

# State of Knowledge on Environmental Health Issues for First Nations

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Food Security, Water Quality, Indoor Air  
Quality, and Knowledge Transfer and  
Exchange

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First Nations  
Environmental Health  
Innovation Network

# What is FNEHIN?

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- A 'virtual network' linking First Nations and environmental health researchers to help build research capacity.
- Three main dimensions:
  1. Access Point
  2. Knowledge Synthesis
  3. Mobilization of Knowledge



# Why Look at the State of Knowledge?

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- Growing concern for environmental health issues.
- Knowledge held by communities, government, researchers.
- First phase of Needs Assessment – laying the groundwork.
- National picture of First Nations environmental health.



# Food Security State of Knowledge

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- Food issues:
  - Contaminants
  - Access to land – development, climate change
  - Shift to market food
  - Disruption in traditional learning
- Still – traditional foods=excellent nutrient value.
- Links to chronic diseases – risk vs. benefit.

<b>BC – 27 Case Studies</b>	<b>Alberta – 7 Case Studies</b>	<b>Ontario, Quebec and East – 21 Case Studies</b>
<ul style="list-style-type: none"> <li>•Food Frequency Survey (marine): 6</li> <li>•Marine Food Consumption and Contamination: 4</li> <li>•Food Frequency Survey (other): 3</li> <li>•Traditional Plant Availability and Nutrient Values: 3</li> <li>•Nutrients &amp; Contaminants in Oolichan Grease: 3</li> <li>•Traditional Food Security Survey and Barriers: 1</li> <li>•Contaminants (mercury and PCBs) and Traditional Food, Role of Fish Farms: 2</li> <li>•Contaminants in Food (tissue, hair sample): 1</li> <li>•Salmon Quality Baseline (interior): 1</li> <li>•Market Food Consumption and Nutrition Survey: 1</li> </ul>	<ul style="list-style-type: none"> <li>•Nutrient Value of Traditional Foods: 2</li> <li>•Food Consumption Pattern Survey: 1</li> <li>•Nutrient Intake – School Children: 1</li> <li>•Food Preferences – School Children: 1</li> <li>•Traditional Food Consumption and Contamination: 1</li> </ul> <p><i>(All projects in Northern Alberta)</i></p>	<p><b>Ontario</b></p> <ul style="list-style-type: none"> <li>•Contaminants in People: 5</li> <li>•Food Frequency Survey: 4</li> <li>•Contaminants in Food: 1</li> <li>•Food Security Issues: 2</li> <li>•Contaminants in Water: 1</li> </ul> <p><b>Quebec</b></p> <ul style="list-style-type: none"> <li>•Food Frequency: 1</li> <li>•Health Effects of Contaminants: 1</li> </ul> <p><b>Nova Scotia</b></p> <ul style="list-style-type: none"> <li>•Contaminants in Seafood: 1</li> </ul> <p><b>New Brunswick: 0</b>  <b>Newfoundland: 0</b>  <b>PEI: 0</b></p>



# Indoor Air Quality State of Knowledge

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- Directly linked to housing issues: overcrowding, mould contamination, moisture build-up, and ventilation.
- Also linked to other health issues like tobacco smoke.
- Elderly, young children and chronically ill most vulnerable.
- Health impacts: communicable diseases, respiratory diseases, otitis media, cancer.

## Indoor Air *continued*

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- First Nations 4 times more likely to live in overcrowded homes than non-First Nations.
- Lack of data on indoor air as a determinant of health (only 6 case studies).
- Extent of mould contamination nationally not known. Total cost of dealing with problem not known.
- Jurisdictional ambiguity and challenges.



# Water Quality State of Knowledge

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- Lack of comprehensive knowledge of the status of water in First Nation communities.
- Higher rates of Boil Water Advisories (BWA) in First Nations than non-First Nations.
- Serious lack of data on the quality of water and environment at the source.
- Water treatment plants do not always meet the specific needs.
- Lack of proper distribution systems, in some cases no distribution system.
- Serious lack of trust on the quality of water in many communities, and thus use bottled water on a regular basis.

