Process Evaluation in Action: Lessons Learned from Alabama REACH 2010

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Abstract

The CDC-funded Alabama Racial and Ethnic Approaches to Community Health (REACH 2010) project is designed to reduce and eliminate disparities in breast and cervical cancer between African American and white women in six rural and three urban counties in Alabama. In this manuscript, we report on the development, implementation, results, and lessons learned from a process evaluation plan initiated during the Phase I planning period of the Alabama REACH 2010 program. The process evaluation plan for Alabama REACH 2010 focused on four main areas of activity that coincided with program objectives: assessing coalition development, building community capacity, conducting a needs assessment, and developing a community action plan. Process evaluation findings indicated that progress made by Alabama REACH 2010 was due, in part, to evaluative feedback. We conclude that process evaluation can be a powerful tool for monitoring and measuring the administrative aspect of a complex, community-based health intervention.

Key Words: Process Evaluation, Cancer Disparities, Alabama, Community-Based Participatory Research

Introduction

Process evaluation is an essential component of program evaluation. Unlike outcome evaluation that is designed to assess the extent to which goals and objectives are met, process evaluation is a systematic process that uses empirical methodology and qualitative and quantitative data to document
implementation of the program (Windsor et al., 1994). As stated by Steckler and Linnan (p. xvi), “Process evaluation is integral to understanding why interventions achieve the results they do, and it gives important insights into the quality and fidelity of the intervention effort” (Steckler and Linnan, 2002). The fundamental task of process evaluation is to document the activities of projects as they occur, compare the activities with objectives, and communicate information to program management, stakeholders, and funding agencies on accomplishments and areas where corrective action may be needed (Dignan, Tillgren & Michielutte, 1994; Dignan et al., 1991).

Due to the complexity of many health promotion interventions, process evaluation plays a major role in identifying the components and activities that contribute to both the successes and negative outcomes of the project. In addition, dissemination of process evaluation results is important not only for the organizations and key stakeholders involved in the project, but also the wider health promotion community. All interested parties benefit from process evaluation results through a shared understanding of the barriers to, and facilitators of, program implementation and sustainability as well as the feasibility of replicating the intervention (Thorogood & Coombes, 2004). As a measure of accountability, quality and accuracy, many funding agencies, particularly those charged with allocating taxpayer dollars to health intervention research, now advocate for grantees to conduct process evaluation in order to understand if the program as a whole and its individual components are operating and being implemented as originally planned and why the intervention did or did not achieve the intended outcomes (Steckler & Linnan, 2002; Valente, 2002; Issel, 2004).

National initiatives such as the National Cancer Institute’s (NCI) 5-A-Day fruit and vegetable research program (Baranowski & Stables, 2000); the Centers for Disease Control and Prevention’s (CDC) Comprehensive Cancer Control Program (CDC, 2002), Comprehensive Tobacco Control Program (MacDonald, 2001), and Racial and Ethnic Approaches to Community Health (Tucker et al., 2006); and the W.K. Kellogg Foundation grants program (W.K. Kellogg Foundation, 1998) include process evaluation as a required component in the design, implementation, and evaluation of their respective programs.

Similar to large, national initiatives, localized interventions that are developed using the principles of community-based participatory research (CBPR) require extensive process evaluation due to the complexity and intensive nature of these programs. CBPR programs are unique in including active involvement of community residents, organizations, and researchers in all aspects of the program (Israel et al., 2004). Key elements of CBPR include efforts to recognize and build on community strengths and resources, and to involve community participation in the conceptualization, development, and
evaluation of programs. CBPR helps to promote community identification of goals and serves to increase awareness of problems. The complexity of CBPR-based projects requires careful management and process evaluation can help to fill this need by documenting community involvement in the research partnership, assessing program fidelity, and ascertaining how closely implemented program elements coincide with the original program plan. Process evaluation can inform the relationship between the elements of CBPR and the accomplishments, or lack thereof, of the intervention, thus providing the research community with evidence needed to refine and improve both CBPR activities and health intervention research (Steckler & Linnan, 2002).

