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## Evaluation of Community–Academic Partnership Functioning: Center for the Elimination of Hepatitis B Health Disparities

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### Abstract

**Background**—Process evaluation of community–academic partnership function and fidelity to principles of community-based participatory research (CBPR) is essential to achievement of intermediate and long term partnership goals.

**Objectives**—This article describes the evaluation of B Free CEED, a community–academic partnership created to address hepatitis health disparities in Asian American and Pacific Islander (API) communities.

**Methods**—A mixed methods approach with an online survey and qualitative key informant interviews was conducted with all partnership members at baseline and follow-up, 18 months later.

**Results**—Survey findings showed stability over time, with some consistent differences in community and academic perspectives. Academic members were somewhat more satisfied with the partnership functioning. Key informant interviews provided contextual data key to further defining partnership functioning.

**Conclusions**—Conducting ongoing partnership evaluations is necessary to reassess and align processes and protocols to enhance partnership functioning and strengthen group cohesion.

### Keywords

Community-based participatory research; community networks; hepatitis B; organizational decision making; program efficiency; program evaluation

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Community–academic partnerships to improve health have increased appreciably over the last decade as a strategy to address health inequalities.<sup>1</sup> Guided by principles of participatory research, these partnerships or coalitions seek to bridge the social divide between academic/government researchers and communities by providing a forum for mutual learning and education.<sup>2</sup> Coalitions and community partnerships create synergy through pooling expertise, resources, and perspectives of diverse stakeholders to positively affect community health.<sup>3</sup> Frequently used in public health, CBPR is a participatory research approach characterized by three essential elements: Participation, education, and social action.<sup>1</sup>

Process evaluation of the functioning of community–academic partnerships and their fidelity to the principles of participatory research is essential to understanding the relationship of these partnerships to achieving improved health outcomes.<sup>1,4</sup> Comprehensive process evaluations need to examine factors related to the effectiveness of groups such as shared

leadership, open communication, trust, and the ability to resolve conflicts,<sup>5–9</sup> as well as adherence to CBPR principles. There is currently no consensus on evaluation approaches to partnership functioning.<sup>10</sup> The literature to date has focused largely on case studies or lessons learned of individual coalitions.<sup>11</sup> In addition to the use of qualitative methods, there is a need for valid and reliable measures of partnership functioning.

This article describes the mixed-methods evaluation of a community–academic partnership created to address hepatitis B health disparities in Asian-American communities in New York City. The paper begins with a brief summary of the partnership evaluation literature, followed by a description of the community–academic partnership and its partnership evaluation. Findings on core domains of community–academic partnership function are reported and implications and strategies for increasing partnership function to improve program performance and health outcomes are discussed.

## BACKGROUND

Butterfoss<sup>1</sup> conducted a review of process evaluations for community participation in large-scale community interventions. These studies furthered understanding of how community members participate in community initiatives with a primary focus on improving program performance. However, there were methodological gaps in these evaluations for understanding the nature of the group dynamics or how the partnership functioned. Recent evaluations of partnership functioning have employed a variety of qualitative methods such as open-ended, semistructured interviews, focus groups, ethnographic observations, and a review of documents providing contextual information about the group dynamics of the partnership, sometimes in combination with quantitative surveys.<sup>12–14</sup>

Relevant to our experience, Schulz and colleagues<sup>7</sup> conducted several mixed-methods evaluations of CBPR partnership functioning based on a conceptual framework for understanding and assessing the effectiveness of CBPR partnership process. The evaluation examined adherence to principles of CBPR, characteristics of effective groups or organizations, and the group members' perceptions of group effectiveness.<sup>7</sup> Data were collected using a quantitative survey, qualitative key informant interviews, and ethnographic observations. Community members were active participants in the evaluation design and, consistent with participatory evaluation practice, results were used formatively to inform partnership planning. Several important factors were identified that impacted the effectiveness of community–academic partnerships: Large organizations tended to have more consistent participants, whereas members from smaller groups tended to have greater turnover, less ownership, and less empowerment.

The partnership evaluation presented here drew on the work of Schulz and Israel and colleagues<sup>8</sup> to evaluate the functioning of a community–academic partnership created to decrease hepatitis B health disparities among Asian Americans in New York City. To our knowledge, this is the first study to examine community–academic partnership functioning in the Asian-American community.

