

Creating Washington's Vp Risk Assessment

Hilary Browning
Office of Shellfish and Water Protection
March 27, 2014



Public Health – Always Working for a Safer and Healthier Washington

Justification

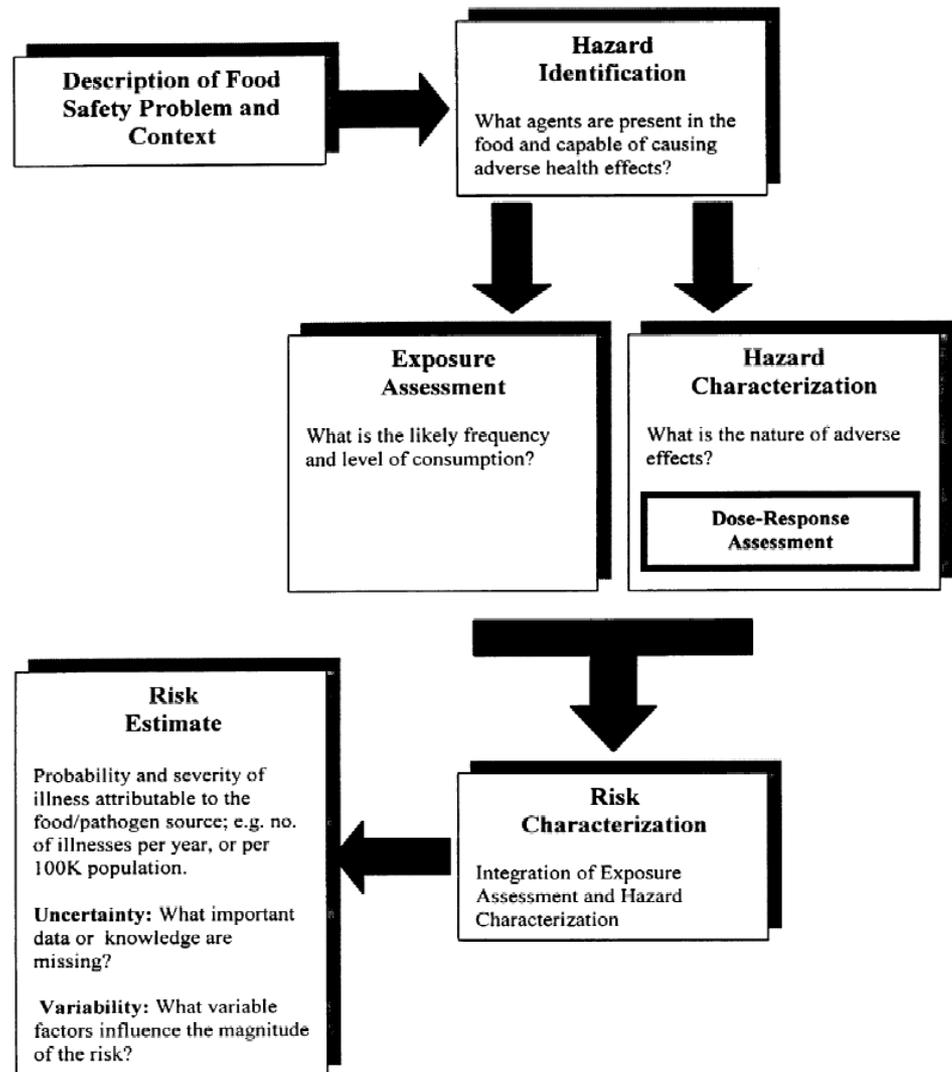
- ▶ FDA 2005 laid the groundwork for *Vp* risk assessment
- ▶ Now is a good time to update:
 - WA has unique environmental conditions and harvest practices
 - 10–15 years worth of new research available

Goals

- ▶ Provide WA State with a flexible risk assessment that can adapt with new data and changing conditions
- ▶ Emphasize comparing growing areas to one another
- ▶ Help with revision of the Vibrio Control Plan

