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ENVIRONMENTAL AND HUMAN HEALTH, DATA, AND EQUITY: REPORT OF A PLANNING MEETING

A detailed summary of the CIHR-funded planning meeting which took place in Vancouver, British Columbia on March 20, 2019

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TABLE OF CONTENTS

Executive Summary	1
Background	3
Meeting Overview	5
Meeting Background and Participants	
Meeting Description	6
Analysis	7
Insight 1	8
Insight 2	9
Insight 3	10
Summary	11
Meeting Evaluation	12
Meeting Participants	13
References	14
Appendix: World Café	15
Questions and Artifacts	

EXECUTIVE SUMMARY

This report summarizes a planning meeting held at Simon Fraser University in Vancouver, British Columbia on March 20th, 2019. The purpose of the meeting was to bring together key informants working in fields spanning environments and health to better understand the limitations and opportunities for integrating equity principles in data collection across the environments and health continuum. Promoting equity in research and data collection involves identifying, challenging and removing systems-level social, political, and economic structures that impede opportunities for well-being. Meeting lead, Dr. Maya Gislason, opened the session by iterating the call to strengthen equity-based approaches particularly for addressing the health needs of people and communities facing complex social, environmental and public health challenges.

Research and evidence play an increasingly important role in the formation of policies and practices. As such, researchers are faced with the challenge of strengthening their capacity to produce evidence that reflects the lives and issues of the people and places being studied. A precipitating factor for holding this meeting is the public health research on the experiences of Indigenous communities in Northern BC, whose risks and experiences are cursorily studied and under addressed within environmental and health research as well as public health policy and practice. This planning meeting reflected a commitment to develop more nuanced, cumulative and integrated approaches to study the experiences of populations in rural, remote, northern and Indigenous communities across Canada. As such, a guiding principle for the meeting was the need to shift practices and perceptions including a more careful attention to equity and principles such as resiliency when responding to complex health and environmental challenges.

Titled “Invitational Meeting on Environment and Human Health, Data, and Equity,” the meeting was supported by an Institute Community Support grant from the Canadian Institutes of Health Research (CIHR) designed to assist in partnership development and increase understanding of the health research landscape.

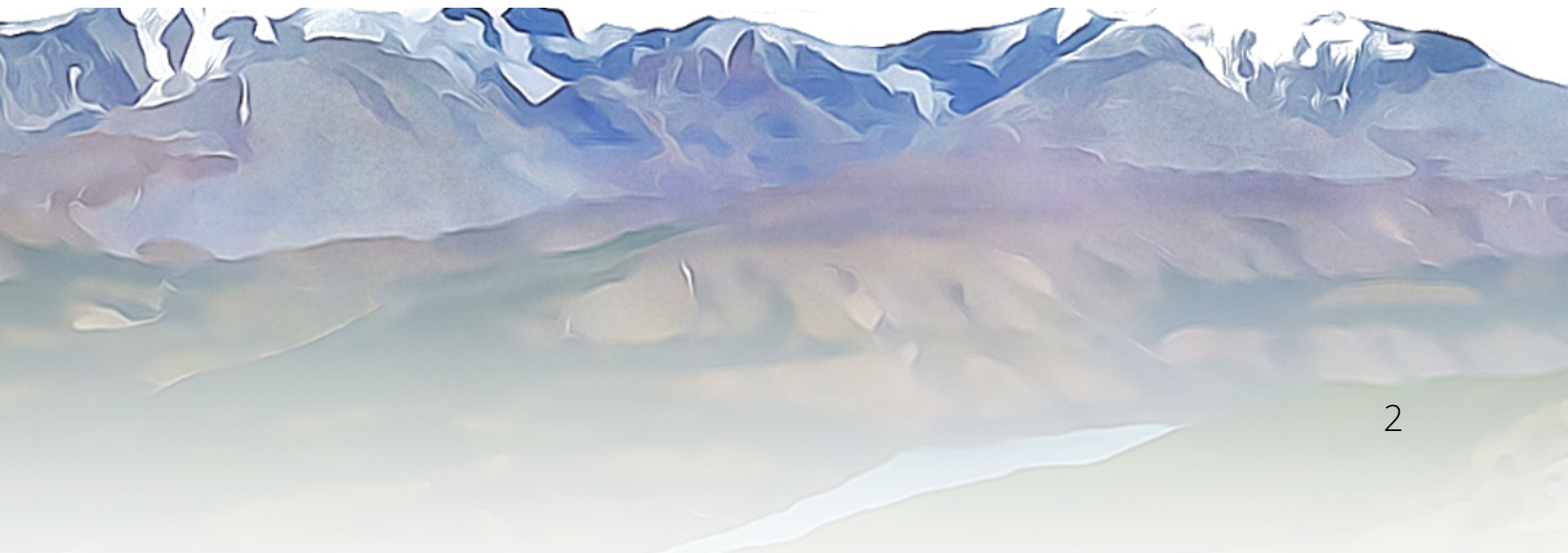
The meeting had three distinct goals: 1) to enable members of CIHR-funded projects the Environment Community, Health Observatory Network (ECHO) and The Canadian Urban Environmental Health Research Consortium (CANUE) along with members of affiliated research and health communities in British Columbia to get to know each other and their projects better; 2) to discuss current equity, rural and urban data realities as well as strengths, limitations, and opportunities within our current research context; and 3) to consolidate themes and questions from our meeting in order to gauge shared interest in developing future collaborations.

