

Human Health - Fish Contaminants Indicator

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What causes changes in Fish Consumption Advice?

- Contaminant levels
- Interpretation of safe dose

What is NOT an indicator of the "edibility" of fish?

- Number of fish advisories
- Total lake area or river miles under an advisory
- "Green" areas

Contaminants that Cause Fish Advisories in Canada and the United States



Human Health - Fish Contaminants Indicator

- A standardized method for calculating consumption advice
- Historical data on contaminants in fish

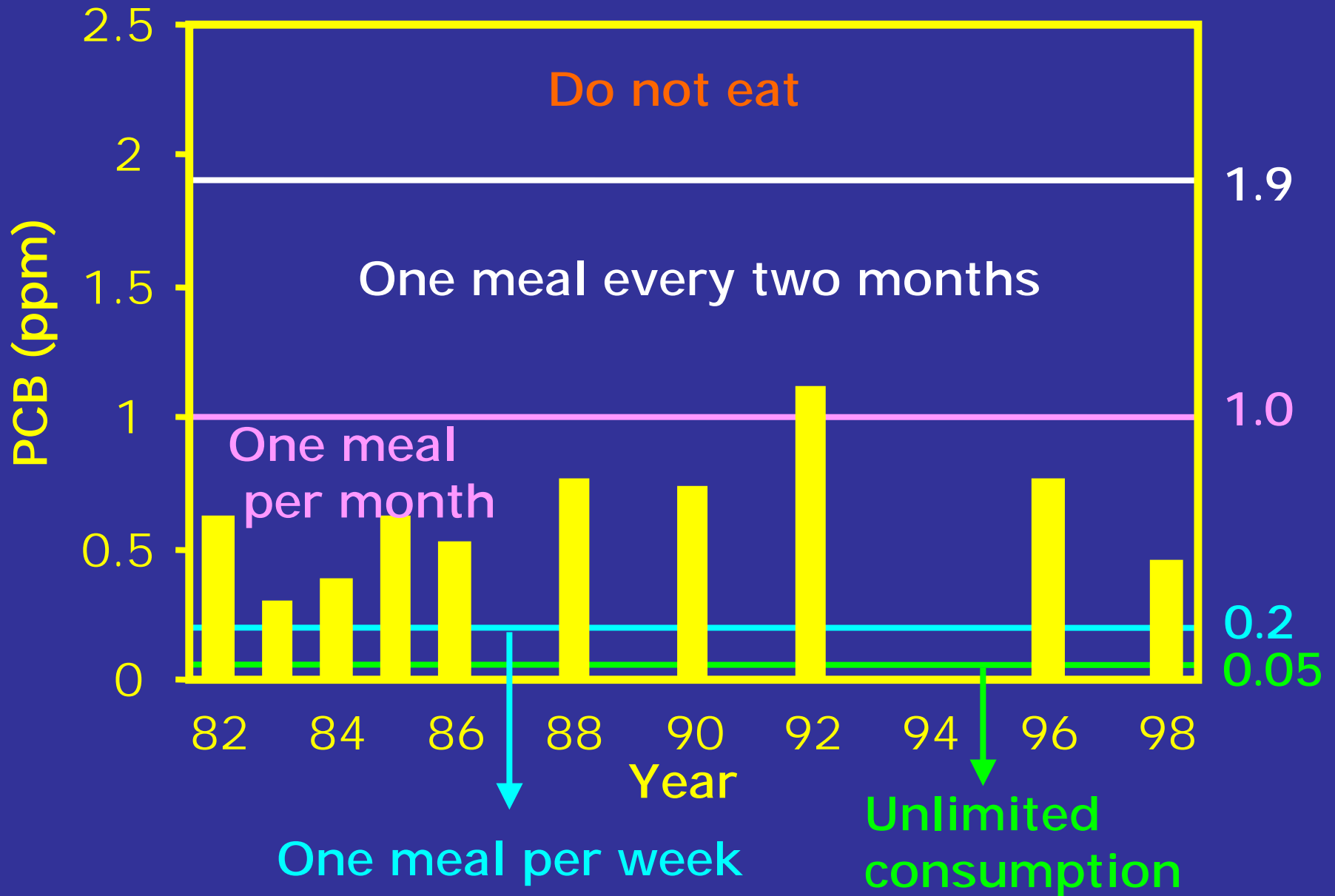
A Starting Point

- Protocol for Uniform Great Lakes Sport Fish Consumption Advisory for PCBs
- Data from:
 - US EPA GLNPO Great Lakes Fish Monitoring Program
 - Ontario MOE Sport Fish Contaminant Monitoring Program

