

# Fish and Human Health



Don A. Essig – Idaho Department of Environmental Quality  
Spokane River Forum – March 24, 2016



BAF

RSC

BCF





FCR

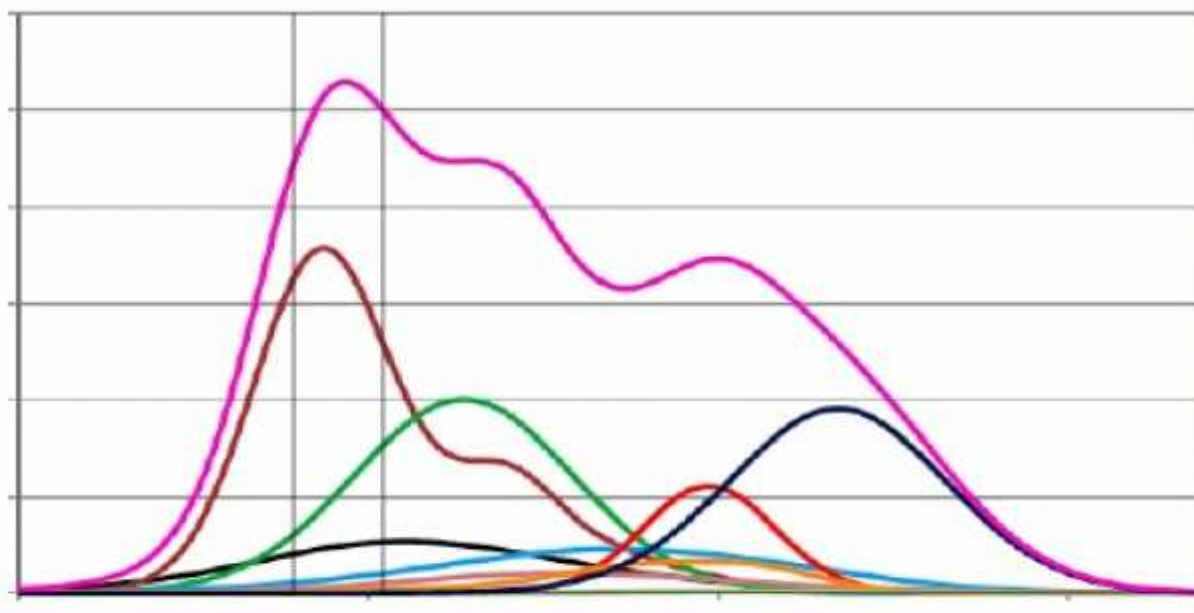
FFQ

NCI

DR