EXECUTIVE SUMMARY

The planning meeting was designed to foster exploratory exchanges on the current health and environmental data landscape in Canada through a combination of presentations and World Café style group discussions. The main themes that surfaced from the meeting, and are therefore important insights generated from this planning grant, were that researchers and community partners are challenged by: 1) a lack of clarity or understanding around integrating equity concepts into research; 2) ongoing barriers to working with an equity focus; and 3) identifying pathways to forward with this work that are in addition to the tensions that arise when working from contiguous, distinct or oppositional spaces. Overall, participants voiced a desire to represent a wider range of community member voices, emphasized the importance of high-quality data collection and articulated the need for visualization and narrative for improving equity-informed research.

This planning meeting report both seeks to summarize what was learned from the meeting process and calls for forward movement towards building an integrated research community which benefits from the ongoing contribution of researchers and practitioners who hail from a variety of backgrounds.

As a result of this meeting, participants are better positioned to address equity dimensions and the tensions that may arise when promoting equity through interdisciplinary work. Further, participants will be engaged to collaborate on environment and health research proposals as well as progress work on manuscripts related to data and equity. This collaboration is envisioned to be guided by the tenets of a community of practice with an explicit equity focus guided by the definitions as outlined by the goals of the research community and the scope of their projects.



BACKGROUND

Academic and research institutes are aware of the need to strengthen capacity for addressing complex environmental and health questions. The Canadian Institute of Health Research's (CIHR) Environments and Health Signature Initiative was created to build upon Canadian research strengths and expertise and to improve interdisciplinary environments and health research. This initiative currently supports the **Environment Community and Health Observatory (ECHO) Network** and the **Canadian Urban Environmental (CANUE) Health Research Consortium**, whose projects focus on etiology, data platform enhancements and intersectoral prevention research through corresponding and distinct ways.



**Environment
Community
Health
Observatory
Network**

Réseau
**observatoire sur
l'environnement
les communautés
et la santé**

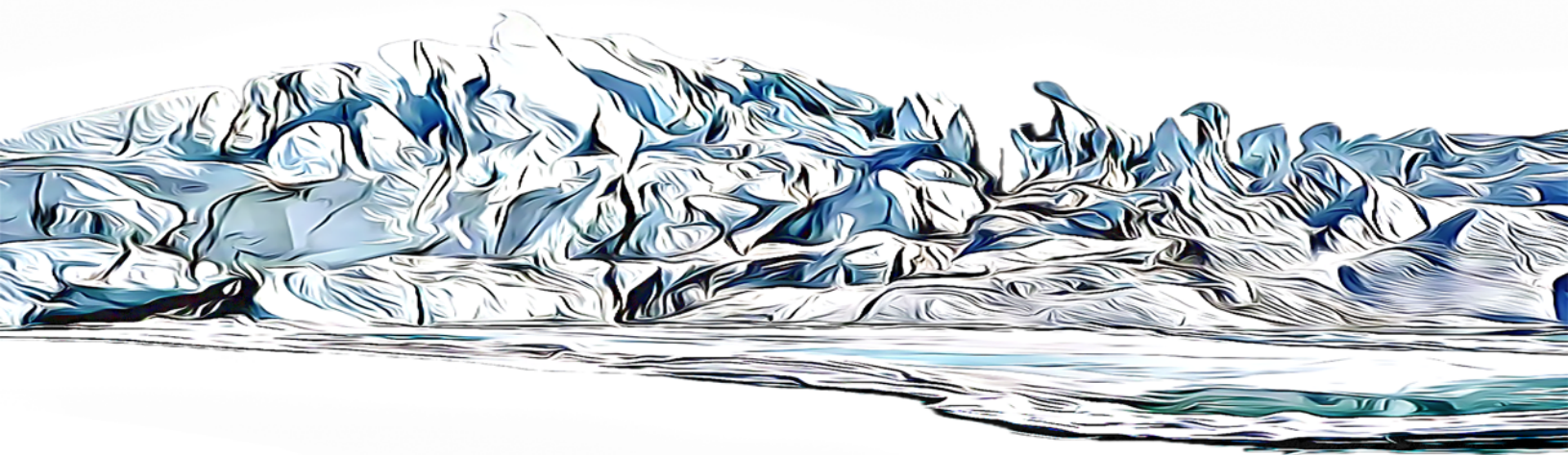


As research and evidence play an increasingly important role in the formation of policies and practices, researchers are faced with the challenge of strengthening our capacity to produce evidence that reflects the real lives and issues of the people and places being studied. Both the ECHO and CANUE projects, along with numerous researchers and community partners working across a range of disciplines and issues, acknowledge existing challenges in conducting research on issues across a range of geographic, political, social and economic scales, contexts, and populations. These challenges are compounded as research on environments and health often necessitate careful considerations of the interconnections between the living realities and needs of rural, remote, island, northern and Indigenous communities, and urban populations. For people whose lives and livelihoods, histories, cultures, and identities are tied to non-urban landscapes, issues of sustainability and environmental impact regularly contour daily life, become biologically embedded in bodies, impact mental and emotional health and wellbeing and influence life opportunities.

Grounded in principles of distributive justice, promoting health equity involves ensuring fair access to opportunities, and resources needed for health and wellbeing. Systematic and uneven distributions to environmental exposures, social deprivation and health impacts are all examples of social inequities, whereby communities who may be disempowered through discrimination based on socioeconomic status, gender, racialization or colonization are further disadvantaged by negative impacts to their health and well-being. A significant challenge arises when tackling the task of producing relevant research. For example, despite the increasing availability of population health data and methods with which to store, analyze and visualize those data, there is a notable and acknowledged gap in equity informed, data driven research that can support the sustainable development and resilience of communities that are outside of, but tightly coupled with, larger urban centres.

