

Partnership in Promoting Community Health Research: Ten-Year Evaluation of the Little Village Community Advisory Board

Hannah Pursley, MD^{1,2}

Erin M. Staab, MPH²

Anna Mayer, MNM³

Donna Oborski, RN, BSN, FCN⁴

Andrea Munoz, MSA⁵

Dolores Castañeda, MPH⁵

Amanda Benitez, MPH⁶

Arshiya A. Baig, MD, MPH²

1. Pritzker School of Medicine, University of Chicago, Chicago, IL, United States.
2. Department of Medicine, University of Chicago, Chicago, IL, United States.
3. Taller de José, Chicago, IL, United States.
4. Advocate Health System, Our Lady of Tepeyac Church, Chicago, IL, United States.
5. St. Agnes of Bohemia Church, Chicago, IL, United States.
6. Enlace Chicago, Chicago, IL, United States.

The corresponding author's contact information is below:

Arshiya A. Baig MD, MPH
Section of General Internal Medicine
University of Chicago
5841 S. Maryland Ave. MC 2007
Chicago, IL 60637
Phone: [773] 834-4760
Fax: [773] 834-2238
Email: abaig@uchicago.edu

Disclosures: None of the authors report a conflict of interest.

Funding: This research was supported by the Chicago Center for Diabetes Translation Research (NIDDK P30 DK092949) and the Dean's office of the Biological Sciences Division of the University of Chicago. The REDCap project at the University of Chicago was used for data collection and management (UL1 TR000430 from the National Institutes of Health). Dr. Baig was supported by an NIDDK Career Development Award (K23 DK087903-01A1).

Submitted 20 May 2021, revised 9 September 2021, accepted 7 November 2021.

ABSTRACT:

Background: Few have examined factors associated with community advisory board (CAB) sustainability from the perspective of members.

Objectives: We aimed to provide insight into the formation of a CAB and attributes and challenges to sustaining it in addressing Latino health disparities in Chicago.

Methods: The Little Village CAB was formed in 2009 with members representing a wide range of local organizations, including churches, non-profit organizations, and health centers. We analyzed annual survey results sent to members over a ten-year period. Likert-type questions assessed five domains: mission, commitment, communication, respect/trust, and teamwork/balance of power. We also analyzed free-text responses to determine prevalent themes. Ten years of CAB monthly meeting minutes were used to form word clouds which were assessed for changes across years.

Results: Survey questions demonstrated high averages across all years for each domain with minimal variation. Free-text responses indicated that members initially joined the CAB due to request or interest in community health. CAB attributes included mission, community focus, openness/respect, teamwork, and leadership. Areas for improvement included broadening membership, clarifying goals periodically, and meeting structure. Meeting minutes demonstrated a progression from program creation to maintenance across the years.

Conclusions: The CAB rated openness/respect, community focus, and commitment to mission high across all ten years. Areas for improvement included broadening membership and clarifying goals periodically. In forming a CAB to address health disparities in a Latino community, researchers must be aware of factors that motivated members to join and remain engaged with an academic team using an iterative evaluative process.

KEYWORDS: Community Based Participatory Research, Community Advisory Board,
Evaluation

INTRODUCTION

Community-based participatory research (CBPR) is an approach to research that seeks to create an equitable, collaborative partnership between communities and researchers. CBPR identifies a health issue that is important to the community of focus and involves the community throughout all stages of the research^{1,2,3,4}. CBPR emphasizes long-term partnerships with the community to reduce health disparities^{1,4}.

Community advisory boards (CABs) are a crucial component of the CBPR model. They establish the community portion of the academic-community partnership. CABs are composed of community stakeholders and may include representatives from various organizations and/or individual community members. A CAB should represent community perceptions, preferences, and priorities throughout every step of the research process, from agenda development to dissemination^{5,6,7}. The establishment of a CAB should ideally represent a long-term commitment to equitable, active partnership and ongoing identification of research topics of importance to the community. However, many CABs do not persist after the conclusion of the initial CPBR project/funding, and the time commitment involved often leads to high turnover within CABs^{6,8,9}.

The key stages of CAB functioning have been well-described, and include formation, operation/action, and maintenance stages^{5,10}. However, in line with CBPR principles, CABs also involve cyclical, iterative processes and require ongoing evaluation for ideal functioning^{1,5}. Although evaluations of CAB processes and group dynamics are known to support CAB success, little research focuses on evaluations of CABs themselves^{5,6,11,12}. Instead, CABs are often mentioned only briefly with regard to CBPR principles or in studies that focus on a specific project or case study^{13,14,15,16,17,18,19,20,21,22,23}. Many studies that do focus on CABs only surveyed

CAB members about the successes of various initiatives, and do not examine the function of the CAB itself^{9,14,24}.

Of the few studies that have centered on CAB evaluation, even fewer involved the perspectives of the members themselves. Instead, most of the literature surrounding CAB evaluation comprises the perception of academic partners of best practices in forming and maintaining a CAB^{5,8,25,26,27}. While these theoretical frameworks are useful in establishing a CAB, they lack the community voice critical to maintaining a successful CAB. A small number of recent studies involving CABs or similar coalitions have evaluated members' perspectives; however, many of these studies represent a single point in time, often in the group's early years^{11,12,28}. Other studies have evaluated larger cohorts of CBPR projects instead of individual CABs^{10,29}. Despite CBPR's emphasis on iterative processes and sustainability, ongoing evaluation of CAB function is largely absent in the literature. Furthermore, there is a dearth of studies regarding CAB evaluation within Latino communities specifically. This study aimed to address this gap by providing longitudinal insight into the function of a CAB formed to address Latino health disparities in Chicago.