In this manuscript, we report on the development, implementation, results, and lessons learned from a process evaluation plan initiated during the planning period for the Alabama Racial and Ethnic Approaches to Community Health (REACH 2010) program, a community-based cancer control research initiative funded by the CDC. Process evaluation served as an effective administrative and management tool which contributed to an organized transition from planning a large community-based initiative to implementing multiple-level community-based intervention strategies to impact breast and cervical cancer health disparities.

**Background**

The Alabama REACH 2010 project is designed to reduce and eliminate disparities in breast and cervical cancer between African American and white women in six rural (Choctaw, Dallas, Lowndes, Macon, Marengo, Sumter) and three urban counties (Tuscaloosa, Montgomery, Mobile) in Alabama through the establishment of a community coalition that would design, implement, and evaluate community-based strategies to address cancer disparities in Alabama women (Ma’at et al., 2001; Fouad et al., 2003; Wynn et al., 2006). Phase I of REACH began in 1999 with a one year planning period. The primary goal of Phase I was to build a coalition and actively engage the coalition in every aspect of developing a community action plan (CAP) which would guide the work of the coalition in Phase II (i.e., implementation of demonstration projects and evaluation). To reach the Phase 1 goal, four objectives were formulated: 1) establish a coalition that included members from the community, academia, and state institutions; 2) build capacity for community participation in coalition activities; 3) conduct a community needs assessment to address breast and cervical cancer screening disparities; and 4) develop a CAP with a clear focus on the ultimate goal of reducing and eliminating disparities in breast and cervical cancer between African American and white women (Fouad et al., 2003; Wynn et al., 2006).
Methods and Procedures

To provide structure and assistance in the conceptualization and overall methodological design and evaluation of the Alabama REACH 2010 project, a logic model was developed to visually illustrate and document the sequence of related events that would compose Phase I and Phase II of the initiative (Figure 1). The logic model, which was originally guided by the Multilevel Approach to Community Health Model (Simmons-Morton et al., 1988) during the development of the initial REACH 2010 grant proposal, has been described previously and corresponds to the national REACH 2010 logic model developed by the CDC (Tucker et al., 2006; Fouad et al., 2003).

Figure 1. Alabama REACH 2010 Logic Model (Phase I and Phase II)

Using the logic model, a template was developed to provide the basic structure and guidance for planning, implementing, and documenting process evaluation procedures. The process evaluation plan for Phase I of the Alabama REACH 2010 focused on assessment of progress in four main areas of activity: coalition development, community capacity building, completion of community needs assessments, and community action plan development. As Table 1 illustrates, the template identified program implementation activi-
ties, associated evaluation questions / criteria and sources of evidence, and most importantly, established the timeframe for delivering results of process evaluation back to the Alabama REACH 2010 investigators.

Table 1. Process Evaluation Template

<table>
<thead>
<tr>
<th>Coalition Building</th>
<th>Evaluation Questions/Criteria</th>
<th>Sources of Evidence</th>
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<tbody>
<tr>
<td>Within the first three months, coalition members will participate in decision making activities.</td>
<td>Coalition members collaborate to: 1 - Establish a mission statement 2 - Identify short and long term goals 3 - Develop rules of operation 4 - Define the role(s) of each member/organization?</td>
<td>- A written mission statement with goals and objectives - Written rules of operation, and participant roles - The election of officers - Development of a voting system - How the coalition will keep in contact - Plans and responsibility assignments with dates of completion for activities in Phase II</td>
</tr>
<tr>
<td>Coalition members: 1 - Elect a chair and co-chair 2 - Devise a voting system 3 - Identify a preferred method of communication among its membership 4 - Develop a detailed plan and schedule of activities for Phase II</td>
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Community Capacity Building

| Within the second three months, the coalition will recruit individuals to participate as work group members. | Coalition members identify and recommend individuals from respective counties/communities to serve as members of working groups | - Signed informed consent from working group members (showing they have agreed to participate) |

Needs Assessment

| During the third quarter, the needs assessment will be conducted. | Focus group protocols Transcriptions of focus groups | - Copy of protocols for focus groups - Transcripts of focus groups |