BACKGROUND

Working from an **asset and strengths-based approach** has been a central focus of this initiative. In Canada, many First Nations, Métis and Inuit people have centered the interconnectedness of environments and health and provide strategic directions and priorities for research in The Truth and Reconciliation Commission (TRC) Calls to Action and the United Nations Declaration on the Rights on Indigenous People (UNDRIP). In particular, these calls provide a framework for thinking through research processes from a strength- and asset-based approach which deepen equity-informed research and nuanced work on reducing health inequities. This approach reflects a central idea to health equity which is the recognition that injustices have occurred and continue to occur in the present-day. First Nations, Métis, and Inuit communities have resisted and continue to resist colonial efforts of assimilation through acts of resilience including affirmations of their collective history, reclamation of languages and traditions, and in collective and individual agency and activism. Further, in cases where real and enduring problems in Indigenous communities are reflected in data and research, they are often represented with deficit-based understandings, which have led to ineffective policy responses to environment and health challenges. Deficit discourse has been critiqued for constructing Indigenous communities through a view of disadvantage and negative stereotypes. A strengths-based approach is predicated on the understanding that the resources for understanding and responding to complex challenges are attainable and close at hand, and that research on those impacted by uneven environmental exposures possess the insights needed to inform the **development of sustainable solutions to the challenges**. Through drawing on strengths and shifting from deficit-based thinking toward a strengths-based perspective, researchers and practitioners work to create lasting change.



MEETING OVERVIEW

Meeting Background and Participants

With the CIHR Institute Community Support grant for partnership development in health research, a one-day planning meeting was held at Simon Fraser University (SFU) in Vancouver, British Columbia on March 20th, 2019. The “Invitational Meeting on Environment and Human Health, Data, and Equity” had three goals: 1) to enable members of CIHR-funded projects ECHO and CANUE, and members of affiliated research and health communities in British Columbia to get to know each other and their projects better; 2) to discuss current equity, rural and urban data realities as well as strengths, limitations, and opportunities within our current research context; and 3) to consolidate themes and questions from our meeting in order to gauge shared interest in developing future collaborations.

A total of forty-three researchers, practitioners and consultants were initially invited to the meeting of which twenty-five attended in person and four attended online. Participants included members from the ECHO Network, and CANUE as well as faculty from SFU, University of British Columbia (UBC) along with members of the First Nations Health Authority (FNHA) and the Strathcona Community Health Network (SCHN). Participants’ background methodological expertise ranged from qualitative research to quantitative big data approaches.



MEETING DESCRIPTION

To challenge deeply embedded deficit discourse within health and health research (Lind & Smith, 2008; Smith, 2013), attendees were invited to engage with a strengths-based approach to thinking about and discussing data realities in the Canadian context.

Hammond and Zimmerman's cycle for promoting strengths-based thinking was adapted and outlined at the outset of the meeting to emphasize collaboration and focused attention on system change processes, as well as to identify, acknowledge and work with strengths as a starting point for change (Hammond & Zimmerman, 2012). A strengths-based approach to thinking and dialogue can invite reflection on cognitive biases and beliefs, and promote the development of solutions that are equitable, novel and sustainable.



Integrating equity-informed approaches in research requires flexible and dynamic methods. In order to be flexible, the agenda outlined areas where content would be delivered to the group, as well as designated times to share personal experiences through a World Café method. The World Café method enables groups of individuals to engage in dialogue around critical questions about challenging subjects, collaborate for learning and generate solutions. This method requires the creation of a hospitable space; exploring questions that matter; encouraging everyone's contribution; connecting diverse people and ideas; listening together for insights, patterns and deeper questions; and making collective knowledge visible. The World Café method facilitates diverse information and a cross-pollination of ideas that evolve through participants' involvement at each table (Brown and Isaacs, 2005).

The process involved participants moving to four different tables, each with a different question to discuss. At each table there was a moderator who was also a designated notetaker who recorded the different conversations, noted similarities and differences across each conversation and helped to generate thoughtful participant engagement. A collection of paper, markers, and pens were made available at each table for participants to draw and write on or use to help visually articulate their thoughts. This material was ultimately treated as physical artifacts which were analyzed after the meeting. After 10-15 minutes of discussion, participants were asked to join another table to discuss a different question.

MEETING DESCRIPTION

This World Café process involved four questions centered on equity, data, and research:

- **Question 1:** How do you do equity in your research/work? How do you operationalize it in your research/work? Talk about strengths and limitations in your research/work. Ground this in stories and experience.
- **Question 2:** What needs to change to support equity informed research? What are the political, power structures that need to be changed? How could research culture, funding and priorities support equity-informed research?
- **Question 3:** What does equity informed research look like among the environments and health space?
- **Question 4:** What does accountability look like between individuals and organizations (including communities, health authorities, academic research spaces, organizations, etc.)?

ANALYSIS

Following the meeting, the table moderators' notes and physical artifacts were collected for analysis. The first stage involved general thematic analysis whereby meeting notes and physical artifacts were reviewed, read, and interpreted multiple times by a trained research assistant. From there, meeting notes were entered into NVivo to identify potential themes arising from the data. First level coding involved looking for specific concepts, and themes which were flagged by the note takers. Codes arising from second-level coding were then grouped by similarity and developed into a coding structure. Three primary coding groups emerged: definitions of equity, where the meaning of equity was problematized and expounded; institutional and structural issues where barriers to equity work were discussed; and strategies for moving forward by seeking solutions through trans- and inter-disciplinary approaches. The coding and emerging themes were then discussed among the research assistant and principle investigator to verify that the analysis accurately captured participants' experiences.

