Challenges in conducting community-driven research created by differing knowledge systems and world views: a researcher’s perspective
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(1) Benefits
- Community-researcher partnerships can be an effective way to broaden the scope and enhance the impact of public health research.
- Such collaborations extend the reach of academic scientists by integrating a variety of perspectives and thus strengthening the applicability of the research.

(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:
  - 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: 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.

(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:
  - 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:
  - 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:
  - 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:
  - Jointly compiling a research agreement will facilitate conversation and provide written documentation around definitions, research processes, and expectations.

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.

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; for example, some community members have:
  - Described the focus of the research as on water quality, rather than H. pylori infection
  - 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

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.

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