

**REFRAMING HEALTH-
HOW CAN ASSESSMENT FRAMEWORKS
BETTER SERVE THE NEEDS OF
TRIBAL GOVERNMENTS?**

MEREDITH COCKS
DIANA ROHLMAN

What is Impact Assessment?

“the process of identifying the future consequences of a current or proposed action”

A procedural tool that assesses specific factors that benefit, mitigate, or exacerbate the ecosystem and human health.



Research questions



- 1) What variables are missing from conventional impact assessments that would improve their applicability to Indigenous populations?*
- 2) How do impact assessments address cultural, spiritual, environmental, and community health concerns?*

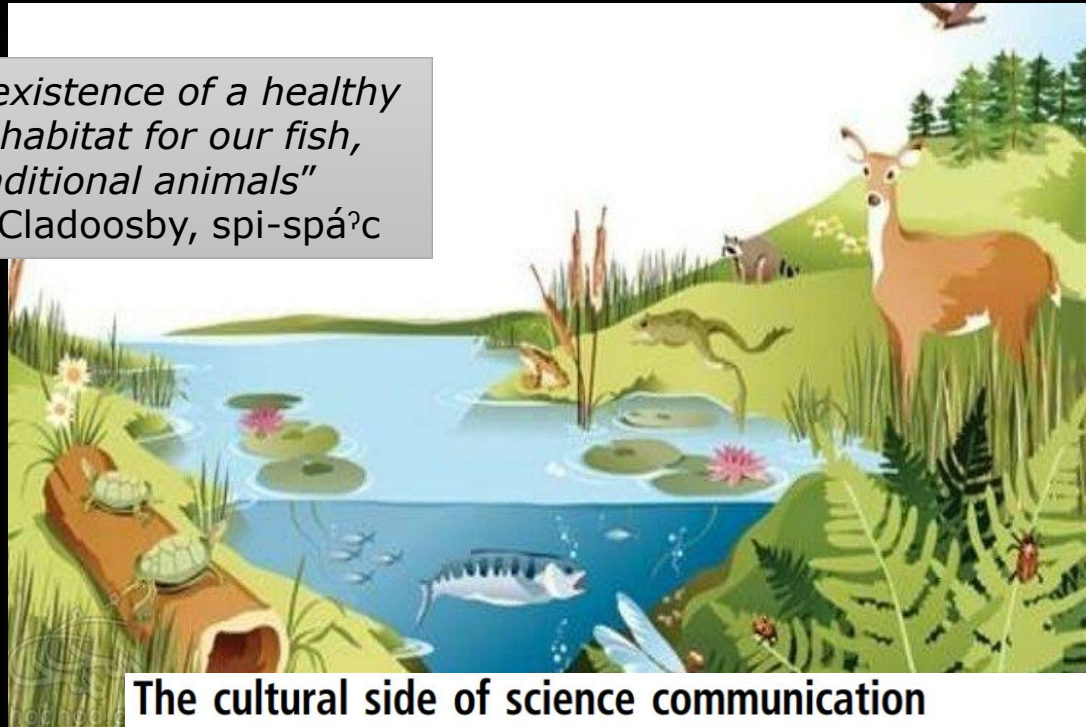
How are Impact Assessments failing to address tribal health?

- 1) Health determinants are often focused on biophysical health or environmental outcomes (e.g. exposure assessment)
- 2) Impact assessments that explicitly include culture focus on tangible/physical aspects of culture such as gravesites
- 3) Limited assessment of the interconnectedness of environment, health and culture: **environment, health, culture are compartmentalized**

Primary problem → Does not include Indigenous definitions of health

Disconnect between conventional impact assessments and Indigenous Knowledge

"Our culture depends on the existence of a healthy environment to sustain the habitat for our fish, birds, deer and other traditional animals"
Swinomish Chairman, Brian Cladoosby, spi-spá'c



"Of the 400 images, 393 (98.2%) did not include humans, 4 (1%) had humans within the ecosystem, and 3 (0.8%) had humans outside looking in."

