



Challenges in conducting community-driven research created by differing knowledge systems and world views: a researcher's perspective

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Community-researcher partnerships:

(1) Benefits

- Community-researcher partnerships can be an effective way to broaden the scope and enhance the impact of public health research.¹
- Such collaborations extend the reach of academic scientists by integrating a variety of perspectives and thus strengthening the applicability of the research.¹

(2) Challenges

- Communication challenges can arise when attempting to address specific research questions in these collaborations.
- Inconsistencies between scientists and community members in the use of language and definitions:^{2,3}
 - Scientists may use specialty-specific language, and community members may use local terms unknown to academic researchers.
 - The meaning of commonly used words or phrases may vary. For instance, the term 'bug' can be used to describe an insect, a germ, a pest, or an illness such as cold or flu, or even cancer.
- Differing perceptions of the investigative process and conceptions about research:¹
 - Community members may see research as any process aimed at the collection of information, whereas scientists typically view it as a rule-governed process that uses systematic observations to test hypotheses.
 - Differences may occur in perspectives about how research questions should be answered, and in expectations about funding requirements and research timelines.

Case Study: CANHelp Working Group

Community-driven research is currently underway in northern Aboriginal communities located in the Yukon and Northwest Territories, Canada.

Helicobacter pylori is a bacterium known to cause gastritis, peptic ulcers, and stomach cancer.

In northern Aboriginal communities, there is a disproportionately high frequency of *H. pylori* infection and associated diseases, and lower success of treatment aimed at eliminating the bacterium.



This research aims to describe the burden of disease and risk factors associated with *H. pylori* infection, and seek to identify effective public health strategies for infection control.

This research links community representatives, faculty from various disciplines at the University of Alberta, as well as territorial health care practitioners and health authorities.

There have been inconsistencies in the use of language and differing perceptions of the research process:

- * Some community members have referred to *H. pylori* as a "worm" in their stomach, raising questions about whether there is a common understanding of the bacterium. *
- * There have been differing views on the purpose and application of the research; *
 - Described the focus of the research as on water quality, rather than *H. pylori*
 - Stated that they expected the research to be finished quickly and to receive answers to their questions soon thereafter
 - Conflated research with health care, describing the main goal of the research as immediate treatment of *H. pylori* infection

(3) Consequences

- Misunderstandings about how the results will ultimately impact the community can occur:
 - Community members may believe that for research to be considered successful, it should have recognizable benefits available quickly to the community.
 - Scientists may view small gains that contribute to larger bodies of evidence as successes, even if they do not provide solutions immediately.
- These communication issues are particularly challenging when scientists and community members are from different ethnic and linguistic backgrounds:^{4,5}
 - This may widen the gap between knowledge structures, world views and values, further complicating the interactions and exchanges that are essential for effective joint research efforts.

(4) Solutions

- Develop knowledge translation tools and strategies:^{6,7}
 - Bi-directional communication and education between collaborators will foster understanding of one another's perspectives.
 - Incorporating various perspectives throughout the research process will promote effective collaboration and communication.
- Invest in building trust and reciprocity in relationships:⁶
 - Involving all interested and affected parties in the research will promote meaningful engagement.
 - Relationship-building and trust with all collaborators will promote effective and lasting communication.
- Develop research agreements between collaborators:⁸
 - Jointly compiling a research agreement will facilitate conversation and provide written documentation around definitions, research processes, and expectations.

1. Baum HS. Fantasies and realities of university-community partnerships. *Journal of Planning Education and Research*. 2000;20:234-246.

2. Jardine CG, Hruddy SE, Jardine CG, Hruddy SE. Mixed Messages in Risk Communication. *Risk Analysis*. 1997;17(4):489-98.

3. Cassidy J. "Eating for outsiders": cancer causation discourse among the Inupiat of Arctic Alaska. *International Journal of Circumpolar Health*. 2009;67(4):374-383.

4. Estey E, Kmetz A, Reading J. Knowledge translation in the context of Aboriginal health. *Canadian Journal of Nursing Research*. 2008;40(2):24-39.

5. Jardine C, Furgal C. Knowledge translation with Northern Aboriginal communities: a case study. *Canadian Journal of Nursing Research*. 2010;42(1):119-127.

6. Bowen S, Martens P. Demystifying knowledge translation: learning from the community. *Journal of Health Services Research Policy*. 2005;10(4):203-211.

7. Van de Ven AH, Johnson PE. Knowledge for theory and practice. *Academy of Management Review*. 2006;31(4):802-821.

8. Geary J, Colquhoun A, Babela T, Goodman KJ. Developing research agreements between communities and academic researchers: a case-study from northern Canada. *International Network for Circumpolar Health Research Annual Meeting*; Oulu, Finland. June 14-16, 2011 [abstract].