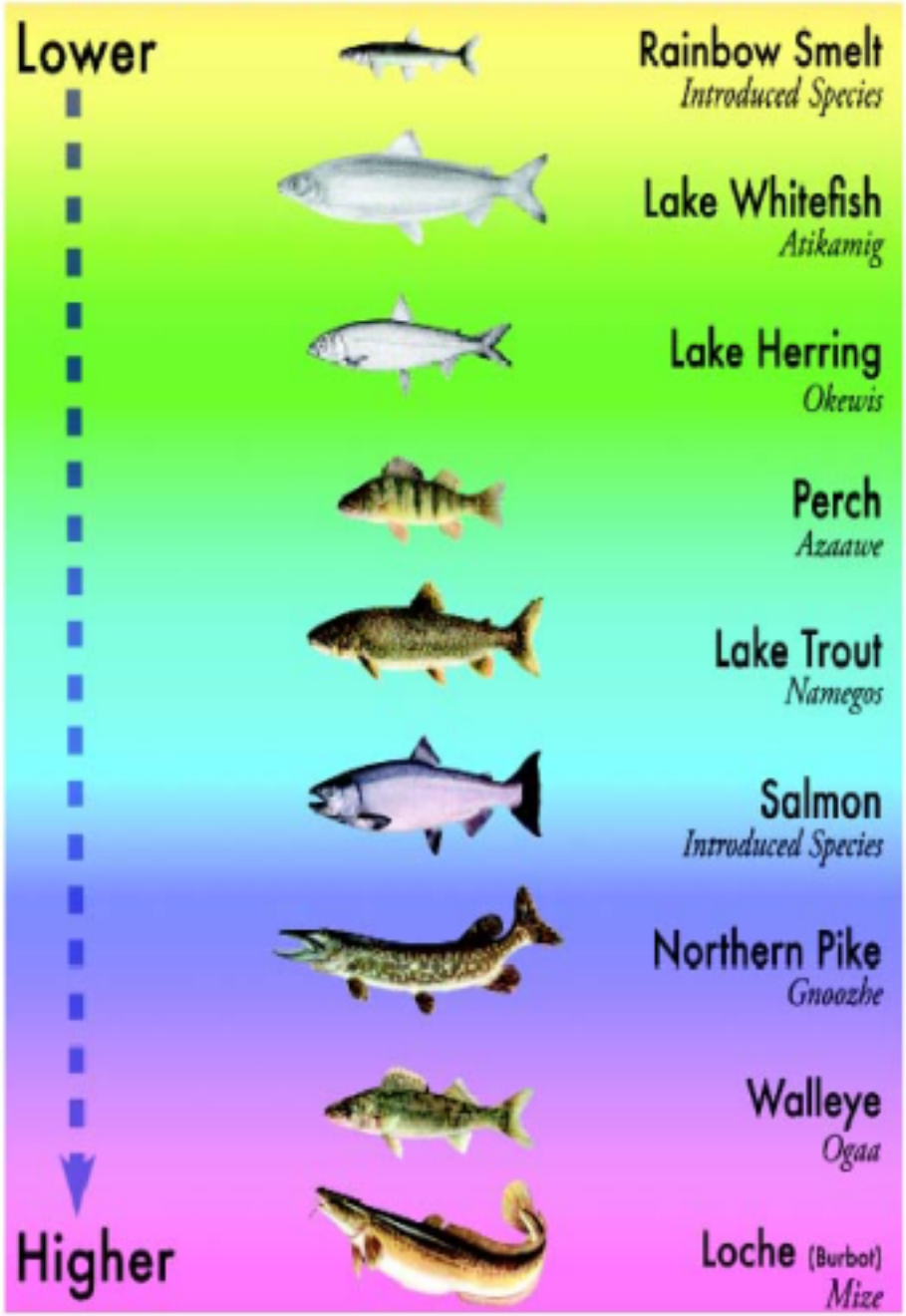
Americans eat too few omega-3 fatty acids and too many saturated fats in red meat and fast foods. This contributes to obesity, heart disease and diabetes.

Our bodies can't make omega-3 fatty acids, so we have to include it in our diet. Pregnant moms must eat foods with omega-3s in order to pass them on to their babies, and later by breastfeeding.

Women and children are advised to eat two meals a week of fish that is lower in mercury. Many Great Lakes fish are a good source of omega-3s. Several of these species have more omega-3s than canned tuna, which has 1.5 grams per 3 oz. serving *(see below)*.

Favorite Great Lakes Fish Species	Omega-3 Fatty Acid Grams / 3 oz serving
Lake Herring	3.6
Chubs	3.5
Lake Whitefish	3.4
Lean Lake Trout	3.0
Coho Salmon	1.5
Chinook Salmon	1.3
Rainbow Smelt	1.3
Walleye	0.4
Yellow Perch and Loche	0.3

Mercury Levels In Upper Great Lakes Fish



Choosing your fish is easy if you remember —

SOURCE SPECIES SIZE

Some contaminants can build up in the fatty parts of the fish. Other contaminants build up in the fillet. As the fish grows it can accumulate more contaminants. So, choose your fish using the three guidelines below:

SOURCE — Find out where your fish is from. Some lakes and rivers have less contaminants than others. Lakes Superior, Michigan and Huron have lower levels of mercury than inland lakes and reservoirs. If there's no label, ask.

SPECIES — Fish that eat other fish tend to build up more contaminants in their flesh. Some species grow more slowly, allowing more time for contaminants to build up.

SIZE — Choose smaller fish. Larger fish eat other large fish, building up even more contaminants.