Building Your Capacity:

Advancing Research through Community Engagement

Curriculum Guide 2012

Tufts CTSI
Tufts Clinical and Translational Science Institute

Building Your Capacity:
Advancing Research through Community Engagement

2012

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INSIDE THIS DOCUMENT

OVERVIEW

The complexities of health related problems have been the impetus for a paradigm shift in research methodology and/or orientation. Instead of "community-placed" research that has been prevalent in years past where researchers helicopter into communities, there is a movement to engage in research that is "community-based." Community-based research emphasizes authentic partnerships that are participatory, cooperative, and invested in co-learning and empowerment. Furthermore, the process by which community-based research is carried out (e.g., involving people affected by problems in theory making and solution development) is as important as the research outcomes themselves (e.g., social action and change).

In response to a growing need for community partners to gain the knowledge and skills necessary to negotiate community-based research, the Building Your Capacity (BYC) curriculum guide was developed in concert with community partners. This product is the result of true collaboration and partnership that we hope you will find useful as you build your community's capacity for community-engaged research (CEnR).

The curriculum guide is divided into two parts. Part I introduces the reader to the BYC curriculum guide and provides an overview of why and how the guide was developed. Part II provides curriculum modules (see Table 1) that can be adapted for future use. Finally, the Appendix provides sample tools and guiding documents that may be of use in your CEnR efforts.

Table 1: BYC Curriculum Guide Modules

Module	Topic	Module	Topic
1	Research & Community - Academic Partnerships	9	Qualitative Methods
2	Power & Politics	10	Quality Improvement Research
3	Research, Evaluation, & Technical Assistance	11	Quantitative Data Analysis
4	Developing Research Questions	12	Qualitative Data Analysis
5	Literature Review	13	Proposal Writing
6	Research Design	14	Conflict & Negotiation
7	Ethics & Institutional Review Boards	15	Policy
8	Quantitative Methods		

PART I: Overview of BYC Training Program

What is Building Your Capacity: Advancing Research through Community Engagement?

The *Building Your Capacity: Advancing Research through Community Engagement* (BYC) program was designed to help community organizations increase their capacity to participate in community-engaged research (CEnR) efforts. In keeping with this collaborative approach, the very development of this program was a joint effort between:

Three Boston-area universities with Clinical and Translational Science Awards:

- Tufts University (Lead Site)
- Harvard University
- Boston University

And two critical community partners:

- The Center for Community Health Education Research and Service, Inc.
- The Immigrant Services Providers Group/Health

Why did we develop BYC?

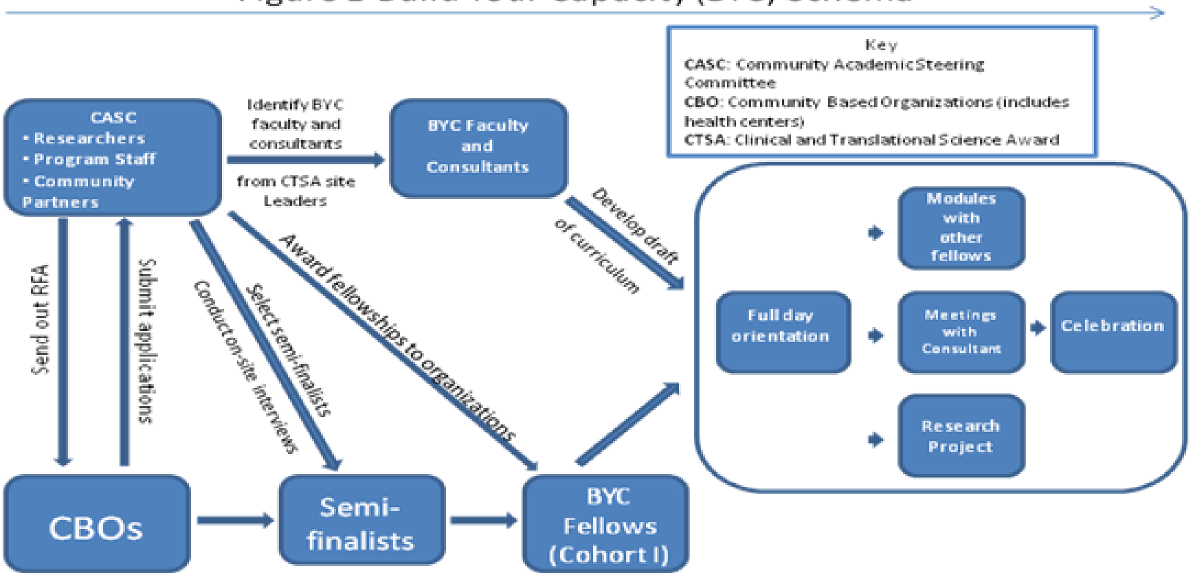
The BYC program was developed in response to concerns voiced by our community partners; these individuals desired the knowledge, skills, and networks necessary to become equal partners with academic researchers. Many of our community partners had previous involvement in research projects; however, their involvement had typically been at the request of an academic researcher. Often, the researcher requested help with specific tasks (e.g., recruiting for a study, conducting a focus group, or translating a survey), but did not perceive the community as possessing additional knowledge and skills outside of access to a specific population or language capabilities. On many occasions, individuals at our community partner organizations felt left out of conversations about the broader goals of the research project. Language, procedural, timeline, and funding parameters of academic research also were barriers to CEnR efforts.

How did we develop BYC?

To build the capacity of community organizations to participate in CENR efforts, we developed the BYC program with funding from the National Center for Research Resources at the National Institutes of Health (NIH). We formed a Community-Academic Steering Committee (CASC) comprised of a group of individuals from various backgrounds and experiences. We drew upon the expertise of this group to advise us on both the development and the content of the curriculum. In October 2009, we sent out a Request for Applications (RFA) (See Appendix-Page 68) for participation in the BYC program; in response, we received 35 applications for 10 fellowship positions from individuals whose organizations were committed to the goals of the BYC program. We piloted the program with a group (termed "cohort") of 10 organizations between January and June of 2010 (See Figure 1-BYC Schema-Page 4). Modifications were made to the pilot program. Subsequently, the program was offered again between January and May of 2011 with another group of 10 community organizations.

For both groups we evaluated our efforts using a pre- and post-BYC assessment tool (See Appendix-Page 75). The organization received a stipend to support the participants' time to attend the sessions and to develop a research project over the course of the program.

Figure 1-Build Your Capacity (BYC) Schema



What is the BYC curriculum guide?
This curriculum guide is based on our two year experience of planning, developing, and implementing this research capacity training program. Over the course of these two years, the CASC met almost monthly to discuss (and debate) issues related to the program. In addition, individual modules were pilot-tested with public agency and hospital staff. Our model's program consists of 10-15 bi-weekly sessions that occur over a period of five months. This BYC curriculum guide is designed to guide facilitators in developing and conducting their own BYC program and reflects our best thinking on how to collaboratively build research capacity. We hope that our experiences are helpful to you and we look forward to hearing from those of you who use this guide so that we can learn from your experiences as well.

Why was this curriculum guide developed?
When we began this program in September of 2009, we received calls from researchers and community organizations across the country who wanted to implement similar programs in their own communities. Given the spirit of collaboration fostered through the NIH-funded Clinical and Translational Science Awards (www.ctsaweb.org), we decided to develop a guide to help other interested organizations design and implement similar training programs.

How can you use this curriculum guide?
This guide is intended to be used in the implementation of a research capacity-building program with community-based organizations and health centers. This curriculum guide is simply – a *guide*. Please incorporate the suggestions we offer when appropriate. Please keep in mind that this curriculum guide was geared toward a selected audience of organizations who responded to an RFA for participation (see Appendix for sample RFA-Page 69). It is important to tailor the BYC program to your specific audience and/or organization(s). Each group will also have its own unique dynamics and the individuals in each group

will bring different skill sets and learning needs to the program. We recommend knowing your audience, tailoring the program where necessary, and having fun!

Whom should you target to include in a BYC training program?
Target those whose organizations are interested in developing increased capabilities for participating in CEnR. Establish a memorandum of understanding (MOU) between the participant, the director of the organization that the participant represents, and the BYC program regarding shared expectations for the participant, the organization, and BYC faculty (see Appendix for sample MOU-Page 73). Specifically, participants should understand that faculty will provide a set series of sessions tailored to meet their learning goals. In turn, participants are expected to participate in all sessions (unless an emergency arises) and carry out a BYC research project. The organization is expected to support the participant's engagement in the program and dissemination of the material learned to others in the organization.

Where can you get more information about this curriculum guide? More information is available at http://www.tuftsctsi.org/About-Us/Our-Components/Community-Engagement/Community-Training.aspx
If you have specific questions or would like to speak with one of our team members, please contact us at info@tuftsctsi.org.

Terms Used in Curriculum Guide

Community Engaged Research (CEnR): In our program we utilized the research term: community engaged research (Brugge, 2010). This approach recognizes that community engagement in research lies on a continuum. It acknowledges that community partners engage with academic researchers on different levels depending on the identified goal of the partnership, the expertise of each partner, and the available time and resources. In the past, CEnR has also been referred to as Community-Academic Collaborative Research (CACR).

Community-Academic Steering Committee (CASC): The purpose of this group of individuals was to guide the BYC program throughout its development and evolution. In your efforts, a CASC might be comprised of community members, researchers, academics, etc. who have experience with and are open to CEnR. In our model, we included people from community organizations and academic institutions, as well as individuals who were engaged and interested in CEnR. We specifically selected people who were involved with community-academic partnerships and research collaborations.

Community-Based Participatory Research (CBPR): We see CBPR as a form of CEnR, which is most committed to an equal partnership across all arenas of the research project (see references in Module 1-Page 14).

Consultants: These individuals acted as advisors and mentors to the BYC program participants on their research projects. Consultants assisted with formulating research questions, developing tools and instruments, reviewing and analyzing data, writing a proposal, and guiding the research project in general. In our model, each participant was assigned to one consultant, and each consultant advised 1-3 participants. We recommended to our consultants that they spend approximately 2 hours per month over a 5-month period to work with each of their mentees. We also requested that the consultants familiarize themselves with their mentees' respective organizations (e.g., visit the organizations' websites, read about programs run by these organizations). If topical consultants were needed in addition to the BYC consultant, these were requested through the 3 academic institutions' CTSA organizations.

Facilitators: Facilitators conducted the BYC sessions. The role of the facilitator was to present the material, facilitate activities and dialogue, and field and direct questions and group discussions. Facilitators were drawn from consultants, the BYC Program Manager, outside presenters, experts, etc. In our model, most sessions had multiple facilitators. In sessions where a participant's area of expertise was particularly relevant, participants acted as facilitators or co-facilitators.

Fellows: These individuals participated in the BYC training program. The fellows were tasked with bringing their learned knowledge and experience from their respective organizations and communities and sharing it with the BYC learning community. Additionally, fellows were tasked with taking back the new knowledge and skills obtained to their home organization. Fellows in each group were collectively referred to as a "cohort."

Program Manager: This person was the point person for the BYC program. S/he coordinated each of the BYC sessions, threaded all of the sessions together, and acted as a general liaison between the fellows, the consultants, the Program Director, and any other staff members. In our model, this individual was also responsible for coordinating the CASC and for overseeing the development of the curriculum.

Program Director: This individual was responsible for overseeing the entire BYC program, which included leading the CASC.

Teaching Approaches to BYC Curriculum

What teaching approaches did we employ?

Adult Education Approach: The BYC curriculum was grounded in current theories of adult education (Knowles, 1975; Freire, 1970). This theoretical foundation asserts that adult education must be learner-centered and grounded in the learners' lived experiences. Therefore, we did not follow a traditional lecture style of teaching, but instead we adopted an organic, interactive model of building on participants' prior knowledge and experiences to ground the structure of each session.

Respect for Fellows' Knowledge: Fellows were encouraged to share their skill set and knowledge of the organization served and its needs with the other fellows and faculty throughout the BYC program. Faculty modeled a central principal of CEnR: academic researchers and community members bring different, but equally important. knowledge to collaborative research efforts.

On-Going Feedback Loop: At the end of each training session, fellows completed a module evaluation (see sample in Appendix-Page 82) that assessed what knowledge was gained and what additional questions they had about the topic. The CASC met monthly to review the feedback and to plan how to incorporate feedback into subsequent training sessions.

Applied Learning: Active learning was encouraged throughout the training sessions. Fellows were given projects to work on, connecting the concepts and themes to real world practice and implementation.

- Guiding Documents: At each training session, fellows were given a set of guiding documents (e.g., "homework"). The guiding documents provided a series of suggested exercises in order to digest the training material from the current session and to prepare for the upcoming session (see sample in Appendix-Page 68).

- Research Project: As an outcome of participating in BYC, the fellows developed a research project specific to their organization. The purpose of the project was to experience conducting a small CEnR project during the BYC program. The consultant worked with the fellows on this project.

Learner-Faculty Relationships: Relationships formed the foundation of this program. Before the training program began, we conducted site visits with each of the participating organizations to assess their needs for training and to answer any questions that they had (see Appendix-Page 68) for sample interview guide and needs assessment). We ensured that the organization was committed to the fellow's participation and to exploring CEnR models. At the first training session of each cohort, substantial energy was devoted to community-building activities with the intention of fostering a strong, safe, supportive learning community among the training participants.

What logistical considerations needed to be considered?

Consultant-Fellow Pairs: Each fellow was paired with a consultant who provided on-going support and mentorship. The consultant helped the fellow apply the ideas and concepts discussed in training programs to their respective organization and community. The consultant also helped the fellow develop his/her research project (see Research Project Description-Page 7).

Session Dates: We initially hosted full-day sessions with several modules in each session on a monthly basis. Fellows in the first cohort suggested that having several full-day sessions with shorter half-day sessions interspersed on a twice-per-month basis would build a stronger learning community and maintain momentum on the research projects; we followed their advice with the second cohort. We met on Fridays as this day was the easiest for fellows to arrange to be absent from their organizations.

Session Materials: A binder with materials was given to the fellows at the start of the training program. At the beginning of each individual session, the agenda (including the learning objectives for that session), guiding documents (see sample-Page 68), session evaluations (see sample-Page 68), and handouts of any PowerPoint presentations were distributed to the fellows. We also gave each organization a copy of Community-Based Participatory Research for Health: From Process to Outcomes (2nd edition), edited by Meredith Minkler and Nina Wallerstein. This book is written for academic researchers and practitioners alike, and it served as the foundational text for the BYC training program. We also supplemented the program with additional handouts, packets, worksheets, and films.

Research Project: Each fellow was asked to complete a research project as part of the BYC program. The projects were limited in scope, given the variability in prior research experience among the fellows, the resources available through organizations, and compressed timeline of the BYC program itself. Examples of projects included conducting focus groups with staff at a fellow's organization, designing, distributing, and analyzing a brief survey, and developing a guiding document regarding research partnerships for an organization.

Graduation and Community Celebration: At the end of the BYC training program, we hosted a three-hour graduation and community celebration. In the first two hours, the fellows presented their research projects to the whole group, providing an opportunity to showcase their work to a larger audience and to gather additional community feedback. This was followed by a graduation ceremony, which acted as an opportunity for the consultant to appreciate and acknowledge the work of the fellow, and for the fellow to reflect on his/her experience in the training program. Directors, other staff, and community members from the fellows' organizations, as well as interested researchers and academicians, were invited to attend.

References

Brugge, D, Rivera-Carrasco, E, Zotter, J, Leung, A. Community-based participatory research in Boston's neighborhoods: A review of asthma case examples. *Archives of Environmental & Occupational Health*. 2010; 65(1): 38-44.