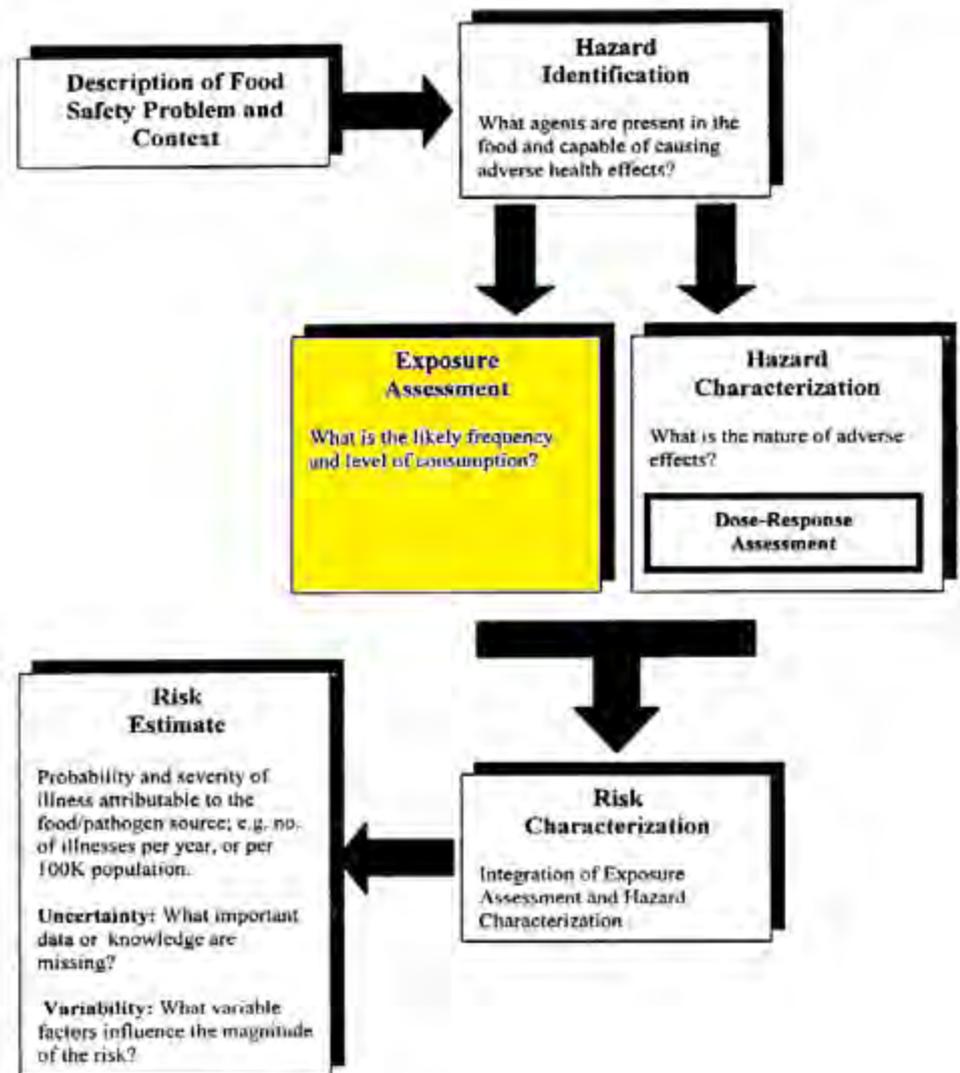
Risk Assessment Overview

- ▶ Formal model that follows standard methodology



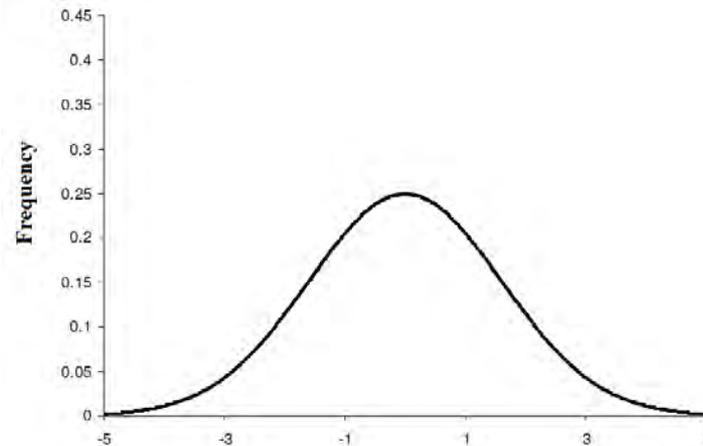
Risk Assessment Overview

- ▶ Formal model that follows standard methodology

