# Community-Based Research for Peer Researchers

## Training Handbook

Access Alliance
Multicultural Health and Community Services
New Beginnings for Newcomers.

COMMUNITY-BASED RESEARCH AND EVALUATION DEPARTMENT

2025

# Disclosure

This training handbook is adapted from the Peer Training manual for the project titled "Impact of Family Loss and Separation on Refugee Youth: Implications for Policy and Programs" funded by the Children and Youth Refugee Research Coalition (CYRRC). The updated training handbook was developed to train internationally educated and trained researchers, young and emerging researchers, and community members interested in conducting ethical research with a peer-led community-based research approach.

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# Preface

## About Access Alliance - Community-Based Research Program

Access Alliance Multicultural Health and Community Services (Access Alliance) is a community-governed organization that provides primary health care to Toronto's vulnerable (socially marginalized and medically complex) residents with a focus on immigrants, newcomers, refugees, non-status, and racialized communities through an inter-professional team. Primary care and other support services (e.g. counselling/ therapy, dietetics, health promotion, settlement, language support, etc.) of Access Alliance range from promotion through prevention to intervention. Continuous quality improvement, community-based research, evaluation, and knowledge mobilization constitute important initiatives of the organization. In 2004, Access Alliance established a Community Based Research (CBR) department and is recognized as a sector leader in CBR for its commitment to scientific rigour and participatory approach. The CBR team co-designed several manuals and tools for conducting collaborative research in partnership with vulnerable communities by empowering them and building their self-efficacy in research and evaluation, geared at investigating and overcoming systemic barriers that marginalized communities face.

## Scope of this Peer Researcher Training Handbook

This handbook aims to provide a comprehensive practice-based training manual to the Peer Researchers (PR) to build their capacity for conducting ethics-informed community-based research, irrespective of their previous level of research skills. The trained PRs will conduct community-based research at any organization. They will be able to design a research project, collect qualitative or quantitative data ethically, transcribe data, analyze data following a co-production approach (DEPICT model), and transfer their knowledge into an accessible format to be used by the end-users at various levels.

The training modules in this handbook contain learning objectives, outcomes, and readings or resources for each module. Each training can be adapted depending on the timeframe and following the training needs and audience characteristics. The first module of this handbook comprises a dedicated orientation to Access Alliance's transformational CBR practice, which can be adapted to suit every individual organization. The rest of the modules are generic and can be used by any organization that wishes to conduct training with peer researchers for community-based research.

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# Introduction and Conceptualization

## Peer-Led Research and CBR at Access Alliance

Access Alliance focuses on community-based research (CBR), with community participation and collaboration being its' central tenets. This module will introduce Peer Researchers to Access Alliance as an organization and how CBR is practiced. Peer researchers need to be able to understand the difference between community-based research and other types of research and how to apply skills and knowledge to CBR.

**Learning Objectives**

1. To acquaint peer researchers with Access Alliance as an organization, infrastructure, and diverse teams.
2. To learn about the importance, scope, and practice of Peer Research.
3. To understand the principles and practices of community-based research.
4. To learn the role of Access Alliance as a CBR hub over the years.

**Learning Outcomes: At the end of the session, the participants will**

1. Feel grounded in the commitment of Access Alliance to build the capacity of Toronto's diverse communities to achieve health with dignity.
2. Conceptualize the scope, practice, and benefit of peer-led research in vulnerable communities.
3. Build their capacity to distinguish community-based research from other research streams and understand what is expected from community-based researchers.
4. Understand a peer researcher's role in conducting community-based research.

# Marginalized Participants' Rights in Research

Researchers on refugee and other marginalized populations require special attention regarding triggering the participant(s) during data collection without a support plan and inadequate yield of data from the researcher(s) saturation perspective. This module discusses the rights and privileges of refugees and other vulnerable subsets of the population while participating in a research project. The session is founded on research-based evidence from an eminent academic who has first-hand experience of investigating in-depth issues and who completed funded academic research ended with transferable accessible products.

**Learning Objectives**

1. To begin discussing ethics in research with participants' rights in research focusing on vulnerable communities.
2. To discuss the contents and process of collecting informed consent forms.
3. To understand the privilege and rights of vulnerable people while participating in research.

**Learning Outcomes: At the end of the session, the participants will**

1. Understand participants' rights in research from an anti-oppressive and equity perspective.
2. Build capacity on ideas dealt with while collecting informed consent form, such as consent versus ascent, verbal versus signed consent, etc.
3. Internalize the rights and privileges of vulnerable people while collecting data from them.