The Little Village CAB was formed with a CBPR approach to conduct diabetes education research in the Chicago community of Little Village (also known as South Lawndale). Little Village is a neighborhood on the West side of Chicago where 84% of the population is Latino and the majority of this group is comprised of people of Mexican descent³⁰. The CAB was formed in 2009 to oversee and collaborate on research projects involving diabetes education within the community, specifically church-based diabetes education programming. Members of the CAB were recruited via direct meetings with church and community leaders, and through referrals from community members. Members represent a broad array of organizations and

voices, including churches, health centers, local social service agencies, caretakers of people with diabetes, community members, and academic researchers. The CAB has ranged from 5 to 11 members each year. A term is one year, although this term was renewable as the projects progressed. CAB members do not receive a stipend for participation as decided upon in consensus during formation of the CAB guidelines. Several of the members have prior experience participating in similar groups. New members have been added through consensus and based on resources and expertise. The CAB has been meeting monthly at local Little Village locations since 2009. The major projects of the CAB to date have involved church-based diabetes self-management programs^{31,32}. Using data collected over ten years, we examine the formation, attributes, and challenges to sustainability from the perspectives of the CAB's members.

METHODS

Beginning in 2010, an annual survey was sent to Little Village CAB members to make real-time improvements in CAB functioning based on members' feedback. The survey was based on the Bell-Elkins principles for a community-campus partnership as well as the Acts of Faith (AOF) Working Group Partnership Evaluation survey^{33,34}. The survey contained Likert-type and free-response questions. The creation of the survey was an iterative process that incorporated input from the CAB members. Members reviewed the set of questions that was developed by the academic team for relevance and face validity. For external validity, the survey was also reviewed by a multidisciplinary group at the University of Chicago during a Research in Progress workshop. The University of Chicago Institutional Review Board approved this study.

The survey consisted of 16 Likert-type questions and five free-response questions. The Likert-type questions assessed the CAB in five overall domains, drawn from the Bell-Elkins principles: Mission, Commitment, Communication, Respect/Trust, and Teamwork/Balance of Power (Table 1). Response options included strongly disagree, disagree, slightly disagree, slightly agree, agree, and strongly agree. These responses were numerically codified from 1 through 6, respectively, for analysis (e.g., 1 = strongly disagree, 6 = strongly agree). In 2017, two additional Likert-type questions were added to further characterize these themes; members were asked to rate the CAB's value to themselves and their organizations. The free-text questions were as follows: "Why did you initially join the CAB?"; "Why do you continue to participate in the CAB?"; "What do you believe are the 3 greatest strengths of the CAB?"; "What are 3 ways the CAB could improve over the next 6 months?"; and "Do you have any other comments about the CAB that you would like to share?" In 2017, an additional free-response question was added: "How have you seen the work of the CAB benefit the community? Please describe a specific example if possible."

The survey was first sent six months after CAB formation, then yearly to those CAB members who had attended at least one meeting in the past six months. The survey was sent via email, initially via SurveyMonkey® then through REDCap® starting in 2018.

Descriptive statistics of the Likert-type questions were calculated in RStudio®. These statistics were computed for each individual question by year; the questions were also grouped by their corresponding domain and statistics were calculated for each domain by year. For the free-text questions, two investigators (HP and AAB) independently reviewed the responses to determine predominant themes and changes across years. They then met to discuss the themes that they independently developed and revised the themes using an iterative process. CAB

members were asked their interpretation of the elucidated themes and their feedback was incorporated. Final themes were agreed upon by all authors of this study. Representative quotations were chosen based on their exemplification of each theme. We did not collect demographic data on respondents due to the small number of members and chance of identifying the respondents based on their responses. CAB members were presented with the data at a monthly meeting. These data were also presented with a community member co-presenter in 2019 at the Society of General Internal Medicine Midwest Regional Meeting.

We also collated monthly minutes from the CAB meetings for each year from 2009-2019. We uploaded these minutes into Enideo[®] WordItOut software to form word clouds from the 100 most commonly mentioned words each year. Names and filler words (e.g., “and”, “but”, etc.) were excluded prior to uploading the minutes. We then systematically analyzed the word clouds for changes across years, noting the main words each year as well as the emergence of new words over time. The trends in words were reviewed by the CAB.

RESULTS

The response rate of CAB members surveyed ranged from 63-89%, with an average of 73%. Over the ten-year span, the number of respondents each year ranged from 5-11 CAB members.

Survey Domains

Likert-type survey questions demonstrated high averages across all years for each domain (Figure 1). Question means ranged from 5 – 6 across the years, where 5 corresponds to “agree” and 6 corresponds to “strongly agree.” Specifically, the average score of survey questions ranged from 5.38 to 5.93 for the Mission domain, 5.27 to 6.0 for the Commitment domain, 5.30 to 5.96

for the Communication domain, 5.46 to 6.0 for the Respect/Trust domain, and 5.36 to 5.91 for the Teamwork/Balance of Power domain. These scores remained stable across years, with no apparent outliers. No average score for any question fell below 5 for any year; the lowest average score was 5.17 for question 14 (“I am familiar with the process of decision making within the group”) in 2019.