ANALYSIS

Key Insights from the Meeting

Insight 1): Lack of clarity and understanding around integrating equity concepts into research;

Insight 2): Ongoing structural barriers to equity work; and

Insight 3): Moving forward on equity practice despite the tensions that arise when working from contiguous, distinct or oppositional spaces.

Insight 1): Lack of clarity and understanding around integrating equity concepts into research

The first question posed at our World Café was intended to build the groundwork for an overall understanding of equity in relation to day-to-day life and provoke answers supported by real-world experience rather than what ought to be done. The question asked: How do you do equity in your research and how do you operationalize equity? While participants were encouraged to use a strength-based approach throughout the exercise, this question provoked a greater discussion of the definition of equity and equity-related principles and the practice of equity-informed work.

Each of the four rounds of participants acknowledged the challenges of incorporating equity into their work and problematized the concept of 'doing equity' as a practice. Incorporating equity into participants' everyday work was described as difficult, long and at times painful. However, these challenges were voiced differently depending on participants' backgrounds, and their relationship to past and present equity work. For instance, all participants cited the importance of including many voices in equity work and the additional conversations that come with including more perspectives. However, for those participants whose primary work involves quantitative data, this proved more complex. A participant with quantitative training reflected on the near impossibility of summarizing hours of communication and theory about equity into a single model or equation. Measuring the physicality of environments and quantifying equity in relation to environmental exposures was identified as one method for quantitative researchers to measure equity for comparative analyses. However, measuring equitable outcomes within communities and across social settings was felt to be more difficult to measure and act on for those working within quantitative paradigms.

ANALYSIS

At each table, participants discussed practicing equity regarding ensuring the adequate representation, diversity, and inclusion of marginalized communities in particular. Having the knowledge and ability to include the right people in their work was felt to be a significant challenge. For some, apprehension to embark on equity-related work was related to their fear of getting it wrong. Participants spoke about politics of representation both in terms of communities who have been continuously excluded from research, as well as communities who have been exploited. One participant also raised fears of imposing western or dominant cultural values onto communities by 'doing equity'. For instance, educating communities about the risks of indoor heating with wood may not be equitable where it may be the only option for heating, or where it has a particular cultural significance. To contend with these particular research dilemmas, participants felt it was important to 'know the world' and reflect upon their positionality as a researcher. More generally, participants felt that practicing equity required a great deal of humility and accountability, and that reflexivity could assist with the research process, including adequate representation and inclusion.

Many participants suggested that current equity definitions do not reflect the difficulty of practicing and carrying out equity work. While the equity, diversity and inclusion (EDI) definitions provided by Simon Fraser University's EDI Working Group were well received by the group, some felt they gave no indication of the work required to challenge the status quo, or how to approach dismantling systemic barriers. The EDI working group definitions do not capture the iterative nature of equity work, or that equity processes might result in a redistribution of power and resources. The absence of strategies for communicating that redistribution was noted as a gap. Future considerations of equity definitions might acknowledge the need for considerations of culture, context and politics as well as emphasize the cumulative and ongoing nature of equity work.

Insight 2): Ongoing structural barriers to equity work

While some participants voiced comfort around integrating equity principles into their research, a variety of ongoing structural barriers impeded equity focused research and practice. Many of the participants working from academic spaces noted barriers stemming from entrenched systems within research culture. The tenure process was frequently cited as a deterrent to producing equity-informed work or work with explicit equitable outcomes. One participant explained that careers are built from publishing quickly and often equity-informed or driven research does not produce results quickly. A slowed approach to outputs and evidence formation is tantamount to 'career suicide' for early career researchers. Related to this was the availability of funding for equity work from universities and tri-council funding agencies. Often funding is geared toward quantitative efforts, where participants felt qualitative approaches and analysis were necessary for capturing nuance as well as operationalizing equity and other allied principles, such as resilience.

ANALYSIS

Further, participants voiced concerns regarding resources for maintaining momentum in research teams, especially for supporting community champions “to sit at the table” in projects. Tangible financial resources for compensating community and research partners could support accountability and incentivize equity-driven or informed work. However, money for community partners is often limited or unavailable. To some degree, reflexivity and practices related to reflexivity were brought up to overcome many of the interpersonal and even funding barriers to equity work. For instance, the point was raised that making equity a regular part of research language (such as the gender-based analysis requirement for applying to CIHR funding) might help generate a more fulsome consideration of equity standards in funding bodies and research more generally. One participant suggested that as people actively engaging in language and concepts related to equity, it could become part of the lexicon of research. Still, discussions tended to circle back on some of the more foundational, structural and societal issues that serve as barriers to equity work, including the need for more diverse people and perspectives within funding bodies and in universities and for pressure on governments to recognize and address these issues.

Insight 3): Moving forward on equity practice despite the tensions that arise when working from contiguous, distinct or oppositional spaces

Having an explicit strengths-based focus throughout the meeting challenged participants to go beyond discussing barriers that may stall or impede equity work and instead explain, using their experience as evidence, how to overcome or contend with those barriers. While many of the participants work in primarily academic spaces, the meeting was unique in that participants spanned a range of epistemological backgrounds and represented a continuum of qualitative and quantitative backgrounds. Often, qualitative and quantitative methodologies can be set at odds, with quantitative evidence tending to be more valued in terms of funding, publishing and sometimes tenure. This was raised several times throughout World Café, particularly when considering the state of evidence, and what shapes valid evidence in particular. Participants noted that policy and social action are often informed by quantitative evidence alone. However, when this happens we miss fundamental insights that can be best generated through qualitative methodologies.