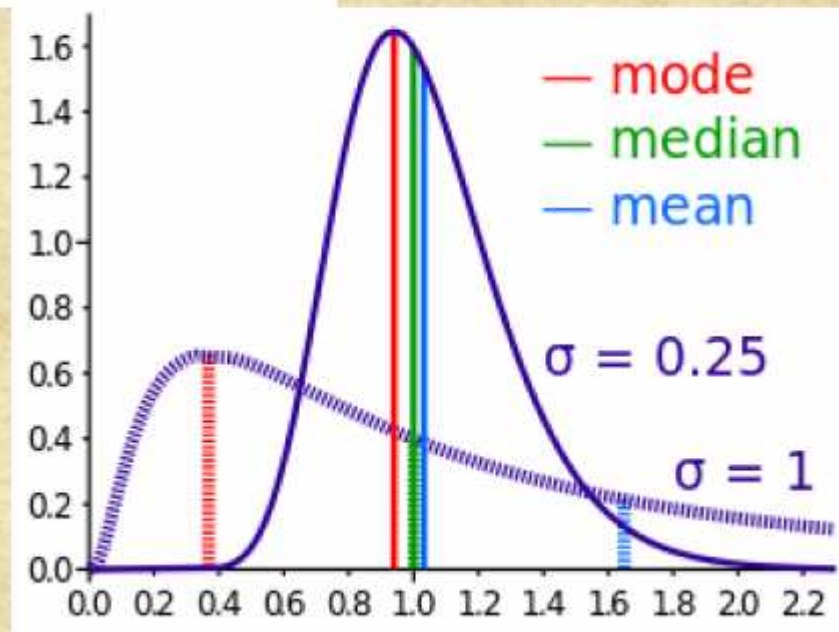
UFCR

70 yrs



*Choice of  
population  
within the  
population*

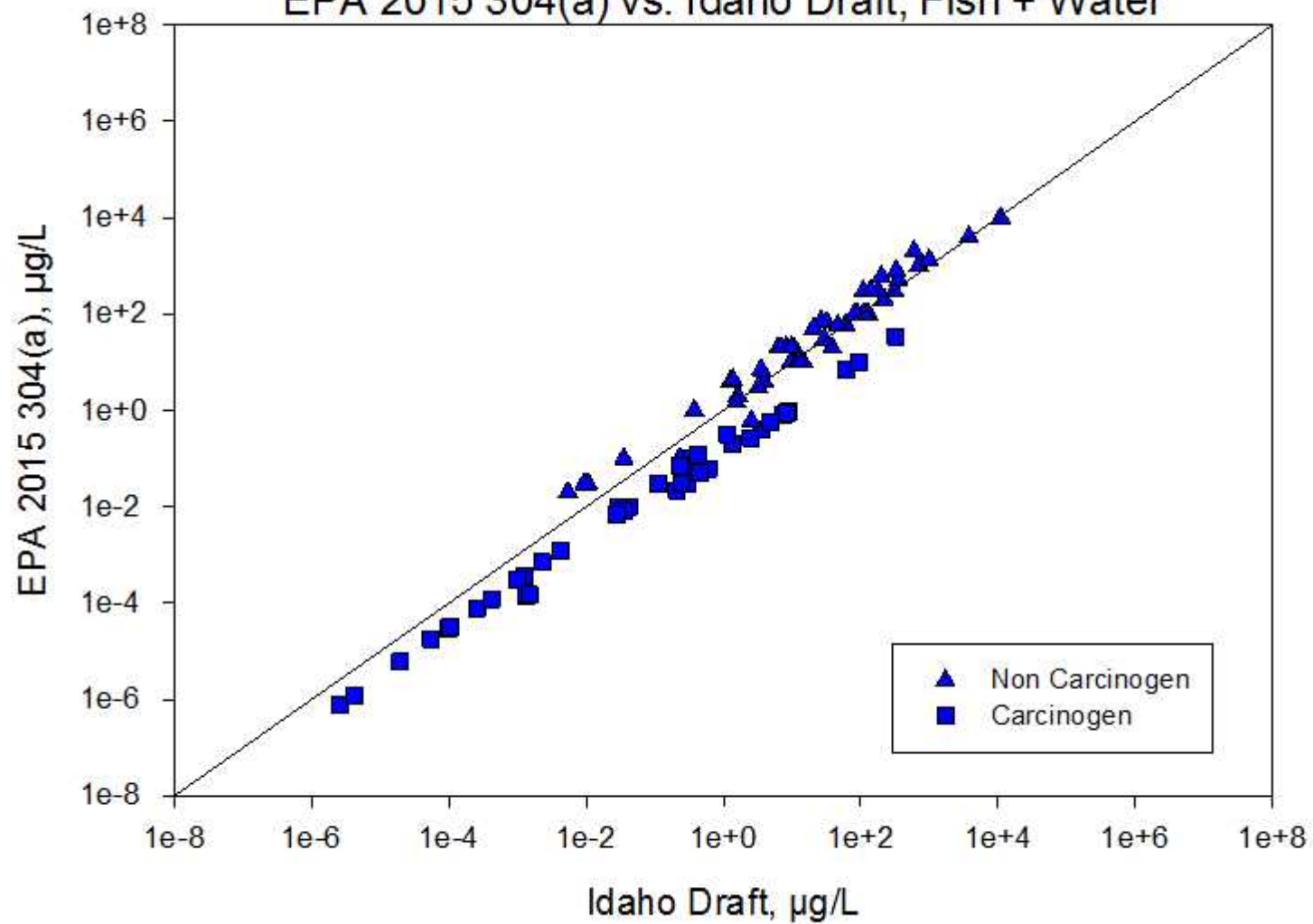
*Choice of  
statistic to  
describe the  
population*