-Medin and Bang

The cultural side of science communication

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The main proposition of this paper is that science communication necessarily involves and includes cultural orientations. There is a substantial body of work showing that cultural differences in values and epistemological frameworks are paralleled with cultural differences reflected in artifacts and public representations. One

and developmental studies of biological cognition and community-based efforts to implement culturally based science education both in Chicago and on the Menominee reservation (2–4). Relevant data come from interviews, cognitive tasks, observations in informal learning contexts, and finally, from the analysis

Indigenous Health Indicators

The infographic features a coastal landscape with mountains, a forest, a beach, a boat, and a boat. Five indicators are connected by a string of beads. The IHI logo is in the top right.

tal̥cut
SELF DETERMINATION
Healing & Restoration •
Development • Trust

yayusbid
CULTURAL USE
Respect & Stewardship • Sense
of Place • Practice

ʔəshigʷəd tə adʔiisəd
COMMUNITY CONNECTION
Work • Sharing • Relations

sʔuti̥dxʷ ti swatixʷtəd
NATURAL RESOURCES SECURITY
Quality • Access • Safety

ḵəčusadad
EDUCATION
The Teachings •
Elders • Youth

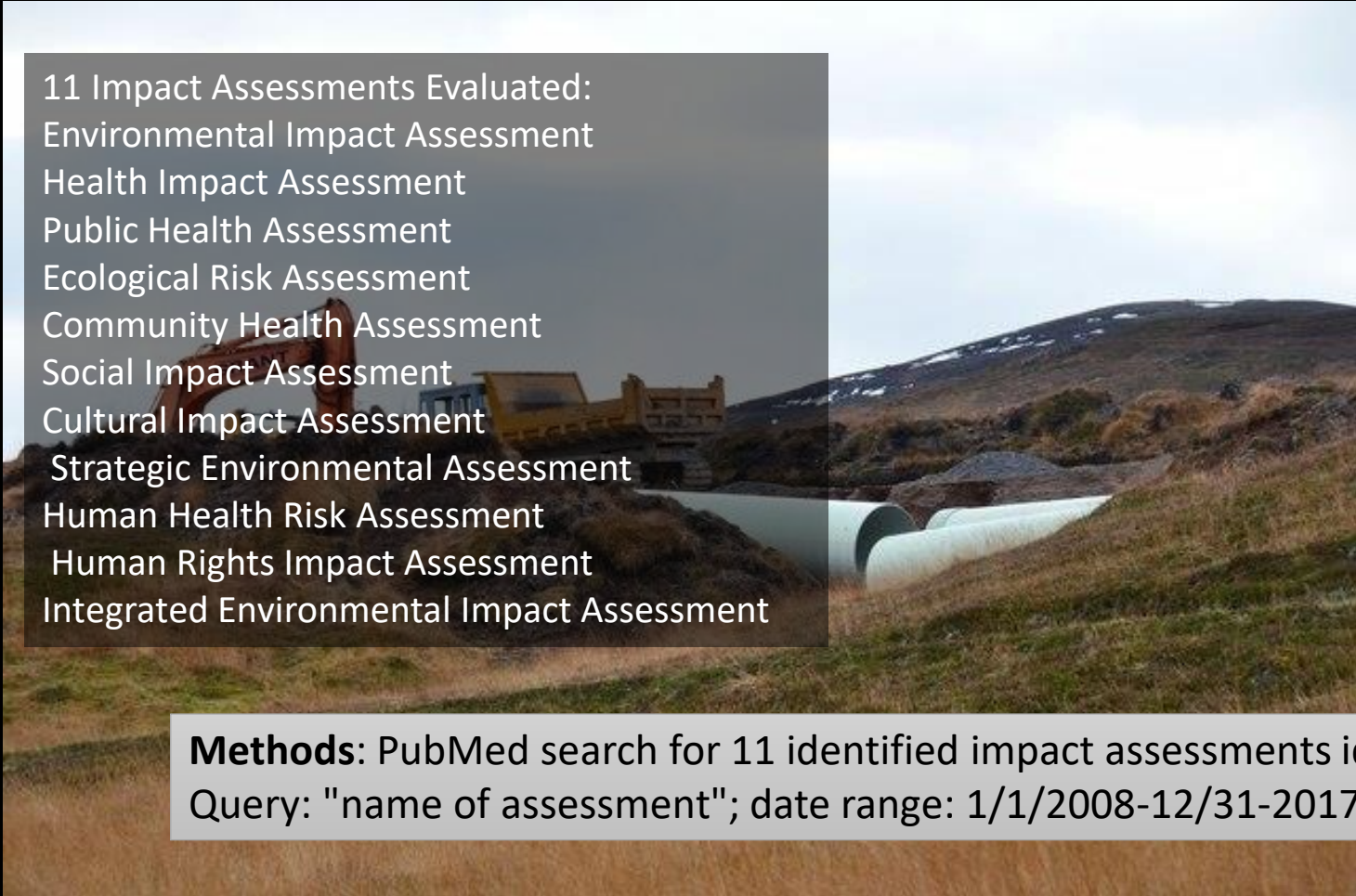
qʷi̥qcut
RESILIENCE
Self-Esteem • Identity
• Sustainability

