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DEVELOPING A TRANSCULTURAL ACADEMIC-COMMUNITY PARTNERSHIP TO ARREST OBESITY

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Abstract

Innovative and empirically tested strategies are needed to define and understand obesity prevention and reduction in a transcultural society. This manuscript describes the development of Science & Community, a partnership developed over a 3-year period with the end goal of implementing a community-based participatory research (CBPR) trial to reduce and prevent obesity. Outreach strategies focused on promoting the project via existing and new channels and identifying and contacting potential partners using established strategies. Science & Community developed and fostered partnerships by hosting a series of interactive meetings, including three Opportunity Receptions, four Community Open Forum Symposia, and quarterly Community Advisory Board (CAB) meetings. Opportunity Reception (N = 62) and Symposia attendees (N = 103) represented the diversity of the community, and participants reported high satisfaction with content and programming. From these events, the CAB was formed and was comprised of 13 community representatives. From these meetings, a Partnership representing 34 organizations and 614 individuals emerged that has helped to guide the development of future proposals and strategies to reduce obesity in Houston/Harris County.

There is widespread agreement that obesity is a dire public health challenge facing most of the industrialized world. However, defining and understanding how to turn the tide to obesity prevention and reduction in a transcultural society remains a nebulous proposition. The characteristics of greater diversity than uniqueness lead to transculturalism, where people from many backgrounds live, work, worship, play, and school together, embracing and blending the many cultures represented. This trend away from a single cultural identity reflects a need for health promotion and research strategies that embrace transculturalism and include perspectives and strengths from a wide array of expertise and experience in order to prevent and treat obesity.

Community Based Participatory Research (CBPR) includes community members, organizational representatives, and researchers as equal partners in the research process. CBPR fosters open communication, trust, accountability, and keeps participants engaged from conceptualization to implementation of the project (Ammerman, Corbie-Smith, St. George, Washington, Weathers, & Jackson-Christian, 2003; Boyer, Mohatt, Pasker, Drew, & McGlone, 2007; Pazoki, Nabipour, Seyednezami, & Imami, 2007). Community ownership of the project, along with the relevancy of the information generated for the promotion and implementation of intervention strategies, is fundamental to the success and sustainability of the project. CBPR studies are credited with enhanced ecologic validity as they are conducted in the “real world,” taking into consideration cultural and environmental factors and improving generalizability. These approaches may serve to increase the chances for successful adoption, implementation, and sustainability of transcultural obesity prevention and control projects. Despite the optimism and rhetoric, there are few reports empirically documenting the emergence of CBPR partnerships, particularly in the arena of partnerships that aim to include a more diverse array of partners.

Science and Community: Ending Obesity Improving Health (Science & Community; NIH HD063190) was a community-based participatory research (CBPR) partnership to form an academic-community partnership aimed at reducing obesity by developing a transcultural shared vision and agenda via community outreach and education. The partnership was headquartered in the City of Houston, the most diverse city in the United States, which also held the dubious distinction of being one of *America's Top 10 Fattest Cities* (Hübler, 2009), making it an ideal project location. Goals of the *Science & Community* Partnership included:

1. enhancing sustainability of obesity prevention and control approaches by allowing for better communication and linkage between community members through integration of obesity prevention and control services;
2. creating a channel for continuous flow of information between organizations and community members to better meet the needs of community members;
3. disseminating a consistent message across sectors (e.g., for- and not-for-profit organizations, government agencies, worksites, educational settings) among community members; and
4. increasing knowledge among community members about available information, opportunities, and services.

This article describes the development of a shared academic and community partnership. The results and conclusions obtained from this study can inform development of similar diverse partnerships with best practices that focus on next-generation, transcultural, sustainable community approaches to prevent and control obesity.

METHOD

Overview

The partnership was supported by the existing framework of a university research center at the University of Houston (UH) which already had a strong and positive reputation among

community members resulting from several years of outreach at community events. Over a focused 3-year period, the research center hoped to strengthen its existing community partnership base with the ultimate goal of fostering education and research to prevent and reduce obesity in the community. The project aimed to have scientists provide training and expertise in topics related to national obesity guidelines, prevention science, behavioral medicine, nutrition, and physical activity, while community members would contribute knowledge of the ecologic milieu, such as available resources and services, prevailing attitudes and beliefs, and areas of support and interest.

