Community Action Against Asthma

Examining the Partnership Process of a Community-based Participatory Research Project

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**BACKGROUND:** Community Action Against Asthma (CAA) is a community-based participatory research (CBPR) project that assesses the effects of outdoor and indoor air quality on exacerbation of asthma in children, and tests household- and neighborhood-level interventions to reduce exposure to environmental asthma triggers. Representatives of community-based organizations, academia, an integrated health system, and the local health department work in partnership on CAAA’s Steering Committee (SC) to design and implement the project.

**OBJECTIVE:** To conduct a process evaluation of the CAAA community-academic partnership.

**DESIGN:** In-depth interviews containing open-ended questions were conducted with SC members. Analysis included established methods for qualitative data, including focused coding and constant comparison methods.

**SETTING:** Community setting in Detroit, Michigan.

**PARTICIPANTS:** Twenty-three members of the CAAA SC.

**MEASUREMENTS:** Common themes identified by SC members relating to the partnership’s ability to achieve project goals and the successes and challenges facing the partnership itself.

**MAIN RESULTS:** Identified partnership accomplishments included: successful implementation of a complex project, identification of children with previously undiagnosed asthma, and diverse participation and community influence in SC decisions. Challenges included ensuring all partners’ influence in decision-making, the need to adjust to “a different way of doing things” in CBPR, constraints and costs of doing CBPR felt by all partners, ongoing need for communication and maintaining trust, and balancing the needs of science and the community through intervention.

**CONCLUSIONS:** CBPR can enhance and facilitate basic research, but care must be given to trust issues, governance issues, organizational culture, and costs of participation for all organizations involved.

**KEY WORDS:** community-based participatory research; asthma; partnership; process evaluation.

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In recent years, there have been growing calls for a more community-based participatory approach to health research as researchers have recognized the value of including the intended beneficiaries in the planning, implementation, and evaluation of research. Although this has resulted in an increasing application of community-based participatory research (CBPR), much of the literature on CBPR addresses topics such as the conceptual underpinnings, design issues, methodology, and results of this approach to research and action. There is little in the published literature that evaluates the process of conducting research using a partnership approach. Process evaluation questions are rarely asked that examine partnership issues such as: How do the researchers and community participants work together, make decisions, and negotiate? What are the benefits and challenges of doing this type of research for all parties involved? What lessons can be learned through reflection on these partnership processes to guide the development of successful university-community collaborations? A better understanding of these questions is needed to ensure the effectiveness of CBPR as a key strategy for conducting basic and intervention research.

In this article, we present results of a process evaluation of the Community Action Against Asthma (CAA) project that used qualitative methods. CAA is an epidemiological and intervention research study of environmental influences on asthma in urban children that is being conducted within a community-based participatory research partnership. The purpose of this article is to describe and analyze the CAAA partnership process with a focus on how it developed and evolved. We examine the evaluation results, identifying the challenges the partnership has experienced, the successes it has achieved, and the lessons that have been learned about CBPR.

**Community Action Against Asthma: Background**

The Community Action Against Asthma project grew out of an already existing community-academic partnership, the Detroit Community-Academic Urban Research Center (URC). In 1998, as a result of identifying childhood diseases related to the environment as a priority area for future action, the URC Board submitted a grant...
proposal with a focus on environmental triggers of childhood asthma and received funding to establish the Michigan Center for the Environment and Children’s Health (MCECH). CAAA is a project of MCECH and focuses its research activities in neighborhoods in Eastside and southwest Detroit that were selected initially by the URC. The east side of Detroit is predominantly African American, and southwest Detroit is the area of the city in which the largest percentage of Latinos reside. To identify eligible participants for CAAA, we mailed self-administered screening questionnaires to parents of all children aged 6 to 10 enrolled in the Detroit public elementary schools in the east side and southwest neighborhoods involved. Three hundred twenty-eight families agreed to participate in the project after one of their children was identified through the questionnaire as having symptoms of moderate to severe or mild persistent asthma (TCL, unpublished data, 2003). CAAA is in its last year of a 5-year funding cycle.