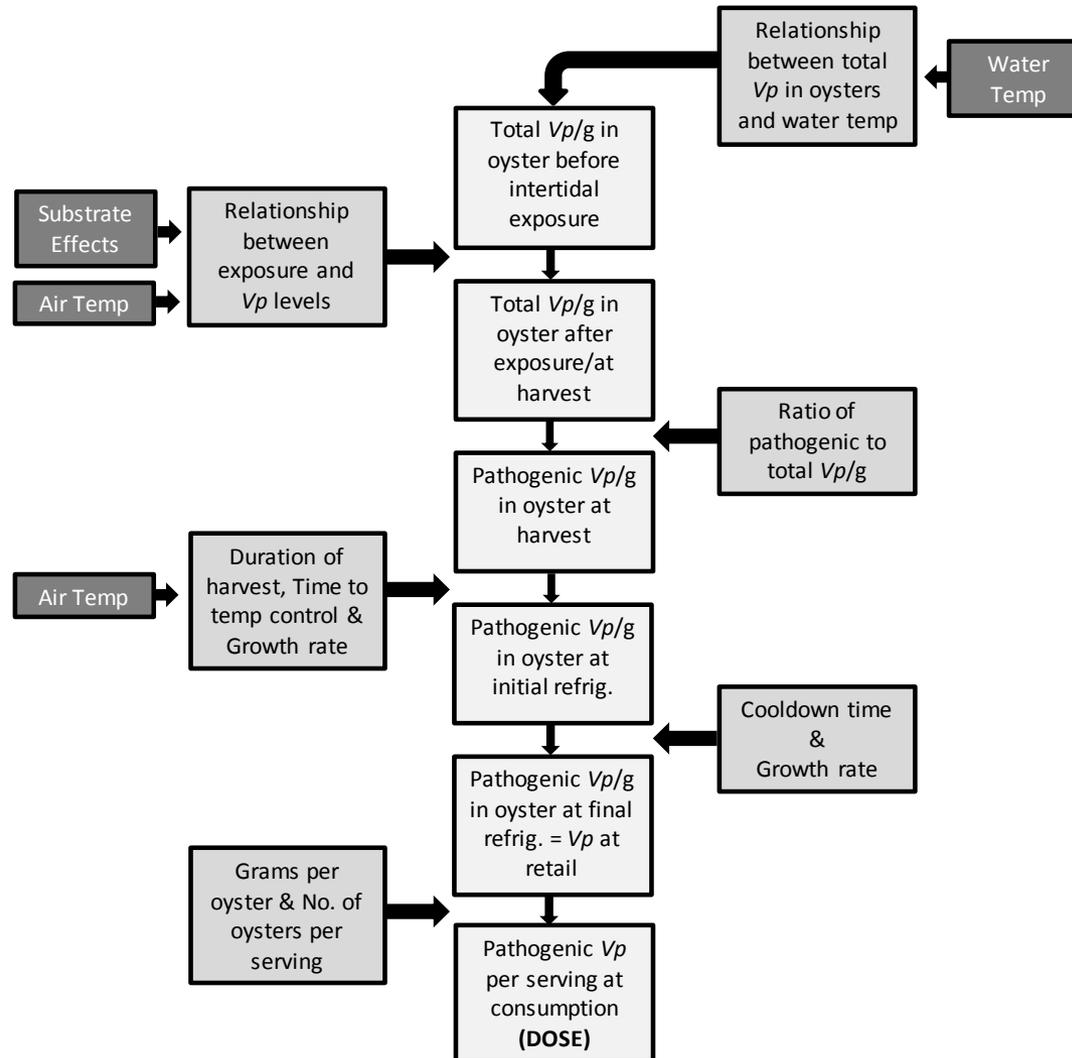


Risk Assessment Overview

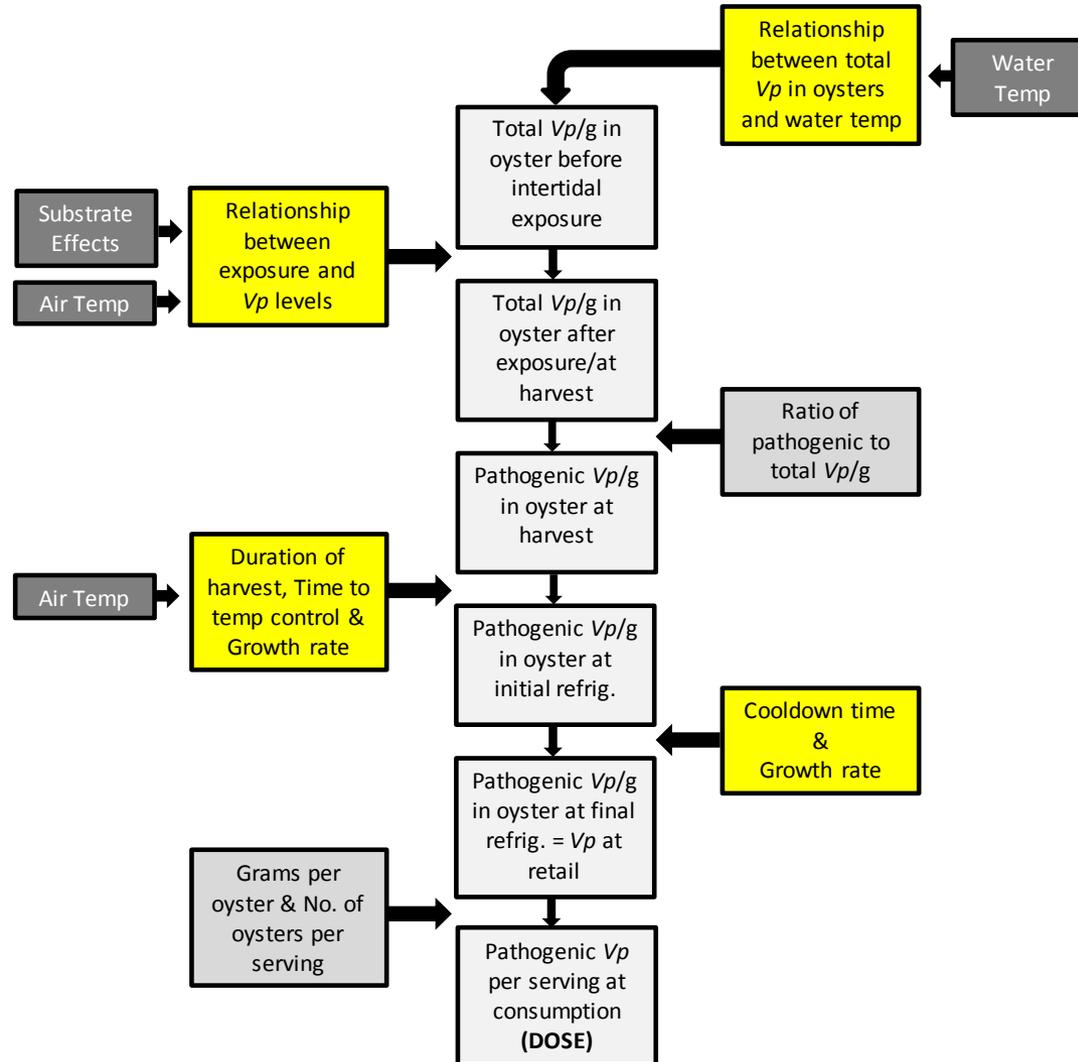
- ▶ Software works by sampling distributions repeatedly
- ▶ Output is a weighted range of