Partnership Outreach

Promoting Science & Community—Invited organizations included health professional organizations, community health organizations, school health programs, as well as a minority history museum, and minority interest organizations. Due to the disproportionately high prevalence of obesity in the African-American and Hispanic or Latino populations, we also invited minority-interest organizations unrelated to health (e.g., ethnicity specific professional and advocacy organizations, faith based groups).

Identifying and Contacting Potential Partners—Development of a script and recruitment protocol were guided by Cialdini's "Six Principles of Persuasion" to increase interest in joining the partnership (Cialdini, 1984). Strategies focused on concepts of social proof, liking, authority, scarcity, reciprocity, and commitment consistency. Social proof refers to the fact that people tend to do what they see other people who are like them doing, so we mentioned how we learned of the potential partner, either as recommended by another partner organization or based on similarity to another partner organization. People tend to do things that are suggested by people whom they like either because those people are attractive or similar to them in some way, so we used a diverse scientific team who were energetic and engaging. We capitalized on the authority inherent in a study funded by the NIH and housed at the University of Houston, led by the principal investigator, a recognized expert by the community. We implied a sense of scarcity by focusing on space and time-limited opportunities to participate in project events. We offered reciprocity, the notion that people are more likely to do something in exchange for something else, by providing services to the community, such as body composition and blood pressure screenings and free health information from an expert source. Last, we asked for a signed memorandum of understanding from those who joined the partnership to enhance commitment consistency, the sense that people are more likely to do something that they have committed to doing to appear consistent and reliable.

A detailed call log was used to record the date and outcome of all e-mails and phone calls. Recruiters initiated contact with prospective partners with an e-mail and then a follow-up phone call 2 days later if there was no response to the initial e-mail. Depending on the preferred method of communication, many contacts received multiple e-mails and fewer phone calls while contacts who were more responsive via telephone received more phone calls and fewer e-mails.

Partnership Development Activities

Science & Community developed and fostered partnerships by hosting a series of interactive meetings: Opportunity Receptions, Community Advisory Board (CAB) meetings, and Open Forum Symposia. The strategy of a series of meetings served to increase community cohesion, which, in turn, helped to increase personal investment and ownership of the partnership by community members and allowed the partnership to set and achieve shared goals, consistent with group dynamics theories (Carron, Hausenblas, & Estabrooks, 2002).

Opportunity Receptions—Three Opportunity Receptions were held at the beginning of the project to introduce the project to the community and establish buy-in by providing attendees with valuable health information, an opportunity to network with one another, and support of their thoughts and opinions about identifying and addressing health problems of our community. Organizations were invited to attend Opportunity Receptions via direct e-mailed invitation, social media announcements, and announcements on the local television news. To promote participation by the African-American and Hispanic or Latino communities, the first Opportunity Reception was specifically marketed to promote African-American partnerships, the second to promote Hispanic or Latino partnerships, and the third had no specific ethnic focus. Specific marketing efforts included using ethnically matched photographs on recruitment materials and presenting materials at events and organizations that focused specifically on that ethnic group (e.g., Black Health Expo, National Hispanic Professional Organization). Opportunity Receptions were free to attend and held on the University campus owing to its central location in the city, ease of access by public transportation, familiarity and name recognition from community members, and to capitalize on free meeting space.

Participants were greeted and documented consent to complete entrance, demographic, and evaluation surveys and to allow the use of their image in recordings and photos. After the registration and entrance survey, Opportunity Receptions included activities specifically designed to introduce the project to the community and help strengthen the Partnership. Activities included networking, a presentation by the principal investigator introducing *Science & Community* and a group discussion for questions and suggestions about the project. During networking time, members of the *Science & Community* project scientific team personally introduced themselves to attendees and described *Science & Community* while attendees described their organizations and interests. The scientific team included four investigators with broad expertise in obesity, nutrition, physical activity, and CBPR, along with a dozen undergraduate intern or graduate student volunteers. Volunteers wore matching project t-shirts to make them easily identifiable to community members.

