



Program Evaluation and Evaluating Community Engagement

Chapter 7

Program Evaluation and Evaluating Community Engagement

Meryl Sufian, PhD (Chair), Jo Anne Grunbaum, EdD (Co-Chair), Tabia Henry Akintobi, PhD, MPH, Ann Dozier, PhD, Milton (Mickey) Eder, PhD, Shantrice Jones, MPH, Patricia Mullan, PhD, Charlene Raye Weir, RN, PhD, Sharrice White-Cooper, MPH

BACKGROUND

A common theme through Chapters 1–6 was that community engagement develops over time and that its development is largely based on ongoing co-learning about how to enhance collaborations. The evaluation of community engagement programs provides an opportunity to assess and enhance these collaborations. Community members can be systematically engaged in assessing the quality of a community-engaged initiative, measuring its outcomes, and identifying opportunities for improvement.

This chapter summarizes the central concepts in program evaluation relevant to community engagement programs, including definitions, categories, approaches, and issues to anticipate. The chapter is not intended as a comprehensive overview of program evaluation; instead, the focus is on the importance of evaluating community-engaged initiatives and methods for this evaluation. With this in mind, Chapter 7 will present the following: (1) a definition of evaluation, (2) evaluation phases and processes, (3) two

approaches to evaluation that are particularly relevant for the evaluation of community-engaged initiatives, (4) specific evaluation methods, and (5) challenges to be overcome to ensure an effective evaluation. Stakeholder engagement (i.e., inclusion of persons involved in or affected by programs) constitutes a major theme in the evaluation frameworks. In addition, methodological approaches and recommendations for communication and dissemination will be included. Examples are used throughout the chapter for illustrative purposes.

PROGRAM EVALUATION

Program evaluation can be defined as “the systematic collection of information about the activities, characteristics, and outcomes of programs, for use by people to reduce uncertainties, improve effectiveness, and make decisions” (Patton, 2008, p. 39). This utilization-focused definition guides us toward including the goals, concerns, and perspectives of program stakeholders. The results of evaluation are often used by stakeholders to improve or increase capacity of the program or activity. Furthermore, stakeholders can identify program priorities, what constitutes “success,” and the data sources that could serve to answer questions about the acceptability, possible participation levels, and short- and long-term impact of proposed programs.

The community as a whole and individual community groups are both key stakeholders for the evaluation of a community engagement program. This type of evaluation needs to identify the relevant community and establish its perspectives so that the views of engagement leaders and all the important components of the community are used to identify areas for improvement. This approach includes determining whether the appropriate persons or organizations are involved; the activities they are involved in; whether participants feel they have significant input; and how engagement develops, matures, and is sustained.

Program evaluation uses the methods and design strategies of traditional research, but in contrast to the more inclusive, utility-focused approach of evaluation, research is a systematic investigation designed to develop or contribute to generalizable knowledge (MacDonald et al., 2001). Research is hypothesis driven, often initiated and controlled by an investigator, concerned

with research standards of internal and external validity, and designed to generate facts, remain value-free, and focus on specific variables. Research establishes a time sequence and control for potential confounding variables. Often, the research is widely disseminated. Evaluation, in contrast, may or may not contribute to generalizable knowledge. The primary purposes of an evaluation are to assess the processes and outcomes of a specific initiative and to facilitate ongoing program management. Evaluation of a program usually includes multiple measures that are informed by the contributions and perspectives of diverse stakeholders.

Evaluation can be classified into five types by intended use: formative, process, summative, outcome, and impact. Formative evaluation provides information to guide program improvement, whereas process evaluation determines whether a program is delivered as intended to the targeted recipients (Rossi et al., 2004). Formative and process evaluations are appropriate to conduct during the implementation of a program. Summative evaluation informs judgments about whether the program worked (i.e., whether the goals and objectives were met) and requires making explicit the criteria and evidence being used to make “summary” judgments. Outcome evaluation focuses on the observable conditions of a specific population, organizational attribute, or social condition that a program is expected to have changed. Whereas outcome evaluation tends to focus on conditions or behaviors that the program was expected to affect most directly and immediately (i.e., “proximal” outcomes), impact evaluation examines the program’s long-term goals. Summative, outcome, and impact evaluation are appropriate to conduct when the program either has been completed or has been ongoing for a substantial period of time (Rossi et al., 2004).