Freire P. *Pedagogy of the Oppressed*. New York: Herder and Herder; 1970.

Knowles M. *Self-Directed Learning.* Chicago: Follett Publishing Company; 1975.

Minkler, M, Wallerstein, N. *Community-based Participatory Research for Health from Process Outcomes*. San Francisco: Jossey-Bass; 2008.

PART II

Organization of Curriculum Modules

Within each module, you will find curricula material placed within the following categories:

Module Summary	**Module Summary:** Brief summary of the content and goals of the module
Learning Objectives	**Learning Objectives:** Overview of learning goals for the module
Preparation Work	**Preparation Work:** Readings and/or activities for fellows to complete to prepare for this module
Suggested Activities	**Suggested Activities:** Outline of activities to include in module
Tools	**Tools:** Additional resources and readings (see Appendix-Page 68)
Facilitator Notes	**Facilitator Notes:** Notes based on our experiences; facilitators may find these helpful

These categories were developed to assist facilitators in the delivery of future BYC programs. However, it should be noted that the content within each module is meant to serve as a guide and can be modified to meet the unique needs of particular communities.

Program Orientation: Introduction & Community Building

Module Summary

The first day of the program is designed to introduce the BYC program and build a learning community for the research fellows, faculty consultants, facilitator(s), and any other program staff. The session should conclude with time for the fellows to meet with their faculty consultants and discuss their BYC project.

Learning Objectives

1) Identify and name BYC fellows and faculty consultants

2) Explain how the BYC program will run

3) Determine and establish ground rules for group interactions

4) Network and build a learning community

5) Define community-engaged research (CEnR)

6) Discuss the overlap and distinctions between community activism and CEnR

Preparation Work

Readings

- Minkler M, Wallerstein N (eds.). Introduction. In: Community-Based Participatory Research for Health: From Process to Outcomes. 2008. San Francisco, CA: Jossey-Bass.

Suggested Activities

1) "Getting to know you" activities

Summary: Start the session off with upbeat, creative, interactive ice-breaker activity that will set the tone for the sessions. See Klatt (1999) for ideas.

- Klatt B. The Ultimate Training Workshop Handbook: A Comprehensive Guide to Leading Successful Workshops and Training Programs. 1999. New York, NY: The McGraw-Hill Companies.

2) Generate ground rules for the group

Summary: This exercise is meant to solicit from fellows a set of communal ground rules that they think will be important for group interactions in the BYC program.

Instructions: Ask the fellows to suggest ground rules and write them on a poster board, bring this poster board to each of the subsequent sessions, and set in plain view as a reminder. Continue to review the ground rules at subsequent sessions, and provide opportunities to add to the list.

Notes: In our model, ground rules included (but were not limited to) the following:

- There are no stupid questions
- Let us not be judgmental
- Stay mindful of the goals of the program, and keep on task
- Ensure confidentiality
- Start and end on time
- Commit to the preparation work for each session, to the research project, and to being an active participant in the training sessions
- Define any jargon or acronyms for the participants

3) Review relevant vocabulary and any acronyms

Summary: A large number of acronyms and specific vocabulary are often used when talking about CEnR. It is, therefore, important to spell these out in the beginning so that everyone is on the same page.

Instructions: Post a list of acronyms and vocabulary that will likely be used throughout the BYC program. Bring this to subsequent sessions as a reminder, and be sure to update this list accordingly.

4) Ice-breaker exercise: "Find the Person in the Room Who…"

Summary: This exercise is intended to get people to learn something about the other participants in the room.

Instructions: Prior to the first session solicit from each fellow, facilitator, and consultant a "fun fact" about him/herself. Compile these facts onto a grid on a single sheet of paper, titled *Find the Person in the Room Who…*, and pass this out to the group. Next, instruct everyone to try to find out which "fun fact" matches who. The first person to match five in a row wins. This tool is provided immediately following this session overview.

5) Define what the terms "research" and "activism" mean, from various perspectives

Summary: This exercise is designed to elicit discussion of the similarities and differences between "research" and "activism."

Instructions: Instruct the fellows to take two sheets of paper and a marker. On one sheet, write words or draw something that represents "research." On the other, write words or draw something that represents "activism." Divide the white/chalk board into two sections: research and activism. When the fellows are finished with their papers, tape them to the board in the appropriate section. The idea here is to think about research and activism – What do these words mean? How are they similar? How are they different? How might research and activism interact to benefit a community? Discuss!

Notes: In our experience, some common responses for the definition of "research" included: data, reporting, observation, and issue/health problem. Some common responses for the definition of "activism" were: community action, empowerment, and policy change. Fellows pointed out that "one is objective while the other is subjective." Another comment from a fellow: "Activism is systems change, and the bridge is us – implementing our practices within our community." Through dialogue, the fellows and academic researchers were able to begin to build the conversation around components of CEnR. Fellows noted that they often saw themselves as the "subjects" being observed. Fellows voiced their opinions, building off of one another, about how they felt they played an activist role because they were the ones who knew the community issues, and could, therefore, advocate for a specific focus in a research agenda and action steps. As dialogue unfolded, the fellows realized that they could serve as the bridge to make research more effective and meaningful.

6) "Pair & Share" exercise

Summary: This activity is designed to facilitate discussion among fellows about their experiences with research.

Instructions: Direct fellows to break into pairs, and instruct them to interview their partners about their experiences with research (e.g., what has been their experience, what worked, and what did not work?). Examples of experiences may range from conducting a science experiment in high school to participating in a federally-funded grant. Note that each fellow will then report back to the entire group about his or her partner's experiences. Allow approximately 15-20 minutes, then

	reconvene the whole group and ask fellows to share what they have learned about their partners and their experiences with research. **7) Introducing BYC Research Project** **Summary:** This activity is meant to provide each fellow and consultant an opportunity to meet and converse with one another. This is also a good forum for fellows to discuss their initial ideas for their BYC research project. **Instructions:** Introduce each consultant and indicate the fellow(s) to which each has been assigned. Instruct each consultant/fellow group (or pair) to find a quiet space, apart from the larger group, to chat. Allow 30 minutes to pass, and then reconvene the whole group. **8) Recap summary** **Summary:** This recap effectively summarized the homework, exercises, learning objectives, and key topics covered in the module(s). We also took this opportunity to solicit feedback from fellows (e.g., what they liked about the session and what they would like to see improved for future sessions). We also reviewed the preparation work for the upcoming module.
Tools	Additional Resources ▪ Self-Introduction Exercise (see "Program Orientation: Tool A-Page 13")
Facilitator Notes	This session sets the tone and glues the group together. Try to have all faculty and consultants attend. They may need to be reminded that the earlier sessions are opportunities for the *fellows to speak,* as opposed to the faculty. Faculty should also take the time to review preparatory work for the next session.

Program Orientation: Tool A

Self Introduction

Hello, my name is __________. I am a ______________ (occupation). My hometown is ______________ and I really ________ it there because ______________. I always dreamed that someday I would ________________, and that dream has ______ true. Some things I like to do include (1)______________, (2) ______________, and (3)______________. There are many things I am good at and one of them is ______________. I did a really interesting thing once and that was ____________. My family consists of ______________. If I could change one thing about myself it would be _____________. I am really glad to be here right now because (1)______________ and (2)______________. I would really like to get together with anyone who is interested in _________________.

Module 1: Research & Community-Academic Partnerships

Module Summary	This module is designed to familiarize fellows with general research, community-academic partnerships, and community-based participatory research (CBPR) as an example of community engaged research (CEnR) efforts. Fellows should be encouraged to share their perspectives on and experiences with research.
Learning Objectives	1) Discuss the different types of research, specifically CEnR and CBPR 2) Define the difference between CEnR and traditional research 3) State the benefits and limitations of CEnR and CBPR 4) Identify the similarities and differences between "traditional" research and CEnR/CBPR 5) Propose ways to create a successful collaborative research partnership
Preparation Work	Readings ▪ Minkler M, Wallerstein N (eds.). *The Theoretical, Historical, and Practice Roots of CBPR* (chapter 2). In: Community-Based Participatory Research for Health: from Process to Outcomes. 2008. San Francisco, CA: Jossey-Bass. ▪ Silka L, Cleghorn GD, Grullon M, Tellez T. Creating community-based participatory research in a diverse community: a case study. *Journal of Empirical Research on Human Research Ethics.* 2008:5-16. ▪ Sprague Martinez L.S., Ndulue, U.J., and Brunette, M. (in press). *Lessons learned from the Protección en Construcción (PenC) community research partnership*. International Public Health Journal, Special Issue related to: Lessons learned in building community capacity to address persistent public health problems 4(3). Recommended Preparation Activities for Fellows ▪ Talk with others in your organization about potential ideas for your BYC research project ▪ Register for a free on-line CBPR training course! Go to: www.cbpr-training.org to register for the course *Community-Based Participatory Research: A Partnership Approach for Public Health*
	1) Introduction to CEnR **Summary:** The purpose of this presentation is to discuss perceptions of CEnR. The session begins by having fellows describe to the group their initial perceptions, and then closes with them sharing their understanding of CEnR (e.g., the benefits and disadvantages) after having learned from the PowerPoint presentation. **2) Group discussion on roles in CEnR** **Instructions:** Facilitate a discussion about the multiple roles communities and community members can have in CEnR (present CBPR as one type of CEnR where power is shared). Encourage fellows to discuss the following: ▪ Generating research topics

- Refining research topics devised by researchers
- Identifying key factors that may affect health

Notes: In comparison with the previous session, you may be able to see (i.e., through conversation) that the fellows and researchers are figuring out what issues are relevant for them. For some fellows, creating and maintaining a respectful space for each other throughout the research process was very important. The fellows' understanding of CEnR, the importance of the community's involvement, and the importance for a research question and design to represent the needs of the community greatly improved during this session. Conversations often moved from frustrations about previous interactions with researchers to problem-solving about how to effectively negotiate with researchers (i.e., by acknowledging the unique knowledge and skills both bring to any endeavor). Here are some examples of what fellows said:

- "Perhaps we should go to community FIRST! [That's the] whole point of CEnR…"
- "For starters: operate on principles of respect: we [fellows] have as much to offer from our area of expertise as you [doctor, academic researcher] have to offer from yours."
- "When thinking CEnR, think equity."

Suggested Activities

3) Video on CBPR: "A Bridge Between Communities," by The Detroit Community-Academic Urban Research Center

Summary: This video documentary introduces viewers to the theory and practice of CBPR. The video tells the story of the history and activities of the Urban Research Center partnership and highlights the challenges and benefits of conducting CBPR. To obtain a copy of the video, contact Robert McGranaghan, Detroit Urban Research Center Project Manager, at rojomcg@umich.edu. Excerpts from the video can be viewed throughout the Urban Research Center website: http://www.detroiturc.org/.

4) Group discussion of CBPR video

Summary: This discussion was used to process what was learned from the CBPR video as a group. The questions below were used to guide the discussion.

Instructions: Pose the following questions to the fellows:

- What do you think CBPR is? What makes it unique from CEnR?
- What are the general advantages and disadvantages of community participation in research?
- What might a researcher want out of a partnership? What might a community organization or member want?
- What are some concerns communities may have about working with an academic partner? What are some concerns researchers may have about working with a community organization or member?
- What is an Institutional Review Board (IRB)?
- What does it mean to conduct human subjects research?

5) Case study presentation on CBPR: "Telling the Story of Somerville, MA"

Summary: This case study highlights the process by which a group from Somerville, MA began CBPR and the impact that it had on their community. Both advantages and challenges are presented.

Instructions: After the presentation, lead a brief discussion by posing the following question to the fellows:

- What is the story of the community you are working in?

<table>
<tr><td></td><td>6) Recap summary
Summary: This recap effectively summarized the preparation work, exercises, learning objectives, and key topics covered in the module.</td></tr>
<tr><td>Tools</td><td><u>Additional Resources</u>

Tools that fellows may want to explore include:
Wellesley Institute Resources (see “Module 1: Tool A-Page 17”)
Outlining the Context of the Challenge I am Thinking of Addressing in my Research Project (see “Module 1: Tool B-Page 18”)
Websites that fellows may want to explore include:
http://www.ahrq.gov/about/cpcr/cbcr/
http://depts.washington.edu/ccph/commbas.html
http://depts.washington.edu.ccph/cbpr/index.php
http://www.wellesleyinstitute.com/presentations/cbr_100_series/</td></tr>
<tr><td>Facilitator Notes</td><td><u>General Questions that May Arise During this Module</u>
What does “capacity building” mean?
How can we [fellows] create sustainable projects?
Are we given access to the resources we need?
Review preparatory work for next session.</td></tr>
</table>

Module 1: Tool A

Wellesley Institute Resources

Dear CBPR colleagues,

Due to popular demand, Wellesley Institute (WI) in Toronto had made its community-based research (CBR) and capacity-building workshop materials freely available for public use.

Brief History
WI offered a successful CBR and capacity-building program for local researchers over a number of years. Over twenty workshops were delivered on topics spanning both the conceptual (e.g., ethics, theories in health promotion, methods, etc.) and practical aspects of CBR and capacity-building (e.g., how to conduct a literature review, how to run a focus group, how to analyze data, etc.). The workshops were very well-attended and addressed the need for local training in research and policy at an affordable price.

Current Situation
In 2009, WI shifted its strategic direction to focus more on population health and undertake research that more closely addresses this new focus. However, given the popularity of the workshops and the ongoing need and demand for training in CBR and capacity-building, WI has made the workshop materials (including presentations, trainer's guides and other resources) available on its website for easy downloading and adaptation to suit the needs of diverse audiences. While WI realizes that the real value of workshops is in the interaction that takes place face-to-face, the hope is that this material will still be useful for others to develop for their own purposes.

Below is a list of workshop titles:
For CBR workshop materials, go to http://bit.ly/aQb0ot
For capacity-building workshop materials, go to http://bit/ly/br0M0Z

Creative Commons License
The workshops are available free for download. WI encourages the circulation of the materials as widely as possible under the open access publishing license. Users are welcome to download, copy, distribute, and transmit this work electronically or in any other format subject to the conditions set out in the Creative Commons 1 Attribution-Noncommercial-Alike 2.5 Canada License.

In particular:
Attribution: You must attribute the original source to the WI.
Non-commercial: You may not use this work for commercial purposes.
Share alike: If you alter, transform, or build upon this work, you may distribute the resulting work only under the same or similar license to this one.

For full description of the license please visit http://creativecommons.org/licenses/by-nc-sa/2.5/ca/

CBR Workshops:

CBR 101	Introduction to Community Based Research (CBR)
CBR 102	Ethical Issues in Community Based Research
CBR 104	How to Run a Focus Group
CBR 105	How to Conduct a Research Interview
CBR 106	Developing a Client Satisfaction Survey
CBR 107	How to do a Literature Review
CBR 202	Theories in Health Promotion
CBR 206	Writing Effective Letters of Intent
CBR 207	Writing Effective CBR Proposals
CBR 209	Community-Based Research in Ethnoracial Communities
CBR 210	Conducting CBR with Homeless Communities
CBR 221	Introduction to Survey Data Analysis
CBR 301	Using Community-Based Research to Affect Public Policy
CBR 302	Qualitative Methods and Analysis
CBR 303	Developing Survey Tools in CBR
CBR 304	A Participatory Approach to Program Evaluation
CBR 306	Using Media to Drive Public Policy
CBR 308	Policy Analysis from a Community Perspective
CBR 310	Delivering a Policy Presentation

Capacity-Building Workshops:

CAP 101	Recharge! Build Your Personal Capacity for Leadership
CAP 102	Valuing Diversity
CAP 103	Writing a Grant Proposal
CAP 104	Introduction to Project Management
CAP 105	Build Successful Alliances, Coalitions & Partnerships
CAP 106	Intro to Financial Management
CAP 107	Become an effective Community Member
CAP 108	Effective Meeting & Facilitation Skills
CAP 109	Strategic Planning
CAP 110	The Fine Art of Volunteer Management
CAP 111	Introduction to Marketing for Non-Profits
CAP 112	All About Advocacy
CAP 113	Introduction to Performance Management
CAP 114	Board Governance
CAP 115	Introduction to Program Evaluation
CAP 116	Introduction to Information Technology for Non-Profits
CAP 119	Effective Supervisory Skills
CAP 122	Strategies for Managing Conflict
CAP 200	Letting Go of Conflict
CAP 213	Conducting Performance Management Discussions

Module 1: Tool B

Outlining the context of the challenge I am thinking of addressing in my research project…

A. How did this challenge come to my attention?

B. Does this process influence my ability to address this challenge and come up with potential solutions?

C. How committed is my organization to addressing the challenge?

D. Is there a window of opportunity during which this challenge must be addressed?

E. Who are the gate keepers (decision makers), stakeholders (people affected by a decision), and doers (people who might implement a decision) related to this challenge? What are their perspectives on the challenge? How does this change my understanding of the challenge?