Community Action Plan (CAP)

| During the fourth quarter, a Community Action Plan will be developed. | Academic investigators collaborate with members of the coalition to: - Review and evaluate results of the needs assessment - Discuss intervention strategies - Develop a Community Action Plan | - Summaries of analyses of focus group transcriptions - Copy of minutes of meetings to document feedback about the needs assessment and discussions of possible intervention strategies - Copy of CAP |
Process Evaluation Data Collection

Both qualitative and quantitative process evaluation data were collected from program documents such as event logs, minutes of meetings, memos of understanding, focus group protocols and transcripts, signed informed consent documents, workshop agendas, attendance rosters, and the culminating Community Action Plan document.

Coalition Building. Four key indicators were used to measure coalition building. These included: evidence of the formation of the coalition; development of a coalition mission statement with corresponding goals and objectives; policies and procedures addressing governance; and the establishment of a detailed plan and schedule of activities that would lead to the development of a Community Action Plan.

Community Capacity Building. Interrelated to coalition building, increasing community capacity involved the identification and recommendation of individuals from the community to serve as members of coalition work groups. This process was documented by signed informed consent from work group members indicating that they had agreed to participate in this activity. In addition, the participants were asked to 1) complete an assessment profiling why they had chosen to participate in the work groups and 2) participate in two training sessions which covered REACH 2010 programmatic issues, research principles, and strategies for conducting community-based outreach (Fouad et al., 2003).

Community Needs Assessment. The Alabama REACH 2010 investigators used focus groups and breast screening intervention health belief questionnaires as the primary means of collecting assessment information. Two focus groups with community members were to be conducted in each of the nine target counties. In addition, focus group participants would be asked to complete a health belief questionnaire related to their breast cancer, breast self-examinations and mammography beliefs. Process evaluation data was based on monitoring the focus groups and included review of the focus group protocols, recruitment flyers, documentation of signed informed consents from focus group participants, review of transcripts of the focus group sessions, and completion of the health belief questionnaires.

Community Action Plan (CAP). Three main indicators were used to measure development of the CAP, including documentation of coalition activities related to creating the CAP (e.g., focus group transcripts and questionnaire results), documentation demonstrating active engagement of coalition members in the conceptualization of the Community Action Plan (e.g., meeting minutes), and a copy of the actual plan.
Results and Findings

Coalition Building. Information gleaned from process evaluation revealed the following sequence of events in Alabama REACH 2010 coalition development. Members of an existing volunteer organization, the Alabama Partnership for Cancer Prevention and Control Among the Underserved, who had a long-standing history of working together on cancer related activities, were invited to serve as collaborators on the Alabama REACH 2010 project. Members of the partnership provided letters of support when the planning grant proposal was submitted to the CDC. Following notification of the grant award, these members were invited to attend an initial meeting where they discussed the purpose of the REACH 2010 project (to determine factors that may contribute to the disparity in breast and cervical cancer incidence and mortality between African American and Caucasian women) and how they could work together to reach this goal. This initial meeting resulted in the creation of the Alabama Breast and Cervical Cancer Control Program (ABCCCP) Coalition REACH 2010 Steering Committee.

The coalition was composed of a multi-disciplinary, ethnically diverse membership. Initially, the coalition included two academic institutions (University of Alabama at Birmingham and the University of Alabama), state agencies (Tuskegee University National Center for Bioethics, the Alabama Cooperative Extension System, and the Alabama Department of Public Health), and a number of faith-based and community-based organizations (the National Black Church Family Council, SISTAs Cancer Survive Organization, Houses of Hope, the Tuskegee Area Health Education Center, B&D Cancer Care Center and the Alabama Family Health Center). Formal coalition inclusion criteria were established including: 1) receipt of 501c3 status; 2) representation of a state agency, community-based organization, academic institution, or health department; 3) experience working in the area of health disparities; and 4) interest in cancer prevention and control (Wynn et al., 2006). At the end of the planning year, additional members such as the Alabama Quality Assurance Foundation (AQAF) and the American Cancer Society (ACS) were recruited to join the coalition.