IHI
INDIGENOUS HEALTH INDICATORS

The Indigenous Health Indicators (IHI) are a set of community-scale, non-physical aspects of health that are integral to Coast Salish health and wellbeing. The IHI reflect deep connections between humans, the local environment and spirituality. IHI provide a template for resource-based communities to tailor in order to suit their own, unique connections and health priorities.

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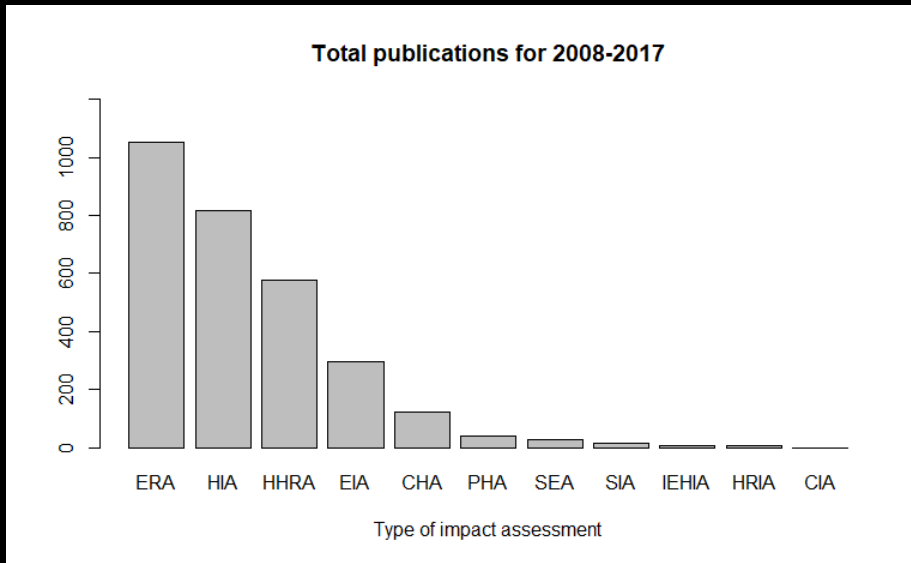
Measuring use of impact assessments



11 Impact Assessments Evaluated:
Environmental Impact Assessment
Health Impact Assessment
Public Health Assessment
Ecological Risk Assessment
Community Health Assessment
Social Impact Assessment
Cultural Impact Assessment
Strategic Environmental Assessment
Human Health Risk Assessment
Human Rights Impact Assessment
Integrated Environmental Impact Assessment

Methods: PubMed search for 11 identified impact assessments identified.
Query: "name of assessment"; date range: 1/1/2008-12/31-2017

Relative use of impact assessments



Name of Impact Assessment	PubMed results, 2008-2017
Ecological Risk Assessment	1,068
Health Impact Assessment	823
Human Health Risk Assessment	582
Environmental Impact Assessment	303
Community Health Assessment	123
Public Health Assessment	40
Strategic Environmental Assessment	32
Social Impact Assessment	13
Integrated Env. Health Impact Assessment	7
Human Rights Impact Assessment	5
Cultural Impact Assessment	0

Prevalence of impact assessments on PubMed. Queries searched for name of impact assessment as a phrase over a ten year period, 1/1/2008-12/31/2017.

Creating a Code Book of health indicators

Methods:

- **Review of literature to identify the determinants of human and/or environmental health considered by each of the 11 impact assessments**
- **Used the compiled list of determinants to create a Code Book.**
- **Code Book contains 44 codes based on the determinants**

Example code:

Theme: Health Outcomes, Behaviors, and Care

Sub-theme: Health services

Code: Health services - Accessibility - Cultural relevance

Definition of code: Ability of a population to receive medical care that is cultural relevant or appropriate. Cultural barriers faced by patients.