# Conceptualization – Research and Community Based Research

## Power Structure in Research

Community-based research (CBR) is the democratization of power in research activity with the highest levels of community engagement. CBR is a transformative model of knowledge production grounded in community, collaboration, and positive change. Research and knowledge production should be a collaborative process that includes a diversity of stakeholders and partners with shared interest in the issue. CBR is about the involvement and engagement of community members and those with lived experience as part of the research team. This module will also discuss the common elements of a community-based research protocol.

**Learning Objectives**

1. Conceptualize key steps and components of a research project.
2. Distinguish the key differences between community-based and conventional research.
3. Identify key challenges in community-based research.
4. Power and influence on community-based research by factor X.

**Learning Outcomes: At the end of the session, the participants will**

1. Develop mastery over the scope, process, and social requirements of CBR.
2. Build self-efficacy for conducting CBR as a member of the community to make a change.
3. Be able to identify the influencers enhancing or impeding the process of CBR.

# Ethics in Community Based Research

Ethics in CBR is always an area of interest with myths and assumptions. This module discusses the core aspects of ethics including (not limited to) the requirement of ethics approval for researching with humans, concepts on Research Ethics Board (REB) composition, REB application protocol, Tri-Council Policy for research, and data security processes.

**Learning Objectives**

1. To become knowledgeable on guidelines for ethical research with humans.
2. To ascertain the role and purpose of a REB and key component of an application.
3. To identify data security processes and procedures as it relates to research processes.
4. To become aware of and certified on the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2)
    - a. To gain an understanding of what research is; the main principles of what research ethics are and why they are important.
    - b. To understand how to assess the risks and benefits of research.
    - c. To understand privacy, confidentiality, and consent in research for a variety of populations and settings.
    - d. To understand fairness and equity in the process of conducting research.
    - e. To understand that conflicts of interest may arise during research and how to mitigate them.

**Learning Outcomes: At the end of the session, the participants will**

1. Certification in TCPS 2: CORE 2022.
2. Develop confidence and self-efficacy for following research ethics guidelines in all research activities including research with vulnerable populations.
3. Recognize the sites of REBs to apply for their projects.
4. Be able to develop a complete REB application for research projects.
5. Work with appropriate measures on data security requirements in research.

# TCPS 2: CORE

The Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2) offers ethical guidance for all research involving human participants, including their data and biological materials, conducted at institutions eligible for funding from federal agencies such as CIHR, NSERC, and SSHRC. The CORE-2022 online tutorial (Course on Research Ethics) offers an introduction to the TCPS 2 for researchers. It highlights the ethical guidelines from TCPS 2 that are relevant to all research involving human participants, irrespective of discipline or methodology.

**Learning Outcomes: At the end of session, the participants will**

1. Understand the ethical principles of Respect for Persons, Concern for Welfare, and Justice in human research.
2. Recognize TCPS 2’s broad applicability and researchers' responsibilities to follow ethical guidelines.
3. Assess and balance risks and benefits to minimize harm and maximize positive outcomes.
4. Ensure informed consent by fully informing participants of research details.
5. Apply principles of fairness and equity in participant recruitment and treatment.
6. Maintain privacy and confidentiality by securing personal data.
7. Identify and manage conflicts of interest to preserve research integrity.
8. Understand the REB's role in reviewing research to protect participants.
9. Recognize ethical considerations when researching with Indigenous peoples, emphasizing respect and consent.

# Sex and Gender Training Modules

These interactive modules are designed to help researchers and peer reviewers effectively consider and assess the integration of sex and gender across various areas of health research. There are three distinct courses, with our training focusing on the first course: Sex and Gender in Biomedical Research. Peer reviewers may choose to continue with the additional modules if desired. The total time for all three modules is 3 hours of self-paced training, plus an additional 2 hours of mentoring and support.

**Learning Objectives**

1. Distinguish between and define sex and gender in health research.
2. Identify sex and gender differences in the mechanism, disease or treatment under study.
3. Identify methods for integrating sex and gender variables in health research contexts.
4. Assess a research protocol or publication based on the integration or omission of sex and/or gender.

**Course 1: Sex and Gender in Biomedical Research**

This module is designed for researchers conducting basic science investigations. It is relevant if your work involves experiments with cells, tissues, animals, or other biological samples.

**Learning Outcomes: At the end of Course 1, the participants will**

1. Recognize nomenclature used in sex and gender science.
2. Identify methods to conduct sex and gender science.
3. Critically appraise the integration of sex and gender in protocols and publications.