After networking, the principal investigator welcomed everyone to the Opportunity Reception and gave a brief overview of *Science & Community*. The overview included information on the challenge of obesity in the community, disparities in obesity prevalence, and guidelines for physical activity, dietary habits, and obesity. Each Opportunity Reception concluded with an open discussion, which encouraged participants to share their perspective, ask questions and make comments. Future events were announced, and then the entire group discussed the presented information. Throughout the Opportunity Receptions, the scientific

team described future planned activities to attendees such as joining the Partnership and participating in the CAB.

Community Advisory Board—Over the course of the first year, the scientific team spoke with attendees at events about forming a community advisory board (CAB). Formal announcements were made during presentations by the principal investigator, and individual members of the scientific team asked attendees if they would be interested. Over the course of the first year, interested attendees emerged to form a CAB. In the second year, the CAB began holding quarterly (or more frequently in two cases) meetings to talk about *Science & Community*, develop a strong bond between scientists and community members, make suggestions for future events and protocols, and review and provide feedback on materials.

Open Forum Symposia—The theme, content, and interactive activities of each of the *Science & Community* semi-annual Community Open Forum Symposia and Stakeholder Meetings are presented in Table 1. Invitees included people who had joined the partnership at the Opportunity Receptions along with new partners. Symposia were held approximately every 6 months over a 2-year period on the University campus. Symposia included similar features as the Opportunity Receptions including the welcome table registration, pre- and post-symposium surveys for attendees, networking time among community members and the science team, educational presentations by the science team, and discussion time, but also included additional thematic elements identified by the Partnership as specific areas of community interest.

Each focused on a particular theme and included both structured and informal interactive activities. At the first Symposium, information gleaned from the Opportunity Receptions was presented, including demographic description of attendees, and other information presented in the results herein from Opportunity Receptions attendees. Representatives from organizations were given brief presentation time to introduce themselves and their obesity prevention and control activities. At the second Symposium, the scientific team presented a summary from the 2010 Dietary Guidelines from the U.S. Department of Agriculture (U.S. Department of Agriculture). At the third Symposium, the scientific team presented information from the Institute of Medicine's 2011 Childhood Obesity Prevention Policies report (Birch, Bums, Parker, & Institute of Medicine (U.S.), 2011). At the fourth Symposium, the scientific team asked local policy makers to speak to the Partnership about local initiatives to prevent obesity.

To increase attendance and maximize participation rates, fun and engaging discussions and interactive activities were advised by the CAB and included as important features of each Symposium. For example, guided group dance demonstrations led by local certified instructors, health fairs, and a greater community presence were included. For the health fairs, health-related community organizations exhibited their services and provided information and small complimentary gifts (e.g., key chains, brochures, coupons) to Symposium attendees. An educational tour of a community garden led by a community gardening non-profit organization was included, and one Symposium was hosted at a community location. Symposia also included informal group discussions and, in one case, a guided group interview (Basch, 1987).

Similar to the Opportunity Receptions, Symposia attendees completed entrance and exit surveys. Entrance surveys measured demographic information, and how attendees learned about the event to assist with marketing of future events. Exit surveys included an event evaluation to inform future event activities.

A suggestion from the CAB was the addition of a quarterly *Science & Community* newsletter to strengthen the partnership by educating and informing them about health news, community health events, community resources, and other health information, like national guidelines and tips for healthy living. The newsletter also served as a means of delivering project updates and promoting *Science & Community's* community-wide events. Content for the newsletter was provided by partners, CAB members, and other community stakeholders with health promotion missions.

One month prior to the publication of each issue, the *Science & Community* research team sent out newsletter submission requests to over 100 organizations located throughout Houston. Reminder e-mails and phone calls to organizations helped to round out submissions. Simple, standardized newsletter submission request forms allowed partners to promote upcoming community events, community resources, honors and awards, announcements, or organization updates easily, quickly, and without cost. Once submissions were received, a complete draft of the newsletter was presented to the CAB and scientific team during the quarterly CAB meetings for feedback and revisions before the final draft was disseminated to the Partnership and on the project website. Based on CAB suggestions, new topics and formatting strategies for the newsletter emerged over time.

RESULTS

Partnership Development

Recruitment—A total of 308 individuals and organizations were contacted. In total, 513 e-mails and 115 phone calls were documented. Following recruitment outreach efforts, Opportunity Receptions and Open Forum Symposia yielded 600 Partnership supporters, 26 partners with signed Memoranda of Understanding, and 13 Community Advisory Board (CAB) members.

