

Social and Cultural Health Indicators in Tribal Risk Research: An Alternative Approach



Swinomish Tribal Community

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**OSU Conducting Research in Tribal Communities Workshop
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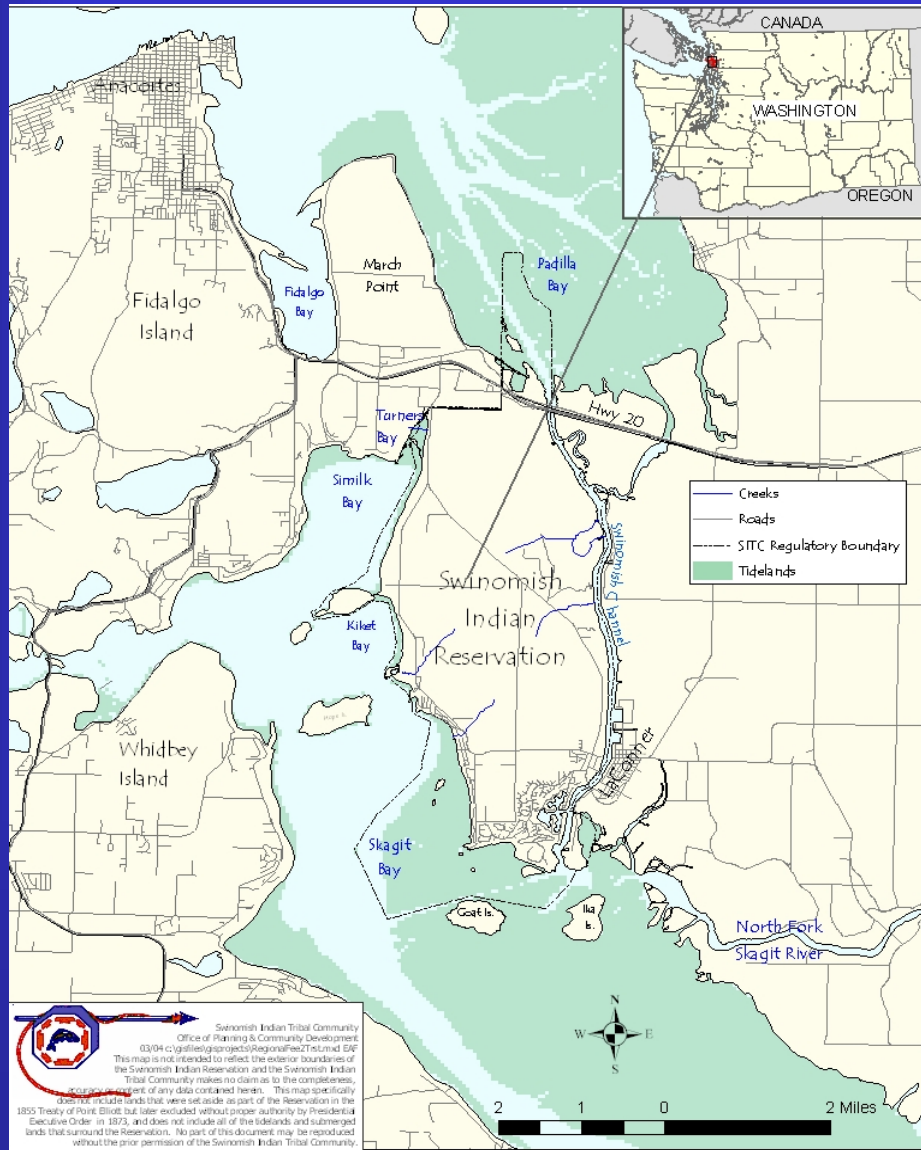
Dr. Jamie Donatuto, Swinomish Indian Tribal Community

Presentation Outline



- Research at Swinomish: Seafood diet interviews for health risk assessment purposes
- Why the work is an “alternative approach”
- Examples of incorrect approaches...and basis for determining whether approaches are acceptable or not

Swinomish context



- Coast Salish fishing people
- Homeland in Northwest United States
- Treaty of 1855: Sovereign nation
- Reservation: ~3,000 acres tidelands + ~7,000 acres uplands
- ~900 enrolled members; half live on Reservation