Module 2: Power & Politics

Module Summary	Module 1 and this module can bring out a lot of negativity about academics or researchers, particularly around perceived power, fiscal, and space inequalities. The facilitator's role will be to acknowledge these frustrations and keep the discussion focused on problem-solving and communication.
Learning Objectives	1) List challenges and potential solutions in participating in CEnR and CBPR 2) Identify and discuss power issues inherent in research process
Preparation Work	<u>Reading</u> ▪ Minkler M, Wallerstein N (eds.). Part II: Power, Trust, and Dialogue: Chapters 5 - 8. In: <u>Community-Based Participatory Research for Health: from Process to Outcomes</u>. 2008. San Francisco, CA: John Wiley & Sons Publishers. ▪ Silka L, Cleghorn G, Grullon M, Tellez T. <u>Creating community-based participatory research in a diverse community: A case study</u>. *Journal of Empirical Research on Human Research Ethics* 2008; 3: 5-16.
Suggested Activities	**1) Power and politics in research** **Summary:** The goal of this activity is to generate discussion around positive and negative partnership attributes that help and hinder collaborations. **Instruction:** Revisit discussion from Module 1 on experiences with research. Ask fellows if they have had any further thoughts about what makes or breaks research efforts where researchers and community based organizations or health centers are working together? **2) CBPR in a diverse community** **Summary:** The purpose of this activity is to discuss the Silka et al (2008) article and allow fellows to reflect on their approach to research. **Instruction:** Discuss preparatory work (i.e., article in which Lawrence, MA organized itself to negotiate as a city before any research was conducted in that area). Find out if any of the fellows' organizations have considered a similar approach. **3) Panel** **Summary:** The goal of this activity is for fellows to learn from successful CAPR projects in their community. **Instructions:** In partnership with one or more successful CAPR projects in your community, host a panel. Ask the following: ▪ Where on the spectrum of CEnR did this project fall? ▪ What standard operating procedures were agreed on? How?

	▪ What was one particular challenge and how did you deal with it? ▪ What were the goals? ▪ How were the goals negotiated? **4) Recap Summary** **Summary:** This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.
Tools	<u>Additional Resources</u> Tools that fellows may want to explore: ▪ Self-Assessment Tool for Community-Academic Collaborative Research (see “Module 2: Tool A-Page 21”) Websites that fellows may want to explore: ▪ http://www.tuftsctsi.org/About-Us/CTSI-Components/Community-Engagement/Self-Assessment-Tool.aspx ▪ http://www.cdc.gov/dhdsp/programs/nhdsp_program/evaluation_guides/docs/partnership_guide.pdf
Facilitator Notes	We elected to have an active module devoted to this topic, given that many of our fellows either had had negative experiences working with researchers in the past or were concerned about tensions between academic institutions and the surrounding communities. Module 14 also directly discusses conflict strategies and procedures and is optional. We also found it important to openly discuss fiscal tensions, including salary differentials, indirects, differences in “hard” or “soft” monied faculty positions, and the impact on how money is distributed among academic institutions and community organizations. Review preparatory work for next session.

Module 2: Tool A

Self-Assessment Tool for Community-Academic Collaborative Research

How do I use this self-assessment tool?

This tool is designed to guide you and your potential research partner(s) through some of the questions you may want to think about regarding community-academic collaborative research partnerships.

Is this self-assessment tool for me?

Am I…

A community organization member looking for a collaborative research partnership?

I am a community organization member who wants to ***partner with a researcher to better understand how research might help meet the needs of/improve my community and to engage in an in-depth research project.*** I might be looking for help to:

- Better understand what kinds of information could advance science and help my community; or
- Find research funds.

Helena runs an after-school program and is committed to preventing violence in her community. She would like to go after large federal grants to pursue her efforts. She's looking for an academic partner

A community organization member thinking about participating in a research study?

I am a community organization member who has been ***asked by a researcher to participate in/help with a research study***. I might have been asked to:

- Run focus groups;
- Find people to participate in the study; or
- Answer certain questions.

Fred works for a housing initiative and is being asked to find people to participate in a study on asthma triggers. His organization is trying to decide if this is a priority and, if yes, how to partner with the researcher.

A community organization member who is looking for an evaluator or consultant?

I am a community organization member ***who is looking for a consultant to help gather information*** in order to better my organization's work.
I might be looking for help to:

- Try to understand the needs of my organization (i.e., conduct a needs assessment);
- Evaluate program(s) that my organization runs; or
- Obtain technical assistance (e.g., review research papers and literature, request expert consultation on what may be evidence-based interventions appropriate for my organization).

Janet works in a health center and wants to evaluate her organization's substance abuse intervention program. She is looking for some help in how to do this.

Definitions of Terms

Academic Research: research that is carried out at colleges/universities in a scientific way and that is geared toward publication in a professional journal.

Community-Academic Collaborative Research: research that aims to: improve public well-being, empower communities, and advance science.

Partnership: relationship in which partners work together to achieve shared goals and benefits.

Questions to Discuss with Your Research Partner(s)

Mission/Goals	What are our goals for doing research together?
	What are the goals and objectives of our partnership?
	How might our partnership help us each better achieve our own goals and objectives?
	Who are the key stakeholders in our partnership?
	How can these key stakeholders take part in the research process (e.g., developing goals and objectives, designing research plans, collecting data)?
	How can we guide the research project to be consistent with the missions of our respective organizations/colleges/universities?
Benefits & Risks	Do we each have significant time and energy to devote to a new research project and partnership?
	What are some of the benefits and drawbacks of research?
	What will we each gain through this partnership (e.g., opportunities for staff development, learning how to best answer research questions, connections to key stakeholders, funding, more visibility, greater access to priority populations, networking opportunities, better image)?
	What are some potential drawbacks of a community-academic research partnership? How might we address these?
	What are some of the pressures of traditional academic research that we may come across (e.g., funding timelines and limits, producing scientific results, publishing in professional journals)?
Ability/Resources	In what ways are our respective organizations/colleges/universities prepared and ready to engage in a new research project and partnership?

	What human, financial, and technical resources are needed for a good, healthy research partnership? (This may include resources that are already available.)
	How will the study budget (if any) address the need for extra training, staffing, and/or administrative resources necessary to conduct the research project?
	How will the resources we have or will receive be shared fairly between us (e.g., staff, time, funding)?
Ethics	How will the ethical standards of our respective organizations/colleges/universities be part of the research plan?
	Do we need an Institutional Review Board (IRB) for this research project? If so, which IRBs will review the proposed project?
Partnership	What will we each gain through this partnership (e.g., opportunities for staff development, help with using technology, connections to key stakeholders, funding, more visibility, greater access to certain populations, networking opportunities, better image)?
	What are the past issues that we need to talk about before starting a new research partnership (e.g., problems with trust)?
	How can we develop shared goals?
Culture & Relationships	How do the cultures of our respective organizations/colleges/universities differ (e.g., norms, expectations, behaviors, approaches, procedures) and how will we address these differences?
	What will our strategy be for dealing with conflict?
	What things do we need to know about each other's respective organization/college/university before engaging in a research partnership?
Roles & Decision-Making	Are the roles, responsibilities, and expectations within our partnership clearly defined and understood by everyone? Are these explained in writing?
	What kind of decision-making process will be used throughout our partnership (e.g., led by community organization members, led by academic researchers, jointly led by both community organization members and academic researchers)?
	What might be some good strategies for working together?

	How will the many parts of the research project (e.g., defining study questions, writing proposals, designing methods, analyzing results, distributing findings) be divided-up between us?
	Who will have: ownership of the data collected through our research project; intellectual rights of the research produced; and authorship of research papers?
Sharing of Findings	How will we distribute products, share results (e.g., published papers, topic papers, presentations), and communicate messages to relevant target audiences – including other researchers, funders, government agencies and representatives, stakeholders, and the community?
	How will we share the results to support new policy, programs, and research projects?
Future Plans	What will we do to build on our research findings?
	How will we make sure that resources are available from internal and/or external sources to continue our research project and partnership?
	If we decide that our partnership should continue, how will we include a review of the partnership's mission and goals as we try to plan for future collaborations?

Questions to Ask Yourself

Mission/Goals	How would research help my organization achieve its goals and objectives?
	How can I guide the research project to be consistent with my organization's mission?
Benefits & Risks	How might my organization benefit from a research project?
	What are some of the benefits and drawbacks of research?
	What are some of the pressures of traditional academic research that I may come across (e.g., funding timelines and limits, producing scientific results, publishing in professional journals)?
Ability/Resources	How does a research project fit into my job description?
	Is there special staff within my organization who could work on a research project?
	How will the study budget (if any) address the need for extra training, staffing, and/or administrative resources necessary to conduct the research project?

Questions to Discuss with Your Potential Research Partner(s)

Ethics	What are some ethical issues that the research project may bring up in our respective organizations/colleges/universities?
	How will the ethical standards of our respective organizations/colleges/universities be part of the research plan?
Sharing of Findings	How will products be distributed, results (e.g., published papers, topic papers, presentations) be shared, and messages be communicated to relevant target audiences – including other researchers, funders, government agencies and representatives, stakeholders, and the community?
	How will the results be used to support new policy, programs, and research projects?
Partnership	What will we gain through participating in a research project (e.g., opportunities for staff development, help with using technology, connections to key stakeholders, funding, more visibility, greater access to certain populations, networking opportunities, better image)?
	What past issues need to be talked about before engaging in a research project (e.g., problems with trust)?
	Are our roles and responsibilities clearly defined? Are these explained in writing?
	What kind of decision-making process will be used throughout this research project (e.g., led by community organization members, led by academic researchers, jointly led by both community organization members and academic researchers)?

Module 3: Research, Evaluation, and Technical Assistance

Module Summary

This module is designed to provide an overview as to the types of partnerships communities and academics may engage in around data. Fellows are encouraged to understand where research, evaluation, and technical assistance overlap and where there are distinctions between the 3 processes.

Learning Objectives

1) Describe the similarities and differences between research, evaluation, and technical assistance
2) State how research builds generalizable knowledge
3) Identify how evaluation leads to action
4) Define when you need technical assistance
5) Explain how community members can serve a variety of roles in research, evaluation, and technical assistance.

Preparation Work

Readings

- Minkler M, Wallerstein N (eds.). Chapters 4, 7, 11, or 19. In: Community-Based Participatory Research for Health: from Process to Outcomes. 2008. San Francisco, CA: John Wiley & Sons Publishers.

Suggested Activities

1) Presentation on research and evaluation

Summary: This presentation provides an overview of research, evaluation, and technical assistance and is used to facilitate discussion around what each term meant to individual fellows. Once the presentation concludes fellows may discuss the similarities and differences among these 3 processes.

Instructions: Following the presentation, ask the fellows to brainstorm about what they think of when they hear the terms “research,” “evaluation,” and “technical assistance.” Identify the differences among the 3 in regard to research questions, methodology, and involvement of stakeholders, and emphasize that all 3 can be used to bridge research to practice. Point out that for any of these 3, the initiator may be the community or the academic researcher. Each needs to be able to assess what the other party is hoping for and if it aligns with his or her own goals and if a shared goal(s) can be identified. Pose the following question to the group:

- When does it make sense to pursue research, evaluation, or technical assistance?
- How would each fellow characterize their proposed project (e.g., research, evaluation, or technical assistance)?

2) Recap Summary

Summary: This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.

Tools	<u>Additional Resources</u> Tools that fellows may want to explore include: ▪ Thinking through whether or not your need technical assistance, an evaluator, or an academic research partner to address the challenge you identified for your research project. (see “Module 3: Tool A-Page 28”)
Facilitator Notes	While there are similarities between research and evaluation, there are significant differences due to timing, resources, politics, publications, and other deliverables. In our program, we found it helpful to point this out and be clear about this. Our website (www.tuftsctsi.org) includes several “self-assessment tools” for community-based organizations and health centers to use to determine what a researcher is looking for if he/she initiates a discussion or what a community organization may be looking for if it initiates the discussion. Review preparatory work for next session.

Module 3: Tool A

Think through whether or not you need technical assistance, an evaluator, or an academic research partner to address your challenge.

A. Is this the type of challenge where I am going to need some technical assistance to address my challenge?

B. Is this the type of challenge where I am going to recommend a potential intervention and need an evaluator to work with me and my organization?

C. Is this the type of challenge where I am interested in making a larger change outside of my institution and an academic researcher would be more appropriate?

D. Do I need someone else besides my faculty mentor on this project?

Module 4: Developing Research Questions

Module Summary

This module is designed to highlight the importance of asking effective research questions, recognize the different types of research questions that exist, and learn how to apply a standardized process to develop them.

Learning Objectives

1) State the different types of research questions

2) Explain how to develop and construct effective research questions

3) Identify a research question that is beneficial to your organization and community

Preparation Work

Readings

- Vogt E, Brown J, Isaacs D. *The Art of Powerful Questions*. 2003.

- Minkler M, Wallerstein N (eds.). *Community-Driven Asset Identification and Issue Selection* (chapter 9). In: Community-Based Participatory Research for Health: from Process to Outcomes. 2008. San Francisco, CA: John Wiley & Sons Publishers.

Recommended Preparation Activities

- Brainstorm potential research questions for your research project
- Identify if you need a topical consultant to work on your research project (which may or may not be the same as your consultant).

Suggested Activities

1) Group discussion: Beginning research

Summary: Discussion is facilitated by the suggested readings and by the questions presented below (Fellows will also discuss these questions with their faculty consultant).

Instructions: Write the following questions on the white/chalk board and discuss as a group:

- What challenges am I interested in addressing?
- Why is this challenge important to my organization and the community?
- How can I put this into a question format?
- What data are available and what data are needed to address this challenge?
- What are the implications of this proposed research project on my organization?
- Am I prepared to face findings that may not support my hypothesis?
- Do I want to work with an academic partner to conduct research? An evaluator? Or am I only looking for a consultant who can provide technical assistance?

2) Presentation on developing research questions: Defining, refining, and reusing research questions

Summary: This activity is meant to repeat for fellows that assumptions must be unearthed, and that the purpose, population, and constructs of a research question must be clarified.

Instructions: Following the presentation, facilitate a discussion around developing research questions and tie in *The Art of Powerful Questions* reading. Guide the discussion toward real-life examples of processes that fellows commonly use in their organizations (e.g., strategic planning, implementation, clinical care) and how these processes are similar to defining a research question. Use a "fishbowl" process to take one fellow's project and break each of the components of the question down, defining terms, populations, etc. Have fellows discuss their current research questions with another peer.