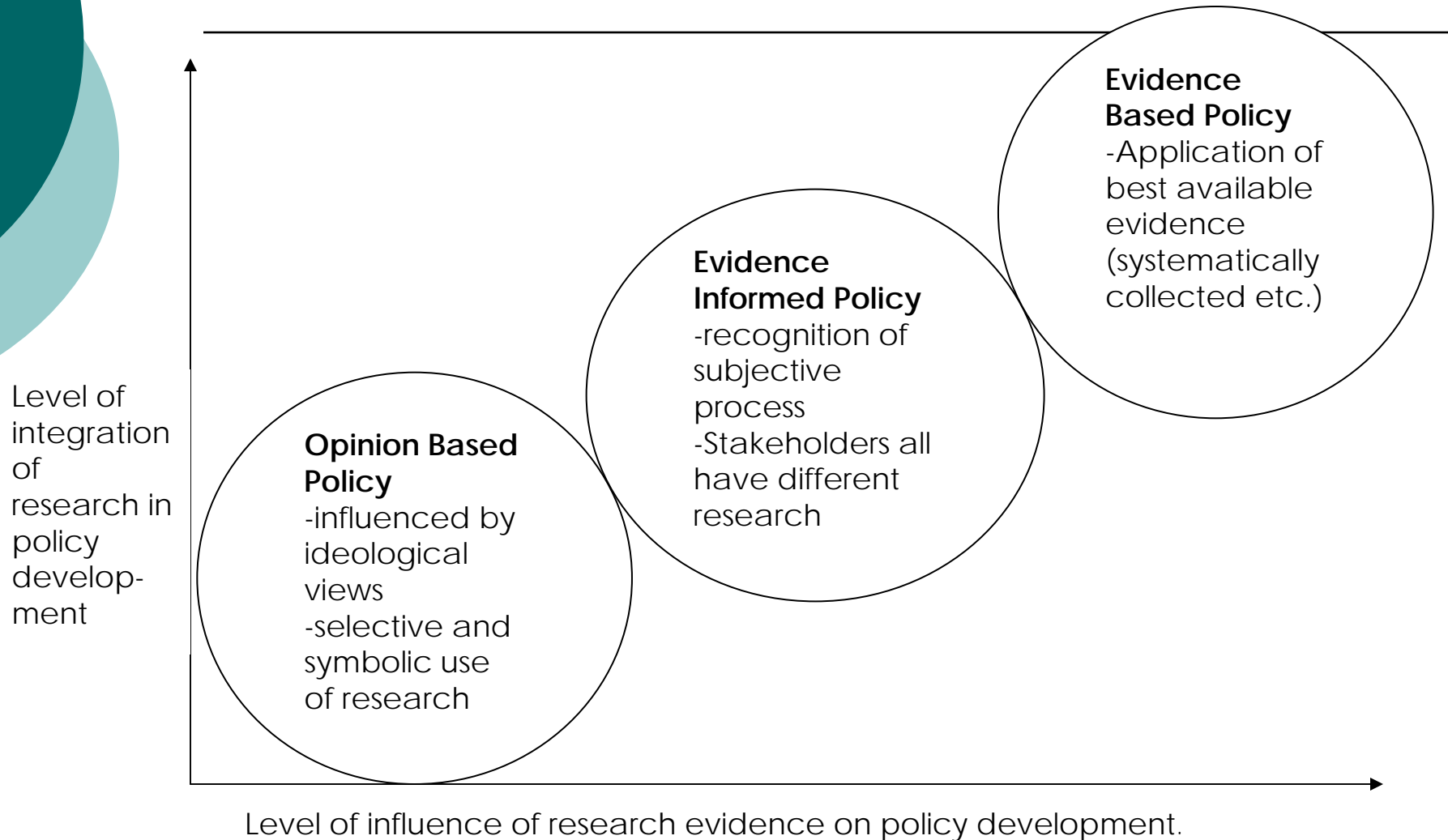


# Knowledge Transfer/Exchange and First Nations Environmental Health

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- Mobilization of knowledge – informing policy, First Nations' decision-making.
- Global momentum towards “evidence-based” policy development.
- Environmental health policy development highly political process.
- Significant time lags between *knowledge* and *action*.

# Integration of Research Evidence in the Policy Process



# Importance of Traditional Knowledge and Environmental Health

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- Knowledge of food and medicine preparation.
- Importance of exercise – fishing, hunting, gathering.
- Connection to land and culture = well being.
- Traditional environmental management practices and principles.
- Holistic view – healthy land, healthy people.

# Mobilization of Knowledge and Needs Assessment

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- 2009 – National Needs Assessment combining State of Knowledge, Community Surveys.
- What are needs of First Nations communities in environmental health?
- What are the research gaps?
- What are the policy gaps?
- What are the funding/program gaps?



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- Dr. Laurie Chan, BC Leadership Chair in Aboriginal Environmental Health, University of Northern BC

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