The coalition established routine monthly face-to-face meetings and conference calls. These sessions resulted in the development of the coalition’s mission statement: to bring together public, private, cancer, health, and community organizations to enhance the participation of African Americans in breast and cervical cancer control activities. Minutes of the steering committee meetings confirm that the coalition also identified a number of short-term and long-term goals including recruitment of new coalition members at the local level, development of training activities, conducting community needs assessments, and developing the CAP. The steering committee also
documented the development of specific leadership roles for the coalition including a coalition chair and co-chair. Moreover, the steering committee discussed additional roles for coalition members regarding promotion of REACH 2010 among their constituencies and recruitment of individuals at the local level to get involved in the Alabama REACH 2010 needs assessment and creation of the CAP. Coalition roles were formalized in memoranda of understanding (Wynn et al., 2006). Documents indicate that the coalition developed an organizational structure, established a voting system, policies and procedures for electing officers, and methods for on-going communication among the membership. A project coordinator was hired by the University of Alabama at Birmingham to oversee the day-to-day activities and maintain contact within the coalition. Coalition members also agreed upon a logo for the project.

**Community Capacity Building.** Process evaluation revealed that coalition members were asked to organize REACH 2010 community action groups, expand the critical mass of members, and facilitate action. It was recommended that these work groups be composed of members from the community, local health care delivery systems, and churches in each of the six rural counties and three metropolitan areas. Document analysis indicated that coalition activities, public service announcements, brochures, informational flyers and newspaper articles about the Alabama REACH 2010 project were developed and distributed within the targeted communities. Documentation further indicated that meetings were held at the local level in each of the target areas to inform community organizations, members of the health care delivery system and church leaders about the purpose of the project, solicit their assistance with the recruitment of working group members and discuss conducting the focus groups and county assessments. More than 150 people attended informational sessions about the REACH 2010 program. In addition, members identified to serve on the community action groups were asked to recruit other individuals from their constituencies to become community health advisors (CHAs). Initial REACH 2010 program records confirmed that 40 women from the community signed informed consent documents and indicated that they would volunteer to serve as members of a working group to develop and expand the community outreach component of the program. These CHAs received at least two days of training. By the end of the planning period, 84 women were consented and trained as CHAs.

**Community Needs Assessment.** A total of nine focus group sessions were held representing one from each of the nine target counties. Originally, there were plans to conduct two focus groups per county (n=18), however, the original 12-month planning period allocated by the CDC was reduced to nine months, allowing for only nine focus groups. Similarly, due to a lack of time,
only seven of the nine focus groups completed the breast screening intervention health belief questionnaire (n=97 women).

A total of 115 African American women participated in the sessions, ranging from three women in Lowndes County to 21 in Tuscaloosa County. By conducting the focus groups, the project team wanted to accomplish the following: 1) provide a public forum to discuss breast and cervical cancer issues; 2) identify and document perceived barriers to early detection and treatment; and 3) assess the women's knowledge of community assets and needs. Based on the researchers’ observation, these women took this activity on as a challenge – something they were proud to participate in and an opportunity that provided them a chance to serve as a voice for the women in their community. Qualitative analysis of the nine focus groups revealed three levels of barriers to early detection and treatment of breast and cervical cancer: 1) individual (e.g., denial, lack of awareness/knowledge), 2) community systems (e.g., lack of transportation, lack of family support) and 3) healthcare provider (e.g., poor interpersonal skills, overbooking of clinic appointments) (Fouad et al., 2003). Similarly, results from the health beliefs questionnaire indicated that almost half of all women were occasionally, almost never, or never reminded to get a mammogram.

The focus group and questionnaire findings set the course for developing the CAP. The results were presented at a statewide professional meeting. The meeting included not only the individual coalition members, but CHAs, focus group participants, a large number of the project management team as well as other interested individuals unaffiliated with the project. It was expected that the audience members would significantly contribute to the development of a plan to address the three barriers to early detection and treatment of breast and cervical cancer mentioned above.