Partnership—Organizations represented in the Partnership varied from nationally recognized institutions to local grass root organizations. Organizations in the City of Houston were the target audience for the Partnership; however, organizations located within Harris County were also included. Partner organizations served the community in a variety of ways such as advocating for health services in underserved populations, raising education and awareness of health behaviors and issues, and as special interest groups focusing on specific challenges or diseases (e.g., Crohn's disease, lymphedema). For organizations that did not explicitly represent the health field, many possessed health initiatives and a strong commitment to serving the community and promoting healthy living. Of the organizations who joined the partnership with signed Memoranda of Understanding, 17.6% ($n = 6$) represented nutrition or obesity organizations, 17.6% ($n = 6$) represented organizations dedicated to a specific health cause or disease, 11.8% ($n = 4$) represented a public health department, 8.8% ($n = 3$) were devoted to women's health, 5.9% ($n = 2$) were devoted to

African American health, and 8.8% ($n = 3$) represented other types of health organizations. Another 5.9% ($n = 2$) represented educational organizations, 5.9% ($n = 2$) represented faith based organizations, and the remaining 17.6% ($n = 6$) represented a diverse mix of organizations that were not captured by any other categories. The Partnership included both for-profit and not-for-profit organizations. (Due to rounding, percentages do not total 100%.)

Opportunity Receptions

Attendees—Attendees reported that they had heard about *Science & Community* from multiple sources, including an electronic listserv either at work or from another organization ($n = 46$), via a website not directly related to the project ($n = 40$), a co-worker ($n = 28$), friends or family members ($n = 24$), the TORC listserv ($n = 22$), from a website related (project website or research center website, $n = 18$), a health fair or wellness event ($n = 14$), social networking websites (Facebook/Twitter, $n = 6$), posted flyers ($n = 3$), in a newspaper or magazine ($n = 1$), or from other sources ($n = 24$). There were a total of 226 responses. This may not be representative of all attendees as some attendees chose not to answer this question on the survey.

Thirty-two people attended Reception 1, 11 attended Reception 2, and 19 attended Reception 3. Efforts to encourage members of the African-American community to attend Reception 1 were effective with 90% ($n = 29$) of attendees endorsing African American as their ethnicity. There were higher numbers of Hispanic or Latino attendees at Reception 2, with 36% ($n = 4$) of attendees endorsing Hispanic or Latino, 55% ($n = 6$) endorsing white, and 9% ($n = 1$) endorsing African American, reflecting mixed success at focusing on the Hispanic or Latino community for Reception 2. Reception 3 was focused on the entire Houston community, and hosted a diversity of attendees, with 53% ($n = 10$) African American, 16% ($n = 3$) Hispanic or Latino, and 26% ($n = 5$) white, and 5% ($n = 1$) identifying as other.

As presented in Table 2, more women than men attended, and women tended to be somewhat younger and more overweight compared to men. African-American attendees tended to be somewhat younger compared to Hispanic or Latino attendees who were younger than white attendees. African-American and Hispanic or Latino attendees tended to be obese compared to white attendees who were closer to normal weight. None of these differences were statistically significant.

Satisfaction—As presented in Table 3, most participants (74–93%) were satisfied or very satisfied with all elements of the Receptions ranging from their organization and structure to content and networking opportunities.

Community Advisory Board

The Community Advisory Board (CAB) was comprised of 13 ($n = 6$ men, $n = 7$ women) African American ($n = 7$), Hispanic ($n = 3$), and white ($n = 2$) community representatives who met quarterly, or more frequently as needed, beginning in the second year. CAB members represented health related organizations, faith-based organizations, youth-related

organizations, and a museum. In total, 10 CAB meetings were hosted to discuss project updates, review project materials, advise on upcoming Symposia activities and themes, and provide feedback on proposed project activities. African-American members had the highest attendance comprising 43–85% of attendees and Hispanic members had the second highest attendance rate comprising 13–20% of attendees.

Open Forum Symposia

Attendees—A total of 155 attended the symposia. As presented in Table 4, efforts at outreach to the diversity of the community, including African Americans and Hispanics or Latinos, were effective. Although the majority of participants at Symposia were African Americans, we steadily increased diversity in attendance at subsequent symposia.