The B Free CEED: National Center of Excellence in the Elimination of Hepatitis B Disparities is one of 18 Centers of Excellence in the Elimination of Disparities funded in 2007 under the Racial and Ethnic Approaches to Community Health Across the U.S. (REACH U.S.) program of the Centers for Disease Control and Prevention. B Free CEED is a national resource and expert center committed to eliminating hepatitis B disparities in API communities and develops, evaluates, and disseminates evidence-based practices through three core activities: (1) Raising awareness about hepatitis B among all stakeholders, (2) identifying evidence-based best practices for prevention and treatment of hepatitis B, and (3) ensuring sustainability and reach of evidence-based activities and practices through capacity

building, dissemination of evidence-based strategies and practices, and advocacy for policy- and systems-level efforts in support of best practices to eliminate hepatitis B-related disparities affecting APIs.

B Free CEED is guided by a core local partnership consisting of the facilitating agency, the New York University (NYU) Center for the Study of Asian American Health, and the NYU Department of Pediatrics Infectious Disease, and key community partners, Charles B. Wang Community Health Center (CBWCHC), and Korean Community Services of Metropolitan New York, Inc. (KCS). Each partner receives a significant subcontract to support their key contribution and participation in the partnership. This core partnership is informed by a larger coalition of local and national community, health, governmental, social service, and advocacy organization members.

## METHODS

### Study Design

The B Free CEED partnership evaluation utilized a mixed-methods approach aimed at improving the functioning of the partnership and to better understand the relationship to intermediate and long-term health outcomes. The evaluation drew on the conceptual framework of Schulz and Israel that was informed by principles of CBPR and the group dynamic literature.<sup>5-9</sup> The framework posits that environmental characteristics (previous collaborations, group cultural diversity) together with structural characteristics (group membership, organizational complexity) interact with group dynamic characteristics (leadership, communication, decision making, conflict resolution, resources) to affect short- and long-term outcomes. A logic model guides the overall evaluation work of the B Free CEED. Three short- and long-term outcomes are related to partnership function: The coalition's ability to achieve its goals, clear definition of member roles and responsibilities, and increase in trust and confidence among the partners.

A mixed-methods approach incorporates the strengths of both qualitative and quantitative methods. The quantitative survey allows for the comparison of the partnership over time. Qualitative methods are well-suited for understanding the contextual issues in partnership functioning and the nature of interactions among participants from their perspective, and provides critical information on the role of the partnership processes to the achievement of its goals. A review of partnership documents, policies, procedures, and written interagency agreements along with ethnographic observations of partnership meetings provide additional contextual data.

Consistent with CBPR principles, the methods chosen for this evaluation were proposed by the partnership evaluation subcommittee. Each year, results have been shared with the partnership and informed policy and procedural changes. The evaluation study design and procedures were submitted to the NYU Institutional Review Board and deemed exempt.

### Recruitment and Participants

The sample consisted of all partnership members for both baseline and follow-up evaluations. Participants in the evaluation represented a broad spectrum of roles in the B Free CEED program including community agency executive, medical and evaluation directors, as well as program staff engaged in carrying out data collection, program planning, and implementation. Academic partner participants included investigators, program directors, and research, program, and administrative staff. Owing to staff turnover, members have changed annually. However, the total number of individuals at each organization and the number of community and academic partners remained constant at baseline and follow-up. All partnership members were informed of the evaluation through

discussions at the steering committee and participation in the evaluation subcommittee. Telephone interviews were scheduled and conducted by the independent evaluator. At the beginning of the interview, the goals of the study and procedures to protect confidentiality were described and permission to audiotape the interview was obtained. Participants were informed that results would be presented in summary form with no individual identifiers.

### Data Collection and Measures

**Quantitative Survey**—The quantitative survey was adapted from Israel.<sup>8</sup> The original survey consisted of 51 items that assessed 6 domains. To reduce participant burden, the evaluation subcommittee identified 29 items from the original survey and created a confidential on-line instrument to assess general satisfaction/effectiveness (9 items), impact (6 items), trust (3 items), partnership decision making (2 items), adherence to CBPR principles (3 items), and organization and structure of meetings (7 items). All responses were on a 5-point Likert scale with choices including (1) strongly agree, (2) agree, (3) neutral, (4) disagree, and (5) strongly disagree. The follow-up survey retained the original 29 items and added 5 additional questions to assess changes in partners' willingness to speak and express opinions at partnership meetings, trust between partnership members, and capacity of partners to work well together.