Evaluation can be classified into five types by intended use: formative, process, summative, outcome, and impact.

For example, assessing the strategies used to implement a smoking cessation program and determining the degree to which it reached the target population are process evaluations. In contrast, an outcome evaluation of a smoking cessation program might examine how many of the program’s participants stopped smoking as compared with persons who did not participate. Reduction in morbidity and mortality associated with cardiovascular disease may represent an impact goal for a smoking cessation program (Rossi et al., 2004).

Several institutions have identified guidelines for an effective evaluation. For example, in 1999, CDC published a framework to guide public health professionals in developing and implementing a program evaluation (CDC, 1999). The impetus for the framework was to facilitate the integration of evaluation into public health programs, but the framework focuses on six components that are critical for any evaluation. Although the components are interdependent and might be implemented in a nonlinear order, the earlier domains provide a foundation for subsequent areas. They include:

- Engage stakeholders to ensure that all partners invested in what will be learned from the evaluation become engaged early in the evaluation process.
- Describe the program to clearly identify its goals and objectives. This description should include the program's needs, expected outcomes, activities, resources, stage of development, context, and logic model.
- Design the evaluation design to be useful, feasible, ethical, and accurate.
- Gather credible evidence that strengthens the results of the evaluation and its recommendations. Sources of evidence could include people, documents, and observations.
- Justify conclusions that are linked to the results and judged against standards or values of the stakeholders.
- Deliberately ensure use of the evaluation and share lessons learned from it.

Five years before CDC issued its framework, the Joint Committee on Standards for Educational Evaluation (1994) created an important and practical resource for improving program evaluation. The Joint Committee, a nonprofit coalition of major professional organizations concerned with the quality of program evaluations, identified four major categories of standards — propriety, utility, feasibility, and accuracy — to consider when conducting a program evaluation.

Propriety standards focus on ensuring that an evaluation will be conducted legally, ethically, and with regard for promoting the welfare of those involved

in or affected by the program evaluation. In addition to the rights of human subjects that are the concern of institutional review boards, propriety standards promote a service orientation (i.e., designing evaluations to address and serve the needs of the program’s targeted participants), fairness in identifying program strengths and weaknesses, formal agreements, avoidance or disclosure of conflict of interest, and fiscal responsibility.

Utility standards are intended to ensure that the evaluation will meet the information needs of intended users. Involving stakeholders, using credible evaluation methods, asking pertinent questions, including stakeholder perspectives, and providing clear and timely evaluation reports represent attention to utility standards.

Feasibility standards are intended to make sure that the evaluation’s scope and methods are realistic. The scope of the information collected should ensure that the data provide stakeholders with sufficient information to make decisions regarding the program.

Accuracy standards are intended to ensure that evaluation reports use valid methods for evaluation and are transparent in the description of those methods. Meeting accuracy standards might, for example, include using mixed methods (e.g., quantitative and qualitative), selecting justifiable informants, and drawing conclusions that are consistent with the data.

Together, the CDC framework and the Joint Committee standards provide a general perspective on the characteristics of an effective evaluation. Both identify the need to be pragmatic and serve intended users with the goal of determining the effectiveness of a program.

EVALUATION PHASES AND PROCESSES

The program evaluation process goes through four phases — planning, implementation, completion, and dissemination and reporting — that complement the phases of program development and implementation. Each phase has unique issues, methods, and procedures. In this section, each of the four phases is discussed.

Planning

The relevant questions during evaluation planning and implementation involve determining the feasibility of the evaluation, identifying stakeholders, and specifying short- and long-term goals. For example, does the program have the clarity of objectives or transparency in its methods required for evaluation? What criteria were used to determine the need for the program? Questions asked during evaluation planning also should consider the program's conceptual framework or underpinnings. For example, does a proposed community-engaged research program draw on "best practices" of other programs, including the characteristics of successful researcher-community partnerships? Is the program gathering information to ensure that it works in the current community context?

Defining and identifying stakeholders is a significant component of the planning stage.