# Sex and Gender Training Modules

### Course 2: Sex and Gender in Primary Data Collection with Human Participants

This module is designed for researchers conducting clinical studies. It is applicable if your research involves collecting quantitative or qualitative primary data from human participants.

**Learning Outcomes: At the end of Course 2, the participants will**

1. Define and distinguish between sex and gender-related variables in a health research context.
2. Identify methods for integrating sex and gender in research involving primary data collection with human participants.
3. Critically appraise the integration of sex and gender in protocols and publications.

### Course 3: Sex and Gender in the Analysis of Secondary Data from Human Participants

This module is designed for researchers conducting secondary data analyses. It is relevant if your research involves biostatistical analysis of existing datasets that include human participants.

**Learning Outcomes: At the end of Course 3, the participants will**

1. Define and distinguish between sex-related and gender-related variables using data from human participants.
2. Apply methods for conducting a sex and gender-based analysis using data from human participants.
3. Critically appraise the integration of sex and gender in the data analysis plan of research using data from human participants.

# Review of Literature

## Challenges and Interrater Variability

This module gives an overview of the different types of reviews of published and grey literature. The session will also discuss on characteristics of systemic literature review, scoping review, critical review, and meta-analysis. Managing the common challenges of a high volume of systematic literature review, usage of the reference manager, and interrater variability checks will also be discussed here. This module will also discuss how to chart data to produce a report.

**Learning Objectives**

1. To identify the scope and types of reviews used in research.
2. To learn the key steps and challenges while conducting Systematic Literature Reviews.
3. To understand the quality assurance processes in literature reviews.
4. To build capacity on the process of writing a literature review report.

**Learning Outcomes: At the end of the session, the participants will**

1. Gain the skills to select the appropriate type of literature review for a particular study.
2. Be able to choose the appropriate databases required for their research.
3. Be able to apply key search terms and Boolean operators in literature searches.
4. Be confident to write a report after reviewing articles.

# Research Design for Evidence Generation

## Quantitative Sample Size

This module will discuss the acceptable sample size in quantitative research. The facilitator in this module will discuss the globally recognized sample size determination formula during simple random sampling and other types of sampling techniques.

### Learning Objectives

1. To become familiar with quantitative research design and sampling techniques.
2. To learn sampling framework including, sampling design, sample size determination for quantitative studies.
3. To become knowledgeable on developing a data analysis plan and data transfer.

### Learning Outcomes: At the end of the session, the participants will

1. Understand the pros and cons of different designs and sampling techniques.
2. Be able to design an appropriate sampling framework.
3. Design a data analysis plan and primary coding from the literature review (if qualitative).

# Research Design for Evidence Generation

## Qualitative Sample Size

The appropriate sample size for qualitative research has been always a point of discussion. The module will discuss the tenets of an acceptable sample size intersecting the subjectivity of the researcher’s saturation with the power of data.

**Learning Objectives**

1. To become familiar with qualitative research design and methodologies.
2. To learn sampling framework including, sampling design, sample size determination for qualitative studies, and tools.
3. To become knowledgeable on developing a data analysis plan and primary coding from the literature review.

**Learning Outcomes: At the end of the session, the participants will**

1. Understand the pros and cons of different designs and methodologies.
2. Be able to design an appropriate sampling framework.
3. Design a data analysis plan and primary coding from literature review (if qualitative).

# Data Collection

## Collection of Sensitive Data from Vulnerable Population

Collecting data from vulnerable populations is always a challenge, particularly if the data is a sensitive one. This module will discuss, with practical examples, how to collect sensitive data from vulnerable subsets of the population. The module discusses the sources of data and sampling techniques.

### Learning Objectives

1. To become familiar and build knowledge of data collection including sampling techniques, resources mapping, outreach, and promotion strategies.
2. To learn techniques for dealing with vulnerable populations for collecting sensitive data.
3. To learn quality checks in data collection procedures and how to implement them.

### Learning Outcomes: At the end of the session, the participants will

1. Be able to design appropriate data collection plans for research projects inclusive of resources mapping, outreach and promotion strategies.
2. Ability to identify sensitive data and how to collect it.
3. Ability to implement quality checks during data collection progress.

# Data Collection

## Focus Groups and Interviewing

This module will discuss the various means of collecting qualitative data through focus group discussions (FGDs) and one-to-one interviews. The composition of the FGDs and roles of the facilitators, co-facilitator, and note-taker. This module will also discuss the tips to find the unintended helpful data from non-verbal or non-probed cues.