Figure 1: Responses to Community Advisory Board Evaluation Survey Questions by Theme, 2010-2019.

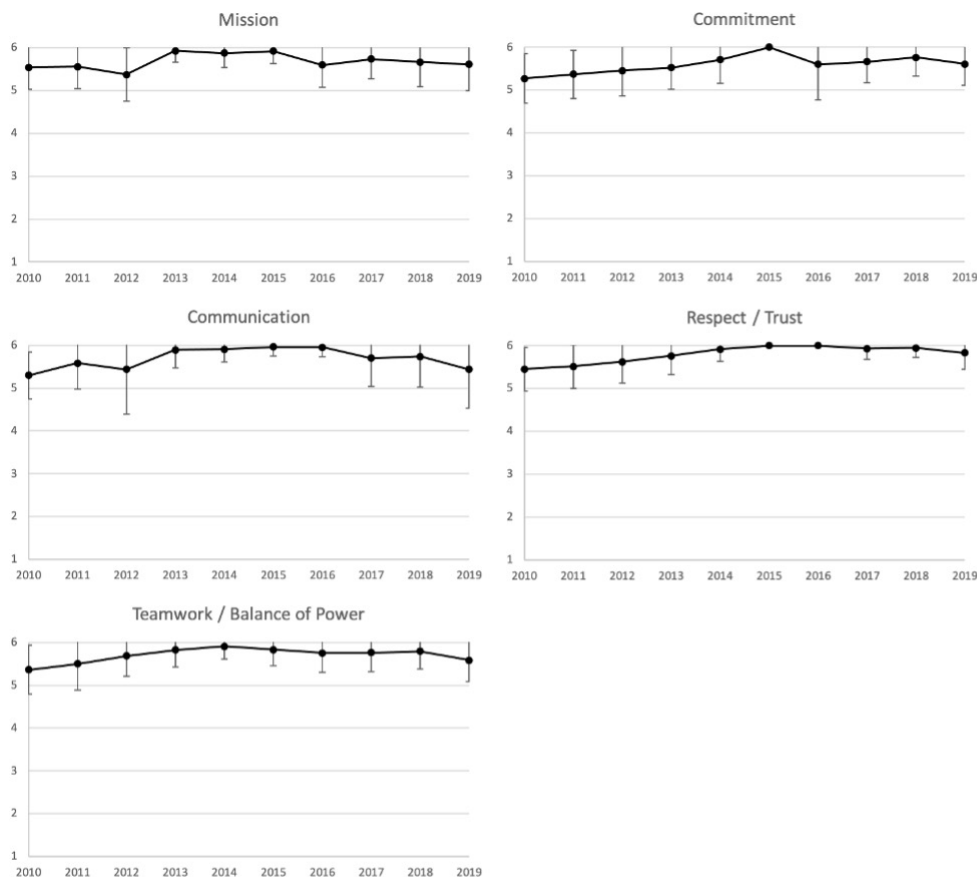


Figure 1. Responses to Community Advisory Board Evaluation Survey Questions by Theme, 2010-2019. The average response for each theme per year is shown across the ten-year span of survey data. Individual Likert-type questions grouped into five overall domains (Mission, Commitment, Communication, Respect/Trust, and Teamwork/Balance of Power) which were drawn from the Bell-Elkins principles³³. Response options included strongly disagree, disagree, slightly disagree, slightly agree, agree, and strongly agree. These options were then numerically coded for analysis with 1 = strongly disagree, 2 = disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, and 6

= strongly agree. Averages for each survey domain ranged between 5 – 6 (e.g., agree – strongly agree) with minimal variation across the years.

Free-Text Responses

Analysis of the free-text responses in the survey revealed several important factors in CAB formation and maintenance. Members' motivations for joining the CAB largely fell into three categories: someone asked them to join, desire to address community health issues, or due to mistrust of research (e.g., to monitor the research on behalf of the community). For example, one member wrote "I joined the CAB to work with others to improve the health of Latinos in Little Village." Others wrote "Wanted to assure that community interests were addressed in sensitive and appropriate manner" and "concern that researchers sometimes 'use' the community without the community realizing any benefits" when describing reasons for joining the CAB.

Several of the free-response questions identified themes important for CAB success. These themes included mission, community focus, openness/respect, teamwork, leadership, and diversity (Table 2). The most commonly cited theme was community focus, often with regard to meeting community needs or the benefit of the project to the community. Teamwork also was commonly mentioned as critical for success, with regard to both collaborative partnerships within the CAB and community networking opportunities. The six identified themes remained stable across years.

In 2017, a question was added inquiring about the CAB's impact on the community. Members largely cited a Town Hall event that increased diabetes awareness for community members. More generally, responses indicated an increase in the community's access to resources and improved diabetes education ("People are more aware of how to control their diabetes").

The free-text responses also indicated areas for improvement as determined by CAB members (Table 2). The first theme identified was membership, encompassing both increasing and broadening membership. For example, survey responses suggested inviting community members with diabetes to meetings or increasing representation among community organizations. Another common theme was clarifying goals periodically, especially at pivotal moments of the CAB's work (e.g., the pilot program coming to an end). Structure was also a consistently mentioned area for improvement, encompassing a variety of logistical issues (e.g., meeting times/locations, how to disseminate CAB research data to group members, etc.). Finally, community involvement was cited as an area for improvement across the entire span of survey data, specifically with relation to community members, stakeholders, and organizations. Two areas of improvement were only identified in specific time frames. In earlier years (2010-2013), attendance was commonly mentioned as an issue. Then beginning in 2015 and continuing throughout later years, a focus on obtaining funding to support and expand the CAB's work was often cited as an area for improvement.