In general, participants were middle-aged ($M = 44.3$ years, $SD = 14.5$), and slightly overweight (M BMI = 25.1 kg/m^2 , $SD = 4.9$) (Table 5). Nearly three-fourths (71.3%) of participants were women, and 77% had completed 4 or more years of college. Nearly half of participants (45.1%) identified themselves as Black or African American, 25.6% as White, 18.6% as Hispanic or Latino, 7.8% as Asian, 1% as American Indian or Alaska Native, and 1% as other (does not equal exactly 100% due to rounding).

African-American ($M = 50.1$ years; $SD = 12.3$) attendees tended to be somewhat older compared to Hispanic or Latino ($M = 35.8$ years; $SD = 9.5$) attendees, who were younger than white ($M = 37.8$ years; $SD = 14.4$) attendees ($F(3, 97) = 7.314$, $p < .001$). African American ($M = 27.8 \text{ kg/m}^2$, $SD = 6.2$) and Hispanic or Latino ($M = 25.6 \text{ kg/m}^2$, $SD = 3.5$) attendees tended to weigh more compared to white attendees ($M = 22.5 \text{ kg/m}^2$, $SD = 2.5$) ($F(3, 95) = 8.502$, $p < 0.001$). There were no statistically significant differences among the three Symposia groups.

Representativeness of Community Organizations—We reached a broad representation of organizations in the community at the symposium. Most (66%, $n = 44$) organizations were related to health, including organizations representing nutrition and/or obesity (19%, $n = 13$), public health departments (13%, $n = 9$), women's health (5%, $n = 3$), African-American health (3%, $N = 2$), specific health challenges or diseases (18%, $n = 12$), and miscellaneous health issues (8%, $n = 5$). Additional organizations represented education (6%, $n = 4$), faith-based groups (6%, $n = 4$), and a variety of other types of community organizations (22%, $n = 15$; e.g., Shell Federal Credit Union, Buffalo Soldiers National Museum, and the Houston Hispanic Chamber of Commerce).

Satisfaction—Table 6 presents satisfaction with Open Forum Symposia. In general, most were satisfied or very satisfied including recommending attending future meetings to a friend, and most were satisfied with the content, structure, and organization. The lowest ranked items included issues related to parking (an enduring challenge on large University campuses), way-finding signage, and a walk to a campus community garden about 10 minutes from the meeting site (Symposium 3).

Newsletters

The *Science & Community Newsletter* was disseminated quarterly starting in April 2011 and ending in January 2013. A total of 54 different organizations contributed to the newsletter throughout its existence, including health professional organizations, community health organizations, school organizations, a history museum, and minority interest organizations. The Spring, Summer, and Winter 2011 issues were disseminated to 127 recipients, while the Spring, Summer, and Fall 2012 issue reached 203 recipients, and the Spring 2013 issue reached 614 recipients, demonstrating steady growth in the Partnership. A total of 15 organizations sent in submissions for the Spring 2011 newsletter, 12 organizations contributed to the Summer 2011 newsletter, 11 organizations contributed to the Fall 2011 newsletter, 9 organizations contributed to the Spring 2012 issue, 15 organizations contributed to the Summer 2012 issue, 12 organizations contributed to the Winter 2012, and 5 organizations contributed to the Spring 2013 issue.

Out of 79 submissions from all issues, 57% were community resources and services ($n = 45$), 37% were community events ($n = 29$), 5% were honors and awards ($n = 4$), and 1% were other community organization announcements ($n = 1$). The newsletter served as a tool that further fostered strong ties between our research team and partners by allowing us to invest, share, and partner with them on their organization's events and achievements. The newsletter also contributed to the overall project goal of educating and disseminating health information to the community, featuring community resources and events that provided community members the opportunity to participate in current research projects, attend local health events, and become aware of public health concerns such as childhood obesity.

