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Initiating Dialogue in Community-Partnered Participatory Research to Address Obesity in South Los Angeles

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Summary:

In South Los Angeles, a community-engaged research project on obesity was initiated between a translational research institute seeking to build community-based or partnered participatory research (CBPR/CPPR) capacity, and a community partner with extensive experience. This manuscript describes the partnership-building process and discusses results from a bi-directional knowledge transfer event.

Keywords

Community-based participatory research; community-partnered participatory research; obesity; health disparities

Significant work is needed to translate federally-funded biomedical research discoveries into broader public health impact. In 2003, the National Institutes of Health (NIH) announced development of the NIH Roadmap for Medical Science,¹ then implemented the Roadmap theme of “Re-engineering the Clinical Research Enterprise” by initiating the Clinical and Translational Science Awards (CTSAs)² in 2006. The CTSAs required a team science approach that would span investigators in the continuum of biomedical science from bench

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to bedside to the community. Community-engaged research³ was determined to be an essential component of team science to ensure that biomedical research findings and products are acceptable and meet the needs of diverse stakeholders (e.g., health care systems, insurers, patients, families, communities, government agencies), in order to eliminate racial/ethnic disparities in health outcomes. Although there is substantial literature describing community-academic partnerships initiated by academic investigators, less is written about academic institutions building capacity for participatory research by relying on community partners with extensive research experience. This paper describes a partnership between Los Angeles Biomedical Research Institute (LABioMed), an independent research institute on the campus of a publicly-funded, safety-net hospital (Harbor-UCLA Medical Center), and Healthy African American Families II, a community health advocacy organization, based in South Los Angeles. The purpose of the partnership was to engage the local community on developing research priorities to reduce rates of obesity and obesity-related comorbidities such as cardiovascular disease and diabetes.

“Community-based participatory research” (CBPR) is a collaborative approach involving equitable partnerships in the research process, bringing together unique strengths from all parties in a joint effort to address research questions. “Community-partnered participatory research” (CPPR) is a local, manualized variation on CBPR, developed over the last 30 years by a community health advocacy agency, Healthy African American Families II (HAAFII), emphasizing equal partnerships between researchers and community in all phases of research, so that interventions and evaluations are conducted within the context of the community’s values, assets, priorities, and programs.^{4,5,6,7,8,9} Community-partnered participatory research emphasizes biomedical researchers partnering with communities rather than merely conducting the research within a community location.¹⁰ The CPPR framework has guided research partnerships across a diverse set of public health priorities such as cancer, depression, HIV, autism, birth outcomes, strokes, and chronic kidney disease.

LABioMed is an affiliate institution in the Clinical and Translational Science Institute (CTSI) of the University of California, Los Angeles (UCLA). In 2013, LABioMed’s expertise included basic and translational research,^{11,12} clinical trials,¹³ and development of novel therapeutics,¹⁴ but not CBPR/CPPR. With the establishment of the CTSI and the Community Engagement Research Program (CERP) centered at UCLA, there was recognition that the affiliate campuses needed to develop individual programs to address the unique needs of their surrounding communities. Therefore, the CTSI at LABioMed sought to develop local infrastructure to foster partnerships with the community.

Healthy African American Families II (HAAF) is a non-profit organization that promotes health and social progress in the Los Angeles community through collaboration with community, academic, and government partners. Healthy African American Families II was originally developed as a project in the 1990s as a *reactive partner* in response to a CDC initiative to study ethnic disparities and pregnancy outcomes.⁷ After the initial study, HAAF was sustained through community-academic collaborations and developed into a *proactive partner*, an organization with infrastructure, a mission, and its own academic, health, and non-health related partners. By 2013, HAAF had two decades of CBPR/CPPR experience, with projects ranging from pregnancy¹⁵ to depression.^{16,17} Based on HAAF’s track record

in community-academic partnerships, LABioMed approached HAAF as a potential partner to promote a community-academic approach to health in the South Los Angeles community.

Obesity was selected as the health issue to address, as it disproportionately affects racial/ethnic minority communities, raising risks for diabetes, coronary heart disease, and stroke.¹⁸ In the United States, the prevalence of obesity among adults is 37.7%.¹⁹ California (25.4% overall prevalence) demonstrates disparity among racial and ethnic groups, with higher rates among African Americans (males 28.2%, females 41.6%) and Latinos (males 33.2%, females 35.9%) than others.²⁰ In Los Angeles County, the 2011 overall prevalence of obesity was 23.9%,²¹ with some South Los Angeles communities exhibiting prevalence rates up to approximately 35%.²²

Community Engagement Forum—The “Just Two Inches Away” Conference

Potential barriers to obesity research include challenges in discussing obesity,^{23, 24} lack of trust between community members and academic investigators,²⁵ linguistic and cultural preferences, and incompatibility between proposed interventions and community resources for sustainability. Dialogue between community and academic members was initiated within the framework of an existing CBPR/CPPR project series called “Building Bridges to Optimum Health,” a conference series led by HAAF since 1994 that educates the community and creates opportunities for interaction between the lay community, community-based organizations, health care providers and academic researchers from the local public health agency, public hospital system, and non-profit research institutions.²⁶ Previous topics included autism, preterm delivery,¹⁵ women’s health, clinical research/research ethics, pain management, memory disorders, mental health,^{16,17} HIV, childhood asthma, environmental health/justice, domestic violence, stroke, chronic kidney disease,²⁷ and diabetes.