risk from best case scenario to worst case
- ▶ Uncertainty vs variability



Conceptual Model

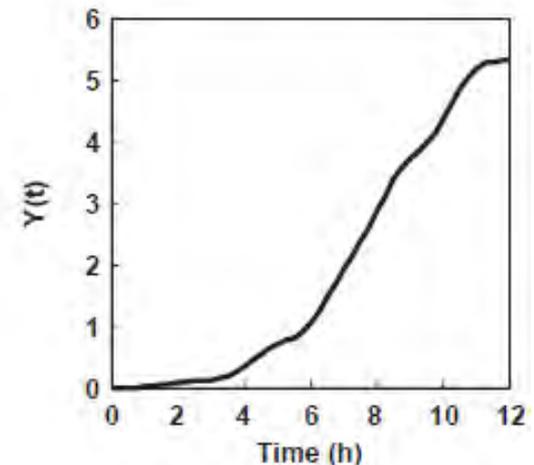
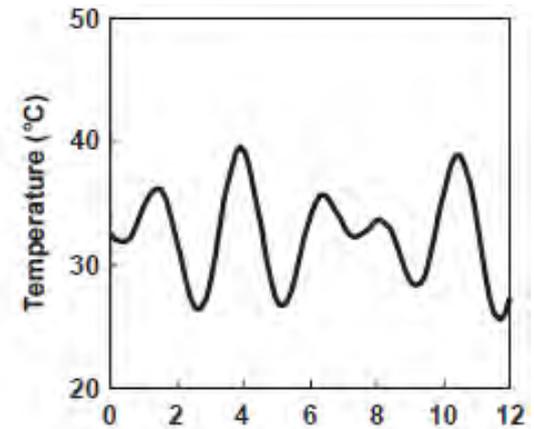
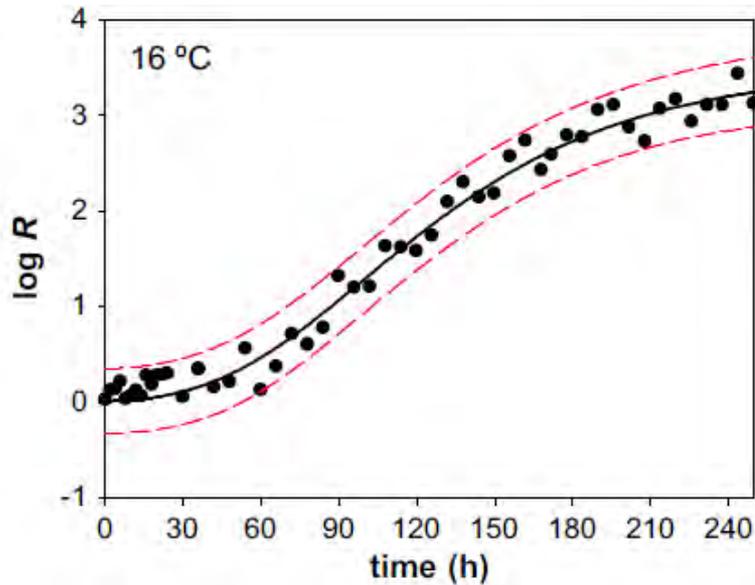