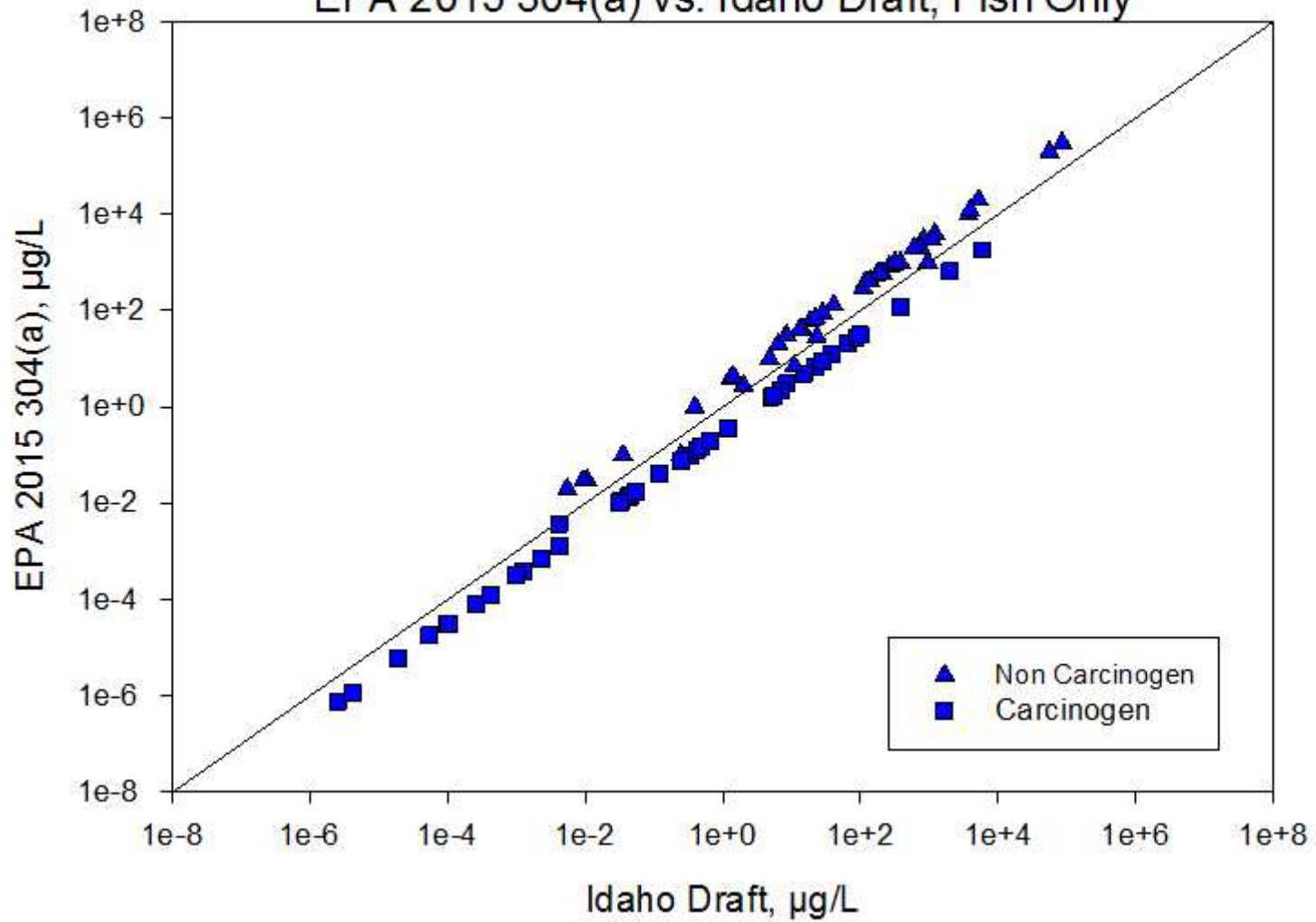
# Idaho's Pending HHC Rule

- 1) Based on EPA 2015 inputs for toxicity, RSC, bioaccumulation, and drinking water intake
- 2) Fish consumption rate based on Nez Perce Tribe survey:
  - Group 2 fish, includes salmon
  - mean consumption rate of 66.5 g/day
- 3)  $10^{-5}$  Incremental increase in lifetime risk of cancer (carcinogens only)
- 4) Deterministic calculation