Inclusion criteria: Care provided by doctor, nurse or other medical personnel is impacted by cultural barriers other than language. May include health literacy of target population.

Inclusion example: Female Muslim patients are uncomfortable seeking care because the only available provider is male.

Exclusion criteria: Access to care is impacted by language of doctor, nurse, or patient.

Exclusion example: A lack of translators available to serve patients leads to a decrease in the number of patients seen (Code: Health Services – Accessibility – Language)

6 main emergent themes of 43 health determinants

Biophysical Environment:
Natural Environment
Human Exposure
Built Environment
Sustainability

Public Resources & Services:
Public & Social Services
Infrastructure
Education

Society & Culture:
Cultural Resources
Communication
Quality of Life

Health Outcomes, Behavior & Care:
Biologic Factors
Health Outcomes
Health Care Services
Health Behavior

Social & Economic Environment:
Occupational Environ.
Resources
Social Conflict

Political Environment:
Contemporary Setting
Historic Setting
Self-determination

Describing the scope of Impact Assessments

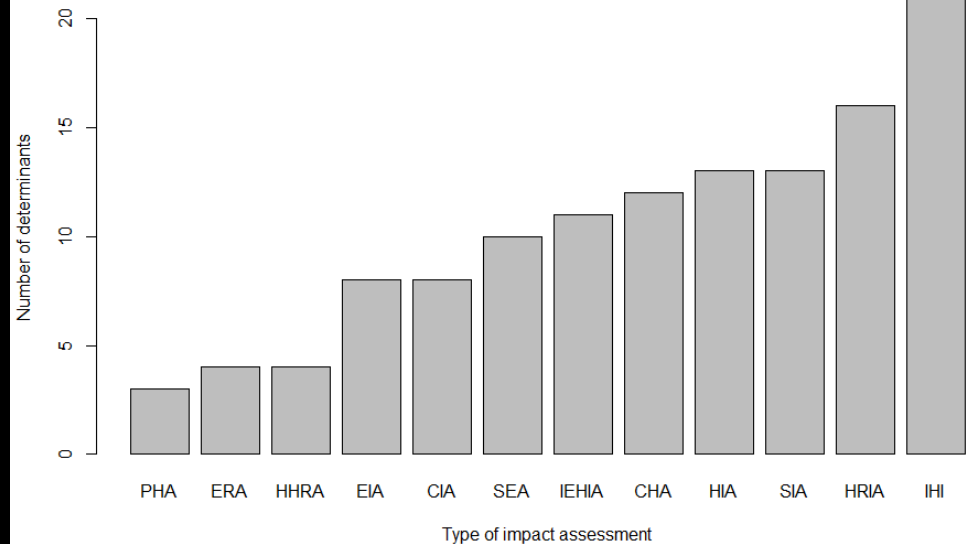
		Biophysical Environment	Health outcomes, behaviors, care	Public resources & services	Social & Economic Environment	Society & culture	Political Environment
	Public Health Assessment						
LOW	Human Health Risk Assessment						
MED	Ecological Risk Assessment						
HIGH	Environmental Impact Assessment						
	Integrated Environmental Health Impact Assessment						
	Strategic Environmental Assessment						
	Community Health Assessment						
	Cultural Impact Assessment						
	Social Impact Assessment						
	Health Impact Assessment						
	Human Rights Impact Assessment						
	Indigenous Health Indicators						

Overlap of determinants between IHIs and IAs

Biggest gaps:

- *Lack of deep assessment of cultural impacts*
- *Lack of connectivity between environment, culture, health*

Overlap of determinants assessed among IAs with determinants assessed among IHIs



Most overlap with Indigenous Health Indicators:

- 1) *Human Rights Impact Assessment*
- 2) *Social Impact Assessment AND Health Impact Assessment*
- 3) *Community Health Assessment*
- 4) *Strategic Environmental Assessment*

Future directions

- *How effective is stakeholder engagement in the Impact Assessment process?*
- *Challenges in incorporating IHIs and Indigenous definitions of health*
- *What do IAs accomplish? Threshold at which action is taken? (i.e. a project is cancelled, an intervention is taken, etc.)*



Questions?