Defining and identifying stakeholders is a significant component of the planning stage. Stakeholders are people or organizations that have an interest in or could be affected by the program evaluation. They can be people who are involved in program operations, people who are served or affected by the program, or the primary users of the evaluation. The inclusion of stakeholders in an evaluation not only helps build support for the evaluation but also increases its credibility, provides a participatory approach, and supplies the multiple perspectives of participants and partners (Rossi et al., 2004).

Stakeholders might include community residents, businesses, community-based organizations, schools, policy makers, legislators, politicians, educators, researchers, media, and the public. For example, in the evaluation of a program to increase access to healthy food choices in and near schools, stakeholders could include store merchants, school boards, zoning commissions, parents, and students. Stakeholders constitute an important resource for identifying the questions a program evaluation should consider, selecting the methodology to be used, identifying data sources, interpreting findings, and implementing recommendations (CDC, 1999).

Once stakeholders are identified, a strategy must be created to engage them in all stages of the evaluation. Ideally, this engagement takes place from the beginning of the project or program or, at least, the beginning of the evaluation. The stakeholders should know that they are an important part

of the evaluation and will be consulted on an ongoing basis throughout its development and implementation. The relationship between the stakeholders and the evaluators should involve two-way communication, and stakeholders should be comfortable initiating ideas and suggestions. One strategy to engage stakeholders in community programs and evaluations is to establish a community advisory board to oversee programs and evaluation activities in the community. This structure can be established as a resource to draw upon for multiple projects and activities that involve community engagement.

An important consideration when engaging stakeholders in an evaluation, beginning with its planning, is the need to understand and embrace cultural diversity. Recognizing diversity can improve the evaluation and ensure that important constructs and concepts are measured.

Implementation — Formative and Process Evaluation

Evaluation during a program's implementation may examine whether the program is successfully recruiting and retaining its intended participants, using training materials that meet standards for accuracy and clarity, maintaining its projected timelines, coordinating efficiently with other ongoing programs and activities, and meeting applicable legal standards. Evaluation during program implementation could be used to inform mid-course corrections to program implementation (formative evaluation) or to shed light on implementation processes (process evaluation).

For community-engaged initiatives, formative and process evaluation can include evaluation of the process by which partnerships are created and maintained and ultimately succeed in functioning.

Completion — Summative, Outcome, and Impact Evaluation

Following completion of the program, evaluation may examine its immediate outcomes or long-term impact or summarize its overall performance, including, for example, its efficiency and sustainability. A program's outcome can be defined as "the state of the target population or the social conditions that a program is expected to have changed," (Rossi et al., 2004, p. 204). For example, control of blood glucose was an appropriate program outcome when the efficacy of empowerment-based education of diabetes patients

was evaluated (Anderson et al., 2009). In contrast, the number of people who received the empowerment education or any program service would not be considered a program outcome unless participation in and of itself represented a change in behavior or attitude (e.g., participating in a program to treat substance abuse). Similarly, the number of elderly housebound people receiving meals would not be considered a program outcome, but the nutritional benefits of the meals actually consumed for the health of the elderly, as well as improvements in their perceived quality of life, would be appropriate program outcomes (Rossi et al., 2004). Program evaluation also can determine the extent to which a change in an outcome can be attributed to the program. If a partnership is being evaluated, the contributions of that partnership to program outcomes may also be part of the evaluation. The CBPR model presented in Chapter 1 is an example of a model that could be used in evaluating both the process and outcomes of partnership.

Once the positive outcome of a program is confirmed, subsequent program evaluation may examine the long-term impact the program hopes to have.

Once the positive outcome of a program is confirmed, subsequent program evaluation may examine the long-term impact the program hopes to have. For example, the outcome of a program designed to increase the skills and retention of health care workers in a medically underserved area would not be represented by the number of providers who participated in the training program, but it could be represented by the proportion of health care workers who stay for one year. Reduction in maternal mortality might constitute the long-term impact that such a program would hope to effect (Mullan, 2009).

Dissemination and Reporting

To ensure that the dissemination and reporting of results to all appropriate audiences is accomplished in a comprehensive and systematic manner, one needs to develop a dissemination plan during the planning stage of the evaluation. This plan should include guidelines on who will present results, which audiences will receive the results, and who will be included as a coauthor on manuscripts and presentations.