**Development of the Community Action Plan.** Information for process evaluation relative to development of the Community Action Plan came from the focus groups and questionnaires, and discussions with the community health advisors, coalition members and members of the Alabama Partnership for Cancer Prevention and Control among the Underserved. Transcripts of the focus group sessions and questionnaire results were analyzed by Alabama REACH investigators to identify individual, community system and health care provider level barriers to early detection and treatment of breast and cervical cancer (Fouad et al., 2003). This information was presented to the Alabama REACH 2010 coalition and the Alabama Partnership for Cancer Prevention and Control Among the Underserved for discussion and feedback. The discussion resulted in a new statement of program vision to eliminate the breast and cervical cancer morbidity and mortality gap between White and African American women in Alabama, while its mission was to bring together diverse,
passionate, committed individuals to empower the community to eliminate the breast and cervical cancer morbidity and mortality gap between White and African American women in Alabama.

In addition, documentation reveals that coalition members developed a draft of an agreed-upon intervention strategy for the CAP and the academic representatives shared scientific evidence to support the chosen intervention. Records also indicate that there was a one-day workshop for community leaders and other county representatives and agencies to discuss the action plan and provide feedback. Ultimately, the coalition members were responsible for “signing off” on the final CAP. A description of the CAP has been reported previously (Fouad et al., 2003), but briefly, the CAP was multi-level in nature and included a series of measurable objectives which addressed three levels of influence: individual (i.e., rural and urban African American women), community systems (e.g., health department clinics, churches, work sites), and change agents (e.g., healthcare providers, ministers, community leaders, legislators). The coalition members also advocated for the use of CHAs, along with representatives of the health care system and community churches, in the implementation of strategies to reduce and eliminate breast and cervical cancer disparities among Alabama women.

Discussion

Process evaluation was an integral component of Phase I of the Alabama REACH 2010 project since its inception. As planned, a functional community coalition was developed, community capacity was increased, community needs assessments were completed, and a multi-level Community Action Plan was created. Process evaluation was integral to the management and administration of the project because it provided a structured roadmap in which the project team could chart their course in the development and implementation of the REACH 2010 project. The roadmap provided guidance on the needed data elements which made documentation of activities and processes more manageable for the investigative team. In addition, the roadmap was flexible enough to adjust for reductions in planning time (e.g., 12-months reduced to nine months) yet allowed the project to maintain its scientific integrity. Process evaluation during Phase I also served as a model for Phase II as the project team was more aware of the realities, challenges, and community assets that accompany a project of this complexity.

Based on our experiences with the Alabama REACH 2010 project, along with supportive advice from the literature, we offer the following five “lessons learned” in conducting process evaluation:
Lesson 1: Documentation and feedback are two of the most important contributions of process evaluation. As Butterfoss (p. 336) concludes “documentation can help assess progress, recognize positive achievements, and refine programs. When faced with project timelines of three to five years, process data is helpful in maintaining community interest before longer-term outcome data is available” (Butterfoss, 2006). Documentation was utilized in every aspect of the planning phase of the Alabama REACH 2010 initiative. Examples included the verification that that a variety of media, promotional, and personal contacts were used to inform individuals in the targeted communities about the Alabama REACH 2010 program and how they could get involved; coalition members developed community advertisements to invite women to participate in the local focus groups; steering committee meetings minutes captured the goals, activities, and organizational structure developed by the coalition leadership; informed consent documents illustrated community participation in work groups and CHA trainings; and the final copy of the CAP served as the culminating documentation for the entire planning phase. Documentation was initially collected by the coalition staff and then mailed to UAB program staff. The amount and intensity of documentation demonstrates the level of data monitoring and human effort needed for replicating a project of this stature.

In addition, having the coalition in place was viewed as the necessary first step to conducting the needs assessments and developing the CAP. By monitoring coalition development and providing periodic feedback to the investigators and the coalition members, process evaluation played a key role in the evolution of the coalition and its work groups, the success of the community needs assessment, and ultimately the creation of the CAP which was focused on community-driven strategies to reduce and eliminate cancer health disparities. In particular, sharing the findings of the needs assessment with members of the coalition, community health advisors and other community members provided the opportunity to discuss barriers to early detection and treatment of breast and cervical cancer that were relevant to their constituents. These sessions also served to directly engage these individuals in brainstorming ideas and strategies that were used to inform the community action plan. Multiple feedback mechanisms were utilized throughout the course of the project, including email, face-to-face meetings, faxes, and conference calls.