3) Introduction to the BYC research project

Summary: This activity has two goals: 1) to review the research question with consultant, and 2) to formally introduce the fellows to the concept of a logic model, if not previously exposed.

Instructions: Direct fellows to the *BYC Research Project* tool. Leave plenty of time for questions. Allow fellows and consultants 30-minutes to address the development of their research question and preview a logic model.

4) Recap Summary

Summary: This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.

Tools

Additional Resources

Tools that fellows may want to explore include:

- Think Through the Logic for Your Research Project (see "Module 4: Tool A-Page 31")
- Logic Model as a Conceptual and Operational Tool (see "Module 4: Tool B-Page 32")

Also visit University of Wisconsin's website on Logic Models

Facilitator Notes

We found it helpful to frame this module in the context of the goal being to ask the right research question, rather than to find the right answer. We emphasized the importance of having a clear purpose when developing research questions, and how collaborative research can often lead to asking more powerful questions. In our model, the facilitator took an example of a research question (one of the fellow's research questions) and broke it down word-by-word. The facilitator encouraged fellows to try to identify and understand all aspects of the question that needed to be defined or addressed. Another helpful exercise was to have the fellows pair off and share with one another their research questions. This provided the fellows with an opportunity to explain, in detail, their question and garner feedback from a peer. This was coupled with the discussion of a logic model with the consultant to guide the discussion about clarifying terms and goals and unearthing assumptions.

Questions that May Arise During this Module

- What encourages communities to work with researchers and ask these questions?
- How do I keep my question concise so I can actually accomplish something? In other words, how do I keep my research question focused so I can answer what I set out to answer?

Review preparatory work for next session. This session will focus on the second box (gathering evidence I need) in Tool Box of this module.

Module 4: Tool A

Think through the logic for your research project.

A. Restate my research question.

B. What are the short- and long-term goals for this project?

C. Can I create a logic model to describe this project? (see Module 4: Tool B-Page 32)

Module 4: Tool B

Logic Model as a Conceptual and Operational Tool

I. Challenge Statement and Goal

II. Evidence (Internal and External)

Internal evidence links to my program and my population and provides context to what I am doing. It also allows me to have a baseline and follow-up measure.

External evidence can show me the links/inter-relationship in the model. For example, we know smoking causes lung cancer. We don't need to show that (i.e. we don't need to measure the long-term outcomes).

III. Figure Demonstrating Interrelationships

IV.

Activities	Outputs	Short-term Outcomes	Intermediate Outcomes	Long-term Outcomes

Outcomes show progress toward the ultimate goal, not just structure/process

V. Planned Design

VI. Resources: what I have available and what I need

Module 5: Literature Review

Module Summary	This module is designed to provide fellows with a broad overview of what a literature review is, why conducting a literature review is both helpful and necessary, and how to go about conducting a literature review. The idea is to provide some baseline information and resources that will enable fellows to go out and conduct a simple literature review on their own.
Learning Objectives	1) State why literature reviews are important in helping to further refine a research question 2) Perform a literature review using a library search engine 3) Identify resources for evidence-based syntheses to help identify credible sources
Preparation Work	<u>Readings</u> ▪ Maggio, L. A., Tannery, N. H., & Kanter, S. L. (2011). How to perform an effective database search. *Academic Medicine*, *86*(8), 1057. ▪ Lavis, J. (2010). Finding and Using Research Evidence. *McMaster Health Forum*, <u>Recommended Preparation Activity</u> ▪ Provide fellows with library access to databases. Encourage them to explore the library website and familiarize themselves with the key features before coming to the training.
Suggested Activities	**1) Presentation on how to do a literature search** **Summary**: This activity is designed to review and explore commonly used evidence-based synthesis sites (e.g., The Cochrane Collaboration) and electronic databases (e.g., PubMed) with a reference librarian. Critical information that helps to ensure a successful literature search is shared (e.g., what search terms to use and what databases to draw from for certain topic areas). **2) Hands-on training in a library or computer lab** **Summary**: This activity is designed to be a useful, hands-on training for fellows. The goal of this activity is to better equip the fellows with knowledge and tools so that they can successfully conduct a literature search on their own. **Instructions**: Ask a reference librarian to give a presentation on how to conduct a literature search, available tools and databases, and online searching strategies. **3) Conduct a literature review** **Summary:** This activity is intended to help fellows begin a review of the literature on their proposed research project. **Instructions:** Fellows are instructed to conduct a literature review on their area of research interest. They are instructed to employ the strategies learned from the training above. Ask fellows to break off into pairs and discuss what strategies were helpful to use in their search (e.g., using an evidence-based synthesis site, narrowing search terms, searching by known authors' last names, etc) and which

	strategies did not work so well. **4) Recap Summary** **Summary:** This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.
Tools	<u>Additional Resources</u> Tools that fellows may want to explore: ▪ Think Through what Type of “Evidence” or Data You Might Want to Find Related to Your Challenge (see “Module 5: Tool A-Page 35”) ▪ Critically Analyzing Information Resources (see “Module 5: Tool B-Page 36”) ▪ How to Perform an Effective Database Search (see “Module 5: Tool C-Page 37”)
Facilitator Notes	It is helpful to prepare the reference librarian ahead of time with some examples of fellows’ research projects. In our experience, fellows often brought up lack of access to published research as a power differential between community members and academic researchers. In response to this concern, we developed this module so that fellows could have access to a computer and library. In addition, BYC fellows were granted access to the Tufts University Medical School library for one year. We also explained that Google Scholar provides access to a number of articles. Review preparatory work for next session.

Module 5: Tool A

Think through what type of "evidence" or data you might want to find related to your challenge.

A. Is there some evidence from my own organization that might be helpful for me that (1) describes the challenge, (2) describes stakeholders' perspectives or experience about it, or (3) measures indicators of a current program we have implemented?

B. Is there any new evidence I want to collect or have within my own organization?

C. Do any other organizations in my area have evidence that may be helpful to me?

D. Is there some evidence from published research or grey literature (e.g., white papers on the internet) that may be helpful to me? Two main types of research evidence can be relevant to challenge definitions:

- **a. Quantitative Data:**
    - i. Administrative database studies or community surveys that make comparisons across countries (or districts or organizations)
    - ii. Quantitative data that might provide a sample survey or other measure that I might want to use
    - iii. Quantitative data that might compare different interventions that are relevant to my project
- **b. Qualitative Data:**
    - i. Data that address the meanings that individuals or groups attach to my challenge, indicators, and comparisons.

E. Which of the following might I find the most helpful?

- a. A quantitative study or systematic review of quantitative studies that provides comparisons that would frame this challenge
- b. A quantitative study or systemic review of quantitative studies that might provide either measures or interventions relevant to my project
- c. A qualitative study or a systematic review of qualitative studies that addresses stakeholders' views about and experiences with the challenge
- d. A systematic review that addresses potential policy or programmatic options for addressing my challenge or a component of what is likely a multi-faceted challenge
- e. An economic evaluation that addresses potential policy or programmatic options for addressing my challenge or a component of what is likely a multi-faceted challenge, and
- f. A qualitative study or systematic review of qualitative studies that addresses how or why potential policy or programmatic options work.

F. Do I need to revise my research question for this project? (It may be that evidence you identify that you need in A + B (above) should be your project for this program. Discuss with your consultant, organizational leadership, and other BYC participants or faculty if you need advice).

Module 5: Tool B

Critically Analyzing Information Resources

Examine:	What to consider:

Author	○ **Expertise?**
	○ **What are their credentials?**
	    ○ Educator in the field
	    ○ Expert in the field
	    ○ Consumer
	    ○ Business owner in the field
	○ **Can you confirm their credentials?**
	○ **Contact information?**

Sponsor	○ **Who is putting out this information?**
	    ○ Educational Institution
	    ○ Non-Profit organization
	    ○ Government
	    ○ For profit organization
	○ **Why are they disseminating this information?**
	    ○ Personal gain
	    ○ Betterment of the world
	○ **Bias?**
	○ **Advertisements?**

Currency	○ **Date of publication?** ○ **Date of last revision/update?** ○ **Does it matter?** ○ **Is there a newer edition available?**

Intended Audience	○ **Who is this information for?**
	    ○ Professional in the field
	    ○ General audience

Coverage and Scope	○ **Does it answer the question?** ○ **Is the information short facts e.g. bulleted list, numbers table?** ○ **Does it explain the facts?** ○ **Give background information?** ○ **Is the coverage comprehensive or a summary?**

References	○ **Where did this information come from?**
	○ **How do you know?**
	○ **What kind of resource is the information based on?**
	    ○ Primary research
	    ○ Synthesized materials

Module 5: Tool C

How to Perfom an Effective Database Search
Maggio LA, Tannery NH., Kanter SL. How to Perform an Effective Database Search. Academic Medicine. 86(8):1057, 2011.

How to Perform an Effective Database Search

Lauren A. Maggio, MS(LIS), MA, medical education librarian, Stanford University School of Medicine, Nancy H. Tannery, MLS, associate director for User Services, University of Pittsburgh Health Sciences Library System, and Steven L. Kanter, MD, vice dean, University of Pittsburgh School of Medicine

1. Choose a database

Database	Medline www.pubmed.gov	Google Scholar www.scholar.google.com	ERIC www.eric.ed.gov	CINAHL www.cinahl.com	Scopus www.scopus.com
Coverage	• Biomedical literature • Journal articles	• Diverse disciplines • Journal articles, book chapters, dissertations, abstracts	• Education literature • Journal articles, book chapters, Association of American Medical Colleges reports	• Nursing and allied health literature • Journal articles, book chapters, dissertations, audiovisuals	• Scientific, technical, medical and social sciences literature, citation searching • Journal articles, conference papers
Controlled vocabulary (See 2A)	Yes	No	Yes	Yes	No
Access	Open	Open	Open	Subscription	Subscription

2. Select search terms

A. If available, use the database's controlled vocabulary:

- A controlled vocabulary provides one term for a concept that may have different names.
- Controlled vocabularies help create exhaustive and unambiguous searches.
- MEDLINE's controlled vocabulary is Medical Subject Headings (MeSH). For example, *myocardial infarction* is the MeSH for *heart attack*. Using the term *myocardial infarction* retrieves articles on both heart attack and myocardial infarction in MEDLINE.

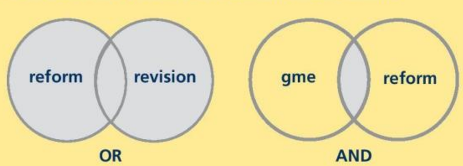
B. Include synonyms and use truncation:

- Include synonyms and abbreviations to broaden your search and to help ensure comprehensiveness for ideas not yet identified in a standard thesaurus.
- Use truncation to search for alternate endings of search terms.

synonyms
graduate medical education
post-graduate medical education
residency
gme

truncation
train* =
trainee train
trainer training

3. Use Boolean operators to combine search terms



- "OR" broadens the search
- "AND" narrows the search

4. Limit results

- Use limits to narrow the search.
- Apply limits one at a time to control search results.
- Popular limits include English language and date ranges.

5. Explain the search process in the methodology section of any report. Include the following:

- Search terms (indicate if controlled vocabulary was used)
- Boolean operators
- Databases searched
- Any limits applied
- Date of search

For additional information, consult your medical librarian.

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Module 6: Research Design

Module Summary	This module is designed to introduce the fellows to different types of research designs. This session will also serve to teach the fellows how to develop research designs and why they are important to their research.
Learning Objectives	1) Define the basic elements of research design 2) Identify different types of research designs 3) Apply the lessons learned about research design to one's own research project 4) State the difference(s) between quantitative and qualitative research methods
Preparation Work	<u>Readings</u> ▪ Association for Research in the Voluntary and Community Sector (ARVAC). Planning Your Research. Available at: www.arvac.org.uk/docs/Section%203.pdf/ ▪ Minkler M, Wallerstein N (eds.). Chapters 13 & 14. In: Community-Based Participatory Research for Health: from Process to Outcomes. 2008. San Francisco, CA: John Wiley & Sons Publishers. <u>Recommended Preparation Activity</u> ▪ Discuss your proposed research project with your organization and with your consultant and come to the session ready to talk about this.
Suggested Activities	**1) Introduction to research design** **Summary**: This activity is designed to provide fellows with a basic overview of research design. Topic areas covered include: study designs (i.e., formative/qualitative research, cross sectional studies, cohort studies, case-control studies, and randomized trials) generalizability/external validity, quantitative methods vs. qualitative methods, confounding variables, sampling bias, etc. **Notes**: In our model, we emphasized that research is really a systematic investigation of a topic. We also emphasized the importance of rigorous design and methods in producing valid, reliable research. **2) Presentation on research design and methods** **Summary**: This presentation is meant to teach fellows which study designs are used to answer which research questions, to give an overview of some of the limitations of different study designs, and to provide some examples of study designs. **Instructions**: After the presentation, pose the following questions to the fellows: ▪ What is a research design?

- Do you have experience with it in the past?
- Which design might be appropriate for your research project?
- How might your research project change if you used a different design?
- What do you think of when you think of bias?
- What does it mean for research to be generalizable?
- Is generalizability important for the type of question you are interested in answering?

Next, solicit from the group a research question, and then ask the fellows to develop several potential research designs for this question based on what they have learned.

3) Pairing research design to proposed project

Summary: This activity is intended to provide fellows an opportunity to apply their newly acquired knowledge about research design to their current research projects.

Instructions: Fellows should be instructed to pair up with a peer and discuss which research designs makes most sense for their given project (e.g., some research questions are best addressed by group designs, while others are better addressed with single subject designs). Fellows should be encouraged to talk about the advantages and disadvantages of the research design they have selected to address their research questions.

4) Recap Summary

Summary: This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.

Tools

Additional Resources

Texts that fellows may want to explore include:

- Designing Clinical Research, 3rd edition. By S. B. Hulley, S. R. Cummings, W. S. Browner, D. G. Grady, and T. B. Newman. Lippincott Williams & Wilkins: Philadelphia, PA. 2007.
- Mays, N. & Pope, C. (2000). "Quality in qualitative health research" in N. Mays and C. Pope (Eds.) Qualitative Research in Health Care (2nd edition). London: BMJ Books. Chapter 1 is available here:
- Robert Wood Johnson Foundation website on Qualitative Research Guidelines Project: http://www.qualres.org/

Facilitator Notes

In this module, we found it helpful to address that some people tend to place more value on quantitative research rather than on qualitative research. We then discussed the strengths of both quantitative and qualitative approaches to try to better understand why both are important, depending on what question(s) you are trying to answer. It was also important to talk about biases in this module. We reminded fellows that community partners and academic researchers both bring their own sets of biases to any study. Research requires an effort to decrease bias and be prepared for any and all results.

Review preparatory work for next session.