Dissemination of the results of the evaluation requires adequate resources, such as people, time, and money. Finding time to write papers and make

presentations may be difficult for community members who have other commitments (Parker et al., 2005). In addition, academics may not be rewarded for nonscientific presentations and may thus be hesitant to spend time on such activities. Additional resources may be needed for the translation of materials to ensure that they are culturally appropriate.

Although the content and format of reporting may vary depending on the audience, the emphasis should be on full disclosure and a balanced assessment so that results can be used to strengthen the program. Dissemination of results may also be used for building capacity among stakeholders.

APPROACHES TO EVALUATION

Two approaches are particularly useful when framing an evaluation of community engagement programs; both engage stakeholders. In one, the emphasis is on the importance of participation; in the other, it is on empowerment. The first approach, participatory evaluation, actively engages the community in all stages of the evaluation process. The second approach, empowerment evaluation, helps to equip program personnel with the necessary skills to conduct their own evaluation and ensure that the program runs effectively. This section describes the purposes and characteristics of the two approaches.

Participatory Evaluation

Participatory evaluation can help improve program performance by (1) involving key stakeholders in evaluation design and decision making, (2) acknowledging and addressing asymmetrical levels of power and voice among stakeholders, (3) using multiple and varied methods, (4) having an action component so that evaluation findings are useful to the program's end users, and (5) explicitly aiming to build the evaluation capacity of stakeholders (Burke, 1998).

Characteristics of participatory evaluation include the following (Patton, 2008):

- The focus is on participant ownership; the evaluation is oriented to the needs of the program stakeholders rather than the funding agency.

- Participants meet to communicate and negotiate to reach a consensus on evaluation results, solve problems, and make plans to improve the program.
- Input is sought and recognized from all participants.
- The emphasis is on identifying lessons learned to help improve program implementation and determine whether targets were met.
- The evaluation design is flexible and determined (to the extent possible) during the group processes.
- The evaluation is based on empirical data to determine what happened and why.
- Stakeholders may conduct the evaluation with an outside expert serving as a facilitator.

Empowerment Evaluation

Empowerment evaluation is an approach to help ensure program success by providing stakeholders with tools and skills to evaluate their program and ensuring that the evaluation is part of the planning and management of the program (Fetterman, 2008). The major goal of empowerment evaluation is to transfer evaluation activities from an external evaluator to the stakeholders. Empowerment evaluation has four steps: (1) taking stock of the program and determining where it stands, including its strengths and weaknesses; (2) establishing goals for the future with an explicit emphasis on program improvement; (3) developing strategies to help participants determine their own strengths that they can use to accomplish program goals and activities; and (4) helping program participants decide on and gather the evidence needed to document progress toward achieving their goals (Fetterman, 1994).

The major goal of empowerment evaluation is to transfer evaluation activities from an external evaluator to the stakeholders.

Characteristics of empowerment evaluation include the following (Wandersman et al., 2005):

- Values improvement in people, programs, and organizations to help them achieve results.
- Community ownership of the design and conduct of the evaluation and implementation of the findings.
- Inclusion of appropriate participants from all levels of the program, funders, and community.
- Democratic participation and clear and open evaluation plans and methods.
- Commitment to social justice and a fair allocation of resources, opportunities, obligations, and bargaining power.
- Use of community knowledge to understand the local context and to interpret results.
- Use of evidence-based strategies with adaptations to the local environment and culture.
- Building the capacity of program staff and participants to improve their ability to conduct their own evaluations.
- Organizational learning, ensuring that programs are responsive to changes and challenges.
- Accountability to funders' expectations.

Potential Disadvantages of Participatory and Empowerment Evaluation

The potential disadvantages of participatory and empowerment evaluation include (1) the possibility that the evaluation will be viewed as less objective because of stakeholder involvement, (2) difficulties in addressing highly technical aspects, (3) the need for time and resources when involving an array of stakeholders, and (4) domination and misuse by some stakeholders to further their own interests. However, the benefits of fully engaging stakeholders throughout the evaluation outweigh these concerns (Fetterman et al., 1996).