Word Clouds

Analysis of the meeting minutes word clouds suggested a shift in focus over the years from program creation and deployment to project funding and dissemination. In earlier years, the most common words concerned broad themes such as “discussion”, “participants”, and “ideas” in 2009. These earlier meetings also emphasized specific CAB projects and initiatives; the most commonly spoken word in 2009 and 2010 was “program”, followed by “class” in 2011 and 2012. As the CAB's projects continued and scope broadened, the more general theme of “health” became the most cited word in 2013, 2014, and 2016. Similarly, “diabetes” was most often said

in the 2017 meeting minutes. Finally, after several years of meetings, words regarding ongoing research efforts (e.g., funding and publications) grew in prominence, including “grant” and “paper” in 2018 (Figure 2). In fact, “grant” was the most commonly mentioned word in both 2018 and 2019. Certain words regarding the CAB’s broader mission (e.g., “diabetes”, “health”) were mentioned every year.

Figure 2: Selection of Word Clouds from Community Advisory Board Meeting Minutes.



Figure 2.

Selection of Word Clouds from Community Advisory Board Meeting Minutes.

Monthly meeting minutes were collated each year from 2009 – 2019. The 100 most frequently mentioned words from each year were used to form word clouds, with names and filler words (e.g. “but”, “and”) excluded. Representative word clouds demonstrate shifts in community advisory board (CAB) focus over the years. Earlier years demonstrate a predominance of words centered on project creation/deployment (e.g., “program”, “class”, “intervention”). Word clouds from later years illustrate the increasing importance of project funding and dissemination (e.g., “grant”, “paper”, “submitted”). Certain words relating to the CAB’s mission (e.g., “diabetes”, “health”) were mentioned every year.

DISCUSSION

Based on ten years of survey data and CAB meeting minutes, we identified several important themes that describe CAB performance from the perspective of members. Both the quantitative and qualitative findings in our mixed-methods survey demonstrated similar contributors to CAB success and effective recruitment. All five of the measured domains based on the Bell-Elkins principles – Mission, Commitment, Communication, Respect/Trust, and Teamwork/Balance of Power – were highly rated among CAB members, which indicates the importance of each to the maintenance of a successful CAB. The free-text responses further solidified the importance of these attributes, wherein members identified highly congruent themes in their reasons for ongoing participation in the CAB and their perceptions of its strengths – namely, mission, community focus, openness/respect, teamwork, leadership, and diversity. We also identified several areas for improvement, including membership, clarifying goals periodically, and funding. Our findings imply that these themes are crucial to the success and longevity of a CAB and should be intentionally implemented during CAB formation and maintenance.

Our results demonstrate several key reasons members joined the CAB, including being asked, addressing community health issues, and mistrust of research. Interpersonal relationships are particularly important to the recruitment process, as most members joined after being asked by someone they knew. Many members also joined to address community health issues; recruitment of potential members with strong community ties strengthened the CAB and helped identify individuals who were interested in community health. This observation suggests that recruitment should emphasize the mission of the CAB and the alignment of the mission with community priorities. Our results also identified some members who were motivated by mistrust of research and a desire to protect community interests, a topic that has been noted in previous

studies¹⁰. While mistrust of academia is often cited as a detriment to CAB functioning^{1,10,29,35}, this result suggests that mistrust may actually serve as a potential motivator for recruitment of community stakeholders.

Centering a CAB on a common, community-driven mission appears crucial to the maintenance of a successful CAB, given the pervasiveness of this theme throughout our findings. Prior studies have similarly recommended that CBPR projects should center around an issue of significance to the community (e.g. elucidate community viewpoints prior to forming the research agenda)^{2,3,5,12,14,25}. In their work on community coalitions, Butterfoss et al. concluded that the articulation of a clear mission was the most important factor in successful coalition formation²⁷. The early establishment and continual affirmation of a common mission, especially one of high priority to community stakeholders, are crucial to CAB success. The stability of this theme over time in our data demonstrates that long-standing CABs are rooted in the dedication of members to a common cause.

Our data revealed the necessity of respect, both between CAB members and for the community, for CAB success. This theme is well-supported in the CBPR literature, which emphasizes the importance of respect and trust between community members and the academic team in building a functional project^{1,5,10,12,28,29,35}. Respect for community autonomy and the establishment of trust are also key aspects for the development of lasting community relationships^{14,36}. Conversely, a lack of trust or respect is commonly described as a barrier to such initiatives^{1,28,29}. In our study, Little Village CAB members did not identify trust/respect as an area in need of improvement, which supports that the presence of respect and trust may have contributed to this CAB's longevity.

Several theories for coalition success have placed teamwork in a central role^{1,14,24,25,27}. Other studies have confirmed the importance of collaboration in successful working partnerships, especially through equal sharing of power and resources^{10,28,29}. The ideal CBPR model involves an equitable partnership between all parties, eliminating power differentials to elevate community voices in the research process. In our study, Little Village CAB members ranked teamwork highly across all years, and consistently referenced the importance of collaboration in CAB success. Leadership has also been described in several CBPR and CAB guidelines, with hallmarks of successful leadership including openness, commitment, and adaptability^{1,10,25,27,29}. One study solicited opinions from members of a rural CAB and found that strong leadership promoted open communication, trust, equality, and a sense of vision and purpose¹². This study linked the success of leaders to a social vision shared with other CAB members and suggested that strong leadership forges a sense of equal partnership. Commitment is also commonly cited as a facilitator in successful, durable community partnerships^{27,28,29}, which is consistent with this domain's high ratings in our survey. Thus, the CBPR principle of equitable partnership is likely strengthened by the presence of organized and collaborative leadership that is committed to the project mission.