Module 7: Ethics & Institutional Review Boards (IRBs)

Module Summary	This module is designed to increase fellows' knowledge of ethics in research, particularly as it pertains to human subjects research. Main topics should cover: history of research ethics (including some of the seminal "cases" that prompted the development of IRBs), purposes IRBs serve, definitions of "ethical research" in different contexts and communities, and informed consent.
Learning Objectives	1) Explain the history of human subjects research 2) List the major cases that shaped human subjects research as we know it today 3) Discuss ethics of conducting human subjects research and how ethics may vary by community 4) Describe the IRB's role in research 5) Define the role of *voluntary informed consent* 6) State the role of a Federal-Wide Assurance (FWA) for community organizations 7) Explain how to advocate for one's community in regard to research
Preparation Work	<u>Readings</u> ▪ The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. The Belmont Report. *Department of Health, Education, & Welfare.* 1979. ▪ Malone RE, Yerger VB, McGruder C, Froelicher E. It's like Tuskegee in reverse: a case study of ethical tensions in institutional review of community-based participatory research. *American Journal of Public Health.* 2006;96(11):1914-1919. <u>Film</u> ▪ Watch DVD: *Miss Evers' Boys* (1997), directed by Joseph Sargent, HBO Home Video, 118 minutes. DVD can be purchased through http://www.bestbuy.com/. <u>Recommended Preparation Activities</u> ▪ Discuss with co-workers and peers about what they think "ethical research" looks like and about their experiences with ethical and unethical issues ▪ Complete the Tufts Medical Center/Tufts University Health Sciences Campus CITI training course at: https://www.citiprogram.org/default.asp or ▪ National Institute of Health (NIH): Office of Human Subjects Research http://ohsr.od.nih.gov/guidelines/index.html

Suggested Activities

1) Group discussion of *Miss Evers' Boys*

Summary: The purpose of this activity is to talk about *Miss Evers' Boys*, a film that tends to stir emotions for many people. This activity is designed to guide the fellows through thinking about how communities understand ethics, and through learning knowledge and skills to advocate for ethical research in their community.

Instructions: Guide the group through a discussion of *Miss Evers' Boys*. Emphasize the importance of communication between community leaders and stakeholders, and discuss how trust and power dynamics come into play on many levels. Point out that the definition of "ethical" varies greatly depending upon who is defining the term. Encourage fellows to offer examples of ethical challenges that they have faced; draw on examples. Pose the following questions to the fellows:

- **What does it mean to perceive oneself as a part of a marginalized community?**
- **How can we foster ethical relationships between social justice and research?**

Notes: Allow ample time for this discussion, and expect stirred emotions. In anticipation of this, make sure to reiterate the ground rules ahead of time. For this activity, it is helpful to maintain a safe environment for all participants to share feelings and differing perspectives on issues like ethical practices. We found it helpful to point out that what is well-intentioned is not always ethical. Fellows noted that this is the type of conversation that community partners and researchers need to engage in. In this session, we encouraged fellows to think about what "ethics" means to them and about their role as "gatekeepers" of the community they serve. Fellows explained that community leaders need to be informed not only of historic unethical human research studies, but also of current studies so that everyone is on the same page. Some fellows commented that ethics provide a set of rules by which all must be governed, and that ethics protect communities from unregulated 'dominance" of researchers in a community. The fellows voiced a need for the communities to learn about their rights of participating in a research study. Fellows naturally connected the conversation to social justice, and noted the bridge between research and activism. Here are some examples of what fellows said:

- "What is well-intentioned is not necessarily ethical; [there is a] very gray area between right and wrong."
- "[There is] no clear black and white; key stakeholders have [the] ability to open and close doors."
- "Inequality: only [the] ones in power can decide [an] outcome. People were at the mercy of who was in power; [it was an] ethical dilemma – what is something ethical?"
- "Ethics, like qualities, can mean different things depending upon the angle of approach."

Instructions: After discussing *Miss Evers' Boys* and the Tuskegee Syphilis Study, ask the group:

- What would ethical research look like?

Notes: Some examples of fellows' answers:

- Transparency (in terms of risk, but also in terms of intentions and goals for the researcher)
- Need for equal or shared learning for both groups
- Important to put into simplified language, but it shouldn't be a roadblock – participants didn't further their knowledge of the study
- If funding streams were different, or if CBPR was more well-defined, the

communities would benefit. Relationships between academic, government, and researchers need to be re-examined.
- Role of community based organizations in considering ethical issues in research if they are recruiting from the community.

2) Presentation on the history of Institutional Review Boards (IRBs) and IRBs today

Summary: This presentation facilitates discussion about ethical conduct in research. Fellows discuss cases where questionable ethics are employed and how to prevent unethical research from occurring (i.e., IRB). This presentation also discusses the federal wide assurance and implications for CEnR.

Notes: Anticipate lots of questions about IRBs. In our experience, fellows have been very curious about IRBs and research ethics.

3) Small group exercise: chapter discussions

Summary: This discussion is designed to focus on the various biases that people may bring into a research study, and the need for a diverse perspective so as not to restrict the study to one viewpoint.

Instructions: After reviewing the chapter, discuss with fellows the importance of maintaining an open dialogue with community partners.

Facilitator Notes: Fellows discussed the importance of ongoing dialogue among researchers, academics, and community partners in order to implement an effective program or to evaluate a program. Fellows noted that dialogue is a tool for identifying systematic or behavioral patterns that may lead to adverse health outcomes. Some fellows also commented on the necessity of a candid, open relationship among research partners engaging in CBPR. Some excerpts from the discussion:

- "If there is some continuation, it has to be 'you have an important service to give us, here is some funding'."
- "There is a real need for opportunities to engage in ongoing dialogue together around CBPR."

4) Recap Summary

Summary: This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.

Tools

Additional Resources

Media and texts that fellows may want to explore include:

- "The Right to Understand Video" – by Sandra Fisher Martins

  Video advocates for accessible medical, legal, and financial documents for all people. This issue relates very closely to informed consent issues, as overly complex language prevents potential participants from understanding their rights.
  http://www.ted.com/talks/sandra-fisher-martins-the-right-to-understand.html?awesm=on.ted.com_FisherM&utm_campaign=&utm_medium=on.ted.com-static&utm_source=t.co&utm_content=awesm-publisher

- "A Guide to Research Ethics" – by University of Minnesota, Center for Bioethics

Facilitator Notes

For this module, it is particularly important to acknowledge and address racial/ethnic and gender (im)balance in academia, research, etc. We found it helpful to touch on the ideas of privilege and power, particularly in the context of oppression. We also found it necessary, within the context of the film, to discuss the power differential between organizations serving communities and the individuals they serve.

Review preparatory work for next session.

Module 8: Quantitative Methods

Module Summary	The goal of this module is to teach fellows the basics of quantitative research methods and to help them learn how to apply these methods to their own work.
Learning Objectives	1) Explain the steps to prepare a Microsoft Excel database 2) List existing data sources and online resources 3) Identify other types of study designs that examine interventions such as randomized controlled trials 4) Describe chance, randomness, and sources of error
Preparation Work	Reading ▪ Hulley S, Cummings S, Browner W, Grady D, & Newman T. Chapters 13 & 16. In: Designing Clinical Research- 3rd Edition. 2007. Philadelphia, PA: Lippincott Williams & Wilkins. http://openlibrary.org/books/OL17889652M/Designing_clinical_research Recommended Preparation Activity Think critically about the following questions with regard to your research project: ▪ What data are available and what data are needed? ▪ Will this project involve the collection of qualitative or quantitative data – or both? ▪ What methods will help answer my research question(s)? ▪ Review your logic model with your consultant focusing on sections III-VI.
Suggested Activities	**1) Importing an existing dataset into Microsoft Excel** **Summary**: This activity is designed to show fellows how to import a database into Excel and to describe to fellows some of the basic data management features of Excel. **2) Introduction to online resources for existing datasets** **Summary**: This presentation is meant to teach fellows about existing datasets that are available online. **Instructions**: Introduce existing online datasets that may be of interest to your fellows (e.g., National Assessment of Educational Progress). **3) Discussion of medical evidence "hierarchy"** **Summary**: The goal of this activity is to get people talking about the hierarchy of medical evidence from the perspective of research institutions. **Instructions**: Facilitate a group discussion about medical evidence and how it is perceived. Address different concepts of "evidence" and how this may impact CEnR projects.

	6) Applying quantitative methods to proposed study **Summary:** This activity is intended to provide fellows an opportunity to apply their newly acquired knowledge about quantitative methods to their current research projects. **Instructions:** Fellows should be instructed to pair up with a peer and discuss which quantitative methods might be useful in exploring their research questions. Fellows should also consider the limitations of quantitative methods. **7) Recap Summary** **Summary:** This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.
Tools	<u>Additional Resources</u> Texts that fellows may want to explore include: ▪ Research Methods for Community Change: A Project-Based Approach. By R. Stoecker. SAGE Publications: Thousand Oaks, CA. 2005.
Facilitator Notes	In our experience, many community members saw narratives or case studies as “evidence.” This type of evidence is powerful in the work they do and in influencing CEOs, boards, and legislators. It is therefore imperative to openly acknowledge different attitudes towards types of evidence, and the role of narratives and personal experiences as well as rigorous quantitative and qualitative approaches in research. We encouraged fellows to go back to the tools in Module 5 regarding the types of evidence needed to address their challenge. Review preparatory work for next session.

Module 9: Qualitative Methods

Module Summary	The goal of this module is to provide an introduction to qualitative methods and to teach the fellows how to apply these methods when conducting their own research project.
Learning Objectives	1) Define qualitative methods 2) Apply the concepts of qualitative methods to a given case study
Preparation Work	Reading ▪ Family Health International. Module 1: Qualitative Research Methods Overview. In: *Qualitative Research Methods: A Data Collector's Field Guide.* http://www.fhi360.org/NR/rdonlyres/etl7vogszehu5s4stpzb3tyqlpp7rojv4waq37elpbyei3tgmc4ty6dunbccfzxtaj2rvbaubzmz4f/overview1.pdf
Suggested Activities	**1) Introduction to qualitative methods** **Summary**: This presentation is meant to provide fellows with an overview of qualitative research methods. Types, purposes, and strengths of qualitative methods are presented, and advantages and disadvantages to using qualitative methods are discussed. **2) Small group exercise: drafting research protocols** **Summary**: This activity is designed to give fellows an opportunity to think about how (and which) qualitative methods might be appropriately used to answer their research questions. **Instructions**: Break fellows into small groups and instruct them to develop draft protocols for their respective research projects. Encourage them to discuss among each other which qualitative methods might be most appropriate. **3) Applying qualitative methods to proposed study** **Summary:** This activity is intended to provide fellows an opportunity to apply their newly acquired knowledge about qualitative methods to their current research projects. **Instruction:** Fellows should be instructed to pair up with a peer and discuss in what ways qualitative methods could be used to address their research questions. They should also consider which types of qualitative methods would be most appropriate (e.g., structured, semi-structured, unstructured interviews; focus groups; qualitative surveys; or participant observation [i.e., ethnography]). **4) Recap Summary** **Summary:** This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.

Tools	Additional Resources Texts that fellows may want to explore include: ▪ Research Methods for Community Change: A Project-Based Approach. By R. Stoecker. SAGE Publications: Thousand Oaks, CA. 2005.
Facilitator Notes	It is very helpful to present in this module real-life examples of projects that use qualitative methods. This helps fellows to conceptualize what they have learned. In our experience, some fellows immediately started thinking about intervention methods before they really understood what they were interested in studying. For example, the terms “patient engagement” and “empowerment” came up as outcomes two organizations were interest in addressing; yet, on further questioning, it became clear there was not a shared definition of these terms. We discussed how qualitative methods could help inform a shared definition prior to launching an intervention. It is a good idea to remind fellows to consider the qualitative research methods they have learned about in order to approach a study in a systematic way. Review preparatory work for next session.

Module 10: Quality Improvement Research

Module Summary	The goal of this module is to introduce fellows to key concepts in quality improvement and quality improvement research. This module will highlight the importance of developing aims for improvement and performance measures.
Learning Objectives	1) Define the meaning of quality improvement (QI) 2) Describe an improvement aim for their organization and a performance measure they can use to know when they reach the aim 3) Describe an improvement model (plan, do, study, act) 4) Compare QI and QI research (QIR)
Preparation Work	<u>Readings</u> ▪ Institute for Healthcare Improvement: How to Improve. Available at: http://www.ihi.org/IHI/Topics/Improvement/ImprovementMethods/HowToImprove/ ▪ Grol R, Baker R, Moss F. Quality improvement research: understanding the science of change in health care. *Qual Saf Health Care* 2002; 11: 110–111. Available at: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1743590/pdf/v011p00110.pdf <u>Recommended Preparation Activity</u> ▪ If you are not engaging in QIR for your project, identify a process you would like to improve or a current improvement project you would like to develop into a research project.
Suggested Activities	**1) Introduction to quality improvement and quality improvement research** **Summary**: This presentation provides an introduction to quality QI and QIR. QI is broadly defined as implementing change in an organization to provide better services, patient care, and/or satisfaction. **Instructions**: Following the presentation, instruct fellows to identify 1 issue in their organization that they would like to improve, and have them share with the group (and if possible encourage the fellow to address this issue at their particular organization). After hearing the various issues, discuss what is common and different about the topics. When discussing performance measures, ask fellows to state 1 measure they would use to know if they had improved or resolved the problem they identified. Pull in Module 4 Tool B to apply this tool to the QIR topic identified by fellows. **2) Recap Summary** **Summary:** This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.

Tools	<u>Additional Resources</u> Websites that fellows may want to explore: ▪ https://www.improvecarenow.org/
Facilitator Notes	Keep in mind that fellows will have different understandings of QI and associated terminology and methods. It is helpful to ask questions of the group to assess their prior experience with QI and to appropriately direct discussion. Some organizations may have little data about performance while others may be overwhelmed by such data. Clear aims, narrow measures of performance, and realistic goals can help focus activities. Review preparatory work for next session.