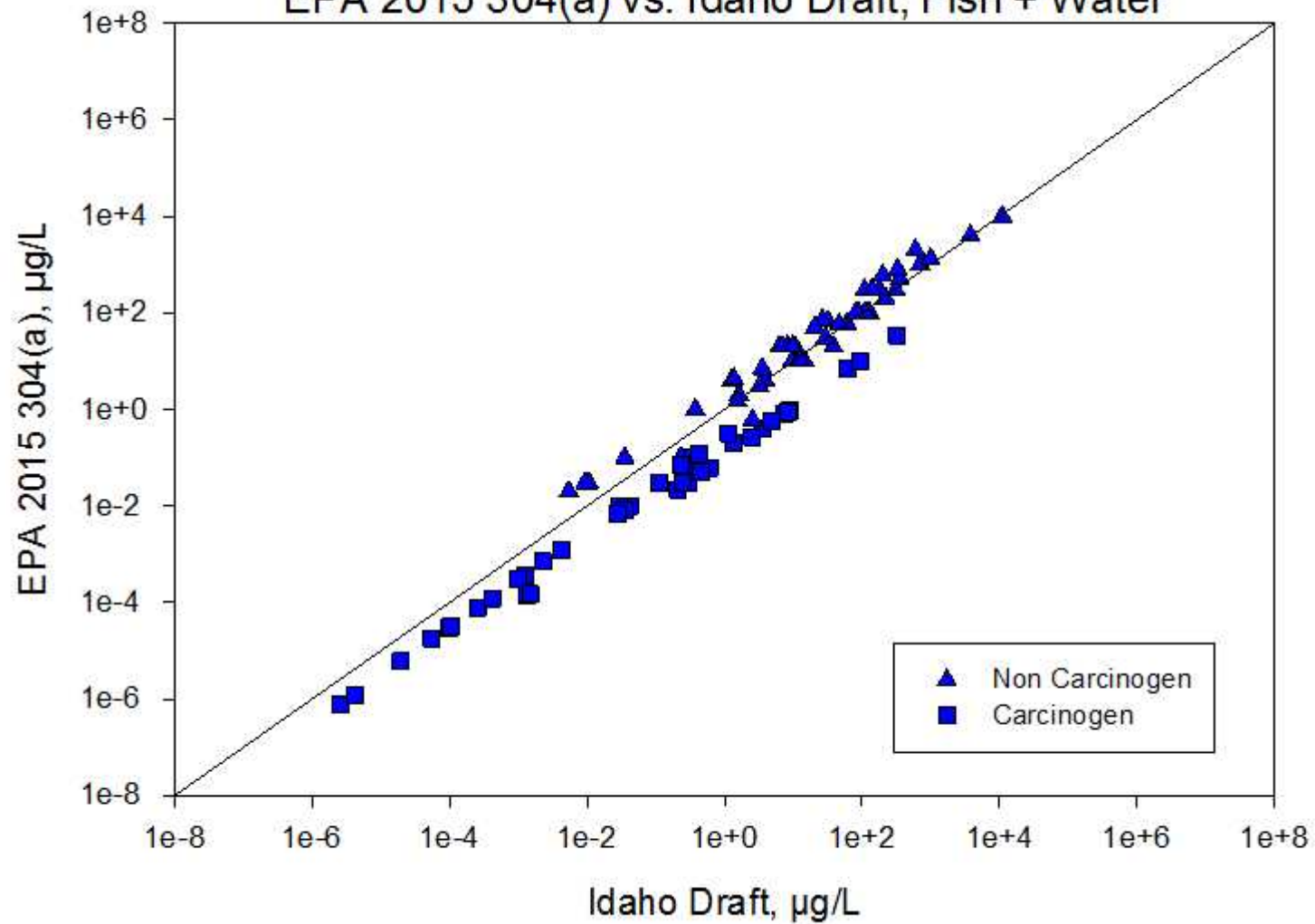
EPA 2015 304(a) vs. Idaho Draft, Fish + Water



EPA 2015 304(a) vs. Idaho Draft, Fish Only



EPA 2015 304(a) vs. Idaho Draft, Fish + Water





EPA 2015 304(a) vs. Idaho Draft, Fish + Water