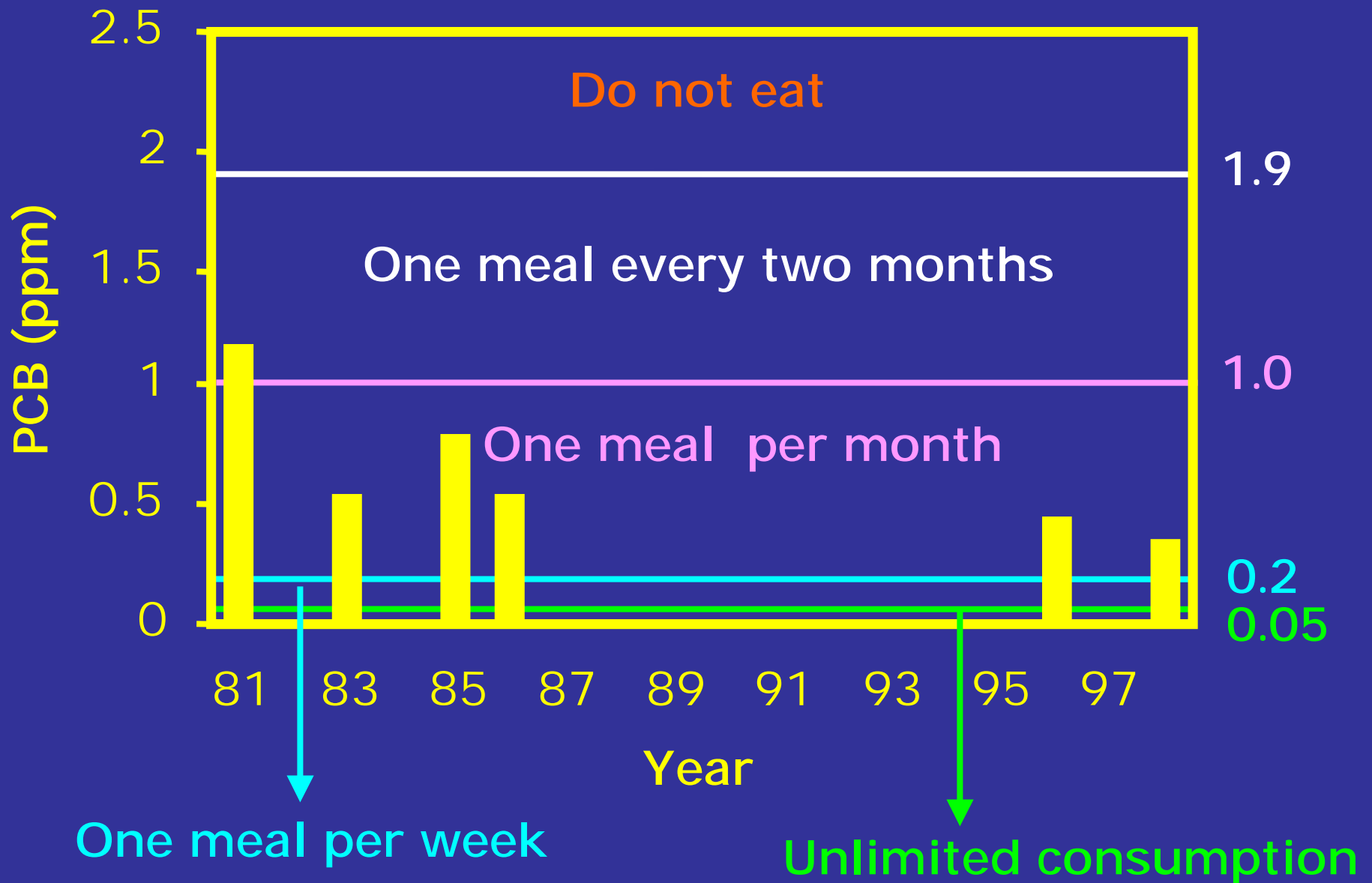
Protocol for Uniform Great Lakes Sport Fish Consumption Advisory