**Qualitative Interviews**—Baseline interviews were approximately 1 to 1.5 hours long, conducted by telephone, and audiotaped with the permission of participants. An interview guide consisting of open-ended questions on core partnership content areas was created (Table 1). After receiving feedback from the partnership, the evaluation subcommittee shortened the follow-up qualitative interview and focused the interview on changes experienced in the past year on the domains assessed at baseline. In addition, the interviews explored several topics of interest to the evaluation subcommittee including the impact of turnover on partnership functioning, and members' ability to balance commitments to B Free CEED and agency responsibilities. Interviews were 30 minutes to 45 minutes in length.

### Data Analysis

**Quantitative Data**—Online survey data were downloaded into SPSS (SPSS, Inc., Chicago, IL). Because of the small sample size and concerns with confidentiality, only descriptive data analysis was conducted. Means comparisons were assessed between community and academic members and between baseline and follow-up evaluations.

**Qualitative Data**—All baseline interviews were transcribed verbatim. After an initial review of transcripts, using an iterative process, the evaluator and a graduate research assistant developed a preliminary coding scheme that included primary themes related to the evaluation foci and themes that emerged from the data. Content analysis using a constant comparison approach was used to examine variations in the data to further refine the coding scheme.<sup>15,16</sup> Coded data was entered into Atlas.ti qualitative software for data analysis. Inter-rater reliability was high (<0.85). For the follow-up interviews, the evaluator and a graduate research assistant independently reviewed and took detailed notes from the interviews and audiotapes. A content analysis of the data was performed to identify themes related to core domains and new themes related to the expanded scope of the follow-up study. Coding differences were resolved through discussion.

## RESULTS

### Quantitative Survey Findings

The baseline survey was completed by 13 of 14 individuals (93%), 6 community and 7 academic partnership members and the follow-up survey by 13 of 14 individuals (93%), 7 community and 6 academic partnership members. Data are presented comparing baseline and follow-up surveys to assess stability and change over time in six domains (general satisfaction, impact, trust, decision making, adherence to CBPR, and organization and structure) as well as similarities and differences in response by community and academic members.

**Stability and Change Over Time**—Table 2 compares select survey findings at baseline and follow-up. Overall, general satisfaction remained stable between the initial and follow-up evaluation with participants in agreement that they are generally satisfied with the activities of the partnership ( $M = 2.2$ ), having a sense of ownership of what the partnership does ( $M = 2.5$ ), and believing the partnership has been effective in meeting its goals ( $M = 2.4$ ).

The assessment of impact of partnership activities on increased knowledge of and understanding of other partnership organizations, knowledge of HBV, use of partnership generated knowledge by organizations, positive impact on the community, success at informing policy makers and the capacity to conduct CBPR, remained stable between the initial and follow up survey.

Trust variables were mixed between baseline and follow-up interviews with one variable remaining stable and two slightly decreased at follow-up. All partnership members agree they feel comfortable talking openly and honestly at partnership meetings ( $M = 2.2$ ); members were less likely to say they felt comfortable bringing new ideas to meetings (baseline:  $M = 1.9$ ; follow-up:  $M = 2.3$ ), and less likely to believe partnership members respect each others points of view even if they might disagree (baseline:  $M = 1.8$ ; follow-up:  $M = 2.3$ ).

At follow-up, community members reported an increased understanding of CBPR (baseline:  $M = 2.0$ ; follow-up:  $M = 1.5$ ) and understanding of their role in CBPR (baseline:  $M = 2.1$ ; follow-up:  $M = 1.4$ ) (data not presented). Perceptions of the partnership's decision-making effectiveness slightly improved overtime from a baseline mean of 2.9 to 2.2 at follow-up. There were no differences between the baseline and follow-up survey on organization and structural variables. All members agree that partnership meetings are useful and well-organized and agreed or were neutral about wishing to spend more time discussing projects. Academic members were more likely than community members to be neutral or disagree with the statement that meetings did not accomplish much (academic members:  $M = 3.7$ ; community members:  $M = 2.4$ ). Overall, responses to the six domains remained stable over time, showing small changes that were not consistent in any direction.