Chronology of contaminated shellfish

1990's-2000's: Gov't agencies report host of toxic chemicals in local water, sediment and shellfish tissue

Swinomish fishers report contamination

2002: Swinomish initiated human health risk assessment of local shellfish

2006: results released; questioned by Swinomish leaders & community; initiated alternative risk assessment



EPA Framework for Assessing Public Health Impacts (EPA 2008)

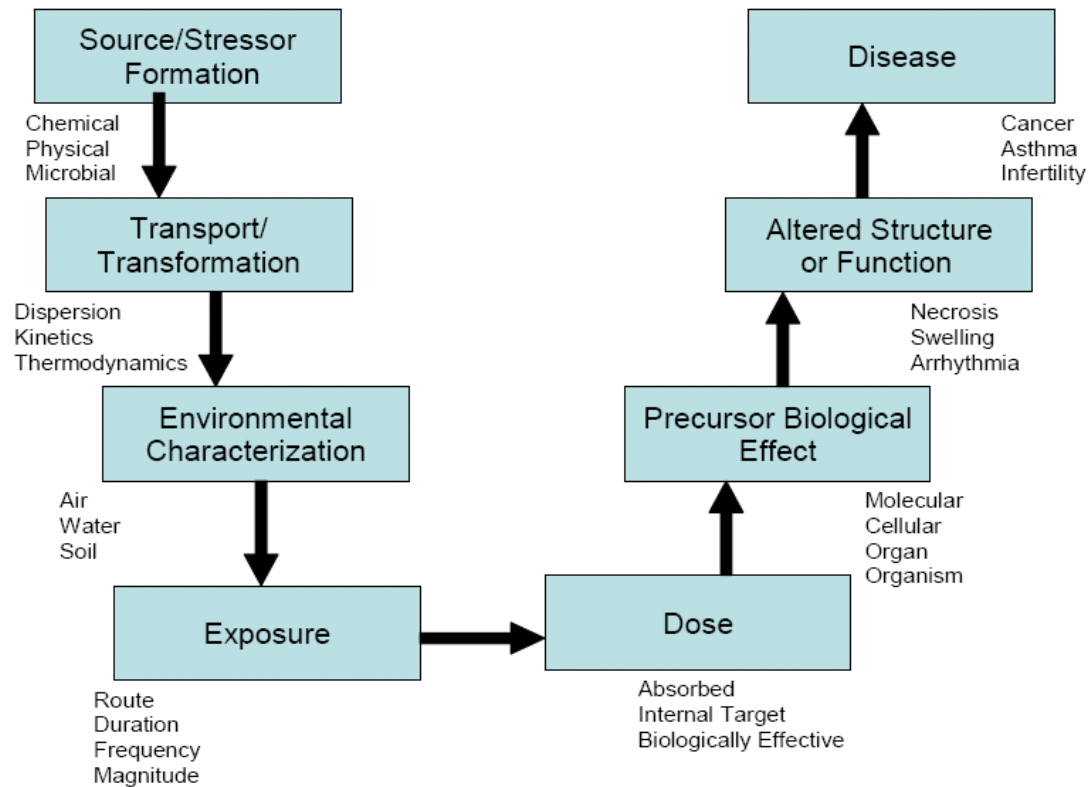


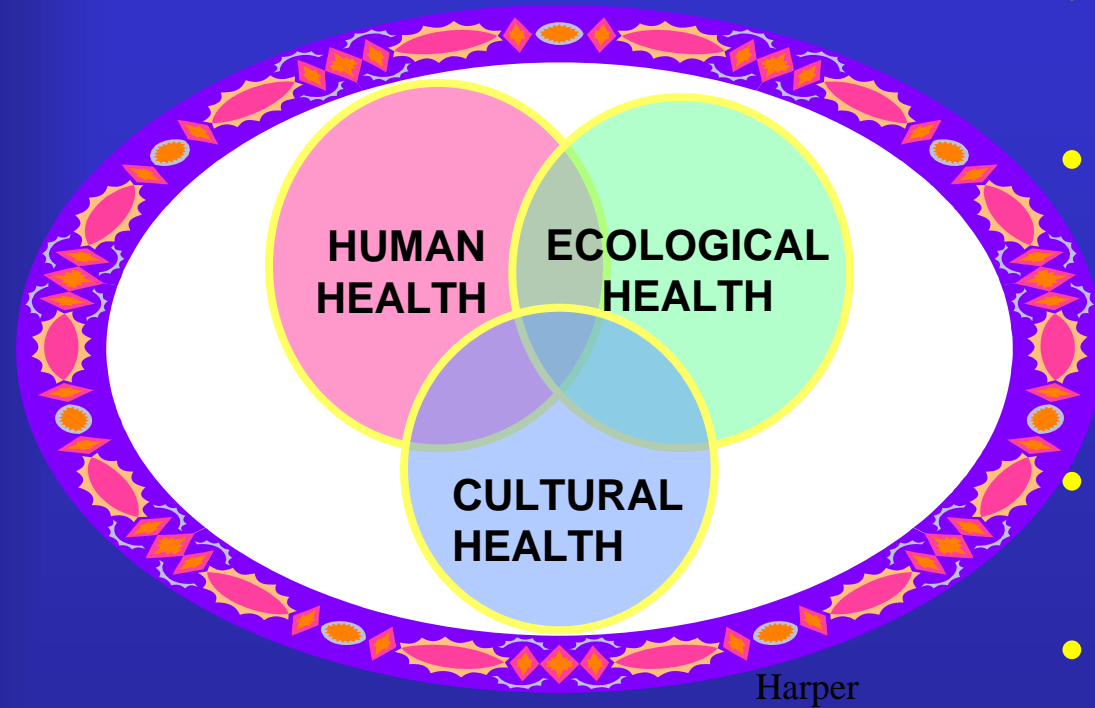
Figure 2. The Source-Exposure-Dose-Effects Continuum

Critiques of conventional health risk assessments



- Broader definitions of health, and thus what is at risk, are not amenable to current assessment methods
 - Multiple health facets ignored
 - Some facets not quantifiable
- Conventional fish consumption data (dose) collection & analysis methods produce inaccurate results for tribal communities

Alternative Approaches to Thinking about Health



- Community-wide not individual scale
- More than physiological—mental, social, cultural, spiritual, environmental
- All inter-connected, not separable
- Each community unique

How much fish do you eat? Critiques of conventional fish consumption surveys

Although efforts have been made to determine tribal-specific fish consumption rates, conventional methods & analysis may produce inaccurate results due to:

- Random sampling techniques of households
- Written or yes/no style questionnaires
- Analytical methods may recode or eliminate outliers

What is the purpose for collecting the data?

- Rates found “suppressed” below “heritage” rates; “heritage” rates are harvest and consumption rates tribes retained with treaties

Basis for an alternative evaluation of health risks

1. Any risk assessment that fails to address the issues deemed most important by the affected group will not be effective in determining risk (National Research Council, 1996)
2. Risks may be physically manifest and known hazards, yet they can never be understood nor assessed outside of the social and cultural constructs of those experiencing them (Douglas 1992, Lupton 1999, Nelkin 2003)
3. Seafood are “cultural keystone” species -- vital objects in physical, cultural, spiritual, and social life (Garibaldi & Turner, 2004)