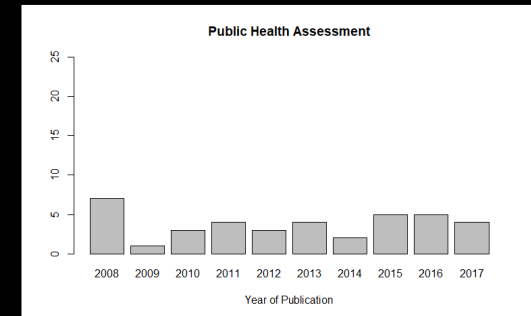
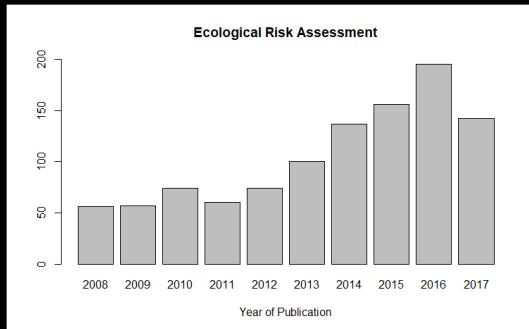
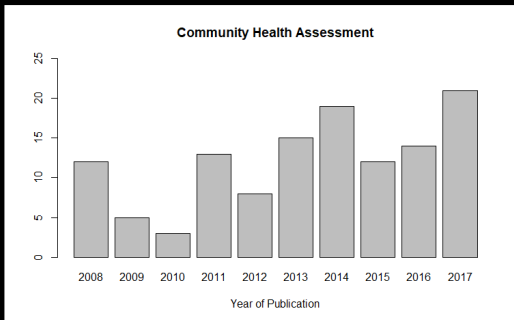
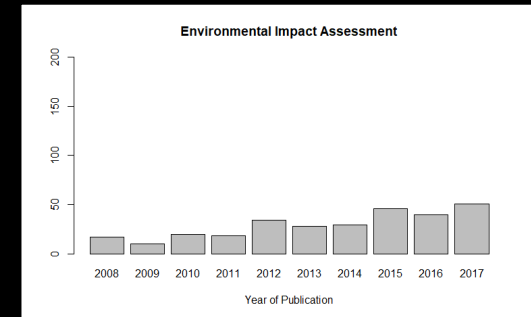
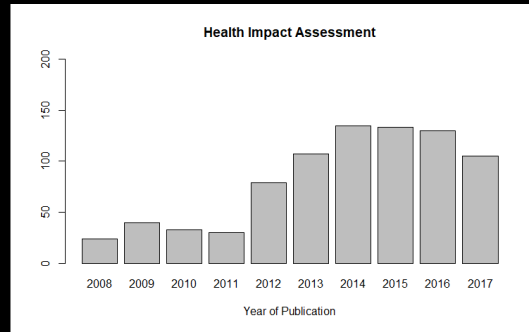
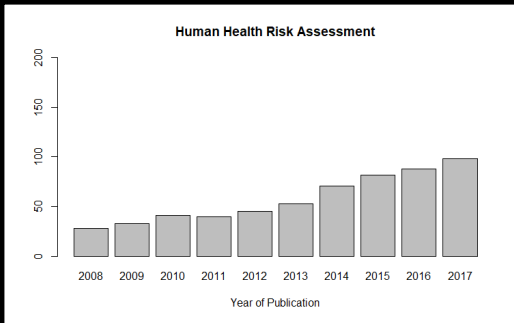
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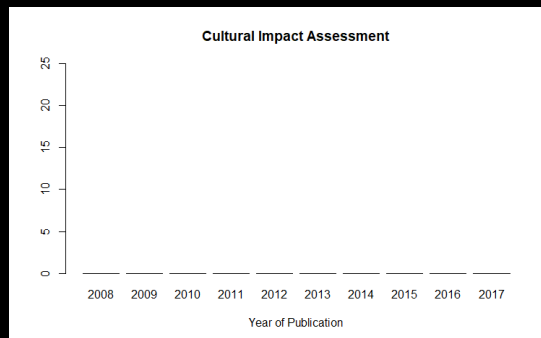
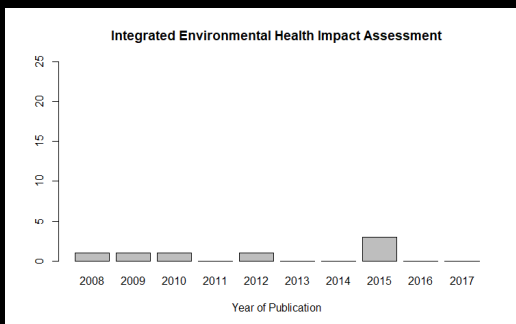
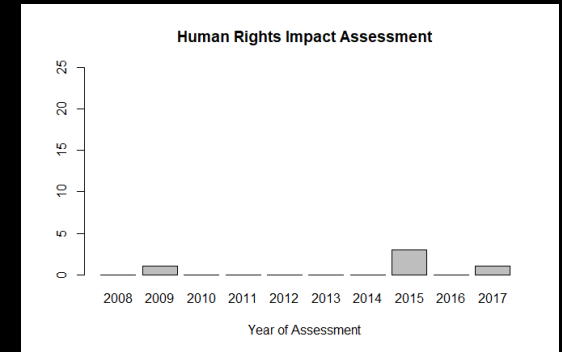
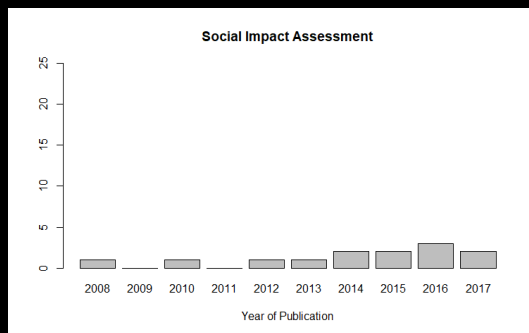
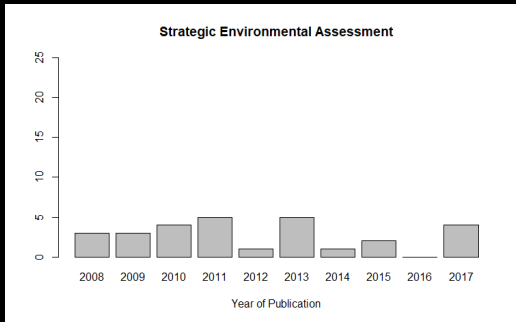
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Highest use seen among IAs evaluating biological health and impacts to ecosystems, and use trending up.