CAB members mentioned community focus more than any other theme in the free-text responses. When describing both their reasons for ongoing participation and factors in CAB success, members emphasized benefit to the community, focus on community health issues, and the value of community engagement. An all-encompassing dedication to the community at the center of research is an utmost priority to member engagement and CAB success. The prevalence of community focus in our findings underlines that a successful CAB, by necessity, must engage in an ongoing, active, and equitable partnership with the community.

In the free-text responses, CAB members often referenced diversity as a strength. Responses that expanded upon this theme cited the diversity of member backgrounds, ideas, and organizational affiliations. The Little Village CAB is diverse, and has included parish nurses, community members, previous health administrators, leadership of health centers and community-based organizations, and caretakers of people with diabetes. The importance of diverse community representation – in ethnicity, organizational representation, and member interests – within a CAB is supported in the literature^{1,8,12,25,27,28}. Numerous studies that evaluated CABs or similar coalitions consistently found that members appreciated the opportunity to network with different individuals and organizations^{12,25,27}. This benefit from CAB participation was also noted in our survey responses. Diversity is likely beneficial both to individual members and to the project as a whole.

Our study elucidated several areas for improvement over the years. CAB members identified broadening of membership, such as the recruitment of patients with diabetes or members from other community organizations, as an area for improvement. Prior literature has identified the recruitment of new members as a particular challenge to CABs²⁸. Others have described increasing membership as a facilitator to CAB success^{1,10,11}. The consistent desire for increased membership in our results across years indicates that recruitment should continue past initial CAB formation. CABs should regularly reevaluate membership and reach out to key community stakeholders and organizations after the initial development period.

CAB members consistently reported a desire to occasionally revisit the group goals, especially at transition points. In a CAB that survives beyond the initial funding period, new projects will naturally arise. These efforts will be shaped by the CAB goals, which may expand or deviate over time. The goals of the group will need to be revisited and strengthened to ensure

success. CBPR literature supports the idea that CAB processes are iterative and cyclical^{5,10,27}. The prevalence of this theme in our data suggests the importance of clarifying goals at various phases of CAB functioning, especially as the group embarks on new projects. Similarly, we found that community engagement must be ongoing and consistently re-evaluated throughout a project's lifespan. These findings highlight the importance of consistently and actively revisiting a project's mission, goals, and engagement with the community for CAB success.

In earlier years of the Little Village CAB (2010- 2013), attendance was identified as an area for improvement. Other studies that examined CABs/coalitions have noted attendance or lack of participation as an area of concern^{11,12}. Time commitment has been consistently identified as a barrier to participation^{1,6,10,12,27,28,29,35}. However, Little Village CAB members did not specifically identify time commitment as an area for improvement, although broader changes in meeting structure were mentioned several times (e.g. meeting frequency, modes of communication). The appearance of this theme early in the CAB suggests that teams engaging in CBPR should be wary of attendance issues and prepare to address such issues during CAB formation. Leaders should be receptive to feedback and modify the meeting structure according to member suggestions.

After the Little Village CAB concluded its initial funded project, members increasingly mentioned funding as an issue (2015-2019). Many CABs do not survive beyond their initial funding period^{8,9}, and non-sustainable funding has been cited in other studies as a challenge/barrier^{1,29}. Ongoing discussions about new avenues of funding are likely critical in maintaining a CAB past its initial project. These findings suggest the importance of planning past initial funding when forming a CAB with the goal of maintaining a long-term, sustainable community partnership. The CAB is currently applying for grants to expand church-based work

on diabetes and aiming to support community members with chronic diseases in light of the COVID-19 pandemic.

Finally, our analysis of meeting minutes indicated a shift in CAB focus across years that is consistent with conceptual models of CAB/coalition phases— formation, operation/action, and maintenance^{5,10,27}. Word clouds in early years emphasized the formation of the CAB and establishment of its mission, with words such as “program”, “principles”, and “ideals” appearing frequently. Operation stages in middle years highlighted words related to the group’s main project of diabetes education classes (“class”, “meeting”, “intervention”). Word clouds from later years showed a shifted focus to CAB maintenance, with the words “grant”, “paper”, and “submitted” gaining prominence. These stages of CAB functioning have also been supported in a prior study that analyzed meeting minutes from a long-standing CAB focused on HIV research; topics in early years focused on program creation and organization, whereas later efforts shifted to maintenance and broader community education endeavors³⁷. The themes from our word cloud data support these conceptual models of CABs in the context of actual CAB monthly functioning. Additionally, the presence of key words related to the core purpose of the CAB (e.g., “health” and “diabetes”) strengthen the notion that a common, stable mission lends to CAB success and longevity.

Limitations

Limitations of the study include small sample sizes each year, which restricted our analysis of the survey question data to descriptive statistics. To preserve anonymity, unique responses across years were not identified, which limited our ability to distinguish which themes may have been more prevalent for individual members versus the overall CAB. For the same reason,

demographics of respondents were not collected. Our findings may also not be generalizable to all CABs, as the Little Village CAB acts specifically in the context of one predominantly Latino neighborhood in an urban Midwestern setting.