DISCUSSION

Forming successful academic and community partnerships takes time and resources, but these data suggest that it is possible and welcomed, particularly when there is a shared area of interest and there are clear benefits to all parties. We demonstrated high levels of satisfaction from our diverse community by following a CBPR strategy. Our findings were consistent with previous studies that have suggested that a successful partnership should include shared goals such as, in this case, developing a partnership around obesity prevention and control, frequent communication and cultural relevancy that can be shared by a network of partners (Meade & Calvo, 2011). Also supporting previous work, following the lead of the community—emphasizing community desires and needs, and working together to find a shared solution that is supported by the science and appealing to the community—was very important (Lindamer, Lebowitz, Hough, Garcia, Aquirre, Halpain, et al., 2009). For example, proposed content and activities from the scientific team were often modified in response to requests and needs identified by the community partnership. In turn, the community was receptive to provide feedback and attend meetings and provide enthusiastic encouragement to the scientific team.

RECOMMENDATIONS, CHALLENGES, AND LESSONS LEARNED

The development of the partnership that initially relied on social persuasion strategies from Cialdini ultimately succeeded and was sustainable, in a large part, because of the momentum

around the shared goal of reducing the burden of obesity. Group cohesion theorists and practitioners have demonstrated that having a shared goal promotes high rates of participation and adherence (Carron et al., 2002). Although the scientific team introduced the topic a priori, results of the meetings indicated broad interest across multiple sectors of the community. Although physical activity, nutrition, and obesity related community organizations were obvious partners, we found that nearly every organization that we approached—even those not associated with these topics specifically or even health generally—was interested in partnering. The degree of partnering varied widely from full involvement (e.g., serving on the CAB) to simple alliance (e.g., supplying items for the newsletter).

A second key to success noted anecdotally by the CAB was demonstrating humanity and humility. The multiple meetings of the Opportunity Receptions and Open Forum Symposia gave the scientists and the community ample opportunity to meet and talk informally together. Community members were often shy and formal, until they got to know the scientific team. After the relationship was established, several community members remarked that the scientific team was not what they had expected, and were pleased with the recognition that, although scientists are experts in many things, they are not experts in *all* things. Community members would often have specific questions about guidelines or health outcomes of their family or friends, and were relieved to have a place to get accurate information. Community members rated these sessions with high levels of satisfaction, suggesting that the strategy of a series of meetings was helpful for increasing frequent communication and enhancing mutual understanding and trust.

Scientific team members also had to demonstrate to the community that they were willing to step outside of the hallowed halls of academia. Although academia was viewed as a credible information source, it was not necessarily seen as an *accessible* information source. Although not specifically documented in this article, the scientific team already had begun to establish a community presence by attending community health fairs both preceding and throughout the project grant period and volunteering as guest speakers and keynotes at community organization events. These undocumented community alliances and contacts were very helpful in initially formalizing the partnership. Members of the scientific team served on local policy making community teams, to advise the Mayor and City Council, further increasing connections and visibility in the community. The reality of developing sustainable partnerships is that both scientists and community members have to spend a great deal of time and energy in each other's realms, and typically this effort is not formally recognized and may be well beyond what is seen by the eyes of funding agencies, workplace requirements, or any tangible compensation. A limitation in this report of the development of this partnership is the inability to document personal contacts, e-mails, and other interactions that may have occurred between members of the scientific team and the community.

Another important consideration was location. In general, events held on the University campus were rated highly, although attendance was variable. Over the course of the Opportunity Receptions, we experienced variable and decreasing attendance, and informal CAB feedback suggested that finding the site on the campus and parking were both

important for improving future attendance and satisfaction. Improving parking access was limited to the parking structures available on the campus, but increasing way-finding signs and having *Science & Community* team members available in key locations on the campus to answer questions were well received and improved satisfaction. As Open Forum Symposia were underway, the CAB also suggested hosting future events at community sites might increase attendance. The scientific team was able to capitalize on early alliances to secure a community site at no cost for the fourth symposium, and attendance was higher at this site; however, other indicators of satisfaction were lower.

Recruiting volunteer community partners and organizations is widely recognized as an important first step to sustainable community change. A second consideration is retention of partners and maintaining enthusiasm about the project for the project's duration and beyond. The *Science & Community* team strived to make sure that partners felt personally valued and that the contributions and unique characteristics of each partner and organization was valuable to the partnership. Suggestions from the CAB were followed closely for events and strategies to improve satisfaction and engagement in the partnership. Some of the more successful strategies were invited speakers from local initiatives, but strategies that met with mixed satisfaction included interactive physical activity demonstrations and local health vendors during health fairs. It is not clear why some strategies were more highly rated than others; nevertheless, future studies should consider strategies to overcome mixed evaluations.