Table 7.1. Types of Evaluation Questions by Evaluation Phase

	TYPES OF EVALUATION QUESTIONS	
Evaluation Stage	Quantitative	Qualitative
Planning	What is the prevalence of the problem?	What are the values of the different stakeholders? What are the expectations and goals of participants?
Implementation	How many individuals are participating? What are the changes in performance? How many/what resources are used during implementation?	How are participants experiencing the change? How does the program change the way individuals relate to or feel about each other? To what extent is the intervention culturally and contextually valid?
Outcome	Is there a change in quality of life? Is there a change in biological and health measures? Is there a difference between those who were involved in the intervention and those who were not?	How has the culture changed? What themes underscore the participant's experience? What metaphors describe the change? What are the participant's personal stories? Were there any unanticipated benefits?

References: Holland et al., 2005; Steckler et al., 1992.

EVALUATION METHODS

An evaluation can use quantitative or qualitative data, and often includes both. Both methods provide important information for evaluation, and both can improve community engagement. These methods are rarely used alone; combined, they generally provide the best overview of the project. This section describes both quantitative and qualitative methods, and Table 7.1 shows examples of quantitative and qualitative questions according to stage of evaluation.

Quantitative Methods

Quantitative data provide information that can be counted to answer such questions as “How many?”, “Who was involved?”, “What were the outcomes?”, and “How much did it cost?” Quantitative data can be collected by surveys or questionnaires, pretests and posttests, observation, or review of existing documents and databases or by gathering clinical data. Surveys may be

self- or interviewer-administered and conducted face-to-face or by telephone, by mail, or online. Analysis of quantitative data involves statistical analysis, from basic descriptive statistics to complex analyses.

Quantitative data measure the depth and breadth of an implementation (e.g., the number of people who participated, the number of people who completed the program). Quantitative data collected before and after an intervention can show its outcomes and impact. The strengths of quantitative data for evaluation purposes include their generalizability (if the sample represents the population), the ease of analysis, and their consistency and precision (if collected reliably). The limitations of using quantitative data for evaluation can include poor response rates from surveys, difficulty obtaining documents, and difficulties in valid measurement. In addition, quantitative data do not provide an understanding of the program's context and may not be robust enough to explain complex issues or interactions (Holland et al., 2005; Garbarino et al., 2009).

Qualitative Methods

Qualitative data answer such questions as “What is the value added?”, “Who was responsible?”, and “When did something happen?” Qualitative data are collected through direct or participant observation, interviews, focus groups, and case studies and from written documents. Analyses of qualitative data include examining, comparing and contrasting, and interpreting patterns. Analysis will likely include the identification of themes, coding, clustering similar data, and reducing data to meaningful and important points, such as in grounded theory-building or other approaches to qualitative analysis (Patton, 2002).

Observations may help explain behaviors as well as social context and meanings because the evaluator sees what is actually happening. Observations can include watching a participant or program, videotaping an intervention, or even recording people who have been asked to “think aloud” while they work (Ericsson et al., 1993).

Interviews may be conducted with individuals alone or with groups of people and are especially useful for exploring complex issues. Interviews may be structured and conducted under controlled conditions, or they may be

conducted with a loose set of questions asked in an open-ended manner. It may be helpful to tape-record interviews, with appropriate permissions, to facilitate the analysis of themes or content. Some interviews have a specific focus, such as a critical incident that an individual recalls and describes in detail. Another type of interview focuses on a person's perceptions and motivations.

Focus groups are run by a facilitator who leads a discussion among a group of people who have been chosen because they have specific characteristics (e.g., were clients of the program being evaluated). Focus group participants

discuss their ideas and insights in response to open-ended questions from the facilitator. The strength of this method is that group discussion can provide ideas and stimulate memories with topics cascading as discussion occurs (Krueger et al., 2000; Morgan, 1997).

The evaluation of community engagement may need both qualitative and quantitative methods because of the diversity of issues addressed

The strengths of qualitative data include providing contextual data to explain complex issues and complementing quantitative data by explaining the “why” and “how” behind the “what.” The limitations of qualitative data for evaluation may include lack of generalizability, the time-consuming and costly nature of data collection, and the difficulty and complexity of data analysis and interpretation (Patton, 2002).

Mixed Methods

The evaluation of community engagement may need both qualitative and quantitative methods because of the diversity of issues addressed (e.g., population, type of project, and goals). The choice of methods should fit the need for the evaluation, its timeline, and available resources (Holland et al., 2005; Steckler et al., 1992).