Meal Frequency	PCB concentration (ppm)
Unlimited	< 0.05
1 meal/week	0.06 – 0.2
1 meal/month	0.21 – 1.0
meal/2-month	1.1 – 1.9
Do not eat	> 1.9

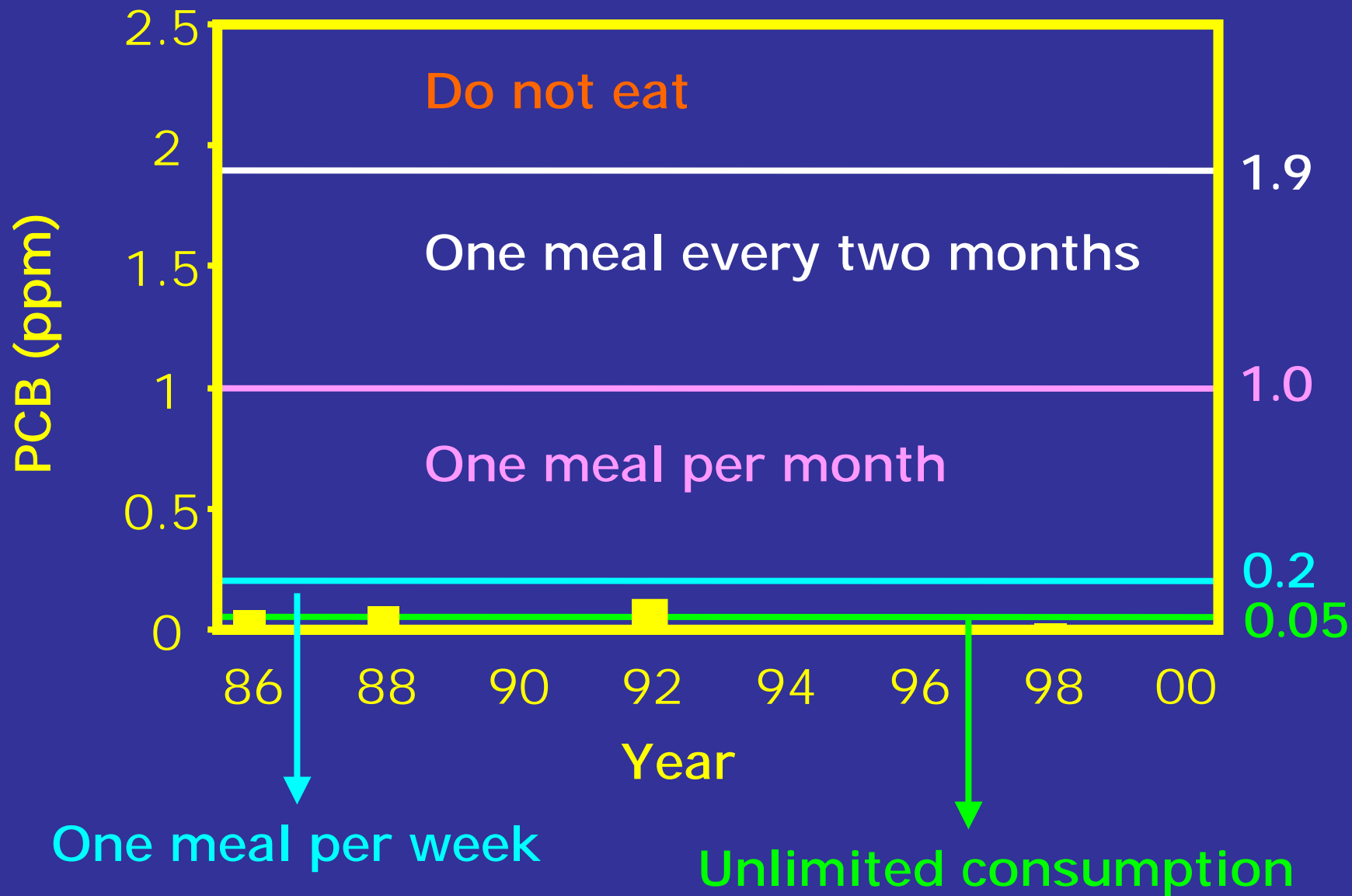
PCBs in Lake Michigan Coho Salmon



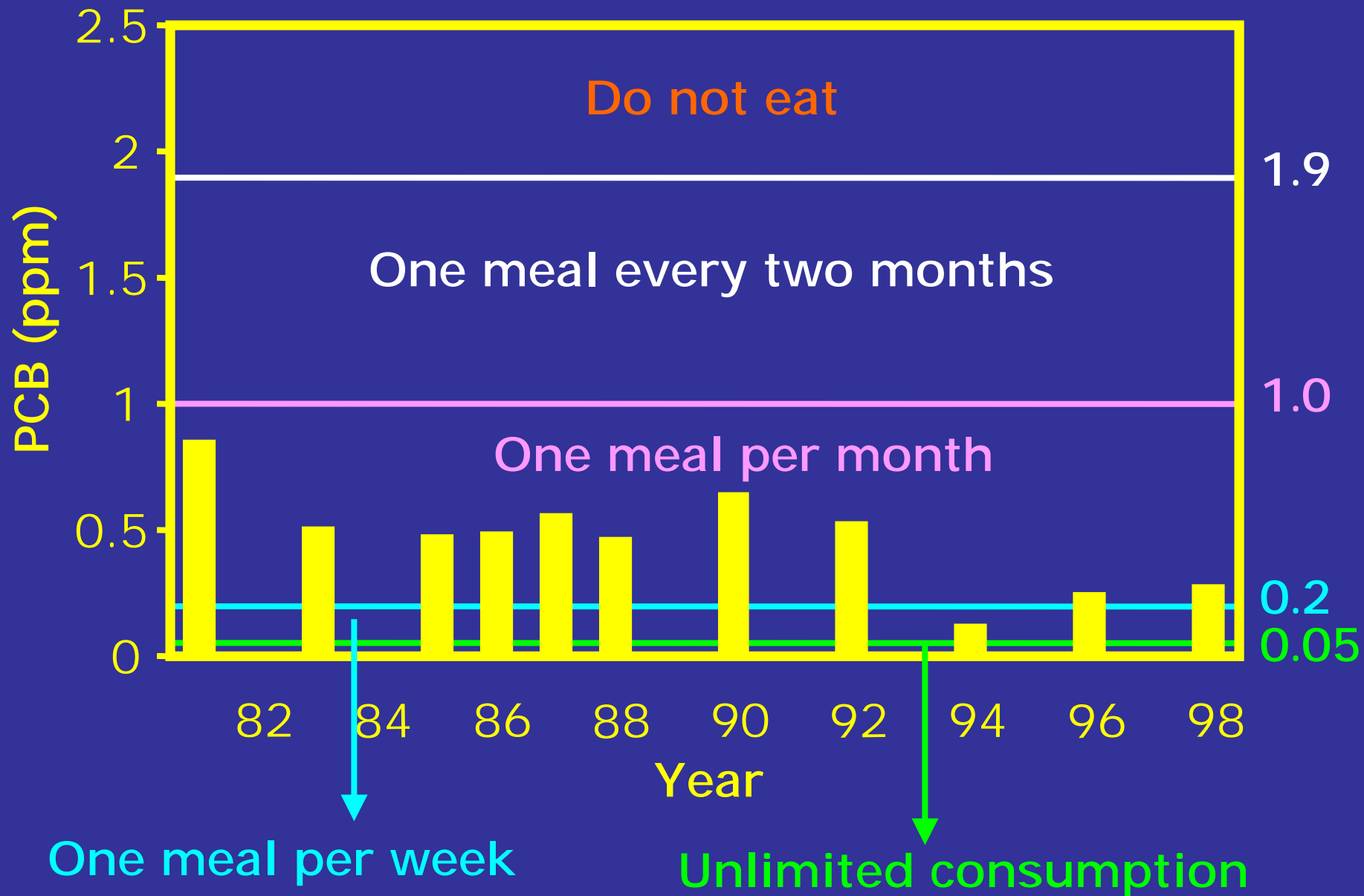