**Community–Academic Differences Over Time**—Table 3 reports the difference between community and academic members' perceptions on specific questions. In general, academic members are somewhat more satisfied than community members. Community members continue to say they are less satisfied with the progress made to implement the program ( $M = 2.8$ ) compared with academic members ( $M = 1.6$ ) at follow-up. At follow-up, academic members were more likely to say that all partnership members have a voice in decisions made by the group ( $M = 1.5$ ) compared with community members ( $M = 2.7$ ). Community participants were less likely to agree that the partnership follows CBPR principles than the academic members (community members:  $M = 2.8$ ; academic members:

$M = 1.5$ ). Overall, academic members were somewhat more positive than community members in their assessment of partnership function; however, community members were generally positive as well.

**Partnership Changes Over the Past Year**—The follow-up survey contained four new questions regarding changes over the last year and one question on future expectations. Among those questions, an increase in willingness to speak and express their opinion at meetings was reported by 62% of participants. Willingness of members to work together increased for 31%; 39% reported it stayed the same, and 15% felt it had decreased. Although the mean values decreased in follow-up, more than two thirds of participants reported that there was a lot or moderate amount of trust among members of the partnership and a similar proportion expected trust among partners to be the same in the next year. For three of the five new questions, almost one quarter responded “don’t know,” possibly as a result of turnover among members.

### Qualitative Interview Findings

Baseline qualitative interviews were conducted with 14 of 14 partnership members (7 community and 7 academic members). At the follow-up, 13 of 14 individuals completed the interview (7 community and 6 academic members). Three main themes were identified relating to changes over the last year: Facilitators, challenges, and strategies to improve partnership function

**Partnership Functioning Facilitators**—Participants identified two changes since the baseline evaluation that were facilitators to partnership functioning: (1) Implementation of a co-leadership model for steering committee meetings and (2) conduction of a partnership retreat. Both changes were in response to the baseline partnership evaluation and were viewed as improving partnership function by members. Many community and academic members reported that the new model of co-leadership of all committee meetings where one community and one academic member develop the agenda together and co-lead the meeting had increased a sense of ownership for community members and increased communication among all members. In turn, these changes contributed to a smoother, more organized process, more productive meetings, and follow through on program effort according to participants. These qualitative findings illustrated the importance of triangulation of data. The quantitative follow-up survey revealed a 62% increase in willingness to speak and express opinions at meeting. Discussion of the qualitative findings with evaluation participants confirmed the impact of co-leadership was responsible for greater willingness to speak and voice opinions at meetings.

Another change identified by participants since baseline was the conduct of a partnership retreat. Although there were recommendations for improving the management of the retreat (greater focus on partnership priorities, more input into the development of the retreat agenda, and more time to work together on priority issues) participants noted, “It’s good to take time out from the work to examine priorities.” The annual retreat provided an opportunity to reexamine priorities, identify successes and gaps, and discuss how well specific activities were relating to achievement of health outcomes.

In the follow-up partnership evaluation, additional suggestions for the next retreat were to “use the logic model as the roadmap for the retreat agenda and discussion” and limit the participation to members who regularly participate in the partnership steering committee and workgroups meeting.



**Partnership Functioning Challenges**—Qualitative data are important to comprehensive evaluation because these data can provide contextual information essential to the development of strategies to improve partnership functioning. In this evaluation, very rich data on challenges experienced by partners emerged from the qualitative interviews. Some of these challenges were not new to the partnership, but had become more visible since the baseline evaluation. The challenges included: (1) Partnership priorities not always being aligned with those of the funding agency, (2) balancing responsibilities of the partnership and their primary agency, (3) blending partnership and contractual relationships, and (4) turnover of agency personnel.

Both community and academic members expressed some frustration because the priorities of the funding agency were not always aligned with that of the partnership. Discussions were held to potentially limit the scope of the proposed activities to accomplish all the necessary priorities; however, given the commitment of the partnership, members were reluctant to scale back proposed projects and a decision was made to do more with less. By the beginning of year 3, the lack of resources significantly hampered certain project progress as the partnership juggled multiple projects with limited and insufficient resources. Related to lack of sufficient resources were issues around the data. For example, the timeline for data translation, entry, and cleaning needed to be extended because of a lack of project staff and partners' time and resources. Community members expressed disappointment at not having data available sooner to inform some of their own program priorities. According to partnership members, these frustrations were expressed but not fully discussed in partnership meetings. Some community members described this experience as similar to what had occurred in a previous collaboration in which members did not feel they had timely access to information that would have been of use to their agency.