The scientific team was surprised by the suggestion of and continuing interest in the Quarterly Newsletter from the CAB. Partners clearly responded both in terms of sharing and receiving news and information about each other by way of the Quarterly Newsletter. One curious finding of this study is that after a strong start, submissions for the newsletter decreased somewhat, and CAB suggestions of improving the submission process and formatting of the newsletter itself did not necessarily increase the ease of securing submissions. There was still a need for the science team to solicit submissions. However, the growing momentum combined with the CAB improvements did succeed in increasing the audience receiving it. The newsletter audience continues to grow, and as of this writing is still sent out electronically, even after the project funding is officially over. Past issues are also available on the project website (http://grants.hhp.uh.edu/undo/?page_id=267). As well, many of the newsletter items were additionally posted via social media such as Facebook and Twitter. Community partners suggested anecdotally that there is a need for this kind of networking and communicating across organizations that did not previously exist in a formal and organized fashion. The popularity of the newsletter juxtaposed with the sometimes low attendance rates at the events also may have indicated broad interest in the topic and the Partnership, but in today's fast-moving society of overburdened citizens and social media, digital technology and electronic communication tools may be the best way to maintain engagement and connection with the community.

The *Science & Community Partnership* development was a success, linking together a sizeable and representative transcultural partnership of organizations and individuals with a common focus on obesity prevention in the community. Of particular note, the far reach of the newsletter, the enduring commitment of the CAB, and a large and representative number

of community members focusing on a single topic are clear indicators of a successfully developed partnership. Relying on theoretically-guided strategies together with community expertise and advisement to engage and retain members proved fruitful. Developing partnerships requires time and resources and should be considered in start-up costs and programming of projects that wish to engage community in the research process. Although typically commenced as a unidirectional process (i.e., science to community), researchers have to be willing to allow the community to join and provide direction to produce unique opportunities and alliances that might not have been possible with either alone. Partnerships such as this have the potential to develop effective approaches that may be more sustainable and ecologically valid than traditional approaches.

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Table 1
Themes and Activities of Open Forum Symposia in the *Science & Community Project*

Name	Content	Interactive activities
Open Forum Symposium & Stakeholder Meeting (November 2010)	Participant demographic and knowledge of health issues in the City of Houston	Discussion of health promotion and obesity prevention activities of participating organizations
<i>Science & Community</i> Symposium and Health Fair (May 2011)	Results of community in-depth interviews and 2010 Dietary Guidelines for Americans	Discussion of dietary guidelines, strategies for disseminating health information to the community, support groups for obese people, and improving school lunches' nutritional quality. Mini-health fair with 20 health organizations
After School Health Fair & Symposium (October 2011)	2011 IOM Early Childhood Obesity Prevention Policies Report <i>Science & Community</i> CBPR project proposal	Structured group interview about CBPR project proposal Physical activity demonstration and participation by Nightclub Cardio Walking tour of community garden Mini-health fair with 30 health organizations
Spring <i>Science & Community</i> Health Fair & Symposium (May 2012)	Presentations from local policy makers and community leaders on childhood obesity prevention	Physical activity demonstrations such as hula hoops, zumba, and jump rope Mini-health fair with 20 health organizations.

Table 2

Sample Characteristics of Attendees at Opportunity Receptions

	Number of attendees	Age (years)	BMI (kg/m2)
Gender			
Women	46	43.1 (12.6)	29.8 (8.2)
Men	16	47.3 (15.7)	27.0 (6.0)
Ethnicity			
African American	40	41.9 (13.6)	30.1 (8.4)
Hispanic/Latino	7	44.9 (12.0)	31.7 (8.0)
White	13	51.8 (12.4)	25.1 (2.5)
Other	2	39.5 (12.0)	24.9 (9.9)

Table 3

Satisfaction with Opportunity Receptions

	Satisfied or Very Satisfied (%)
Satisfied with the way the meeting was organized and structured	93.3
Found meeting content helpful for learning about the project	88.5
Likely to recommend coming to a future meeting to a friend	91.8
Found the meeting helpful for making connections with fellow community members	80.7
Felt meeting increased your knowledge and awareness of health within your community	74.2