EVALUATING THE COMMUNITY ENGAGEMENT PROCESS

In addition to ensuring that the community is engaged in the evaluation of a program, it is important to evaluate community engagement and its implementation. The purpose of this type of evaluation is to determine if the process of developing, implementing, and monitoring an intervention or program is indeed participatory in nature.

Questions to ask when evaluating community engagement include the following (CDC, 2009; Green et al., 1995; Israel et al., 1998):

- Are the right community members at the table? This is a question that needs to be reassessed throughout the program or intervention because the “right community members” might change over time.
- Does the process and structure of meetings allow for all voices to be heard and equally valued? For example, where do meetings take place, at what time of day or night, and who leads the meetings? What is the mechanism for decision-making or coming to consensus; how are conflicts handled?
- How are community members involved in developing the program or intervention? Did they help conceptualize the project, establish project goals, and develop or plan the project? How did community members help assure that the program or intervention is culturally sensitive?
- How are community members involved in implementing the program or intervention? Did they assist with the development of study materials or the implementation of project activities or provide space?
- How are community members involved in program evaluation or data analysis? Did they help interpret or synthesize conclusions? Did they help develop or disseminate materials? Are they coauthors on all publication or products?
- What kind of learning has occurred, for both the community and the academics? Have community members learned about evaluation or research methods? Have academics learned about the community health issues? Are there examples of co-learning?

As discussed in Chapter 6, social network analysis (SNA) is a mixed method that can be applied to the evaluation of community partnerships and community engagement (Freeman et al., 2006; Wasserman et al., 1994). This method looks at social relationships or connections and the strength of these connections. The relationships may be among a variety of entities, including people, institutions, and organizations. Methods that assess the linkages between people, activities, and locations are likely to be useful

for understanding a community and its structure. SNA provides a set of tools for quantifying the connections between people based on ratings of similarity, frequency of interaction, or some other metric of interest. The resultant pattern of connections is displayed as a visual graphic of interacting entities depicting the interactions and their strength. Data for SNA may be collected through secondary (existing) sources or primary (new) sources, such as interviews and surveys. SNA is a useful approach to the evaluation of community partnerships and their sustainability as well as the impact of the partnership on community engagement (Wasserman et al., 1994). It is also useful in formative work to understand social networks and in planning and implementing organizational structures to facilitate community engagement initiatives as discussed in Chapter 4.

CHALLENGES

Engaging the community in developing and implementing a program evaluation can improve the quality and sustainability of the program. However, several challenges must be overcome to ensure an appropriate and effective evaluation. First, it is critical to have all stakeholders at the table from the conceptualization of the evaluation through implementation, analysis, and dissemination of the evaluation's results. Second, adequate organizational structures and resources are essential to engage the community in the evaluation, conduct it, and analyze and disseminate the results (see Chapter 4). Third, an evaluation that appropriately engages the community has the many benefits described in this chapter, but it takes more time than an evaluation conducted without community input. Fourth, different work styles and institutional cultures may make it difficult to develop or follow through on shared expectations or the meaningful reporting of results. Fifth, it is important that all persons involved understand that although the evaluation may identify problems and limitations that make them uncomfortable, addressing those issues can contribute to the program's improvement. Finally, an appropriate evaluation design and methodology should be used.

CONCLUSION

Program evaluation can take a variety of forms and serve a variety of purposes, ranging from helping to shape a program to learning lessons from its implementation or outcomes. Engaging stakeholders throughout the evaluation process improves the evaluation and positions these stakeholders to implement necessary changes as identified through the evaluation. Both participatory and empowerment evaluation are built on this insight and prescribe specific approaches to stakeholder involvement that are consistent with the principles of community engagement. Evaluating community-engaged partnerships in and of themselves is an emerging area. In addition, SNA and formal models of engagement may provide useful frameworks for evaluating engagement.

REFERENCES

Anderson RM, Funnell MM, Aikens JE, Krein SL, Fitzgerald JT, Nwankwo R, et al. Evaluating the efficacy of an empowerment-based self-management consultant intervention: results of a two-year randomized controlled trial. *Therapeutic Patient Education* 2009;1(1):3-11.

Burke B. Evaluating for a change: reflections on participatory methodology. *New Directions for Evaluation* 1998;(80):43-56.