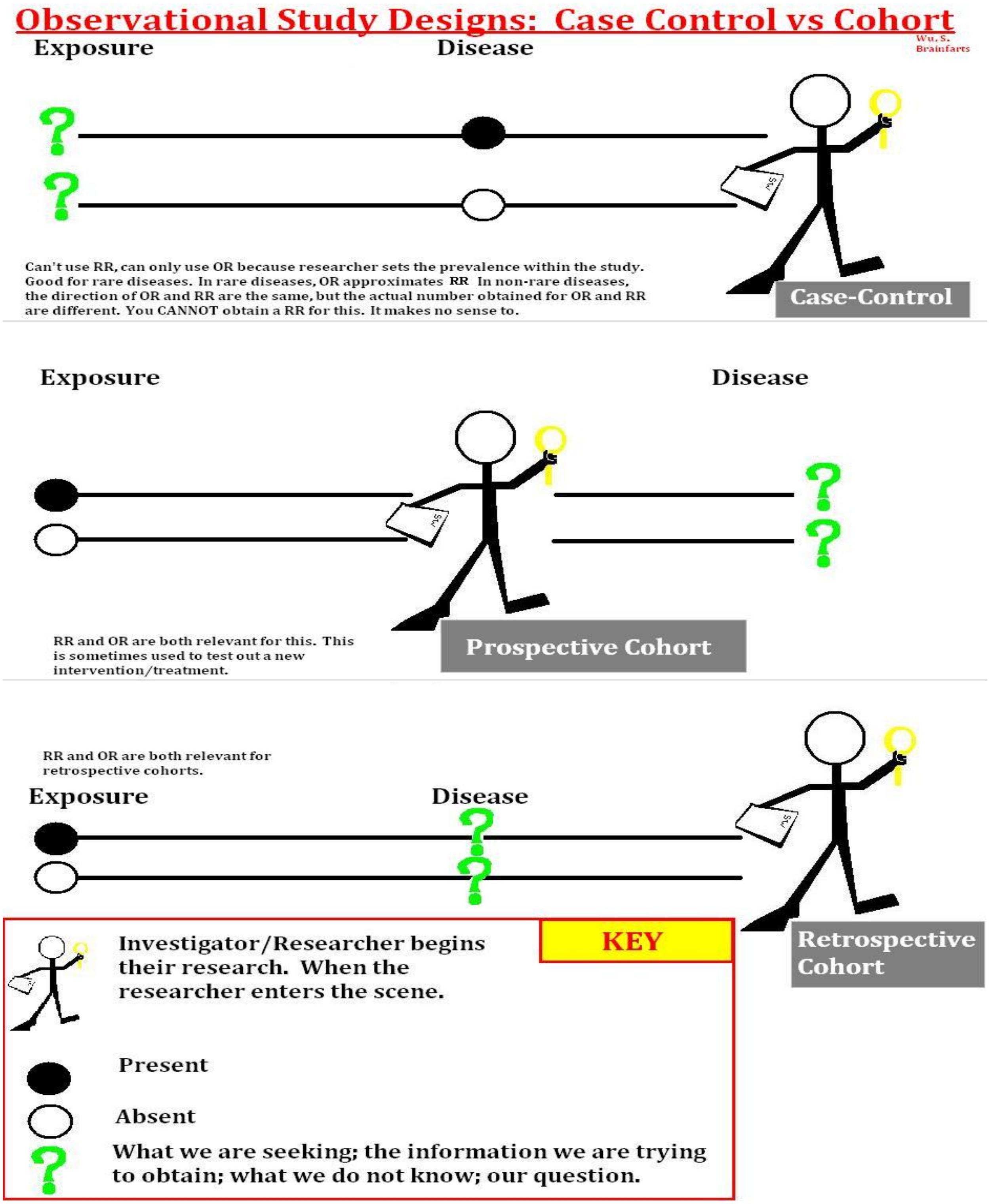
Module 11: Quantitative Data Analysis

Module Summary	The goal of the quantitative methods section is to give fellows a broad overview and familiarity with quantitative methods which they can then use when working with statisticians or methodologists. By using a sample dataset, fellows will be able to see what the data look like, and then how to summarize the data.
Learning Objectives	1) Define quantitative methods 2) Illustrate simple quantitative concepts using an example dataset in Excel
Preparation Work	Readings ▪ Gibilisco S. Chapters 2 & 4. In: Statistics Demystified: A Self-Teaching Guide. 2004. New York, NY: The McGraw-Hill Companies, Inc.
Suggested Activities	**1) Presentation on quantitative data analysis** **Summary**: This presentation provides an overview of quantitative data analysis. Terms related to quantitative data analysis, experimental design, types of data and summary strategies, hypothesis testing, and statistical test are discussed. **Instructions**: Use a sample dataset as you cover the learning objectives. It is helpful to use a graphic from Wikipedia (see "Module 11: Tool A-Page 52") that displays the difference between case control and cohort studies. **2) Using Quantitative Analysis at your Organization** **Summary:** This activity is intended to provide fellows with an opportunity to consider how they would use quantitative analysis at their organization. **Instructions:** Instruct fellows to pair up and discuss the capacity each person's organization has for quantitative analysis (e.g., Is this something they are currently using, Is it something they do not have the resources for?, etc). If there are factors that prevent fellows from conducting quantitative analysis at their organization, ask them to consider how they might problem solve around this (e.g., asking other community partners for assistance). **3) Recap Summary** **Summary:** This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.
Tools	Additional Resources Texts that fellows may want to explore include: ▪ Statistics for People Who (Think They) Hate Statistics. By N. J. Salkind. SAGE Publications: Thousand Oaks, CA. 2000.

	▪ Working with Statistics: An Introduction to Quantitative Methods for Social Scientists. By S. Reid. Polity Press: United Kingdom. 2001.
Facilitator Notes	It is helpful to have a sample dataset to use while demonstrating quantitative procedures (several universities host public datasets on their websites that you can use free of charge. You can simply Google “dataset for statistics” and several pages appear). In general it is also nice to include graphical displays throughout demonstrations as visuals sometimes help learners to better understand material. Review preparatory work for next session. This should include meeting with the fellow’s consultant around any data analysis plans for the project.

Module 11: Tool A

Explaining Study Designs



Module 12: Qualitative Data Analysis

Module Summary	The goal of this session is to provide an overview of qualitative data analysis, and to practice using sample interview notes and an analysis scheme.
Learning Objectives	1) Define what qualitative data analysis means 2) Explain why qualitative data analysis is important and useful 3) Describe how to conduct qualitative data analysis 4) Demonstrate qualitative data analysis using sample interview notes
Preparation Work	<u>Readings</u> ▪ Lacey A, Luff D. Qualitative Data Analysis. *National Institute for Health Research, Research Design Service for Yorkshire & the Humber.* 2009. Available at: http://mangrove.psy.gu.se/~psybenja/c1/f/Lacey-Luff-2007.pdf ▪ Charmaz, K. *Coding in Grounded Theory Practice* (chapter 3). In: Constructing Grounded Theory: A Practical Guide through Qualitative Analysis. 2006. Thousand Oaks, CA: Sage Publications Ltd. ▪ Sofaer S. Qualitative research methods. *International Journal for Quality in Health Care.* 2002; 14(4):329-336. http://intqhc.oxfordjournals.org/content/14/4/329.full
Suggested Activities	**1) Presentation on qualitative data analysis** **Summary**: This presentation provides an overview of qualitative data analysis ranging from participant observation to focus groups and semi-structured interviews. The goal of this activity is to familiarize fellows with qualitative data analysis and to have them practice this with a sample set of interview notes. Theories and types of qualitative data analysis are discussed. **Instructions**: Following the presentation, direct fellows to practice qualitative data analysis by using the Sample Interview Guide, Sample Interview Notes, and Coding Handout (see Appendix-Page 68). Briefly review the documents with the fellows, then break them into small groups to begin the coding practice. Allow about 15 minutes for small group work, then reconvene as a whole group and discuss the coding schemes that each group came up with. As a group, come to consensus on 3 codes and re-code the sample interview notes. **2) Using Qualititative Analysis at your Organization** **Summary:** This activity is intended to provide fellows with an opportunity to consider how they could use qualitative analysis at their organization. **Instructions:** Instruct fellows to pair up and discuss the capacity each person's organization has for qualitative analysis (e.g., Is this something they are currently doing?, Is it something they do not have the resources for or training in?, etc). If

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<td>there are factors that prevent fellows from conducting qualitative analysis at their organization, ask them to consider how they might problem solve around this (e.g., asking other community partners for assistance). Finally, ask fellows to brainstorm ways that the approaches discussed in the presentation could be applied to the missing data of their organization.

3) Recap Summary
Summary: This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.</td>
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<tr>
<td>Tools</td>
<td><u>Additional Resources</u>
Handouts that may be of use to facilitators:
▪ Sample Interview Guide (see “Module 12: Tool A-Page 55”)
▪ Sample Interview Notes (see “Module 12: Tool B-Page 56-57”)
▪ Coding Handout (see “Module 12: Tool C-Page 58”)

Texts that fellows may want to explore include:
▪ Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory, 2nd edition. By A. Strauss and J. Corbin. SAGE Publications: Thousand Oaks, CA. 1998.
▪ Qualitative Methods in Public Health: A Field Guide for Applied Research. By P. R. Ulin, E. T. Robinson, and E. E. Tolley. Jossey-Bass: San Francisco, CA. 2005.
▪ Qualitative Research Methods for the Social Sciences, 7th edition. By B. L. Berg. Allyn & Bacon: Boston, MA. 1989.</td>
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<tr>
<td>Facilitator Notes</td>
<td>Anticipate lots of questions! Emphasize that developing a codebook is an extremely repetitive process. Be sure to differentiate and explain the differences between inductive (from data) and deductive (from theory) coding. Encourage fellows to, in their own research, code in groups or teams to ensure consistency in data analysis.

Review preparatory work for next session. This should include meeting with the consultant to ascertain progress on the fellow’s research project.</td>
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Module 12: Tool A

Sample Interview Guide
Examination of Boston's Public Transportation System

Goal of study: to provide recommendations to the MBTA for ways to improve Boston's current transportation system

Participant criteria: lives and works in greater Boston area (inside Rt. 128) and uses public transportation on a regular basis (3-5x per week)

Q1. For how long have you lived in the Boston area?

Q1a. (If applicable) In what other places have you lived before moving to the Boston area?

Q2. What was it about the Boston area that made you decide to live here? [Probes: personal choice, job, school, family]

Q3. How often do you use the public transportation system here in Boston?

Q3a. At what times of the day is this, typically?

Q4. What type of public transportation do you use? [Probes: T, Commuter Rail, bus, ferry]

Q5. Can you walk me through how you typically use the public transportation system? [Probes: what T lines/bus routes do you typically take, what stations do you typically enter/exit at, how long does this typically take]

Q6. What would you say are some of the benefits to using Boston's public transportation system?

Q7. What would you say are some of the downfalls of using Boston's public transportation system?

Q8. If you were able to make changes to Boston's public transportation system, what sorts of things, if any, would you alter?

Q9. What recommendations or advice would you offer someone who is about to use Boston's public transportation system for the first time?

Module 12: Tool B

Sample Interview Notes

Q1. For how long have you lived in the Boston area?
A little over a year. About 17 months.

Q1a. (If applicable) In what other places have you lived before moving to the Boston area?
Colorado and Vermont. I also lived in Taipei, Taiwan, which is known for having one of the best public transportation systems in the world. They even have a gondola as part of their public transportation system. Their stations are pristine as well. You're not allowed to eat or drink on the subway – and young people, even teenagers, will help enforce these rules.

Interviewer: ***And whereabouts did you live in Colorado and Vermont?***
Denver, CO, and a small town in Vermont – Middlebury, VT.

Q2. What was it about the Boston area that made you decide to live here? [Probes: personal choice, job, school, family]

Employment opportunities, ahhh [pause], personal ties, I also find Boston charming and historical. That's why.

Q3. How often do you use the public transportation system here in Boston?
Um, a few times a week. But in the past, I used to use it every day.

Interviewer: How long ago was that?
For about 7 months, when I first moved to Boston.

Q3a. At what times of the day is this, typically?
Before I would, when I first moved to Boston, in those first 7 months, I used transportation at peak hours – meaning in the morning and in the evening. Now I almost exclusively use the T in the evenings.

Q4. What type of public transportation do you use? [Probes: T, Commuter Rail, bus, ferry]
I currently use the T, both subway and bus lines, but I used to use the commuter rail. I now only infrequently use the commuter rail.

Interviewer: ***In what contexts do you use the commuter rail?***
I used to use the commuter rail coming to and from work and home, and now I also use it to go from work and home, and also to visit other areas around Boston.

Q5. Can you walk me through how you typically use the public transportation system? [Probes: what T lines/bus routes do you typically take, what stations do you typically enter/exit at, how long does this typically take]
I often take the T between the Charles MGH stop and the Harvard Square stop on the redline. This is for my work activities. I also sometimes then take the bus from Harvard Square to Waverley Square. It takes me about 15 minutes to get from Charles MGH to Harvard, and an additional half hour to get from Harvard to Waverley.

Q6. What would you say are some of the benefits to using Boston's public transportation system?

Very convenient. It's relatively cheap, um, it's environmentally friendly, I can read and relax while I'm using it, it's reasonably timely, or prompt. It's acceptably timely, in my opinion. It gets you to a lot of different areas of the city.

Q7. What would you say are some of the downfalls of using Boston's public transportation system?
It's not perfectly reliable. It's not particularly quick either. Um, [pause], it can be very crowded at peak hours.

Q8. If you were able to make changes to Boston's public transportation system, what sorts of things, if any, would you alter?
Increase capacity at peak hours

Interviewer: ***Can you describe that a little more for me?***
I think they should have more of those big red high capacity cars running at peak hours especially. They could also connect the different lines, radially, around the city, rather than having all connections made in the downtown area where things are most congested.

Interviewer: ***Anything else you'd want to change?***
More above-ground stations because they are quaint [laughs]. Oh and it's unfortunate that the train doesn't run later at night. And in some cases, earlier in the mornings. Especially for the silver line, say, for getting to/from the airport.

Interviewer: ***Do you have a specific time period in mind to change to?***
I think it should probably go until 2 AM

Interviewer: ***And what about in the mornings?***
I think it starts at 5 in the morning which I think is appropriate.

Q9. What recommendations or advice would you offer someone who is about to use Boston's public transportation system for the first time?
Depending upon their employment, they should really look into discount passes, especially if they plan on taking the commuter rail. If you are going to take the T on a daily basis, you should really probably get a monthly pass, but a Charlie card is fine if you don't take the T every single day. I'd also say that biking is another convenient and fast way to get around the city. A car is definitely not a good transportation option in the Boston area. Compared to other transportation systems I've encountered in other cities and states, Boston's is excellent. Access is excellent, condition of cars and stations is excellent. Although it would be ideal for the trains to run more frequently, or later, the times are generally convenient as well. It's usually fairly prompt.

Module 12: Tool C

Coding Handout

Coding is the process by which you sort your data into categories, known as "codes." The following steps are designed to help walk you through this process:

1	Select 3 interviews for the team to read through; each member of the team should read these independently
2	While reading through these interviews, write notes in the margins about themes, topics, etc.
3	Once you and your team have read through these interviews, reconvene and discuss the patterns; come to consensus and develop these into broad categories
4	From these broad categories, create a coding framework, or a **code book** A **code book** is essentially a list of categories, followed by brief descriptions of what these categories mean. Your code book influences the way that you read and interpret your data, so it is very important. Ideally, your code book should be developed by the team of individuals who will be doing the actual coding. The codes you come up with will depend on the goals of your study. Things to keep in mind while developing a code book: - **It can be challenging:** developing a code book takes a lot of time, patience, and revision - **Keep it simple:** you don't want to end up with 100 codes – this is inefficient; aim for no more than 10 primary codes (you can also have sub-codes, aim for no more than 5 sub-codes)
5	After developing your initial code book, go back and re-code these 3 interviews using your new codes
6	Meet with your team to discuss how the code book worked (is it applicable? do we need to add/subtract codes?), and revise accordingly
7	Re-code the 3 interviews with any modified codes
8	Code additional interviews using the revised code book

Things to keep in mind while coding:

- **do not interpret:** your goal is to categorize what is said, not *interpret* what is said; be aware of this
- **context is important:** instead of coding individual words, code an entire phrase, sentence, or even paragraph, where appropriate
- **multiple codes:** segments of text can have more than one code associated with it, you don't need to only assign one code per segment of text
- **not all text needs to be coded**: if it's not relevant, don't code it
- **check for coding consensus**: especially in the beginning, meet with members of your team to compare your codes; in cases where you coded differently, discuss and come to consensus on which code(s) is most appropriate

Module 13: Proposal Writing

Module Summary	The purpose of this module is to provide fellows with a basic introduction to proposal writing. The importance of demonstrating the significance/impact of a research study in a proposal is highlighted in this module. This session is also designed to introduce fellows to the proposal review process.
Learning Objectives	1) List the components of a research proposal 2) Apply elements of a proposal with regard to a hypothetical research question 3) Explain the peer-review process in grant funding
Preparation Work	<u>Suggested Preparation Activity</u> ▪ Take a look at sample NIH grant proposals with your consultant ▪ Conduct a quick online search and identify what funding opportunities may support your area of research
Suggested Activities	**1) Prior experiences with grant writing** **Summary:** The purpose of this activity is to gain a better understanding of the fellows' experiences with grant writing. Many community based organizations and health centers fund programs through grants. Discuss differences between program funding (usually requiring an evaluation plan) and research. Revisit discussion in Module 3. **Instructions:** Ask fellows if they have had experience with grant writing. If some have had experiences ask them to elaborate on their role in the process (e.g., were they part of the investigative team or did they provide support to the investigative team, what parts of the grant were they responsible for, etc). **2) Introduction to proposal writing** **Summary**: A summary of key elements contained with a proposal are reviewed (e.g., introduction statement, literature review, methodological approach, budget, ethics statement, and statement of limitations). **3) Small group exercise: developing a proposal** **Summary**: This presentation provides an overview of developing an NIH grant. **Instructions**: Split the fellows into small groups of 5-6 participants based on which populations they serve, and instruct them to come up with an intervention study that is applying for NIH funding. In small groups, have the fellows discuss the following: ▪ What is the significance of the project? ▪ How would it change current practice? ▪ Who would be on the research team and why? ▪ What is innovative about your approach? ▪ What impact will your proposed project have on your community? On the academic community?