Both community and academic members experienced challenges in balancing responsibilities to the partnership and their primary agency. This was a challenge that had been anticipated. The partnership had hoped to address this by providing subcontracts to the community partners in recognition of their invaluable contribution and to support their time and participation. All members, however, acknowledged the difficulty of managing multiple commitments: "Sometimes we feel overwhelmed but we find the balance." Some described their efforts to find value in both roles by noting that there are "two things that bring us together—the principles of the projects and the subcontract." A few members described a change in priorities in their primary agency as creating problems with carrying out their responsibilities to the partnership. Others expressed a reluctance to volunteer for new tasks because of commitments to their agency.

Another challenge identified was a concern about the blending of partnership and contractual relationships. Participants described the tension created by the dual role of the academic institution as partners with the community in developing project activities, and as the contractor for services by these same agencies. The academic institution has the responsibility to the funding agency to carry out the research plan and thus sets the goals and guidelines for deliverables with the community agency. Those deliverables may or may not be negotiable by the community agency. This may enhance the dichotomy between community and academic partners, thus complicating the collaborative effort to achieve partnership goals.

The final challenge to partnership function identified by participants was turnover of community agency and academic institution personnel. Several members described turnover as an unavoidable, inevitable, part of life but not entirely disruptive, and noted that efforts have been made to increase communication recognizing the problems that could occur. Other members reflected that it slows project progress, creates difficulties, and impacts the

work of the coalition. Furthermore, because of “things falling between the cracks,” tensions increase that can impact trust and communication. Change was particularly significant at CBWCHC and KCS; both groups lost key personnel during the period since baseline. Both individuals were integrally involved in the development of the grant and had a long history with their primary agency. Participants also described how changes in leadership may also result in a change of priorities for the agency. Moreover there is a loss of institutional memory as one participant explained, “Sometimes things that have been promised are forgotten or lost.”

**Strategies to Improve Partnership Functioning**—Two additional themes emerged from the interviews related to strategies for improving partnership functioning: (1) The importance of aligning B Free CEED and agency goals, and (2) the importance of the historical context of the partnership. One community participant noted that given the many challenges all of the partner agencies have experienced with changing priorities, staff turnover, and limited resources the importance of aligning the CEED partnership goals and partner agency goals wherever possible is essential to success. Academic partners are aware of the importance of community contributions to the success of interventions and community partners are likely to be more motivated to work on activities that enhance the delivery of their services and advance the goals of their agencies. For example, in the development of survey instruments, the inclusion of data to inform community agency strategic planning, health education, and patient recruitment priorities enhances the efficiency of data collection and satisfaction of agencies participating in the data collection. Community agencies thus share in the ownership of the survey data. This kind of data sharing also enhances cross-site capacity building about various data collection and analysis approaches, as well as strategies for dissemination. The long history of collaboration among these partnership agencies can greatly facilitate this process.

The interviews identified the historical relations among the partnership agencies as an important strength to support partnership function. CBWCHC and KCS have been working with the academic institution for almost a decade on a series of projects related to the health of the Asian-American communities. Thus, the partners have developed a strong, existing partnership. This history, which includes successful partnership building and problem solving, is a significant strength of the partnership. However, it is important to understand that long-term, established relationships also continue to evolve and may bring with them unresolved and often unrelated issues that may influence current group processes.

### Partnership Strategies to Address Evaluation Findings

This mixed-methods partnership evaluation provided critically important information to the development of strategies to increase partnership functioning and thus enhance the ability of B Free CEED to improve community health outcomes. The more effectively the partnership functions the more likely it will be to meet the goal of elimination of hepatitis B health disparities.<sup>1,4</sup> In particular, the evaluation identified strategies to further strengthen group cohesion and reassess processes and protocols. Strategies that have been implemented include (1) a partnership retreat, (2) an annual commitment to review the mission and project priorities, and (3) protocols and governance to ensure role clarity, partnership accountability, and decision-making processes.