Centers for Disease Control and Prevention. Framework for program evaluation in public health. *Morbidity and Mortality Weekly Report* 1999;48(RR11):1-40.

Centers for Disease Control and Prevention. *Prevention Research Centers: Evaluation results: Program context*. Atlanta (GA): Centers for Disease Control and Prevention; 2009. Retrieved from <http://www.cdc.gov/prc/pdf/esfall2009-full.pdf>.

Ericsson KA, Simon HA. *Protocol analysis*. Cambridge (MA): Massachusetts Institute of Technology; 1993.

Fetterman DM. Steps of empowerment evaluation: from California to Cape Town. *Evaluation and Program Planning* 1994;17(3):305-313.

Fetterman DM, Kaftarian SJ, Wandersman A. *Empowerment evaluation: knowledge and tools for self-assessment and accountability*. Thousand Oaks (CA): Sage; 1996.

Fetterman DM. Empowerment evaluation: *An introduction to process use*. 2008. Retrieved from http://www.rri.pdx.edu/fetterman_empowerment_10-2008.pdf.

Freeman J, Audia P. Community ecology and the sociology of organizations. *Sociology* 2006;32:145-169.

Garbarino S, Holland J. *Quantitative and qualitative methods in impact evaluation and measuring results*. Social Development Direct; 2009. Retrieved from <http://www.gsdr.org/docs/open/EIRS4.pdf>.

Green LW, George MA, Daniel M, Frankish CJ, Herbert CP, Bowie WR, et al. *Study of participatory research in health promotion: review and recommendations for the development of participatory research in health promotion in Canada*. Ottawa, Canada: The Royal Society of Canada; 1995.

Holland J, Campbell J (editors). *Methods in development research: combining qualitative and quantitative approaches*. London, United Kingdom: ITDG Publications; 2005.

Israel BA, Shulz AJ, Parker EA, Becker AB. Review of community-based research: Assessing partnership approaches to improve public health. *Annual Review of Public Health* 1998;19:173-202.

Joint Committee on Standards for Educational Evaluation, Sanders J (editors). *The program evaluation standards: how to assess evaluations of educational programs* (2nd ed.). Thousand Oaks (CA): Sage; 1994.

Krueger R, Casey M. *Focus groups: a practical guide for applied research* (3rd ed.). Thousand Oaks (CA): Sage; 2000.

MacDonald G, Starr G, Schooley M, Yee SL, Klimowski K, Turner K. *Introduction to program evaluation for comprehensive tobacco control programs*. Atlanta (GA): Centers for Disease Control and Prevention; 2001.

Morgan D. *Focus groups and qualitative research*. Newbury Park (CA): Sage; 1997.

Mullan PB. Working to reduce maternal mortality in Sub-Saharan Africa: international fellowship program for Ghanaian physicians. *Medical Education at Michigan* 2009;5(2):16. Retrieved from <http://www.med.umich.edu/meded/pdf/Newsletters/12-2009.pdf>.

Parker E, Robins TG, Israel BA, Brakefield-Caldwell W, Edgren K, Wilkins D. Developing and implementing guidelines for dissemination. In: Israel BA, Eng E, Schulz AJ, Parker EA (editors). *Methods in community-based participatory research for health*. San Francisco: Jossey-Bass; 2005.

Patton MQ. *Qualitative evaluation and research methods*. Newbury Park (CA): Sage; 2002.

Patton MQ. *Utilization focused evaluation* (4th ed.). Saint Paul (MN): Sage; 2008.

Rossi P, Lipsey M, Freeman H. *Evaluation: a systemic approach* (7th ed.). Thousand Oaks (CA): Sage; 2004.

Steckler A, McLeroy KR, Goodman RM, Bird ST, McCormick L. Toward integrating qualitative and quantitative methods: an introduction. *Health Education Quarterly* 1992;19(1):1-8.

Wandersman A, Snell-Johns J, Lentz B, Fetterman D, Keener D, Livet M, et al. The principles of empowerment evaluation. *Empowerment Evaluation Principles in Practice* 2005;27-41.

Wasserman S, Faust K. *Social network analysis: methods and applications*. Cambridge, United Kingdom: Cambridge University; 1994.