Conclusion

There is a dearth of CAB evaluation in the literature despite the emphasis of iterative evaluative processes in CBPR, and the few studies that exist often examine CAB functioning from the viewpoint of academia. Ours is one of the first studies that centers on evaluation of CAB functioning from the perspective of members, especially for a CAB that focuses on diabetes in a predominantly Latino community. We identified several themes for success and effective recruitment in a long-standing CAB, including dedication to a common mission, respect/trust, focus on community, diverse representation, and strong leadership. We also identified areas for improvement, which included increasing and broadening membership, ongoing community outreach, and clarifying the group's goals periodically. Our work strengthens existing conceptual models of CAB success by demonstrating these principles hold true in a well-established, successful CAB. These themes are supported in the literature, and do not seem to be specific to a CAB functioning in a predominantly Latino community. Further study is necessary to elucidate possible nuances in CABs serving a Latino population, as our results appeared to demonstrate more universal themes supported by studies involving a diverse array of populations. More studies are needed to help elucidate best practices for CAB formation and long-term success across different types of projects and communities.

Reference List

1. Israel BA, Schulz AJ, Parker EA, Becker AB. Review of Community-Based Research: Assessing Partnership Approaches to Improve Public Health. *Annu Rev Public Health*. 1998 May;19(1):173-202.
2. Williams RL, Shelley BM, Sussman AL; RIOS Net Clinicians. The Marriage of Community-Based Participatory Research and Practice-Based Research Networks: Can It Work? – A Research Involving Outpatient Settings Network (RIOS Net) Study. *J Am Board Fam Med*. 2009 Jul 8;22(4):428-35.
3. Minkler M. Community-Based Research Partnerships: Challenges and Opportunities. *J Urban Health*. 2005 Jun 1;82(2 Suppl 2):ii3-12.
4. Wallerstein NB, Duran B. Using Community-Based Participatory Research to Address Health Disparities. *Health Promot Pract*. 2006 Jul;7(3):312-23.
5. Newman SD, Andrews JO, Magwood GS, Jenkins C, Cox MJ, Williamson DC. Community Advisory Boards in Community-Based Participatory Research: A Synthesis of Best Processes. *Prev Chronic Dis*. 2011;8(3):12.
6. Yuan NP, Mayer BM, Joshweseoma L, Clichee D, Teufel-Shone NI. Development of Guidelines to Improve the Effectiveness of Community Advisory Boards in Health Research. *Prog Community Health Partnersh*. 2020;14(2):259-69.
7. D’Alonzo KT. Getting Started in CBPR: Lessons in Building Community Partnerships for New Researchers. *Nurs Inq*. 2010 Dec;17(4):282-88.
8. Cramer ME, Atwood JR, Stoner JA. Measuring Community Coalition Effectiveness Using the ICE[®] Instrument. *Public Health Nurs*. 2006 Jan;23(1):74-87.
9. Hillstrom K, Ruelas V, Peters A, Gedebu-Wilson T, Iverson E. A Retrospective Analysis of the Capacity Built through a Community-Based Participatory Research Project Addressing Diabetes and Obesity in South and East Los Angeles. *Health*. 2014;6(12):1429-35.
10. Lantz PM. Can Communities and Academia Work Together on Public Health Research? Evaluation Results From a Community-Based Participatory Research Partnership in Detroit. *J Urban Health*. 2001 Sep 1;78(3):495-507.
11. Kelly G, Wang S, Lucas G, Fraenkel L, Gross CP. Facilitating Meaningful Engagement on Community Advisory Committees in Patient-Centered Outcome Research. *Prog Community Health Partnersh*. 2017;11(3):243-51.
12. Cramer ME, Lazoritz S, Shaffer K, Palm D, Ford AL. Community Advisory Board Members’ Perspectives Regarding Opportunities and Challenges of Research Collaboration. *West J Nurs Res*. 2018 Jul;40(7):1032-48.
13. Aguado Loi CX, Alfonso ML, Chan I, Anderson K, Martinez Tyson D, Gonzales J, et al. Application of Mixed-Methods Design in Community-Engaged Research: Lessons Learned from an Evidence-Based Intervention for Latinos with Chronic Illness and Minor Depression. *Eval Program Plann*. 2017 Aug;63:29-38.
14. Allen JD, Idali Torres M, Tom LS, Rustan S, Leyva B, Negron R, et al. Enhancing Organizational Capacity to Provide Cancer Control Programs among Latino Churches: Design and Baseline Findings of the CRUZA Study. *BMC Health Serv Res*. 2015 Dec;15(1).
15. Coffman MJ, Urquieta de Hernandez B, Smith HA, McWilliams A, Taylor YJ, Tapp H, et al. Using CBPR to Decrease Health Disparities in a Suburban Latino Neighborhood. *Hisp Health Care Int*. 2017 Sep;15(3):121-29.