Source Material for IA methodology and code development

Community Health Assessment:

Assessing and Addressing Community Health Needs. (2013). Catholic Health Association of the U.S. https://www.chausa.org/docs/default-source/general-files/cb_assessingaddressing-pdf.pdf?sfvrsn=4

Community Health Assessment and Improvement Planning. (n.d). NACCHO. Retrieved May 2, 2018, from <https://www.naccho.org/programs/public-health-infrastructure/performance-improvement/community-health-assessment>

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Pennel, C. L., Burdine, J. N., Prochaska, J. D., & McLeroy, K. R. (2017). Common and Critical Components Among Community Health Assessment and Community Health Improvement Planning Models. *Journal of Public Health Management and Practice: JPHMP*, 23(Suppl 4): S14-S21. <https://doi.org/10.1097/PHH.0000000000000588>

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Partal, A., & Dunphy, K. (2016). Cultural impact assessment: a systematic literature review of current methods and practice around the world. *Impact Assessment and Project Appraisal*, 34(1), 1–13. <https://doi.org/10.1080/14615517.2015.1077600>

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U.S. EPA. (1998). Guidelines for Ecological Risk Assessment. *Federal Register* 63(93):26846-26924

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National Environment and Planning Agency (Jamaica). (1997 revised 2007). Guidelines for Conducting Environmental Impact Assessments. Retrieved September 12, 2018, from http://nepa.gov.jm/new/services_products/guidelines/docs/EIA-Guidelines-and-Public-presentation-2007.pdf

Health Impact Assessment:

Anushrita, Nagpal, B. N., Kapoor, N., Srivastava, A., Saxena, R., Singh, S., ... Valecha, N. (2017). Health Impact Assessment of Indira Sagar Project: a paramount to studies on Water Development Projects. *Malaria Journal*, 16. <https://doi.org/10.1186/s12936-017-1688-0>

Bhatia, R., & Corburn, J. (2011). Lessons From San Francisco: Health Impact Assessments Have Advanced Political Conditions For Improving Population Health. *Health Affairs*, 30(12), 2410–2418. <https://doi.org/10.1377/hlthaff.2010.1303>

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Salcito, K., Utzinger, J., Krieger, G. R., Wielga, M., Singer, B. H., Winkler, M. S., & Weiss, M. G. (2015). Experience and lessons from health impact assessment for human rights impact assessment. *BMC International Health and Human Rights*, 15. <https://doi.org/10.1186/s12914-015-0062-y>
UCLA. Health Impact Assessment checklist.