Growth



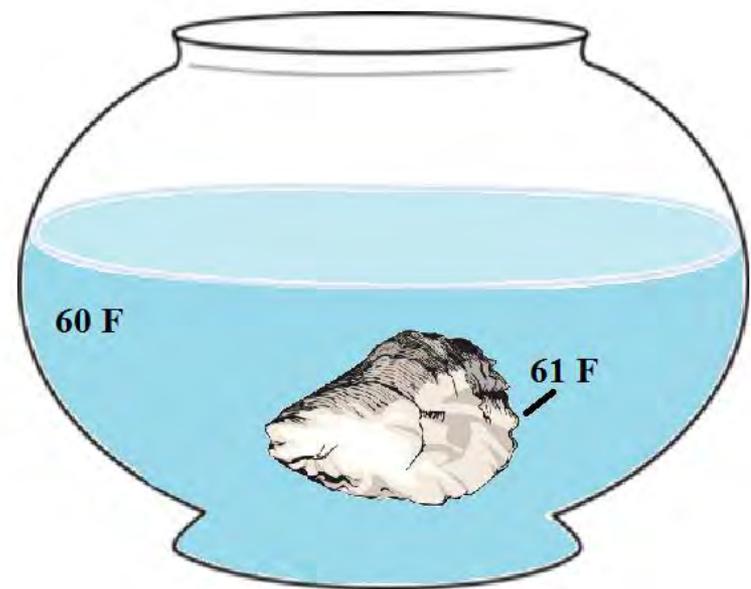
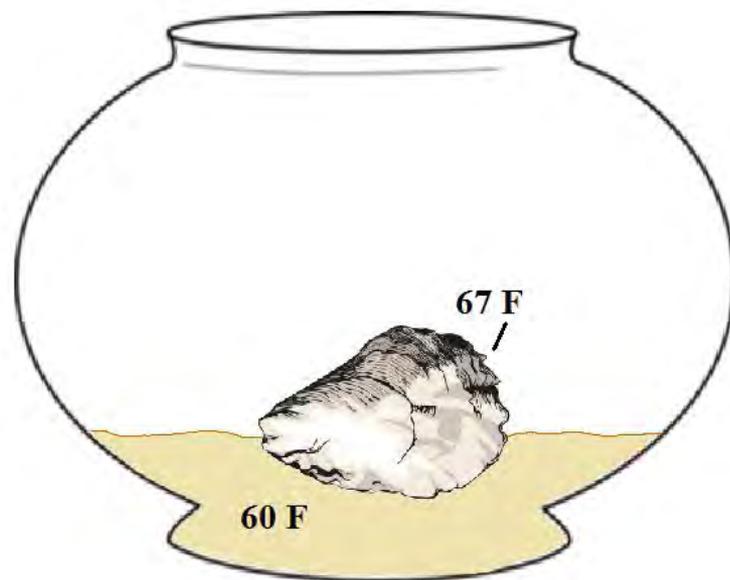
Progress on Growth