**Partnership Retreat**—Conducting a partnership retreat has allowed for the members to further explore the challenges and tensions captured in the evaluation findings. During the course of the retreat, discussions revealed that some of the dissatisfaction reported by the community partners was due, in part, to frustration about progress in meeting program goals. A combination of factors contributed to this, including the disconnect members perceived



between the partnership and funding agency priorities, and the long-term nature of the B Free CEED goals. Partners expressed the need to build in short-term goals or accomplishments to keep the partnership engaged and motivated, a finding that has been confirmed in previous partnership assessments.<sup>2,13,15</sup> An additional source of frustration raised in the retreat and confirmed by the qualitative data findings was the timely access to data. Community members expressed disappointment at not having data available sooner to inform some of their own program priorities. Several unforeseen setbacks to the data entry and cleaning were encountered, however. For example, although community partners were invested in the data collection and actively engaged in data analysis, they were less available to provide support for the data entry. Thus, data entry was left to the academic partner, who faced several challenges. First, because data were collected in both Korean and Chinese, the hub agency did not have the resources or personnel with concordant language skills, which significantly hampered data entry. Second, because community-based data collection was used, research protocols may not have been as carefully adhered to in the field. Thus, more time was needed to clean the data. Third, as previously reported, the facilitating agency experienced staff turnovers that further contributed to problems around data entry. In combination, these setbacks contributed to the delays and mounting tensions over the data. Furthermore, partners revealed in the retreat that frustrations over the data were being carried over from a previous collaboration in which they had experienced issues accessing data. Thus, more open communication and time devoted to delineating the encountered challenges, along with understanding the frustrations around the previous collaboration, would have helped to address tensions around the data.

**Reassessing the Coalition Mission**—One recurring theme identified in the qualitative data included balancing the demands of the partnership with those of one's primary agency. One way to achieve this balance is to explore the development of a strategy to align partnership and agency goals wherever possible. One strategy used by the partnership to address this was a review of the mission and partnership priorities. Obtaining a "vision consensus," as defined by Metzger et al.,<sup>17</sup> develops a shared purpose and greater alignment of member interests and commitment to the coalition. Given that coalitions are not static but continue to evolve, the partnership is committed to revisiting the mission and priorities annually.

**Roles, Governance, and Accountability**—Qualitative baseline data revealed the need for clear governance and protocols for partnership functioning and member accountability. Data from community members indicated that they did not always feel like full participants in the development of the partnership meeting agenda and decision making. In response to this finding, a model of co-leadership for all committee meetings was established. This change was identified as a significant strength of the partnership at the follow-up evaluation. The challenge of ensuring equitable decision making led to the creation of a detailed meeting protocol, a new meeting minutes template to capture detailed decision-making discussions and to highlight actionable items, and a review and dissemination process to ensure timely release of formal meeting minutes. The need for formal governance or clear standard, written procedures has previously been associated with coalition effectiveness in the partnership literature.<sup>18,19</sup>

In addition to the need for clear governance and processes is the need to establish clear partnership roles and accountability. A theme highlighted in the data was the challenge of reconciling the role of the academic partner as both a partner and contractor. To our knowledge, this has not been reported in the literature. Participants in this study experienced the dual role as one that potentially creates an unequal distribution of power because community members are contractually not able to be full partners with the academic institution. In qualitative interviews, a suggestion to address this challenge included a

detailed description of roles and responsibilities that separately identify both contractual and partnership responsibilities.

Furthermore, partnership accountability also requires clearly defining decision-making roles and protocols. Decision makers from community partner organizations were not always able to attend meetings and sent staff who were not empowered to make agency-level decisions. This highlighted a need to ensure accountability and define the roles and responsibilities of the partner organizations, the directors, and their proxies or coordinators. To address this, partnership members agreed to define the steering committee meetings as the decision-making meetings. If the agency decision maker could not attend, an appointed proxy was assigned the decision-making role for the agency. If the proxy did not feel she or he could make the decision, then it was up to the proxy to indicate that input from the agency's decision maker was needed. To further ensure accountability, members unable to attend meetings were to stay up to date by reviewing the meeting minutes. By implementing these formal processes and protocols, it was also hoped that some of the loss owing to "things falling between the cracks" and disruption that occurs because of staff turnover would be mitigated, because the new staff members would have ready access to the coalition's history through the written protocols and meeting minutes.

## CONCLUSION

The study presented herein provides some important insights into the facilitators and challenges of community-academic partnerships and the importance of conducting partnership evaluations to improve partnership function. In addition, to our knowledge, this is the first study of partnership function in API community-academic partnership. The use of both quantitative and qualitative methods is a significant strength of this evaluation. Although the quantitative survey overall showed a high degree of satisfaction, trust, collaborative decision making, understanding of CBPR, strong organization, and positive perceptions of partnership impact that were stable over time, the qualitative data provided important information and context about the challenges and facilitators to partnership function that has led to implementation of changes to improve function. Furthermore, the survey provided important information about different perspectives of academic and community partners in specific areas that is helpful to communication and consensus building.