To content with the dualistic and sometimes contentious spaces between paradigms, participants raised several examples of successful mergers of quantitative and qualitative research. For instance, work on traditional land use claims which rely on historic court cases and collected stories are used to generate more complete descriptions of impacts on community. Members of CANUE discussed the importance of transdisciplinary research teams, and of citizen science initiatives that rely on mixed methods approaches and data visualization. Others raised the issue of the tendency for researchers to become stuck in a particular application or approach, and noted that being able to be open in thinking, taking notice and perceiving issues differently could lead to more equitable outcomes. When we work together to challenge institutional structures and think about re-writing definitions and dismantling barriers, we become acutely aware of the binaries that can dominate our thinking and of the continuums and intersections that exist between oppositional ideas and forces. A participant from the FNHA named this type of action ‘moving forward’.

Moving forward in research and within agencies involves seeking solutions to the most pressing questions through community-led initiatives while moving away from deficit-based and stigmatizing framing. This shift would enable research to be done in a different way and help to create a coordinated landscape of practices that better reflect the priorities of the communities that research aims to serve.

SUMMARY

The themes from the March 20th meeting for partnership development and planning captured many of the characteristic qualities of real world practice in institutions, academia, and other organizations. Quantitatively informed practitioners and researchers may feel hesitant about adopting equity principles because of the legitimate challenges which arise when incorporating theoretical concepts into algorithms or models. This hesitation stands in contrast to practitioners and researchers who already work with mixed methods or have qualitative backgrounds and who often understand what is needed to produce equity-informed research but may encounter systems-level barriers when they attempt it. However, it was a member of the FNHA, whose agency serves the needs and priorities of BC First Nations communities, who offered the framework of 'moving forward' to take action on the most pressing issues in communities in ways that are informed by equitable practice. This idea served to highlight how, when bridging disciplinary and sector divides, we must actively navigate those tensions, and barriers to produce an outcome that serves equity. As a result of this meeting, we know that moving forward on equity-informed data collection requires transdisciplinary collaboration, clear goals related to equity for its operationalization, and navigating interpersonal and systems-level barriers for producing action.

This work is crucial for developing new approaches that can meaningfully address the health and wellbeing of those who are impacted by complex challenges across environmental and health spaces. Clarifying and contextualizing equity and its related principles within a collaborative research group can fundamentally alter the language we speak as researchers and practitioners and normalize the use of the language of equity in future funded projects. In coming together to evaluate equity impacts among environmental and health spaces, barriers will be challenged through re-iterating the importance of learning from other researchers, for developing relationships across various disciplines. The output from future collaborations will not only address health equity and inequity, but produce novel approaches to data collection, visualization and knowledge exchange.

MEETING EVALUATION

This section summarizes an evaluation of the “Invitational Meeting on Environments and Health, Data and Equity” that took place on March 20th, 2019 in Vancouver BC. Following the meeting, participants were invited to fill out a 9-question survey consisting of 6 Likert scale questions and 3 open-ended questions. Of the 25 in-person participants invited, 8 paper copies of the evaluation were returned, and 3 online surveys were submitted (11/25).

Overall, the meeting received an average score of 4.25 out of 5. **Participants felt:**

- Their awareness of the connections between environment, community and health improved (4.1/5)
- The meeting provided a valuable opportunity for knowledge exchange (4.8/5)
- Knowledge learned about data collection methods for equity-informed work received the lowest score (2.7/5)

The open-ended survey responses were largely positive, with all respondents noting that it was important to gather researchers and practitioners from a variety of fields and backgrounds together to reflect and collaborate on equity issues. There was considerable positive feedback regarding the presentation provided by the EDI Working group in particular. Many cited this overview for helping them move beyond a superficial understanding of the terms related to equity and to grasp deeper complexities of the processes involved with dismantling barriers to the equitable distribution of resources.



MEETING PARTICIPANTS

Attendees

Affiliation

Dr. Tim Takaro	CANUE/SFU
Dr. Jeff Brook	CANUE/U of T
Dr. Eleanor Setton	CANUE/UVIC
Dr. Hind Sbihi	CANUE/UBC
Dr. Margot Parkes	ECHO/UNBC
Dr. Henry Harder	ECHO/UNBC
Dr. Chris Buse	ECHO/UNBC
Dr. Diana Kutzner	ECHO/UNBC
Namaste Marsden	FNHA
Dionne Sanderson	FNHA
Jennifer Murray	FNHA
David Loewen	Northern Health
Dr. Scott Venners	SFU
Dr. Alexa van der Waall	SFU
Dr. Cliff Atleo	SFU
Dr. Sandy Rutherford	SFU
Dr. Krisztina Vasarhelyi	SFU
Theresa Burley Hughes	SFU
Kimberly Hart	SFU
Dustin Dapp	SFU
Kathryn Robinson	SFU
Dr. Helena Swinkels	UBC
Dr. Lorien Nestbitt	UBC/CANUE
Vash Ebaddi	UNBC
Riley J. Shaw	Developer
Katie Bauder	SFU/ECHO (Note-taker)
Angel Kennedy	SFU/ECHO (Note-taker)
Alicja Zywert Morales	SFU (Note-taker)
Brian Portner	SFU (Note-taker)

