

State of Knowledge on Environmental Health Issues for First Nations

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?

- 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?

- 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

- 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.

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



Indoor Air Quality State of Knowledge

- 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*

- 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

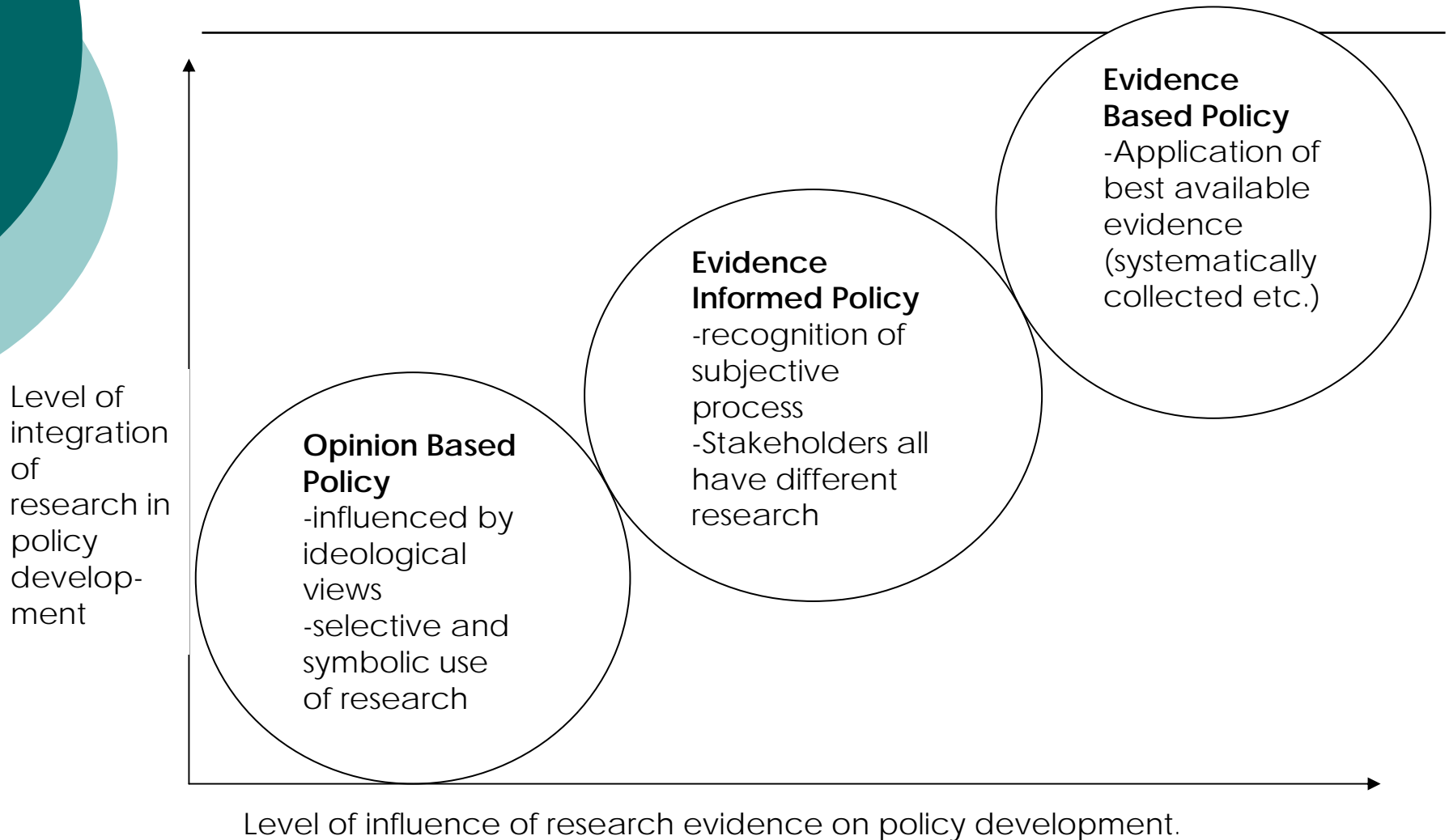
- Lack of comprehensive knowledge of the status of water in First Nation communities.
- Higher rates of Boil Water Advisories (BWA) in First Nations than non-First Nations.
- Serious lack of data on the quality of water and environment at the source.
- Water treatment plants do not always meet the specific 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

- 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



- 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

- 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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