- How many people could potentially be affected?

4) **Identifying funding opportunities**
Summary: This activity is intended to provide fellows with an opportunity to share with their peers their experience of searching for funding opportunities.
Instructions: Fellows should be instructed to remain in their small groups and talk about their experience conducting a search for funding opportunities (e.g., Was it difficult to locate opportunities? Were the directions for the proposals clear? etc)

5) **Presentation on the National Institutes of Health (NIH) review process**
Summary: A NIH grant proposal is presented to the fellows for their review. This activity is aimed at helping fellows to conceptualize what is required within a standard proposal.
Instructions: Provide fellows with an actual copy of an NIH grant proposal to see as an example, and collaboratively review components of the grant.

6) **Recap Summary**
Summary: This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.

Tools

Additional Resources
Websites that fellows may want to explore to find funding opportunities include:
- www.nih.gov
- http://www.pcori.org/
- http://www.ncrr.nih.gov/research_funding/funding_opportunities/
- http://www.fundsnetservices.com/searchresult/20/Health-Wellness-&-Research.html
- http://www.cityofboston.gov/intergovernmental/
- http://www.agmconnect.org/
- http://foundationcenter.org/pnd/rfp
- www.foundations.org/grantmakers.html
- www.fundsnetservices.com/index/php
- www.tgci.com/funding.shtml
- http://www.tuftsctsi.org/Funding-Opportunities/Tufts-CTSI-Pilot-Studies-Program.aspx

Facilitator Notes

Ideally, the presenter for this activity will be someone who has actually reviewed foundation and federal proposals and can therefore offer this perspective. It is helpful to note that there is a small element of luck associated with being awarded grant funding. Provide some helpful tips to fellows; these might include:
- Be innovative in your proposal but follow the guidelines very explicitly.
- Be patient. It takes a lot of time and effort to submit a proposal.
- Form a strong, well-rounded research team with direct experience in the proposed research field: this is absolutely key.
- Follow the instructions. Reviewers score based on a set criteria described in the request for proposals. For the most part, this is not a time to be creative, simply follow the guidelines.

Review preparatory work for next session.

Module 14: Conflict & Negotiation

Module Summary

This module is designed to help fellows better understand their personality and conflict-management styles and how they affect collaborative relationships. Fellows are encouraged to share their self-perceptions and how the exercises within this module support or conflict with their views. Finally, fellows are encouraged to develop strategies for negotiating shared goals and operating procedures with researchers.

Learning Objectives

1) State how personality styles impact leadership and team work
2) Identify ways that teams with multiple personality styles can work together
3) Describe the importance of communication and negotiation
4) Express strategies for conflict resolution based on your conflict-management style

Preparation Work

Readings

- Malhotra D, Bazerman MH. *Negotiation Genius: How to Overcome Obstacles and Achieve Brilliant Results at the Bargaining Table and Beyond*. 2007. New York, NY: Bantam Dell.

- Ndulue, U.J., Peréa, F. C., Sprague Martinez, L. S. (accepted). *Team-building activities, games, and simulations: Tools for improving communication, balancing power and increasing trust.* Progress in Community Health Partnerships: research Education and Action.

Suggested Activities

1) **Use one tool to think through with fellows their personality styles and what makes them "tick" as leaders and as team members.**

   Option 1: PACE Color Palette
   Summary: The purpose of completing the color palette is to gain a better understanding of your personality style and how it may impact you in the research and work setting.
   Instructions: Pass out booklet with four cards representing four types of personality style (red, blue, yellow, and green). Ask fellows to remove the cards and rank order the ones that are most like them to least like them. Pose the following questions to the fellows:
   - What order did you rank the cards?
   - Which was your strongest temperament type?
     - Red: action oriented; not patient; wants results NOW; risk takers; pushes people outside the box; makes things happen.
     - Blue: energized by being with people; sensitive to peoples' needs and often checks in with others; equitable—emphasizes fairness; chameleons—often goes with different viewpoints to make people happy; likes to have fun.
     - Yellow: detail oriented; good planners; likes structure—makes and follows policies and procedures; always on time and follow through; often resistant to change.
     - Green: big picture thinkers and problem solvers; seeks information and then analyzes; likes to work alone.

- Were the results of the PACE Color Palette consistent with your own self-perceptions? (e.g., What things make sense to you and what things do you see as being inconsistent with your sense of self?)
- How might you use the results from the PACE when engaging and collaborating in research? (e.g., Might you be better suited for a particular role in research playing to your strengths? Might you decide to avoid a role that engages areas of relative weakness)
- When thinking about people you work with, where do you see team gaps?
- What have you learned from this information?
- What do you need to do differently to better function as part of the team?

The PACE Color Palette is available for purchase from the publisher PACE Organization, Inc at http://www.paceorg.com.

Option 2: Meyers Briggs Type Indicator (MBTI)

Summary: The purpose of completing the MBTI is for fellows to gain a better understanding of their personality type and preferences.

Instructions: Ask fellows to complete and score the MBTI. Subsequently, ask fellows to share their personality types with the group. Pose the following questions to the fellows:

- What personality type did the MBTI reveal?
- Is the type consistent with how you view yourself? (e.g., What things make sense to you and what things do you see as being inconsistent with your perceived self?)
- What are the strengths of your temperament as a leaders and team member? What are the weaknesses?
- Given your personality type, how might you use this information when engaging and collaborating in research? (e.g., Might this information be helpful in determining if you would be better suited to engage directly with the community?, Will you need extra supports with organization?, etc.)

MBTI administrative materials are available for purchase from the publisher CPP, Inc., at www.cpp.com or Center for Applications of Psychological Type, Inc at www.capt.org.

2) **Use a tool to foster discussion on how each person handles conflict and how this impacts their negotiations with researchers.**

Thomas-Kilmann Conflict Mode Instrument (TKI)

Summary: The purpose of completing the TKI is to gain a better understanding of how different conflict-management styles affect interpersonal and group dynamics, which will, in turn, impact research team collaborations and leadership.

Instructions: Ask fellows to complete and score the TKI. Subsequently, ask fellows to share their conflict-handling style with the group. Pose the following questions to the fellows:

- Which of the five conflict-handling styles did the TKI suggest for you? For example:
  - Competing: high assertiveness and low cooperativeness. The goal is "to win."
  - Collaborating: high assertiveness and high cooperativeness. The goal is "to find a win-win solution."
  - Compromising: moderate assertiveness and moderate cooperativeness. The goal is "to find middle ground."
  - Avoiding: low assertiveness and low cooperativeness. The goal is "to delay."

- Accommodating: low assertiveness and high cooperativeness. The goal is “to yield.”
- Based on your use of each approach (high, average, or low), what do you think are the advantages and disadvantages to your style?
- What strategies do you think you could employ to overcome some of the challenges or disadvantages of a particular style?
- How might your conflict-management style help you as you collaborate on research and how may it perhaps hinder you?

The TKI administrative materials are available for purchase from the publisher CPP, Inc., at www.cpp.com.

3) Negotiating relationships with researchers

Summary: The goal is to tie learning from the two exercises into a discussion of what strengths and weaknesses each person brings to negotiating and building a research partnership.

Instructions: Ask fellows the following questions:

- Given the work of the course, what might you do differently in a future research partnership?
- What do the exercises completed during this session suggest about yourself that may be helpful in the negotiation process? What have you learned about yourself that might hinder the negotiation process?

4) Recap Summary

Summary: This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.

Tools

Additional Resources

Texts that fellows may want to explore include:

- Getting Together: Building Relationships as We Negotiate. By R. Fisher and S. Brown. Penguin Books: New York, NY. 1988.
- Harvard Business Essentials: Your Mentor and Guide to Doing Business Effectively. By Harvard Business School. Harvard Business School Publishing Corporation: Boston, MA. 2003.
- Crucial Conversations: Tools for Talking When Stakes are High. By K. Patterson, J. Grenny, R. McMillan, and A. Switzler. McGraw-Hill: New York, NY. 2002.
- Crucial Confrontations: Tools for Resolving Broken Promises, Violated Expectations, and Bad Behavior. By K. Patterson, J. Grenny, R. McMillan, and A. Switzler. McGraw Hill: New York, NY. 2005.

Facilitator Notes

In general it is helpful to note that all people employ a variety of personality styles and conflict negotiation styles; however, we do have primary preferences (e.g., if someone tends to be more aggressive in accomplishing goals it does not mean that s/he does not have a sense of relational issues). It is also helpful to make clear that we need to develop the skill to use our comfortable styles when situations arise that call for their need. Finally, fellows should understand that we are able to change to meet our own needs, as well as change to meet the needs of the teams of people that we work with.

Review preparatory work for next session.

Module 15: Policy

Module Summary	This module is designed to help fellows understand how CEnR and CBPR can inform policy and improve practice. The national political climate surrounding community engagement in research is discussed.
Learning Objectives	1) Summarize the national climate surrounding community engagement in research 2) Discuss the relationship between research and policy 3) Identify national organizations that support community engagement in research
Preparation Work	Reading ▪ Minkler M, Wallerstein N (eds.). Chapters 17 - 20. In: Community-Based Participatory Research for Health: from Process to Outcomes. 2008. San Francisco, CA: John Wiley & Sons Publishers. Suggested Preparation Activity ▪ Look on the website of Community-Campus Partnership for Health: www.ccph.info/
Suggested Activities	**1) Case examples of the use of research to influence policy and/or practice** **Summary**: This presentation provides a local example of a CBPR study that facilitated growth and understanding of how research can inform policy. Additionally, the presentation provides examples of community engagement in the NIH structure (e.g., The Council on Public Representative [COPR] at NIH) and current efforts to engage stakeholders in research by Patient-Centered Outcomes Research Institute (PCORI). Finally, presenters introduce the Community-Campus Partnership for Health organization and their role in supporting CBPR. **2) Tying my project to Policy and Practice** **Summary**: The purpose of this exercise is to encourage fellows to think through policy and practice implications of their research projects. We recommend having fellows pair up and discuss their projects using Module 15: Tool A-Page 66. **3) Recap Summary** **Summary:** This recap should effectively summarize the preparation work, exercises, and learning objectives covered in the module.
Tools	Additional Resources Websites that fellows may want to explore include: ▪ http://www.tuftsctsi.org/About-Us/CTSI-Components/Community-Engagement/~/media/DB539E91773E4D788FB2152B172CDFB2.ashx ▪ http://www.ctsaweb.org/uploadedfiles/Best%20Practices%20in%20Community%2Engagement_Summary_2007-08.pdf Texts that fellows may want to explore include: ▪ What Works? Evidence-Based Policy and Practice in Public Services. By H. T. O. Davies, S. M. Nutley, and P. C. Smith, eds. The Policy Press: Portland, OR. 2000.

Facilitator Notes	Be sure to note that the NIH and other research institutions can be very political, and that it often takes a good deal of time and practice to know how to deal with these politics and how to negotiate with bureaucratic bodies. This module provides a good opportunity to differentiate public participation from community engagement; more information about this is available on the NIH's website. Review preparatory work for next session. Fellows should meet with their consultant to finalize their presentations.

Policy: Tool A

Plan a short communication about your challenge.

A. What is my "elevator speech" about this challenge?

B. What is a compelling anecdote I can use to describe the challenge?

C. How will I revise my elevator speech and anecdote for maximum impact?

D. To whom do I need to disseminate the results of my project? Stakeholders may include patients/clients, providers/clinicians or administrators in my organization, payors (granting agency, insurance plan), others?

E. What data will be most important for my audiences?

F. How will I disseminate the information?

G. How will I engage critical gatekeepers in my organization or in my community to continue to address this challenge?

Program Conclusion: Research Project Presentations & Graduation

Module Summary	This module is used as a forum for fellows to present their current research projects. This module is used as a community forum to celebrate and acknowledge the fellows' research efforts and accomplishments.
Learning Objectives	1) Practice research projects 2) Initiate community dialogue about research 3) Describe the importance of community research efforts
Preparation Work	Fellows prepare a 10 minute PowerPoint presentation.
Suggested Activities	**1) Presentation of Fellows' Research Projects** **Summary:** Fellows present their research projects and subsequently, answer questions from the audience. **2) Graduation** **Summary:** Following the presentations fellows are given a certificate of achievement for their participation. Their research consultant present each fellow with the certificate and talk about their accomplishments while in the program. Subsequently, fellows are given the opportunity to summarize their experiences in the program.
Tools	Additional Resources ▪ Tailor these for your own institution's efforts in CEnR.
Facilitator Notes	Be sure to invite the executive director and staff from the fellows' organizations. Additionally, invite researchers who are less experienced with CBPR to join in the presentation of fellows' work, and encourage collaboration and networking. Local media groups may also be important to contact.

APPENDIX

Tools 1-4

Within this section of the curriculum guide, you will find materials that can help to assist you in beginning your BYC program (e.g., request for applications, memorandum of understanding, pre- and post-assessment, etc). As always, facilitators should feel free to modify these documents to meet the needs of their unique BYC program.

Tool 1: Sample Request for Application (RFA)

Building Your Capacity: Advancing Research through Community Engagement
Request for Application

Release Date: ______________________

Submission Date: ___________________

Overview: The fundamental goal of this program is to build capacity in community-based organizations to participate in community engaged research by providing relevant, interactive training sessions that utilize local examples and that support participants as they develop projects for their organizations. Ten organizations will be selected to participate in this program which will begin **Date**.

Why is this program important?
Government and private funding agencies are putting more and more emphasis on community engaged research. Research institutions are recognizing that in order for the development, execution, and dissemination of research to have a meaningful impact on public health, it should involve significant input from the community.

What is community engaged research?
Community engaged research is a process that involves both community and academic partners in the research process. The community partner could be involved with identifying the research question, collecting and analyzing data, and helping to disseminate the findings to the larger community.

Who is eligible?
Community-based organizations with a fiscal sponsor are eligible to apply. The applicant organization must designate at least one employee to participate in the trainings. This program is interested in working with experienced community members who have an interest in research, but have not had the opportunity for research training.

What benefit will this program provide to the participating individual?

- Participants will gain detailed knowledge about the different types of community engaged research, with a focus on Community-Based Participatory Research (CBPR).
- Participants will be matched with a consultant who will help their organization to develop a research project
- Participants will receive a stipend of $1500 for participating in the program. In cases where more than one individual is representing an organization, the staff members will divide the $1,500 honorarium.
- Participants will complete education requirements for human subjects research.

What benefit will this program provide to participating organizations?

- Organizations will build their capacity to engage in research equally with academic partners.
- Organizations will have staff who are knowledgeable about research.
- Organizations will receive $3500 to support involvement of staff in this program. This is in addition to the participating individual's $1500 stipend.

What does the training consist of?
The training will consist of modules conveying topics like: 1) Why bother with research?; 2) Protecting your community - research ethics; 3) Research from the community perspective; 4) Research basics; 5) Working on a research proposal; and 6) Taking research into the community. Over the course of the program, participants will also develop a research plan on a specific topic for their organization.

What is the time commitment?
The training period will take place between **Date** and **Date**. The training will start with a six hour, day long seminar followed by four monthly three hour sessions. The training will end with another six hour session. All

sessions will take place during normal business hours. All participants are expected to come to all the training sessions. There will also be some work assigned in between sessions.