The epidemiological component of CAAA examined the combined effects of indoor and outdoor air quality on childhood asthma exacerbation. Data collection included continuous measurements of ambient PM2.5 (particulate matter less than 2.5 μm in diameter), ozone, and meteorological parameters gathered on the rooftops of 2 community school sites. In addition, for a 2-week intensive period during each season, the following data were collected: 1) PM10 (particulate matter less than 10 μm in diameter) and PM2.5 measurements made indoors at a subset of 15 of the participating households and at the 2 community schools; 2) continuous daily personal monitoring of the PM10 exposures of the children in the subset of 15 households; 3) health outcome data collected for all the children enrolled, including a daily diary of symptoms and medications used, and morning and evening lung function assessment for a subsample of the children.

The intervention research component included both household- and neighborhood-level interventions to reduce exposure to the triggers of childhood asthma. The household intervention consisted of a minimum of 12 visits over a 2-year period by a “Community Environmental Specialist” (CES), a community outreach worker. During these home visits, the CES provided education and materials that relate to the reduction of exposure to asthma triggers (e.g., integrated pest management, vacuum cleaners, mattress covers), and referrals for a range of issues, such as medical care and tenant rights. In the neighborhood intervention, community organizers worked with community residents to reduce neighborhood-level physical and psychosocial environmental stressors associated with childhood asthma.

For the intervention, we used a staggered randomized research design in which one half of the participants received the household intervention immediately after the collection of baseline data and the other half received the intervention the following year. Annually, we conducted a household environmental assessment and administered questionnaires with the caregivers and children to assess health outcomes (e.g., asthma symptoms, quality of life) and psychosocial factors (e.g., social support, stressors) to evaluate the impact of the household intervention on asthma outcomes. Outcome evaluation of the intervention is currently underway.

**CBPR Partnership: Structure and Components of CAAA**

The CAAA Steering Committee (SC), comprised of representatives from community-based organizations (CBOs) and agencies, the local health department, an academic institution, and an integrated health care system, guides the work of CAAA. CAAA Steering Committee representation is based on organizational affiliation, and each organization identifies, at minimum, a primary and alternate representative for the SC. CAAA has 1 SC member (WB-C) who does not have an organizational affiliation. This member expressed interest in and was asked to remain on the SC as a volunteer after retiring from her organization. The University of Michigan School of Public Health normally has more than 2 organizational representatives attending SC meetings, because their presence is required to answer and explain different aspects of the research activities.

The 8 original partner organizations involved in the URC Board agreed to be on the CAAA Steering Committee. Based on the need for additional expertise in epidemiological asthma research and environmental and housing issues, these original organizations identified 5 new partner organizations for the SC (see Table 1 for a description of SC partner organizations).

The SC meets monthly and is co-facilitated by members of the university at the initial request of the SC. At the beginning of the project, the SC established norms through brainstorming and discussing characteristics of effective groups. Examples of some of the norms adopted include starting and ending meetings on time, being respectful of others’ opinions and experiences, having equal participation in meetings from all members, and using a consensus model of decision making.

The SC adopted the URC’s set of community-based participatory research principles to guide the research of CAAA (see Table 2). In accordance with these principles, and as described in Table 3, the SC has been actively involved in all major phases of the research and intervention.

**METHODS**

Evaluation researchers suggest the value of a process evaluation to determine the extent, fidelity, and quality of intervention implementation. In contrast to outcome evaluation, which examines an intervention’s influence on health outcomes, process evaluation focuses on examining how an outcome is achieved, e.g., the internal dynamics of program operations. We report here the results of one component of the CAAA process evaluation: qualitative interviews conducted with SC members to evaluate how well CAAA is implementing a CBPR approach. Qualitative