Virtual Attendees

Jordan Brubacher	CANUE/ECHO/SFU
Libby King	Strathcona Network
Dr. Noba Anderson	Strathcona Network
Christine Colbert	Strathcona Network

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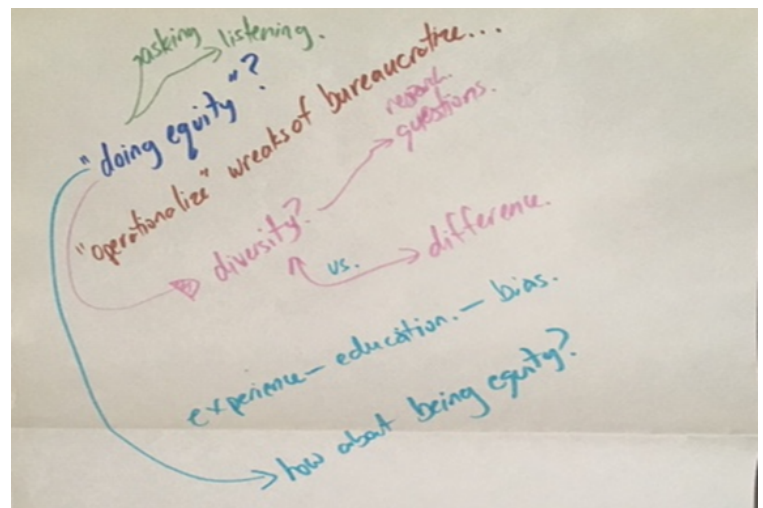
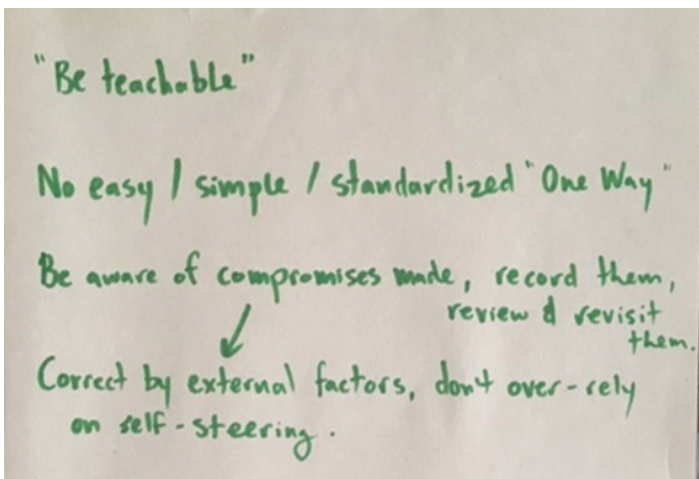
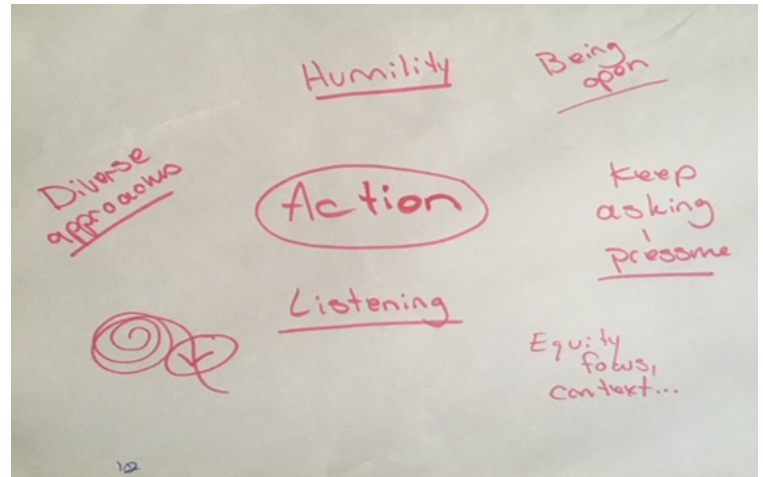
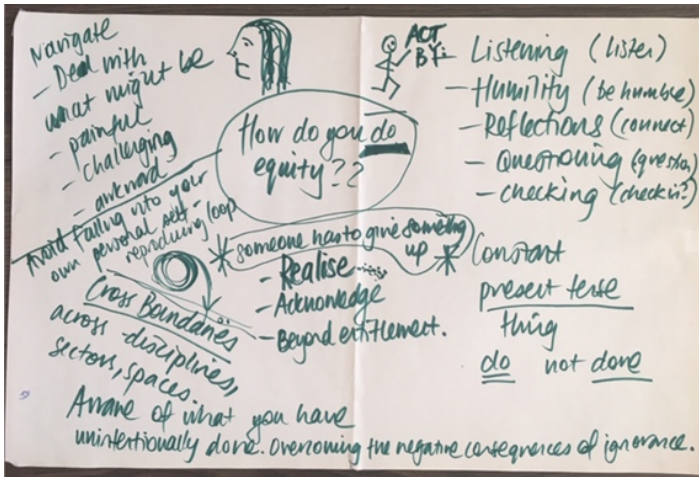
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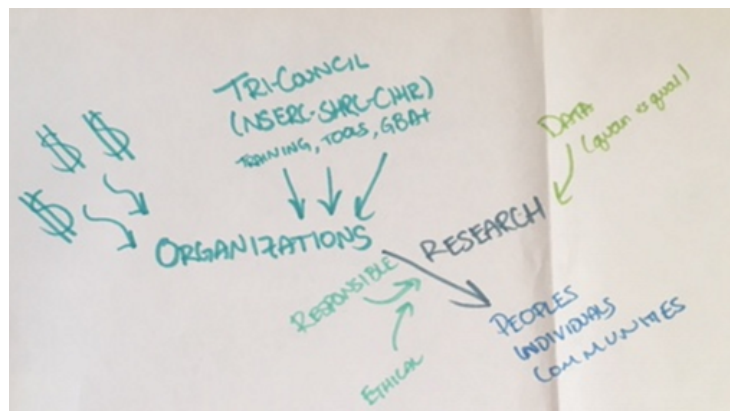