16. Cordova D, Parra-Cardona JR, Blow A, Johnson DJ, Prado G, Fitzgerald HE. “They Don’t Look at What Affects Us”: The Role of Ecodevelopmental Factors on Alcohol and Drug Use among Latinos with Physical Disabilities. *Ethn Health*. 2015 Jan 2;20(1):66-86.
17. Ludden TM, Taylor YJ, Simmons LK, Smith HA, Urquieta de Hernandez B, Tapp H, et al. Using Community-Based Participatory Research to Develop Geospatial Models Toward Improving Community Health for Disadvantaged Hispanic Populations in Charlotte, NC. *J Prim Prev*. 2018 Apr;39(2):171-90.
18. Madrigal DS, Salvatore A, Casillas G, Casillas C, Vera I, Eskenazi B, et al. Health in My Community: Conducting and Evaluating PhotoVoice as a Tool to Promote Environmental Health and Leadership Among Latino/a Youth. *Prog Community Health Partnersh*. 2014;8(3):317-29.
19. Martinez IL, Carter-Pokras O. Assessing Health Concerns and Barriers in a Heterogeneous Latino Community. *J Health Care Poor Underserved*. 2006;17(4):899-909.
20. Schwartz R, Powell L, Keifer M. Family-Based Risk Reduction of Obesity and Metabolic Syndrome: An Overview and Outcomes of the Idaho Partnership for Hispanic Health. *J Health Care Poor Underserved*. 2013;24(2A):129-44.
21. Stacciarini JR, Smith R, Wilson Garvan C, Wiens B, Cottler LB. Rural Latinos’ Mental Wellbeing: A Mixed-Methods Pilot Study of Family, Environment and Social Isolation Factors. *Community Ment Health J*. 2015 May;51(4):404-13.
22. Stacciarini JR, Vacca R, Wiens B, Loe E, LaFlam M, Pérez A, et al. FBO Leaders’ Perceptions of the Psycho-Social Contexts for Rural Latinos. *Issues Ment Health Nurs*. 2016 Jan 2;37(1):19-25.
23. Walker KK, Angeles Martínez-Mier E, Soto-Rojas AE, Jackson RD, Stelzner SM, Galvez LC, et al. Midwestern Latino Caregivers’ Knowledge, Attitudes and Sense Making of the Oral Health Etiology, Prevention and Barriers That Inhibit Their Children’s Oral Health: A CBPR Approach. *BMC Oral Health*. 2017 Dec;17(1).
24. Plumb M, Collins N, Cordeiro JN, Kavanaugh-Lynch M. Assessing Process and Outcomes: Evaluating Community-Based Participatory Research. *Prog Community Health Partnersh*. 2008;2(2):87-97.
25. Cramer ME, Atwood JR, Stoner JA. A Conceptual Model for Understanding Effective Coalitions Involved in Health Promotion Programing. *Public Health Nurs*. 2006 Jan;23(1):67-73.
26. Forsythe LP, Ellis LE, Edmundson L, Sabharwal R, Rein A, Konopka K, et al. Patient and Stakeholder Engagement in the PCORI Pilot Projects: Description and Lessons Learned. *J Gen Intern Med*. 2016 Jan;31(1):13-21.
27. Butterfoss FD, Goodman RM, Wandersman A. Community Coalitions for Prevention and Health Promotion. *Health Educ Res*. 1993 Sep 1;8(3):315-30.
28. Parker EA, Israel BA, Williams M, Brakefield-Caldwell W, Lewis TC, Robins T, et al. Community Action against Asthma: Examining the Partnership Process of a Community-Based Participatory Research Project. *J Gen Intern Med*. 2003 Jul;18(7):558-67.
29. Wallerstein N, Oetzel J, Duran B, Tafoya G, Belone L, Rae R. What Predicts Outcomes in CBPR? In: Minkler M, Wallerstein N, editors. *Community Based Participatory Research for Health: Process to Outcomes*. San Francisco: Jossey-Bass; 2008. p. 371-392.

30. Chicago Health Atlas [Internet]. Chicago: City Tech Collaborative; c2021 [cited 2021 Apr 17]. South Lawndale; [about 2 screens]. Available from: <https://www.chicagohealthatlas.org/zip-codes/south-lawndale>.
31. Baig AA, Benitez A, Locklin CA, Gao Y, Mee Lee S, Quinn MT, et al. Picture Good Health: A Church-Based Self-Management Intervention Among Latino Adults with Diabetes. *J Gen Intern Med*. 2015 Apr;30(10):1481-90.
32. Baig AA, Stutz MR, Fernandez Piñeros PF, Benitez A, Gao Y, Quinn MT, et al. Using Photovoice to Promote Diabetes Self-Management in Latino Patients. *Transl Behav Med*. 2019 Dec;9(6):1151-6.
33. Bell-Elkins J. Assessing the CCPH Principles of Partnership in a Community-Campus Partnership [dissertation]. Framingham (MA): Framingham State College; 2002.
34. Davis D; Acts of Faith. AOF Working Group Partnership Evaluation Survey. Forthcoming 2021.
35. Wilkins CH, Spofford M, Williams N, McKeever C, Allen S, Brown J, et al. Community Representatives' Involvement in Clinical and Translational Science Awardee Activities. *Clin Transl Sci*. 2013 Aug;6(4):292-96.
36. Buchanan DR, Miller FG, Wallerstein N. Ethical Issues in Community-Based Participatory Research: Balancing Rigorous Research With Community Participation in Community Intervention Studies. *Prog Community Health Partnersh*. 2007;1(2):153-60.
37. Silvestre AJ, Quinn SJ, Rinaldo CR. A 22-Year Old Community Advisory Board: Health Research as an Opportunity for Social Change. *J Community Pract*. 2010 Feb 26;18(1):58-75.

