Towards Equity in Health: Mobilizing and Utilizing Indigenous Knowledge in Health Research

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INTRODUCTION
Despite good intentions and decades of discussions for transformative changes to improve health outcomes, avoidable health inequalities still persist in health research and related decision-making, or showed some promises.

GOAL
This review aims to identify the synergies/intersections between IK and WS knowledge systems. A concerted effort is needed to create institutional level structures and frameworks for such knowledge mobilization and co-production processes.

OBJECTIVE I
To explore the concept of IK and understand possible complementarities between two knowledge systems (IK and WS).

OBJECTIVE II
To identify facilitators/ barriers in bringing these two knowledge systems together and recommend next steps.

FINDINGS
In spite of epistemological and ontological differences, there are considerable complementarities between IK and WS systems (e.g. expertise, evolving nature, resource requirements, authentication process, and state of knowledge) (Tsuji and Ho, 2002). IK is diverse, unique and community-specific, hence not generalizable. Utilization and mobilization of IK are largely “process” oriented, and the value of land and the role of Indigenous Knowledge holders are critical in understanding and working with IK. The co-creation and co-production of knowledge approach grounded in community-based participatory approaches could offer flexible models for sustainable engagement and equitable authorities and help eliminate the limitations of the linear process of research and decision-making.

CASE STUDY I
A community-based Environmental Monitoring project for the assessment of climate change and resource exploitation impact, which was co-initiated and led by multidisciplinary team members (i.e. local Inuit experts and academic researchers) (Garin-Lapeire et al., 2018). This mixed-methods project co-developed community-oriented baseline data on food contamination, changing water quality and land use pattern, and interactive media map for continuous monitoring and assessment of impact. The project strengthened community capacities.

CASE STUDY II
A community-based environmental governance study blended WS and TK (Traditional Knowledge) about climate change and ecosystem health by embracing “two-eyed-seeing” approach (Martya, Pringle, 2017). In this study, TK provided locally held deep and reflective information on environmental change alongside the WS-based knowledge. All identified WS-based indicators of environmental change (e.g. bird counts, mercury in fish, and water depth, etc.) were spatial, while TK indicators were predominantly temporal (e.g. changes to water flow, fish aesthetics, and bird usage, etc.). In this case, a balanced inclusion of both WS and TK in environmental assessments and management offered a holistic understanding of environmental issues for effective and adaptive co-management governance practices.

METHODS
The review method is grounded in “Two-Eyed Seeing” (Marshall et al., 2015) approach and narrative thematic inquiry method (Craib and Miller, 1999).

Searching the Literature
Databases: PsycINFO, Scopus, PubMed
Website: CIHR-IPPH, Governments of New Zealand, Australia, provincial governments in Canada

Selecting studies and assessing the relevance
Inclusion/Exclusion criteria: English, Canadian, select health research, academic and grey literature published over 2008–2018

Data extraction and analysis
Extracted and saved narratives in the forms of excerpts in an Excel database

Number of articles
Initial search (n = 1404 academic and 57 grey literature)
Search refined by reviewing titles and abstracts (n=288 academic and 29 grey literature)
Further screening and a full-text review of 75 articles (n=56 academic and 19 grey literature)

Topics
69% of literature focused on environmental health research

DISCUSSION
There are significant needs to acknowledge the diversities, contextual aspects, and holistic nature of IK. A general lack of tested and applied tools results in procedural challenges in identifying a common ground between IK and WS systems. Moreover, competing demands, time restraints, capacity issues, and lack of readiness and institutional level commitment pose additional resistants. Much attention needs to be paid to establishing equitable research governance partnership with Indigenous counterparts. The “process” should begin with trustworthy and sustainable relationship building, while building on the concept of “co-creation” of knowledge, and ultimately resulting in community capacity development. The creation of flexible models and guidance tools with key features for collection, mobilization, and utilization of IK is highly warranted.

Hence, respectfull inclusion of IK alongside the WS-based knowledge in health research and decision-making can offer innovative solutions requiring multipronged approaches (Indigenous and non-Indigenous alike) to advance and promote equities in health outcome.

LIMITATIONS
The population and geographic areas covered in this review is limited in North American context. The review purely relies on secondary data available from published literature, hence lacks opportunities to incorporate pragmatic knowledge held by key informants.

NEXT STEPS
• To explore potential research areas in the Department that could benefit from IK
• To identify opportunities for future intra and interdepartmental collaboration

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