Human Health Risk Assessment:

Ashbolt N., et al. (2013). Human Health Risk Assessment (HHRA) for Environmental Development and Transfer of Antibiotic Resistance. *Environmental Health Perspectives*. 121(9). <https://doi.org/10.1289/ehp.1206316>

U.S. EPA. (n.d.) Conducting a Human Health Risk Assessment. Retrieved May 4, 2018, from <https://www.epa.gov/risk/conducting-human-health-risk-assessment>

Human Rights Impact Assessment:

Anushrita, Nagpal, B. N., Kapoor, N., Srivastava, A., Saxena, R., Singh, S., ... Valecha, N. (2017). Health Impact Assessment of Indira Sagar Project: a paramount to studies on Water Development Projects. *Malaria Journal*, 16. <https://doi.org/10.1186/s12936-017-1688-0>

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Salcito, K., Utzinger, J., Krieger, G. R., Wielga, M., Singer, B. H., Winkler, M. S., & Weiss, M. G. (2015). Experience and lessons from health impact assessment for human rights impact assessment. *BMC International Health and Human Rights*, 15. <https://doi.org/10.1186/s12914-015-0062-y>

World Bank. (2013). Study on Human Rights Impact Assessments: A Review of the Literature, Differences with other Forms of Assessments and Relevance for Development. Retrieved from http://siteresources.worldbank.org/PROJECTS/Resources/40940-1331068268558/HRIA_Web.pdf

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Lebret, E. (2016). Integrated Environmental Health Impact Assessment for Risk Governance Purposes; Across What Do We Integrate? *International Journal of Environmental Research and Public Health*, 13(1). <https://doi.org/10.3390/ijerph13010071>

Public Health Assessment:

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Social Impact Assessment:

Götzmann, N., Bansal, T., Wrzoncki, E., Poulsen-Hansen, C., Tedaldi, J., & Høvsgaard, R. (2016). Human Rights Impact Assessment Guidance and Toolbox. The Danish Institute for Human Rights. Retrieved September 15, 2018, from <https://www.humanrights.dk/business/tools/human-rights-impact-assessment-guidance-and-toolbox>

Salcito, K., Utzinger, J., Krieger, G. R., Wielga, M., Singer, B. H., Winkler, M. S., & Weiss, M. G. (2015). Experience and lessons from health impact assessment for human rights impact assessment. *BMC International Health and Human Rights*, 15. <https://doi.org/10.1186/s12914-015-0062-y>

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Fischer, T. (2003). Strategic environmental assessment in post-modern times. *Environmental Impact Assessment Review*. 23 (2003) 155 – 170. DOI: 10.1016/S0195-9255(02)00094-X

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Canadian Indigenous engagement and capacity building in health impact assessment

**Roy E Kwiatkowski, Constantine Tikhonov,
Diane McClymont Peace and Carrie Bourassa**

Consultations with concerned stakeholders are a cornerstone to effective impact assessment, not only within Canada, but internationally as well. The environment is of paramount importance to Indigenous communities, as many continue to rely heavily on the land and natural resources for their subsistence, including their socio-economic, cultural, spiritual and physical survival. Indigenous communities want reassurances from governments and industry that negative impacts associated with projects, programs or policies in their territories will be minimized and that positive impacts will be maximized. Communities want to be involved in the development, implementation and interpretation of the impact assessment report to assure themselves of the environmental, social, spiritual and health impacts associated with the exploitation of the local natural resources. This paper presents efforts by the Environmental Health Research Division of the First Nations and Inuit Health Branch, Health Canada, to assist Indigenous communities in carrying out community-based research to improve health and well-being by building and supporting their capacity to identify, understand and control impacts associated with projects, programs or policies implemented within their territories.