- ▶ Isothermal growth curves → dynamic growth curves

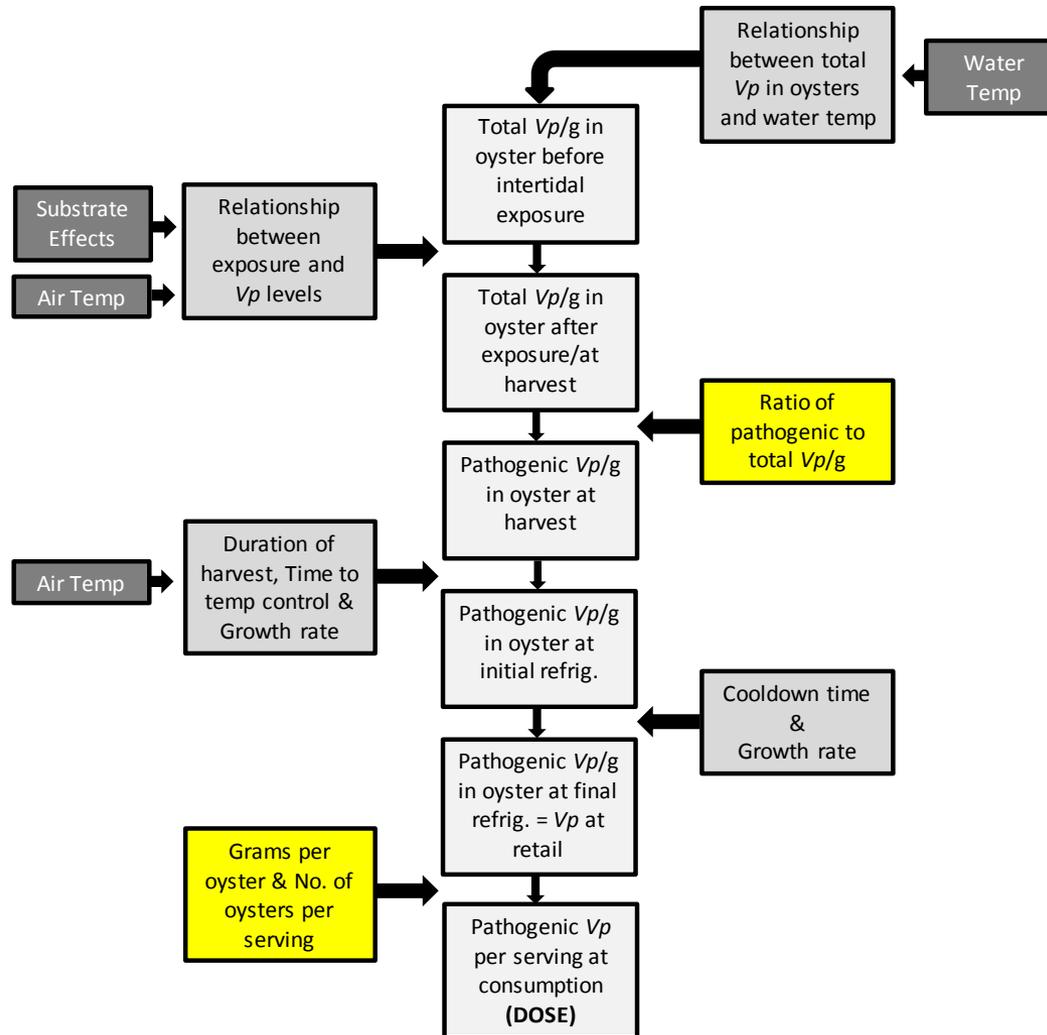


Progress on Growth

- ▶ Considering an experiment to determine differences in heat transfer

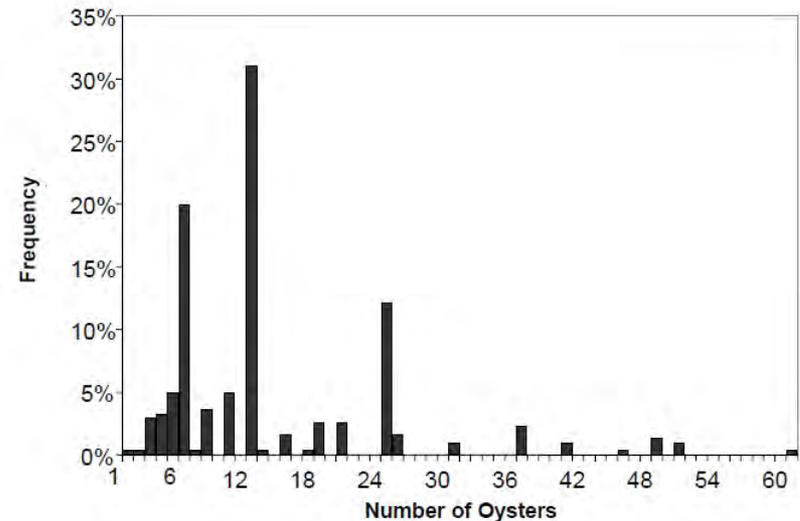