Application Guidelines

1. **Fill out the attached application form.**
2. **Each staff member who would like to participate in the training is requested to submit a one page statement of interest which includes the following:**
    a. Description of your position in the organization and how increasing research skills/knowledge would benefit your position and organization.
    b. Description of your research interests.
    c. Experience, if any, in community engaged research.
    d. Existing partnerships with researchers, if any.
3. **The Executive Director is requested to submit a one page letter of support, which should include the following:**
    a. Outline of the mission of the organization, the geographic reach and demographics of the population the organization serves and the types of services the organization provides.
    b. Description of research interests of the organization/community.
    c. Given the research needs and interests of the organization/community, why is this individual(s) a good candidate for this training program?
4. **Semi-finalists will be interviewed on-site at their organization.**

Post Award Requirements

- The recipient organization will be asked to complete a Memorandum of Understanding prior to the start of the program.
- Participants should be aware that this program is part of a research study to develop and test curriculum.

Important Application Dates

Date, Time: Last day to submit applications

Date, Time: Review of applications

Date, Time: Committee selects semi-finalists to be interviewed

Date, Time: Semi-finalists contacted

Date, Time: On-site interviews

Date, Time: Applicants notified of status

For more information or technical assistance, contact:________________________________

Building Your Capacity: Advancing Research through Community Engagement

Application

Organization: ____

Executive Director: ____

Address: ____

Phone: ____

Fax: ____

Name of primary contact: ____

Phone: ____

E-mail: ____

Name, title and e-mail of staff members who will participate in the training:

____

____

Please e-mail the application to: ______________________________

Building Your Capacity: Advancing Research through Community Engagement
Frequently Asked Questions

1. **How and when will the honorarium be distributed?**
   Organizations and individuals who are accepted in this program will both receive an honorarium. After the individual or individuals from an organization successfully complete the program, the honorarium will be distributed to the individual and organization.

2. **Can more than one person from an organization apply for this program?**
   Yes. Each individual must complete the appropriate portion of the application and include a letter of support from the organization. Each individual is required to attend each session and complete all assigned work. The individual honorarium will be shared between all attendees from a single organization.

3. **Where will the training take place?**
   While the exact location is still being finalized, the trainings will take place in the Boston/Cambridge area.

4. **What is the role of the research mentor?**
   Each participant will be matched with a mentor who will provide support during the duration of the training program. The mentor will be available to answer questions and work with the program participant on assignments. The mentor will also help the organization develop an individualized research plan on a specific topic to support its work.

Tool 2: Sample Memorandum of Understanding (MOU)

DATE

PROSPECTIVE PARTICIPANT
PROSPECTIVE COMMUNITY ORGANIZATION
000 STREET
CITY, STATE 00000

Dear **PROSPECTIVE PARTICIPANT**:

The **ORGANIZATION NAME** has received funding from the **SOURCE** to disperse funds to community-based agencies to participate in a six-month training program, "Building your capacity: Advancing research through community engagement." We are pleased to offer you the opportunity to participate in this training program from **DATE** to **DATE**.

To ensure that every participant receives the maximum benefit of attending our program, we require a written confirmation accepting the rights and responsibilities associated with your participation. These rights and responsibilities are outlined below. We expect each participant to fulfill the rights and responsibilities detailed below.

If you agree to participate in this opportunity, the training participant will

- Attend every training session
- Meet regularly with your BYC mentor
    - Bring the knowledge gained and skills learned back to your organization
    - Do assigned homework
    - Work with your research mentor to develop a research plan for your organization.

Your organization will

- Support your work in the training program
- Provide release time for you to participate in the training program
- Create the opportunity for you to share the information learned with the rest of the staff.

[Name of sponsoring institution] will

- Provide a stipend for the training participant(s) and organization
- Provide consultation and support to you and your organization
- Provide technical assistance
- Provide research resources and contacts with **CTSI** researcher.
- Provide library access.

Upon successful completion of this program, we will disperse the honorariums to the training participant(s) and organizations. The organization will receive $XXXX and the individual trainee will receive $XXXX. In the case that there is more than one trainee from one organization, the trainees will evenly divide the $XXXX among themselves.

Your organization has the right to publish and otherwise publicly disclose information derived from work conducted in this program. Each publication, press release or other document that cites results from NIH grant-supported research must include an acknowledgement of NIH grant support and disclaimer, such as “The project described was supported by an American Recovery and Reinvestment Act grant award from the National Institutes of Health as a supplemental award to **Grant Number XXXXXXXX** from the National Center for Research Resources. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Center for Research Resources or the National Institutes of Health.” You should notify us of any pending publications and work with the **[Name of sponsoring institution]** around any press releases related to your participation.

To accept this agreement, please sign below and send to **PROGRAM DIRECTOR’S NAME** by **DATE**. If you have any questions, please call **PROGRAM DIRECTOR’S NAME** at **(XXX) XXX-XXXX**.

We are delighted to work with you and your organization and look forward to a productive working relationship.

Signatures:

______________________________	______________________________
Name:	**PROGRAM DIRECTOR’S NAME**
Title:	Institution
Organization: ___________________	Date: _________________________
Date: __________________________	

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Name:
Title:
Organization: ___________________
Date: __________________________

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Name:
Title:
Organization: ___________________
Date: __________________________

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Name:
Title:
Organization: ___________________
Date: __________________________

Tool 3: Sample Pre- & Post-BYC Assessment

Building Your Capacity & Advancing Research through Community Engagement
Pre-Assessment
To be completed prior to the start of the Module 1 session by the fellow.

Date: ________________ Four digit identifier: __ __ __ __

Part I: Structured Interview

1. **Please describe what health and/or community issue(s) your organization addresses.**

2. **Please describe your role in your organization.**

3. **When you hear the word research, what image comes to mind?**

4. **How much experience do you have in conducting research?**

☐ None ☐ A little ☐ A moderate amount ☐ A lot

4b. Describe the research projects you have worked on.

4c. What was your role on these research projects?

5. **At this point, what is your opinion on why use research to approach a community issue or challenge?**

6. **Why did you decide to apply for this training program?**

7. **What do you do hope to get out of participation in this training program?**

8. **At this time, what questions about research do you have?**

9. **What skills and knowledge do you hope to gain from this program?**

10. **How do you hope to use what you learn from this program?**

11. At this time, do you think your organization would benefit from a partnership with a research institution?

☐ Definitely yes ☐ Probably yes ☐ Probably no ☐ Definitely no

11a. Please explain your answer.

12. How comfortable are you asking an academic research institution to work with you or your organization?

☐ Not at all ☐ Not very ☐ Somewhat ☐ Very ☐ Extremely

12a. Please explain your answer.

13. If asked, how comfortable are you working with an academic researcher?

☐ Not at all ☐ Not very ☐ Somewhat ☐ Very ☐ Extremely

13a. Please explain your answer.

14. Are you or your organization currently involved in any academic community partnerships?

☐ Yes ☐ No ☐ Not sure

14a. If yes, please briefly describe the current partnership(s).

15. Have you had experience working with an academic researcher? (i.e. a university-based researcher)

☐ Yes ☐ No ☐ Not sure

15a. Please explain your answer.

16. Describe your experience and any problems (if any) you have had in working with academic researchers.

17. Is there any planning for future research efforts going on in your organization?

☐ Yes ☐ No ☐ Not sure

17a. Please explain your answer.

Part II: Questionnaire
For each of the questions below, please put an "X" in the box that most closely describes your answer.

A. Entering a research partnership

At present, how comfortable are you working with an academic researcher in the following ways:	Not at all	Not very	Somewhat	Very	Extremely
1. To recruit participants for their research studies					
2. To serve as part of a committee to identify health issues in your community					
3. To co-write a proposal for a research study					
4. To describe community engaged research					
5. To know when to enter a research partnership with an academic					
6. To negotiate roles and responsibilities in a research partnership with academic researchers					
7. To negotiate decision-making power with academic researchers					
8. To navigate the university bureaucracy					
9. To know your legal responsibilities of engaging in a research partnership with an academic					

B. Designing/Starting a Research Project

Please rate your <u>confidence</u> in each of the following items…	Not at all	Not very	Somewhat	Very	Extremely
1. Designing a research study					
2. Identifying a research question					
3. Conducting a literature review					
4. Describing human subjects research					
5. Writing a research proposal for institutional review					
6. Identifying ethical issues that may arise in a research study					
7. Recruiting participants into a study					

C. Data Sources/Collection

Please rate your <u>confidence</u> in each of the following items…	Not at all	Not very	Somewhat	Very	Extremely
1. Knowing where to find pre-existing data sources					

2. Designing a survey					
3. Developing an interview protocol					
4. Conducting an interview					
5. Organizing a focus group (eg. Location logistics, recording devices)					
6. Moderating a focus group					
7. Understanding when to use quality improvement research					
8. Developing a codebook					
9. Coding data					
10. Developing a data management plan					

D. Executing a Research Project

Please rate your confidence in each of the following items…	**Not at all**	**Not very**	**Somewhat**	**Very**	**Extremely**
1. Writing a research proposal					
2. Finding funding sources to fund research projects					
3. Writing a research report					
4. Disseminating research results to an academic venue					
5. Disseminating research results to a community venue					
6. Talking to the media about research projects					
7. Using research to inform policymaking					

E. PERSONAL INFORMATION:

1. **Race/ethnicity**
   - ☐ Caucasian/White
   - ☐ African American
   - ☐ Latino/Hispanic
   - ☐ Asian American
   - ☐ Native American
   - ☐ Other: (please specify):

2. **Gender**
   - ☐ Male
   - ☐ Female

3. **Age: __________________**

4. **Highest education level attained**
   - ☐ High school/GED
   - ☐ Some college
   - ☐ Bachelor's degree
   - ☐ Master's degree.
     Specify discipline:____________
   - ☐ Other professional degree.
     Specify:______________

5. **How many years have you been working in your current field?**
   - ☐ Less than 1 year
   - ☐ 1-3 years
   - ☐ 4-6 years
   - ☐ 7 or more years

6. **Job title: ____________________________________**

7. **How many years have you been working in your current job?**
   - ☐ Less than 1 year
   - ☐ 1-3 years
   - ☐ 4-6 years
   - ☐ 7 or more years

Building Your Capacity & Advancing Research through Community Engagement Post-Assessment

To be completed at the conclusion of BYC by the fellow.

For each of the questions below, please put an "X" in the box that most closely describes your answer.

A. Entering a research partnership

At present, how comfortable are you working with an academic researcher in the following ways:	Not at all	Not very	Somewhat	Very	Extremely
1. To recruit participants for their research studies					
2.To serve as part of a committee to identify health issues in your community					
3. To co-write a proposal for a research study					
4. To describe community engaged research					
5. To know when to enter a research partnership with an academic					
6. To negotiate roles and responsibilities in a research partnership with academic researchers					
7. To negotiate decision-making power with academic researchers					
8. To navigate the university bureaucracy					
9. To know your legal responsibilities of engaging in a research partnership with an academic					

B. Designing/Starting a Research Project

Please rate your confidence in each of the following items…	Not at all	Not very	Somewhat	Very	Extremely
1. Designing a research study					
2. Identifying a research question					
3. Conducting a literature review					
4. Describing human subjects research					
5. Writing a research proposal for institutional review					
6. Identifying ethical issues that may arise in a research study					
7. Recruiting participants into a study					

C. Data Sources/Collection

Please rate your <u>confidence</u> in each of the following items…	Not at all	Not very	Somewhat	Very	Extremely
1. Knowing where to find pre-existing data sources					
2. Designing a survey					
3. Developing an interview protocol					
4. Conducting an interview					
5. Organizing a focus group (e.g. Location logistics, recording devices)					
6. Moderating a focus group					
7. Understanding when to use quality improvement research					
8. Developing a codebook					
9. Coding data					
10. Developing a data management plan					

D. Executing a Research Project

Please rate your <u>confidence</u> in each of the following items…	Not at all	Not very	Somewhat	Very	Extremely
1. Writing a research proposal					
2. Finding funding sources to fund research projects					
3. Writing a research report					
4. Disseminating research results to an academic venue					
5. Talking to the media about research projects					
6. Using research to inform policymaking					

Tool 4: Sample Module Evaluation

Building your capacity: Advancing research through community engagement
Session #: ____

MODULE TITLE OR # DATE

We would like to know about your experience. Please take a few minutes to evaluate the session. Please be candid your responses will be kept confidential.

1. Identifier: ___ ___ ___ ___

2. As a result of this session, please rate your confidence in your ability to… (THESE ARE THE SPECIFIC LEARNING OBJECTIVES OF THE MODULE WHICH SHOULD MATCH EXACTLY TO THE PRE-ASSESSMENT QUESTIONNAIRE)	Very confident	Somewhat confident	Slightly confident	Not at all confident
a. Describe the differences in …	☐	☐	☐	☐
b. Identify the features …	☐	☐	☐	☐
c. Understand how to …	☐	☐	☐	☐
d. State how to use …	☐	☐	☐	☐
e. Explain the steps in …	☐	☐	☐	☐
f. Describe when to use …	☐	☐	☐	☐

Please indicate your level of agreement with each of the following.	Strongly Agree	Agree	Equally Agree and Disagree	Disagree	Strongly Disagree
3. The session was well organized.	☐	☐	☐	☐	☐
4. The amount of material covered was appropriate.	☐	☐	☐	☐	☐
5. For my ability, the session was presented at an appropriate technical level.	☐	☐	☐	☐	☐
6. The material covered was relevant to my research, practice or work.	☐	☐	☐	☐	☐
7. The instructor was clear and understandable.	☐	☐	☐	☐	☐
8. The instructor used appropriate illustrations to clarify material.	☐	☐	☐	☐	☐
9. Overall, I am satisfied with this session.	☐	☐	☐	☐	☐
10. I would recommend this session to others.	☐	☐	☐	☐	☐

11. What was the most valuable part or content of the session?

12. What changes or improvements would you suggest for this session?

13. What other topics would you like to learn about in the future?

Thank you for taking the time to share your comments and feedback!

Acknowledgements

The *Building Your Capacity: Advancing Research through Community Engagement* program and this curriculum guide were supported by NIH Award #UL1 RR 025758 from the National Center for Research Resources and the National Center for Advancing Translational Sciences at the National Institutes of Health. This grant was awarded to the Tufts Clinical and Translational Science Institute.

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We would like to acknowledge the members of the 2009-2011 BYC Steering Committee for their guidance, vision, and insight in the development of this curriculum guide. Many thanks to (in alphabetical order):

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Participating Fellows' Organizations 2010-2011

We recruited from throughout the greater Boston/New England area for participating organizations. We targeted community-based organizations -– many of which were activist-oriented –- as well as community health centers that were at the forefront of health care service delivery. Over the course of the two years, over sixty organizations applied to participate in the BYC training program. These organizations were diverse and represented a range of communities and health foci.

Many thanks to the following organizations for participating in and for enriching the curriculum through all of their input (in alphabetical order):

Asian Task Force Against Domestic Violence

Boston Chinatown Neighborhood Center

Brazilian Women's Group

Center for Community Health, Education & Research, Inc.

Center for Hispanic Policy and Advocacy

Common Pathways: The Worcester Healthy Communities Coalition of Central Massachusetts

Community Action Agency of Somerville

Dudley Street Neighborhood Initiative

Emmanuel Gospel Center

Greater Lawrence Family Health Center, Inc.

Haitian Coalition of Somerville, Inc.

Health Resources in Action/ Boston Urban Asthma Coalition

Multicultural AIDS Coalition

Neponset Health Center

Outer Cape Health Services, Inc.

Reaching Out About Depression

Roxbury Dorchester Mattapan Hyde Park Dialysis Patient Support Group

Sociedad Latina

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The Welcome Project

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