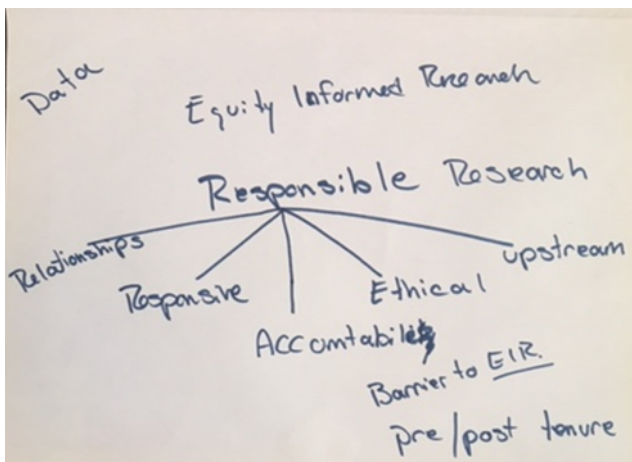
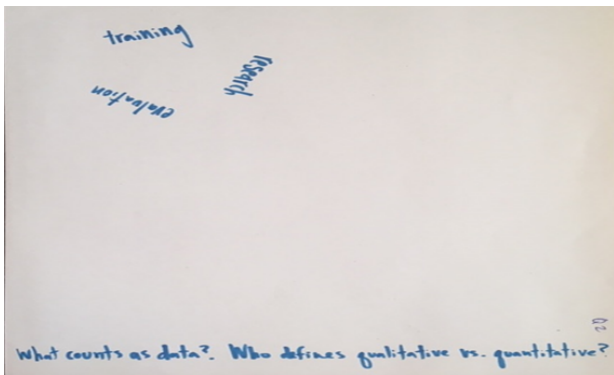
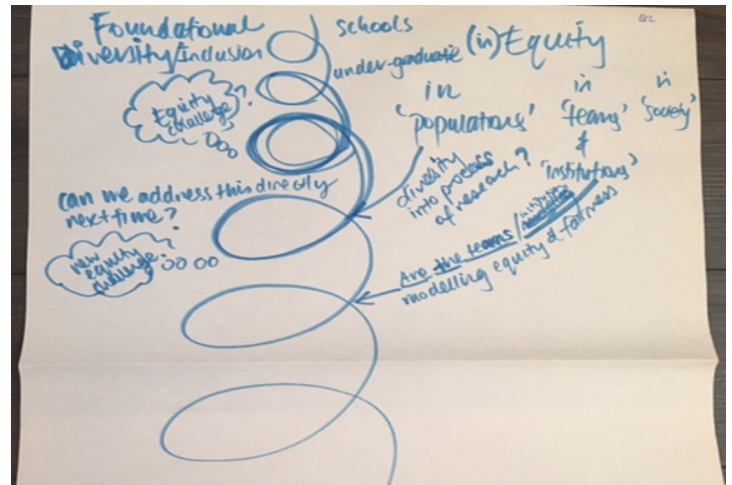
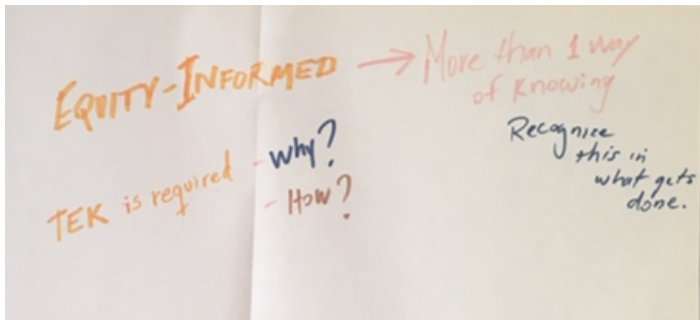
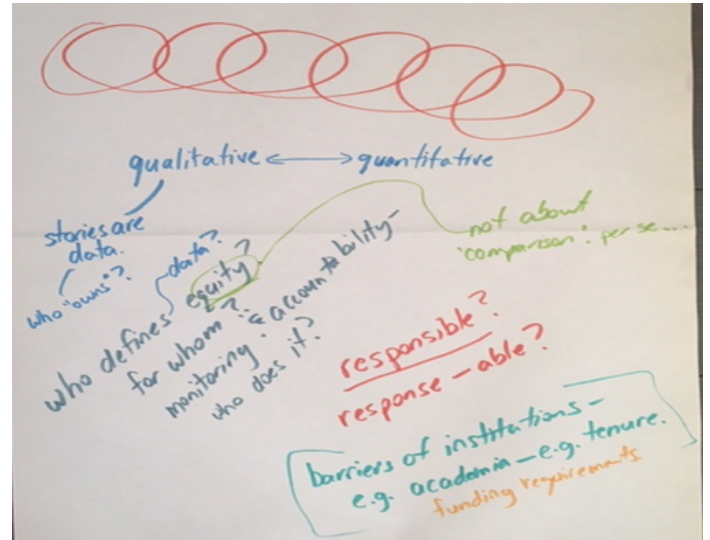
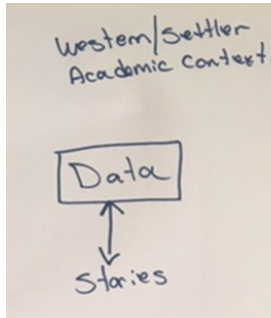
APPENDIX: WORLD CAFÉ QUESTIONS AND ARTIFACTS

Question 1: How do you do equity in your research/work? How do you operationalize it in your work?