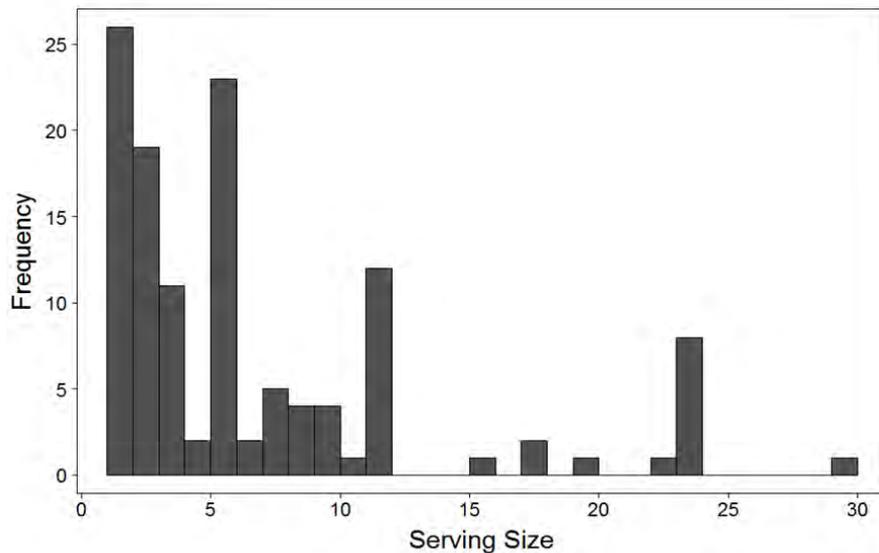


“Simple” Inputs



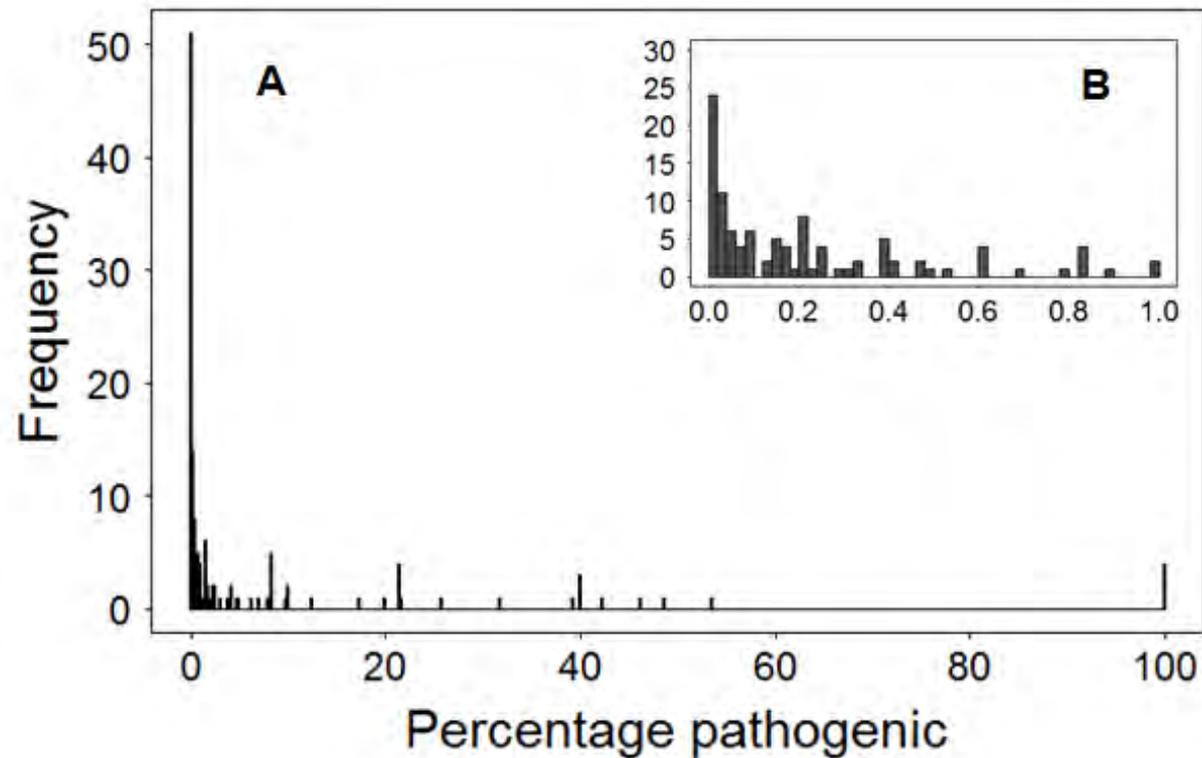
Serving Size

- ▶ Estimated from illness records
- ▶ Planning a raw oyster consumption survey this summer