This study has a number of limitations. The sample is both small and purposive; thus, the data are not generalizable. The data presented are subject to recall and respondent bias, differences between the spoken and written word, inaccurate perceptions of the participants, and the power relationship between the interviewer and participant. The data presented here are a self-reported assessment of those who participate in the B Free CEED Partnership. To address these limitations, the analysis of the data focuses on points of agreement among multiple sources while noting areas of disagreement. The ability to identify common themes across community and academic members' views of a partnership lends credence to the findings, however. Although findings are not generalizable, the data offer important insights and suggestions for strategies to strengthen the community-academic partnership. Furthermore, the survey provides the opportunity for comparison with similar partnerships among other REACH U.S. grantees and other community-academic partnerships. Currently, eight REACH U.S. programs have been collaborating on implementing the same survey instrument, thus providing the opportunity to compare programs with similar missions to assess partnership function and help to validate measuring them quantitatively.<sup>20</sup>

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**Table 1**

## Qualitative Interview Topic Guide

Partnership history
Role in partnership
Role of community members in research process
Co-learning experience
Partnership effectiveness to address community needs
Quality of communication between academic–community members
Benefits and challenges of working in the partnership
Partnership process in handling of difference of opinions
Partnership governance
Partnership resource sharing
Partnership views on joint publications and information dissemination

**Table 2**

## Partnership Evaluation Survey Baseline/Follow-Up

Selected Questions	Baseline Mean (SD)	Follow-Up Mean (SD)
<b>General satisfaction</b>		
I am generally satisfied with the activities of the B Free CEED partnership.	2.2 (0.98)	2.1 (1.40)
I have a sense of ownership in what the partnership does and accomplishes.	2.3 (1.20)	2.5 (0.97)
The partnership has been effective in achieving its goals.	2.3 (1.00)	2.4 (0.87)
<b>Impact</b>		
Participation in the B Free CEED partnership has increased my knowledge and understanding of the other organizations represented.	1.9 (1.00)	1.9 (0.98)
I believe that other non-B Free CEED community organizations use the knowledge generated by the work of the partnership.	2.2 (1.40)	2.1 (1.50)
<b>Trust</b>		
I feel comfortable talking openly and honestly B Free CEED partnership meetings.	2.2 (0.89)	2.2(0.83)
I am comfortable bringing new ideas to the B Free CEED partnership meetings.	1.9 (0.75)	2.3 (0.94)
Partnership members respect each others points of view even when they disagree.	1.8 (0.55)	2.5 (1.10)
<b>Decision Making</b>		
All partnership members have a voice in decisions made by the group.	2.9 (1.20)	2.2 (0.98)
<b>CBPR</b>		
I have a clear understanding of what CBPR is.	1.5 (0.87)	1.7 (0.51)
<b>Organization and structure</b>		
I find coalition meetings useful.	2.0 (0.91)	2.3 (0.86)

Legend: 1 = Strongly Agree; 2 = Agree; 3 = Neutral; 4 = Disagree; 5 = Strongly Disagree.



**Table 3**

## Partnership Evaluation Survey Community–Academic Differences at Baseline/Follow-Up

Selected Questions	Members Perceptions	Baseline Mean (SD)	Follow-Up Mean (SD)
I am satisfied with the progress that has been made by the B Free CEED partnership to implement the program.	Community	3.0 (0.63)	2.8 (1.80)
	Academic	1.9 (0.69)	1.6 (0.51)
All members of the B Free CEED have a voice in decisions made by the group.	Community	3.1 (0.98)	2.7 (0.95)
	Academic	2.7 (1.40)	1.5 (0.55)
The B Free CEED partnership follows the principles of community-based participatory research	Community	2.7 (1.30)	2.8 (1.40)
	Academic	2.0 (0.80)	1.5 (0.54)
We do not accomplish much at B Free CEED partnership meetings.	Community	2.5 (0.83)	2.4 (0.78)
	Academic	3.7 (0.95)	3.7 (1.00)

Legend: 1= Strongly Agree, 2=Agree, 3=Neutral, 4=Disagree, 5=Strongly Disagree.