APPENDIX: WORLD CAFÉ QUESTIONS AND ARTIFACTS

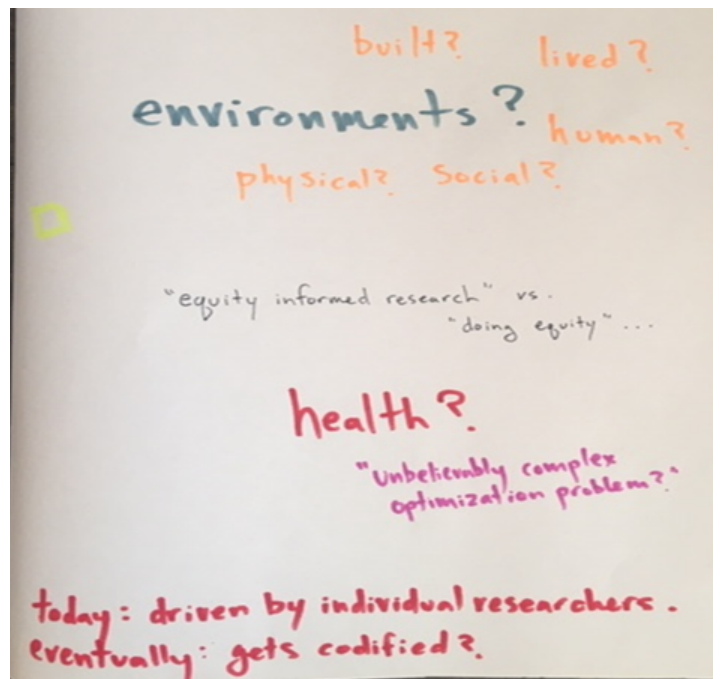
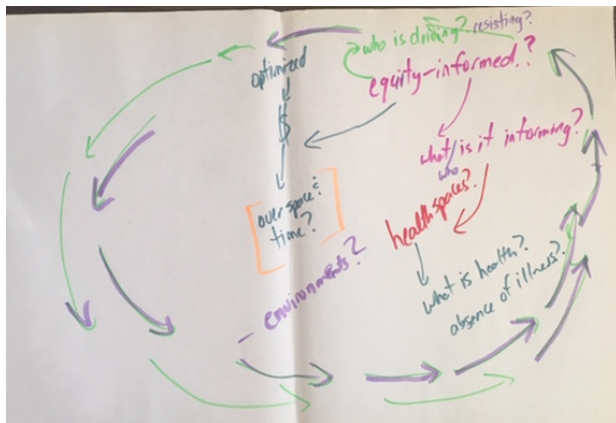
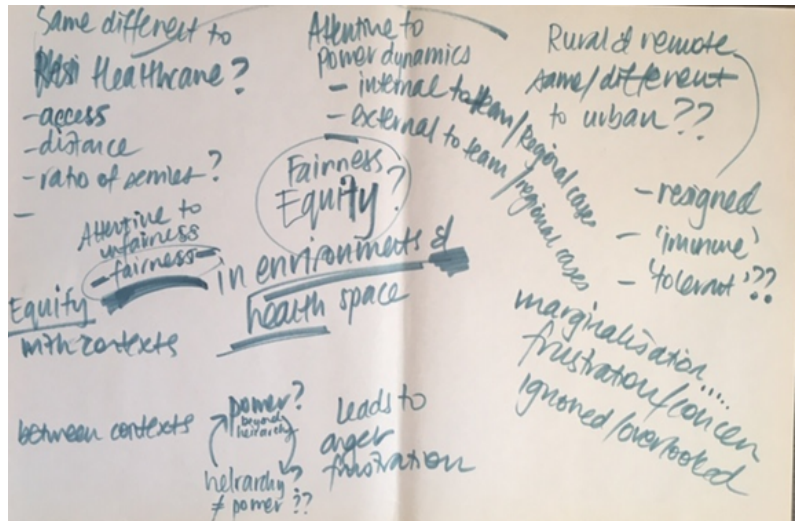
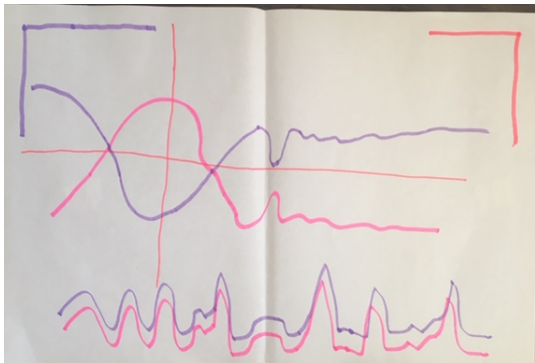
Question 2: What needs to change to support equity informed research?



APPENDIX: WORLD CAFÉ

QUESTIONS AND ARTIFACTS

Question 3: What does equity informed research look like among the environments and health space?



APPENDIX: WORLD CAFÉ QUESTIONS AND ARTIFACTS

Question 4: What does accountability look like between individuals and organizations?