### Learning Objectives

1. Understand the scope and context of FGDs at different settings.
2. Learn the design and dos/don'ts of facilitation during an FGD or an interview.
3. Explore different roles of facilitators including gaining verbal and non-verbal skills.
4. Gaining note taking and concluding skills.

### Learning Outcomes: At the end of the session, the participants will

1. Be competent for conducting a successful FGD or interview- start through conclusion.
2. Manage any triggers during an FGD or an interview.
3. Understand the appropriate use of verbal and non-verbal skills in a group.
4. Be able to use FGD and interview through virtual media.

Learn the use of interpreters for participants having the barrier to speaking English.

# Data Processing and Analysis

## Collaborative Data Analysis

This module discusses the protocols for sorting, cleaning, and processing quantitative and qualitative data. Special emphasis will be given to the collaborative design of the data processing activities. Sorting for consistent and complete data is a prerequisite for analysis. This module will separately discuss quantitative and qualitative data processing procedures.

### Learning Objectives

1. To become knowledgeable on the processing data after collection.
2. To be familiar with sorting complete data and organizing data logically for analysis.
3. To practice cleaning data and storing it after transcription, translation, and validation.

### Learning Outcomes: At the end of the session, the participants will

1. Be able to sort and compile data for cleaning.
2. Prepare a cleaned dataset for analysis.
3. Prepare a data analysis plan.

# Fundamentals of Quantitative Data Analysis

This module will discuss quantitative data analysis plans and levels of analysis. The facilitator will walk the participants through a strategic design of when and how to conduct descriptive analysis and inferential analysis. The scales and measures of data will also be mentioned here.

**Learning Objectives**

1. To become familiar with scales and measures for quantitative data.
2. To build capacity on analysis of quantitative data including analysis software.
3. To prepare graphs and tables after analysis.

**Learning Outcomes: At the end of the session, the participants will**

1. Develop skills to analyze quantitative data.
2. Create tables and graphs from the analyzed data.
3. Interpret the numbers and findings of the analysis.

# Fundamentals of Qualitative Data Analysis

This module will discuss qualitative data analysis plans and levels of analysis. The facilitator will walk the participants through a strategic design of when and how to conduct thematic analysis and create fuzzy cognitive maps with the multi-level data flow.

**Learning Objectives**

1. To build capacity on qualitative data analysis.
2. To develop self-efficacy to coding and thematic analysis of qualitative data.
3. To be acquainted with the qualitative data analysis software.
4. To prepare graphs and tables after analysis.

**Learning Outcomes: At the end of the session, the participants will**

1. Develop skills to analyze qualitative data.
2. Create tables and graphs from the analyzed data.
3. Interpret the findings of the analysis as storytelling.

# Writing Reports and Manuscripts

Report writing is the sequential deliverable of any research activity. Writing a report is a scientific art to convey the study evidence to the end-users in an accessible way. This module will discuss the essential tips to write a report at the end of a study. This module will also discuss, as part-2 of the session, preparing a manuscript for publishing into a peer-reviewed journal.

**Learning Objectives**

1. Learn about various reporting formats and aspects of reporting study findings.
2. Learn the view of editors to support developing a manuscript for publication.
3. Learn aspects of effective presentations (PowerPoint).

**Learning Outcomes: At the end of the session, the participants will**

1. Build mastery of reporting formats.
2. Be able to develop a complete manuscript for publication.
3. Develop skills to effectively relay research in presentation format.

# Knowledge Mobilization

Knowledge transfer or mobilization is a required output for every study. An expert on knowledge mobilization (KMb) can guide the participants in this module towards impactful dissemination and sharing of evidence generated in the study. Depending on the type of message, media, and category of audience, the KMb activities vary. In this current module, the facilitator will present on:

- The academic-community partnership approach to research and how to integrate KMb from the initial conception of the research project.
- How the Children and Youth Refugee Research Coalition (CYRRC)'s KMb Working Group designed a KMb model to share knowledge in meaningful and innovative ways.

**Learning Objectives**

1. Understand the importance of KMb and the scope of different methods of KMb to develop a KMb framework.
2. Learn tips and techniques on how to share learned lessons of particular research and to make an impact at the policy level.
3. Support peer researchers with clear goal-setting strategies and gain skills on how to create an action plan.
4. Learn the aspects of evaluating KMb activities.

**Learning Outcomes: At the end of the session, the participants will**

1. Be able to plan KMb for disseminating research project results.
2. Identify the best channels to share research results.
3. Create a KMb action plan and share it with the research team.

# Questions or comments?

## Get in touch!

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