Lesson 2: Too often, program planners do not have a logic model or process evaluation plan in place from the very beginning. In the case of Alabama REACH 2010, the project coordinator and program staff utilized the logic model and process evaluation template developed during the proposal writing to guide the collection of specific information used to document program
implementation. The logic model served as a management tool, charting the course and intended outcomes of the overall project. As advocated by the W.K. Kellogg Foundation (p. 1), “using evaluation and the logic model results in effective programming and offers greater learning opportunities, better documentation of outcomes, and shared knowledge about what works and why” (W.K. Kellogg Foundation, 2004). Related to all REACH 2010 projects, the national funding agency also developed a logic model to help the grantees identify, document, and evaluate their coalition activities in an effort to reduce and eliminate community health disparities (Tucker et al., 2006).

**Lesson 3:** Developing and implementing a process evaluation plan requires time, commitment from the entire CBPR team, and sufficient resources and manpower. Securing stakeholders’ commitment as well as the financial and physical resources to conduct process evaluation should be conducted prior to program initiation. In order for the project to be successful, it is integral to engage the community in evaluation. Evaluation was integrated into the culture of the Alabama REACH 2010 project from the beginning. During the development of the grant proposal, coalition members were oriented to the role that evaluation played in the project and began to understand that evaluation informed the CDC’s efforts to replicate these community-based models in other communities and target audiences to impact local health disparities. The importance of process evaluation was emphasized repeatedly throughout the course of the project.

**Lesson 4:** Process evaluation is integral to understanding the success, or lack thereof, of CBPR interventions and the impact of community coalitions in health disparities research. Butterfoss and Francisco (p. 115) contend that “If a coalition is to succeed, evaluation must be performed that demonstrates a sustainable infrastructure and purpose, programs that accomplish their goals, and measurable community impacts” (Butterfoss & Francisco, 2004). Working with community coalitions can be both challenging and rewarding. The process evaluation plan and subsequent findings should continuously take into consideration the characteristics and organization of the coalition members, the external social and political environment, and the characteristics of the program itself (e.g., length of the program, size, local or statewide, complexity) which may significantly influence the implementation of the intervention (Saunders, Evans, & Joshi, 2005).

**Lesson 5:** Conducting process evaluation is not a good use of time or resources if program leaders are not willing to learn from it to improve or modify their program. If the Alabama REACH 2010 investigators had not developed and implemented a process evaluation plan, there would have been no feedback mechanisms or signals in place that would have alerted the team to modify, stay the course, or develop new strategies to improve or
continue the initiative. In addition, the process evaluation allowed the project team to make needed adjustments – which would not jeopardize the scientific integrity of the project – when the planning phase was reduced by three months. Finally, process evaluation helped the investigative team move from planning to implementation, and provided valuable insights into the realities, challenges, and community assets needed during Phase II of the project.

Conclusion

In 1999, when the Alabama REACH 2010 began Phase I of the initiative, it was vital for the research team, the coalition members, and the funding agency (CDC) to document and assess the program’s evolution. Process evaluation was utilized as a mechanism for continuous quality improvement and a notification process for needed modifications to this novel and complex community-based initiative. In the case of Alabama REACH 2010, process evaluation served as a management and administrative public health tool which focused on evaluating which components of the planning period were successful and why, and helped the research team transition into implementation.

Whether a program is new or established, successful or needs improvement, process evaluation measures and subsequent findings inform not only the immediate stakeholders, but also provide evidence for or against the replication and dissemination of the program across other community settings, health issues, and target audiences. Process evaluation, along with impact and outcome evaluation, invaluably contributes to the growing body of knowledge that suggests that community participation in health promotion activities can have a significant impact on the reduction and elimination of cancer health disparities.

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