Basis for an alternative evaluation of health risks

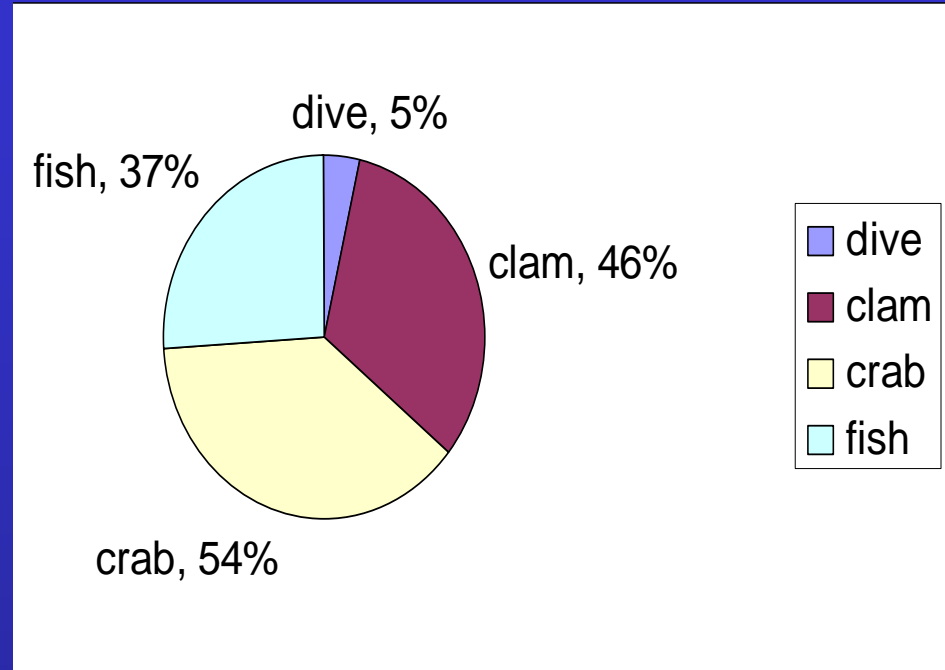
Culture.

- Variety of forms & through medium of identity--parts of cultural histories or 'cultural fields' are actively taken up by groups of social actors who are both defined & define themselves as a cultural group (Holland et al. 1998)
- A continual state of change as new aspects are incorporated and old ones are discarded, building on the foundation (Clifford 1988, 1997, Geertz 1973, Kirsch 2001, Ortner 1984)
- Cultures vary by beliefs & values held; those not held universally, but exist in one or more cultures, may be used to describe a culture

1st interviews on consumption/use: Seafood Diet Interviews

New approach to gathering fish consumption data:

- Over-sample suspected high consumers: elders, fishers, those living traditional lifestyle
- Oral interviews with open-ended question themes
- Question themes on past & current harvest & consumption, reasons for changes over times, and impacts from contamination



*Everyone interviewed eats
seafood (n=76 adults).*

Seafood diet interview results:

Changes over time

- 84% said that more seafood was available and harvested in the past compared to today (n=55)
- 76% said that they ate more seafood as a child compared to today (n=62)
 - 90% elders (55+); 73% (38-54 years old); 75% (16-37 years old)
- 73% said that they would like to eat more seafood than they do now (n=74)

Seafood diet interview results:

Changes over time

Reasons for eating less seafood (in descending order):

- Less access—e.g., less harvesting locations, more regulations, not as much sharing
- Cash economy—fishers forced to sell more catch
- Food preference—children not taught
- Lower availability—stock health
- Health constraints—ability to harvest
- Pollution—concerns of effects
- Cost—too expensive to buy in store

Seafood diet interview results:

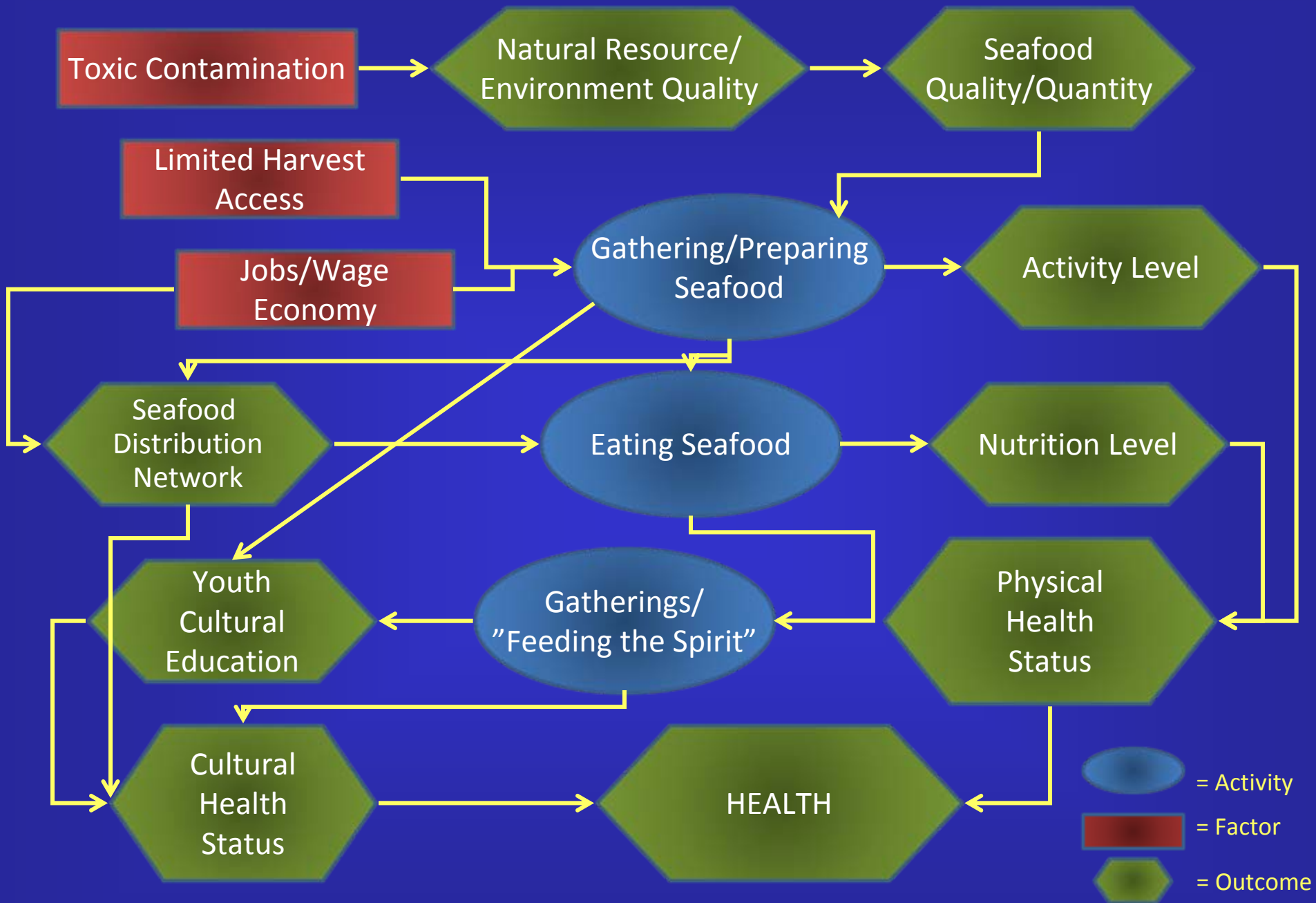
Impacts of contamination

- 63% think about or hear about pollution in the local waters (n=76)
- 61% said that they worry whether or not it's safe to eat seafood (n=67)

*Yet pollution doesn't stop people
from eating seafood...why?*

- 84% stated that gatherings would change or be impossible without seafood (n=76)

*Many people mentioned a “hunger” for
seafood that transcends a physiological
longing, and that seafood “feeds the spirit.”*



Defining & prioritizing health in relation to seafood

Expert and elders interviews

- Sample question themes:
 - General health, e.g., “What does being healthy as an individual and a community mean to you?”
 - Historical health, e.g., “How do you think the health of the Swinomish community today compares to when you were a child?”
 - Connection between food & health, e.g., “Are there differences between seafood bought from the store and what comes from Swinomish fishers?”
 - Seafood contamination, e.g., “Does contamination change the way shellfish are used?”

Key health aspects in defining and assessing health in relation to contaminated seafood:

Community cohesion

- Participation & cooperation
- Roles
- Familiarity

Ceremonial use

- Gatherings and ceremonies
- Give thanks
- Feed the spirit

Food security

- Availability
- Access
- Sharing

Education

- The Teachings
- Elders
- Youth

Recommendations

Creating an evaluation tool to be employed
in parallel with the conventional risk
assessment framework

“Empirical knowledge is culturally contingent, its meaning deriving from its embeddedness in non-empirical understandings of the world... Empirical knowledge simply cannot be removed from its broader social context without distorting or destroying it” (Nadasdy, 2003: 112)

Seafood, health and Swinomish



*“Like we say, it’s
our spiritual food
so it feeds our
soul; so it might
poison our body,
but then we’d
rather nourish our
soul.”*

A few really difficult concepts....



Thank you.



FOOD FOR THE BODY,
FOOD FOR THE SPIRIT.

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