Engaging Indigenous youth in assessing their local food environments: a methodology

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“When indigenous peoples become the researchers and not merely the researched, the activity of research is transformed. Questions are framed differently, priorities are ranked differently, problems are defined differently, people participate on different terms.”

- Linda Tuhiwai Smith

Decolonizing Methodologies: Research and Indigenous Peoples
Traditional food systems and consumption

• Higher consumption among older First Nations members and diet improved when traditional foods were consumed (Chan et al., 2008-2018; Receveur et al., 1997; Johnson-Down & Egeland, 2013; Kenny et al., 2018; Sheehy et al., 2015)

• Transition from traditional diets to diets that are high in ultra-processed foods and sedentary lifestyles (Kuhnlein & Receveur, 1996)

• Need to understand complex food environments and youth’s perceptions of these environments to develop programs and recommendations
Food insecurity & anthropometry

- High average food insecurity among First Nations households, 31-42% (Chan et al., 2008-2018)

- Combining overweight and obesity, adult prevalence ranges 78-86% in Canada (Chan et al., 2008-2017)

- **Children:** More than two-thirds of children in JES!-YEH! were classified as overweight (27.0%) or obese (40.8%)
  - compared to 16.2% and 8.1% respectively in CHMS (Lemire et al., 2017)
Gap: Nutrition information

• Canada collects population nutrition information through the Canadian Community Health Survey (CCHS)
  • CCHS excludes First Nations living on-reserve
• FNFES has filled gap in understanding for First Nations adults ≥19 years
• Unknown: diet of First Nations children and youth 3-19 living on-reserve
Overall Goal:
• make government policy and community programming recommendations
• build capacity within communities and Assembly of First Nations regions to address nutrition and environmental health issues
The Food, Environment, Health, and Nutrition of First Nations Children and Youth (FEHNCY) Study

- assess the relationship between nutrition and built, social, and natural environments on the health of First Nations (FN) children and youth living on-reserve
Study Collaborators

- University of Ottawa (Dr. Laurie Chan, Dr. Tom Kovesi)
- Université Laval (Dr. Mélanie Lemire, Dr. Richard Belanger, Dr. Pierre Ayotte)
- Health Canada (Dr. Jiping Zhu)
- Assembly of First Nations (Dr. Tonio Sadik, Irving Leblanc)
- McGill University (Dr. Treena Delormier, Dr. Mylene Riva)
- Université de Montréal (Dr. Malek Batal, Dr. Genevieve Mercille)
- Université de Montréal (Dr. Malek Batal, Dr. Genevieve Mercille)

Participating First Nations communities
FEHNCY

Component 1
Food Environment, Food Security, Nutrition, and Health

Component 2
Housing Conditions, Indoor Air Quality and Respiratory Health

Component 3
Exposure to Environmental Contaminants and Social Determinants of Health

Component 4
Community Mobilization and Integrated Knowledge Translation
Project Approvals

• Assembly of First Nations (AFN) new resolution passed on July 23\textsuperscript{rd}, 2019 in Fredericton, NB

• Ownership, Control, Access & Possession (OCAP)

• For each randomly-selected community, local approvals:
  • Community Research Agreement,
  • Funding Transfer Agreement &
  • Band Council Resolution
Process for engaging communities

- Presentation to Regional Chiefs’ Organization(s)
- Letters of Invitation from AFN
- Initial Community Presentations
- Signing CRA, FTA & BCR
Process for engaging communities (cont’d)

- Regional Community Workshops
- Regular Community Presentations
- Opening Celebration / Feast
- Community Researcher Manger Co-Learning Workshops
First Nations’ complex food systems

- Food stores
- Traditional foods
- Alternative sources
- Support programs
Community Engagement

- Qualitative methods on the food environment
  - Participatory mapping with children & youth
  - Key informant interviews with community stakeholders
- Understanding *meanings* and *practices*
Design: Multi-level, mixed methods approach

Community-level: food access and availability observed measures of food environments, interviews, and storytelling, mapping with youth

Household-level: food access and utilization using household surveys

Individual-level: nutritional assessment of children
Participatory Mapping with Children 6-11

Wilsey & Dover, 2014
Participatory Mapping with Youth 12-19

Wilsey & Dover, 2014
Key Informant Interviews

• To understand local food sources used by children/youth and their families
• 12-15 participants per community
• Including: traditional food harvesters, social workers, policymakers, store managers
### Additional food environment measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Details</th>
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<tbody>
<tr>
<td>Community market food access</td>
<td>Record price, availability and quality of food items in stores</td>
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<tr>
<td></td>
<td>Locating and mapping significant food sources</td>
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<td>Child’s nutrition and health survey</td>
<td>24-hour recall</td>
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<td>Anthropometry</td>
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<tr>
<td>Household food environment survey</td>
<td>Sociodemographics, household food security, and home food environment</td>
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Significance

• FEHNCY will be the first study to comprehensively assess:
  • food environments,
  • food security,
  • nutrition,
  • housing conditions and indoor air quality,
  • environmental contaminants exposure &
  • health indicators

for First Nation children and youth

• Community engagement will work to mobilize knowledge in locally-appropriate ways that recognize community governance and goals for children and youth.
References

Thank You!