Table 4Percent (*N* Attendance by Gender and Ethnicity at Each Symposium

	November 2010 <i>N</i> = 13 % (<i>N</i>)	May 2011 <i>N</i> = 37 % (<i>N</i>)	October 2011 <i>N</i> = 53 % (<i>N</i>)	May 2012 <i>N</i> = 52 % (<i>N</i>)
African American	61.5 (8)	52.8 (19)	36.0 (18)	33.3 (16)
Hispanic or Latino	7.7 (1)	5.6 (2)	28.0 (14)	54.2 (26)
White	30.8 (4)	27.8 (10)	22.0 (11)	8.3 (4)
Other	0 (0)	13.9 (5)	14.0 (7)	4.2 (2)

Table 5

Sample Characteristics of Attendees at Open Forum Symposia

Ethnicity	Number of attendees	Age (years)	BMI (kg/m ²)
Gender			
Women	100	41.1 (13.2)	26.1 (5.9)
Men	46	44.2 (15.0)	27.0 (4.5)
Ethnicity			
African American	59	48.2 (14.0)	27.7 (5.9)
Hispanic/Latino	42	35.8 (7.8)	28.3 (5.3)
White	29	38.3 (13.9)	22.6 (2.5)
Other	14	43.3 (15.9)	22.7 (2.5)

Note: Seven cases had incomplete data.

Table 6**Satisfaction with Open Forum Symposia**

	Satisfaction (%)
Symposium 1. November 2010	
Satisfied with the way the meeting was organized and structured	75.0
Found meeting content helpful for learning about health disparities	87.5
Found meeting content helpful for learning about the <i>Science & Community</i> project	100.0
Likely to recommend coming to a future meeting to a friend	100.0
Meeting increased knowledge and awareness of health within your community and of project activities	87.5
Symposium 2. May 2011	
Likely to recommend coming to a future meeting to a friend	90.6
Meeting increased knowledge and awareness of health within your community and of project activities	75.0
Satisfied with the way in which the meeting was structured and organized	77.5
Found meeting content helpful for learning about health disparities	43.3
Found meeting content helpful for learning about the <i>Science & Community</i> project	83.3
Satisfied with the location of the meeting	83.3
Satisfied with the directions/signs to help find the meeting	79.3
Symposium 3. October 2011	
Likely to recommend coming to future <i>Science & Community</i> Symposium to a friend	83.3
Overall meeting increased knowledge and awareness of health within your community and of project activities	69.5
Gardening demonstration at UH community garden increased knowledge and awareness of using gardens as a source of fresh vegetables and fruit	70.3
Enjoyed the walk to the UH community garden and the gardening demonstration	69.3
Nightclub Cardio fitness demonstration increased knowledge and awareness of fun ways to do physical activity	71.0
Enjoyed Nightclub Cardio fitness demonstration	80.6
Group discussion about the <i>Science & Community</i> project increased knowledge and awareness about the <i>Science & Community</i> project and future childhood obesity research projects	84.9
Enjoyed the <i>Science & Community</i> project group discussion	81.8
Satisfied with the way in which the symposium and health fair were structured and organized	84.9
Found symposium content helpful for learning about childhood obesity	97.0
Found symposium content helpful for learning about the <i>Science & Community</i> project	78.8
Satisfied with the variety of exhibitors/vendors at the health fair	87.9
Satisfied with the helpfulness of the <i>Science & Community</i> project team during the event	100.0
Satisfied with the location of the symposium	81.2
Satisfied with the directions/signs to help find the event	69.7
Satisfied with event parking on the UH campus	60.6
Symposium 4. May 2012	
Likely to recommend coming to future <i>Science & Community</i> symposium to a friend	78.2
Overall meeting increased knowledge and awareness of health within your community and of project activities	73.9
Enjoyed State Representative Carol Alvarado's talk	73.9
Enjoyed Shape Up Houston President Lan Bentsen's talk	82.6
Enjoyed interactive demonstrations	69.5
Satisfied with the way in which the symposium and health fair were structured and organized	60.9

	Satisfaction (%)
Found symposium content helpful for learning about childhood obesity	65.2
Found symposium content helpful for learning about the <i>Science & Community</i> project	73.9
Satisfied with the variety of exhibitors/vendors at the health fair	39.5
Satisfied with the location of the symposium (held at The Ripley House)	78.3

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