PCBs in Lake Huron Coho Salmon



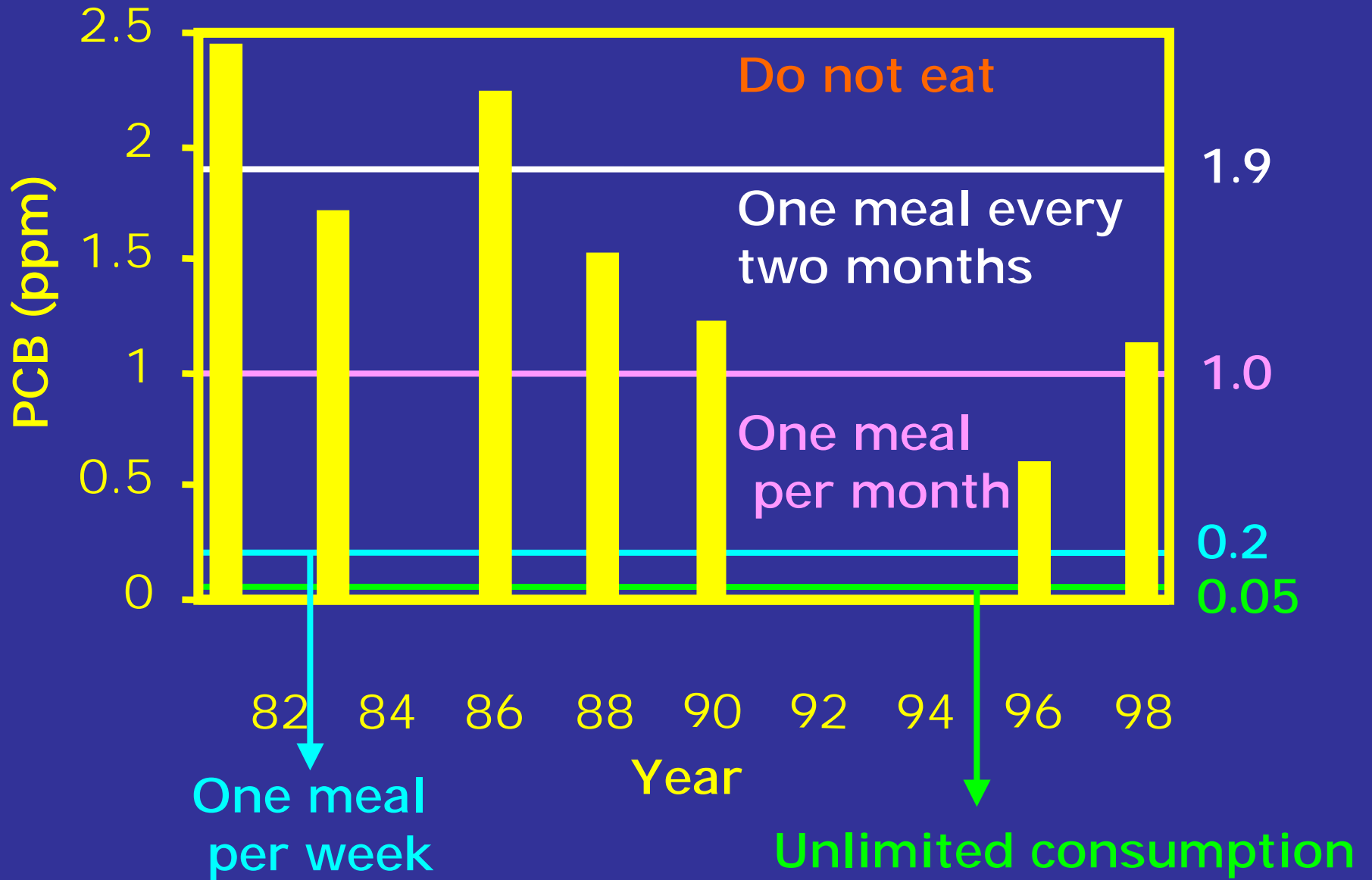
PCBs in Lake Superior Coho Salmon



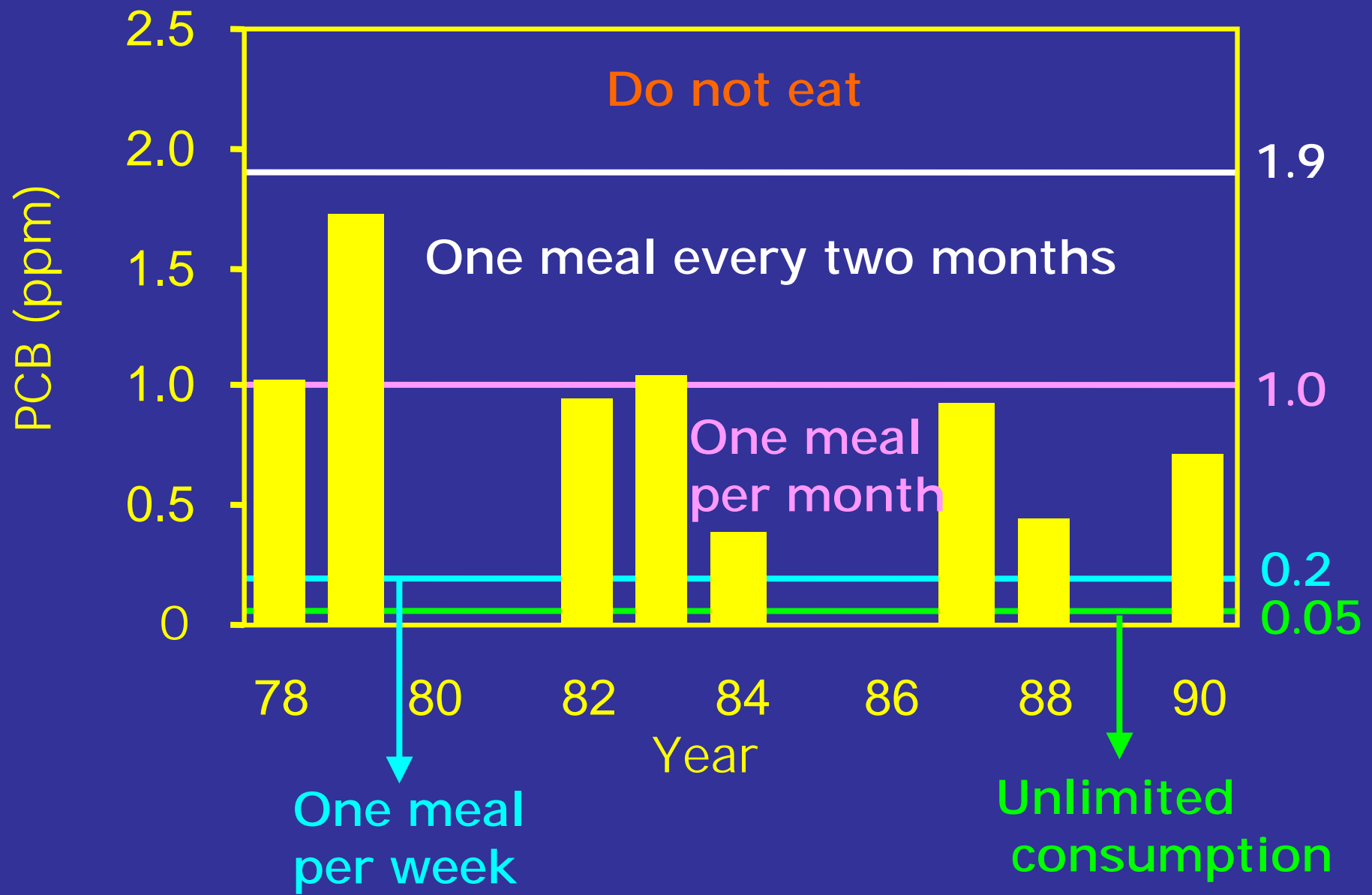
PCBs in Lake Erie Coho Salmon



PCBs in Lake Ontario Coho Salmon



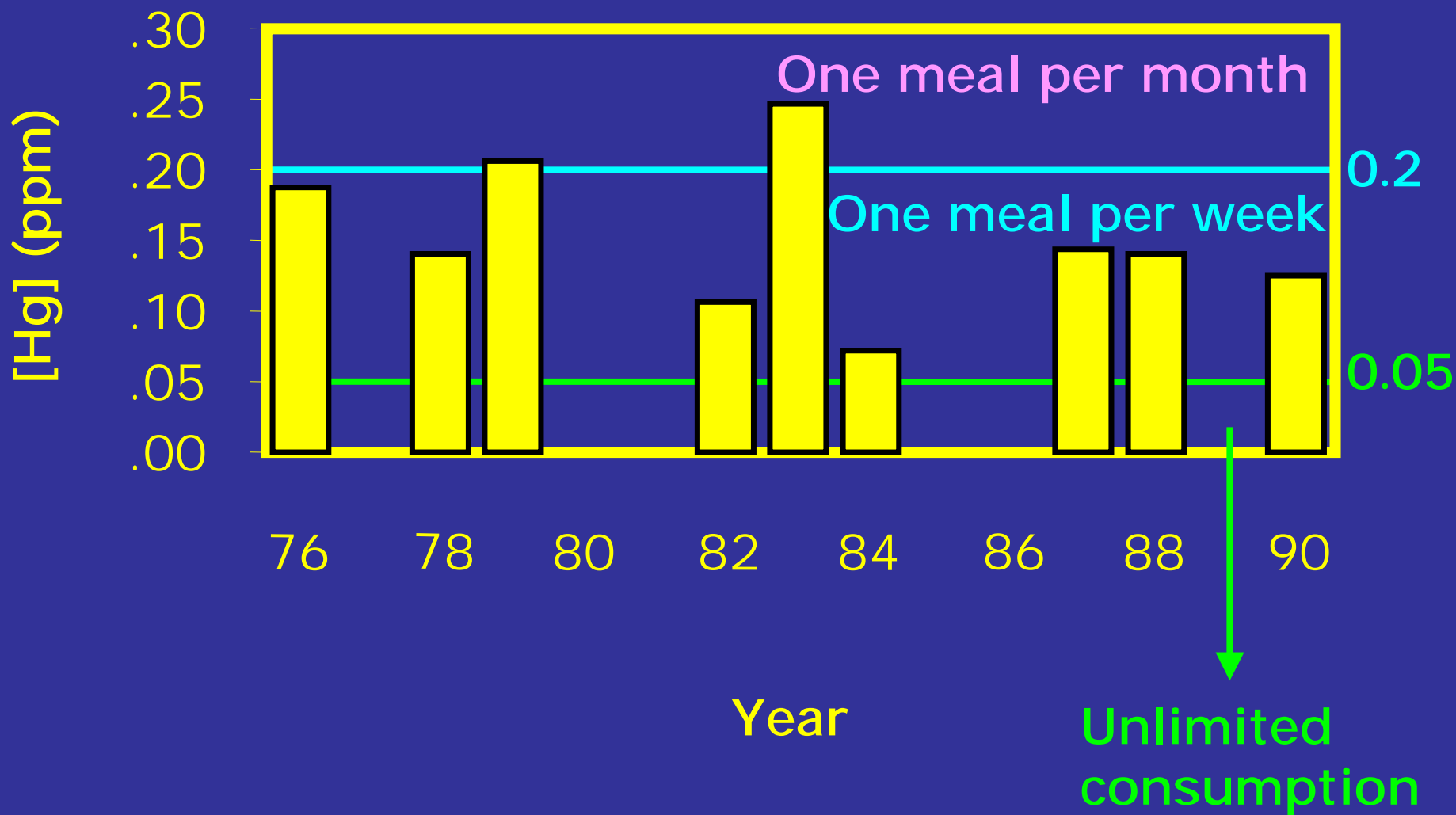
PCBs in Western Lake Ontario Coho Salmon



PCB-based Meal Advice for Coho

- Superior - 1 meal/week
- Erie, Huron, Michigan
 - 1 meal/month
- Ontario
 - 1 meal/2-months → 1 meal/month
- Large concentration changes needed to change advice

Western Lake Ontario Coho Salmon



Next Steps

- Promote data coordination
 - explore relationships in existing datasets
 - future monitoring parameters
- Work towards agreement on standardized advisory protocols
- Expand indicator to other chemicals
- Expand indicator to other species
- Pilot project

Contributors

- Great Lakes National Program Office
- Ontario Ministry of the Environment
- Department of Fisheries and Oceans
- Great Lakes States Sport Fish Advisory Taskforce
- Great Lakes Indian Fish and Wildlife Commission