Pathogenicity

- ▶ Estimated from routine environmental monitoring records



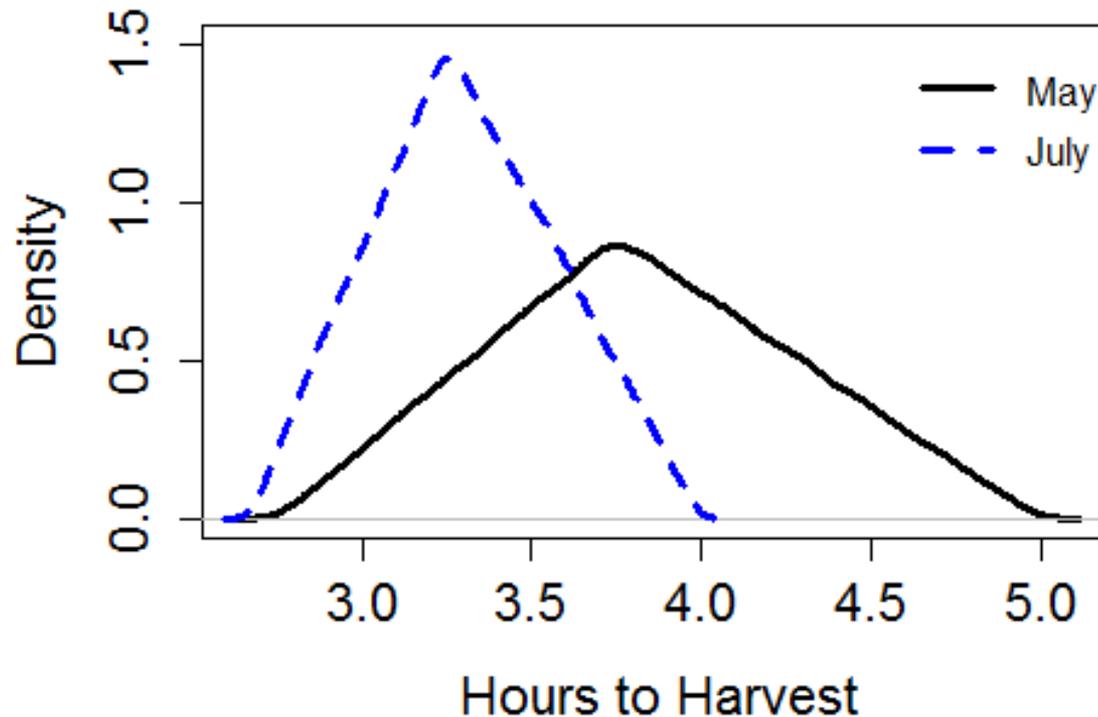
Future Work

- ▶ Complete growth model
- ▶ Summer experiment and consumption survey
- ▶ Testing model against summer season
- ▶ Sensitivity and uncertainty analyses



Harvest Duration

- ▶ Preliminary results from harvest duration survey:



Harvest Time Survey

All results from this survey are anonymous. Please do not include your name or your company's name.

Questions

What are your company's harvest practices? Please be as specific:

- Pick into harvest bags Pick into totes Pick into tubs Long-line
 Flip bags/tumbled Dredge Other

About how much time do you spend actively picking oysters during "initial" harvest handling? This includes breaking clusters and bagging for removal from the beach. Please give us your estimate of:

	May	June	July	Aug	Sept
> Minimum time	___	___	___	___	___
> Maximum time	___	___	___	___	___
> Most likely time	___	___	___	___	___

Once all oysters have been harvested, about how long does it take to get them under temperature control? Please give us your estimate of:

	May	June	July	Aug	Sept
> Minimum time	___	___	___	___	___
> Maximum time	___	___	___	___	___
> Most likely time	___	___	___	___	___

What is the first form of temperature control that you use? Please be specific (example -- if you have it, please include brand name too):

Thank You

Hilary Browning
Hilary.Browning@doh.wa.gov
(360)236-3346



Public Health – Always Working for a Safer and Healthier Washington