Table 1: Community Advisory Board Survey Questions by Theme

Theme	Survey Question
Mission	<ul style="list-style-type: none"> ▪ The board has developed a set of guiding principles that is agreed upon by all members. ▪ A written version of the guiding principles is accessible to all group members. ▪ My participation on the CAB is valuable to the organization I represent.
Commitment	<ul style="list-style-type: none"> ▪ Members consistently participate in discussion at meetings. ▪ Members follow through on tasks that they agree to perform. ▪ There is adequate commitment on the part of all participating organizations to maintain an on-going board.
Communication	<ul style="list-style-type: none"> ▪ The board is willing to re-address unsolved issues. ▪ I am able to communicate with other CAB members outside of monthly meetings when I would like to. ▪ I am familiar with the established methods for raising issues within the group. ▪ I am familiar with the process of decision making within the group.
Respect/Trust	<ul style="list-style-type: none"> ▪ The board is willing to examine topics raised by all members of the group. ▪ I am comfortable asking questions during meetings if information is unclear. ▪ I feel that my opinions are respected by other CAB members during meetings.
Teamwork/Balance of Power	<ul style="list-style-type: none"> ▪ Meetings are held at locations that are easily accessible to members. ▪ Members of the board who have resources (i.e. money, equipment, contacts, expertise) share those resources with the group. ▪ Members share credit with the whole group when presenting accomplishments of the board. ▪ Active members represent diverse organizations within the community. ▪ My participation on the CAB is valuable to me.

Abbreviations: CAB, community advisory board

Table 2: Themes from Qualitative Evaluation Responses, 2010-2019

CAB Strength	Example quotations
Mission	<ul style="list-style-type: none"> ▪ “I want to see the fruit of our labor. I believe we can make a difference and change people[’s] lives for the better.” ▪ “We are mission driven.” ▪ “I feel like we are unified towards a common cause and have the potential to make a difference in the community.” ▪ “We have a shared, common goal and everyone comes together to meet that goal.”
Community Focus	<ul style="list-style-type: none"> ▪ “This is a project that I want to be a part of because it will help the community in many ways.” ▪ “I believe that this program is important and can impact the health of our community.” ▪ The opinions of the community are taken to heart by the researchers.” ▪ On the CAB’s greatest strengths: “commitment to improving the wellbeing of the Little Village community.”
Openness/Respect	<p>On the CAB’s greatest strengths:</p> <ul style="list-style-type: none"> ▪ ”Inclusive, open, respectful of the community served.” ▪ “Respect given to each member.” ▪ “Openness to discuss and understand the community issues.” ▪ “Open to feedback and responsive to issues raised.”
Teamwork	<ul style="list-style-type: none"> ▪ “We share ideas/thoughts/resources well with each other.” ▪ “The CAB members have really formed a strong relationship with one another and have made great progress in the past year.” ▪ “I continue to participate because I believe we are better able to impact the health of people in Little Village working together as a CAB and appreciate all I learn from the other members.”
Leadership	<ul style="list-style-type: none"> ▪ ”CAB is one of the most well run advisory committees I have participated in, I think the leadership and the creative ideas are what make it a pleasure to be a part of.” ▪ “I continue to participate because it is very well organized [and] the opinions of the community are taken to heart by the researchers.” ▪ “I admire and respect the manner in which the board and this project is run.” ▪ “The meetings are very well run and informative.”

Diversity	<p>On the CAB’s greatest strengths:</p> <ul style="list-style-type: none"> ▪ “Diversity of groups represented.” ▪ “The diversity of ideas and backgrounds.” ▪ “Knowledge of the community based on diverse perspectives and experiences.”
Area for Improvement	Example quotations
Membership	<ul style="list-style-type: none"> ▪ “Invite new members who have relevant expertise and community connections.” ▪ “Increase membership to include representation from more community organizations.” ▪ “Add more members from other agencies if we have active projects.”
Clarifying Goals Periodically	<ul style="list-style-type: none"> ▪ “Re-clarify goals, mission, and what the main drive of this group is for.” ▪ “[Send] out the guiding principles and contact info more frequently so everyone has the up-to-date info on hand.” ▪ “[Consider] new project/side project ideas to expand the goals of the group.”
Structure	<ul style="list-style-type: none"> ▪ “End each meeting with action steps.” ▪ “Address questions about the previous meeting minutes at the beginning of the meeting.” ▪ “Fewer meetings if applicable. Don’t always need to meet every month.” ▪ “Share the research data via email vs. at meetings.”
Community Involvement	<ul style="list-style-type: none"> ▪ “Improve representation of community members who have lived in Little Village for many years and who have firsthand knowledge of the effects of diabetes on the community.” ▪ “Add new members from other community organizations representing new perspectives of the community.” ▪ “Identify one or two patients with diabetes from the community to be on the CAB.” ▪ “More engagement and collaboration with community stakeholders.”
Attendance	<p>On ways for the CAB to improve:</p> <ul style="list-style-type: none"> ▪ “Try to attend the monthly meetings to keep abreast on the project.” ▪ “Attend meetings more consistently.” ▪ “Encourage more participation of CAB members that have not been active.”
Funding	<ul style="list-style-type: none"> ▪ “Receive funding to move forward with projects.” ▪ “Find new financial resources to expand the program.” ▪ “Strategize for future if no funding is received.”

Abbreviations: CAB, community advisory board