Canadian Indigenous engagement and capacity building in health impact assessment

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Keywords: Indigenous communities, HIA capacity building, training, community engagement, research

THE ACCELERATING industrialization of developing countries, particularly throughout Asia, is likely to compound the increasing demand for raw materials and energy needed to fuel the global economy. Canada's wealth of natural resources (minerals, forest products and energy sources) positions Canada as a likely supplier for domestic and global industrial demands. As well, climate change has greatly increased access to

Canada's far north, an area rich in oil and minerals. The challenge facing the federal, provincial and territorial governments is to find ways to support economic development that enhances the health and well-being of Canadians (population of 32 million) without adversely impacting the environment. Canada's Indigenous population consists of approximately 800,000 First Nations (with about 60% living on reserves) and 50,000 Inuit. The 606 First Nations (FN) and 53 Inuit communities can be characterized as: small,¹ young,² rapidly growing,³ and remote. Despite expectations of significant community benefits arising from resource development, Indigenous communities continue to express concerns about the impacts that development projects are having on the environment and their health and well-being.

The environmental impact assessment (EIA) process, used by over 100 countries, is a comprehensive planning process to predict and assess the effects of a proposed development project, program or policy.

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The Assessment Process

Process of a Māori cultural assessment

A 'Māori model' for the cultural assessment of an individual is fundamental to ensuring that the process is successful and accurate. The recommended process is outlined in Appendix 1. This model is based on Māori traditions, values and belief systems that encompass the processes of mihimihi or powhiri and karakia whakaekae. By using these processes it is envisaged that better information will be obtained that will lead to better outcomes for the person being assessed and for their whānau.

The interactive process of whānau meetings/hui is based on the principle of kanohi ki te kanohi or 'face to face' meetings. This gives the cultural assessor/s the best opportunity to be able to hui with the person being assessed and their whānau and listen to their concerns and involve them in the decision-making process. Non-verbal cues offer insights to intent and meaning.

It is preferable if a whānau meeting or hui is carried out in the most accessible and appropriate place for the person and their whānau and conducted in a way that puts everyone at ease (within the bounds of the Privacy Act 1993 and Health Information Privacy Code 1994).

During this process it is important to find out how the person sees themselves within the whānau and hapū, which may be different from the way the whānau or hapū see them.

An important feature of the Māori cultural assessment process is that it must be flexible enough to be able to accommodate the particular needs of the individual and their whānau. For example some people may prefer a mihimihi instead of powhiri. The cultural assessor/s must try to establish what the protocol needs are before any meeting to be able to respond to cultural needs by carrying out karakia/prayers and mihi/greetings when required.

Having a Māori cultural assessment should always be a choice for a Māori person as part of identifying the care and support needed. If a cultural assessment is refused the assessor must respect the person's choice.

If not conversant with tikanga or kawa, the compulsory care co-ordinator may invite kuia and koroua to mediate where whānau wish to be involved but the person has refused a cultural assessment.

The assessment process may be a stressful time both for the person being assessed and for their whānau. It is therefore important that the assessor ensures that the person and their whānau are adequately supported throughout this process.



Events



Including INDIGENOUS health in climate change assessments: Overview of methods and results from Swinomish

Event Type: Online

Date: Tuesday, June 12, 2018

Event Website: <https://nihb.webex.com/mw3300/mywebex/default.do?siteurl=nihb&service=6>

Contact Name:

Contact Email:

Description:

Tuesday, June 12, 2018 3:00 pm Eastern Daylight Time

Many indigenous communities are at the forefront of developing and implementing plans to address climate change in their homelands. These plans vary in focus and content, but always remain rooted in the geography of the community's homelands, making each plan unique.

One aspect of climate change planning that has been difficult to capture is potential impacts to indigenous health. The difficulty arises because mainstream evaluation methods focus primarily on physiological health, such as increased heat stroke or vector-borne diseases, while many indigenous communities see health as much more – such as complex relationships between humans, non-human beings, and the natural and spiritual worlds. These broader definitions of health do not fit in mainstream public health evaluation methods.

The Swinomish Indian Tribal Community, a Coast Salish Community in the Pacific Northwest, will discuss how they determined and evaluated projected public health impacts by tailoring the CDC's "Building Resilience Against Climate Effects" (BRACE) public health framework to better fit Swinomish health priorities. Swinomish staff Dr. Jamie Donatuto will present an overview of the Swinomish Indigenous Health Indicators—aspects of health not seen in mainstream assessments—and how to evaluate them for use in climate change evaluations and planning. Results from the Swinomish project will be shared as well as next steps. Dr. Donatuto will discuss how the BRACE framework can be tailored by other Indigenous communities seeking to determine and evaluate their own unique aspects of health.