Utilizing a CBPR/CPPR format for collaborative endeavors, HAAF and LABioMed engaged in an intentional partnership anchored by the tenets of Building Bridges to Optimum Health and the CTSI–CERP aims.²⁸ Additional partners included Harbor-UCLA Medical Center, the Los Angeles County Department of Health Services hospital where many LABioMed investigators serve as health care providers, and Charles R. Drew University of Medicine and Science, a local minority-serving university that trains health professionals for careers that address social justice and health equity. Informed by the Institute of Medicine’s report, *Unequal Treatment, What Healthcare Providers Need to Know About Racial and Ethnic Disparities in Health Care*,²⁹ a conference was designed with the following aims: 1) to provide a platform for community voices on obesity; 2) to serve as a bridge between community, service providers, policymakers and other stakeholders for knowledge transfer about best practices; 3) to provide a forum for health care providers and community members to engage in dialogue outside of formal health care settings; 4) to facilitate discussions regarding challenges, options, and solution-based interventions; 5) to support development and coordination of working groups to sustain continued dialogue around our partnership’s goal of improving obesity outcomes in South Los Angeles.

Conference planning.

A preconference workgroup with community and academic representatives held planning meetings, alternating between academic and community sites. One academic and two community co-chairs developed meeting agendas. Academic and community partners understood and expected reciprocity in addressing diverse agendas and priorities. Expectations were set for return on time and effort, including attendance at monthly planning meetings and participation in program development. Co-ownership of data was established by spoken agreement. Community members received cash or check stipends to compensate them for time participating in conference planning. Smaller workgroups were formed to address survey development, speaker invitations, program logistics, and event production. Tasks were assigned based on personal interest, and progress was shared by email and at meetings. Community members identified obesity-related areas of interest, and academic partners suggested speakers. Community representatives were invited as speakers alongside academic speakers. The name for the conference was developed to minimize stigma. Community members voiced concern over the word “obesity” due to negative connotations and expressed a preference to use the term “high BMI” instead. “Just Two Inches Away” emerges from the idea that waist circumference is a better predictor of cardiovascular events and mortality than body mass index (BMI),³⁰ and that its reduction by two inches will improve one’s metabolic health.^{31,32} Funding from federal (CTSI) and regional sources (LABioMed) supported the conference event.

Conference event.—The one-day program consisted of panel presentations from academic researchers, medical providers, and local public health leaders discussing the biological and environmental contributors to excess weight (including epigenetics, prenatal factors, public health marketing, and excess caloric intake), and potential therapeutic interventions (medical and surgical). The conference was advertised by e-mail to the contact list of HAAF, including individual community members, community agencies, HAAF academic contacts and CTSI contacts. The event was no-cost for participants.

Survey.—Anonymous written surveys elicited feedback about the program. An Audience Response System (ARS) was also used pre-and post-presentations, using hand-held keypads to collect and provide real-time, de-identified, aggregated summaries of audience responses to survey items, co-developed by our community-academic partnership, as well as their assessment of community resources and acceptability of available interventions to address obesity. The ARS survey promoted interaction between the speakers and audience participants on specific questions, while the written survey elicited additional information in a more detailed format.

Survey results.

The survey results represent a significant portion of the information exchange, and demonstrate the type of information obtained through the dialogue. One hundred and twenty-one of over 200 attendees completed the written survey, with response rates ranging from 66–100% for individual survey items. The ARS survey had 115 participants pre-presentation (88% response rate), and 96 participants post-presentation (82% response

rate). Most respondents were female (Table 1). Many were older than 50 years of age, identified as Black or African American, and had greater than a high school education.

Greater responsibility for solving the country's high BMI problems was assigned to individuals, family members, and the food industry (Table 2). From the pre-and post-presentation ARS survey, 27% of responders felt that reducing high BMI is a personal issue that kids and families should deal with on their own, and 73% felt that it should be addressed by the entire community.

Respondents most frequently chose "doctor" (70.6%), "fitness instructor" (58.8%), and "other health care professional" (40.3%) as resources for advice and information about weight loss. Other resources included: "internet" (39.5%), "books/newspapers/magazines" (36.1%), "CBO" (24.4%), "community health worker" (21%), "family/friends" (21%), "spiritual leader" (10.9%) and "school" (6.7%).

"Lack of knowledge on resources," and "communication with doctors" were the most commonly cited barriers to weight loss (Figure 1). Regarding whether participants' neighborhoods helped people to be healthy, 15% rated their neighborhoods as "excellent," 32.5% rated as "good," 28.3% as "fair," and 24.2% as "poor."

Regarding interest in lifestyle changes for weight loss, all methods received 70% favorable responses (Table 3). "Walking/jogging in your neighborhood" and "in-home exercise" received the most favorable ratings. Regarding interest in methods for weight loss requiring medical/professional supervision (Table 4), a majority of responders favored "nutrition class," and "behavior counseling." Medications received little favor.

Conference impact on opinions regarding medications and bariatric surgery was determined by ARS. A similar proportion of respondents would take medications pre-and post-presentation (Table 5). Post-presentation, fewer people felt that medications "don't work," and more people felt that the weight would come back.

A high proportion of survey respondents generally trusted medical researchers (Figure 2). Responses were evenly distributed over opinions regarding protection from unnecessary risk.

Lessons learned.

Community-based participatory research/community-partnered participatory research approaches have been successful in promoting community and academic partnerships to co-develop action-oriented research consistent with the values and priorities of local patients and communities.^{8,33} The Just Two Inches project demonstrated that newly formed community-academic partnerships can leverage the capacity of community organizations with a strong track record of participation in research, to begin accelerating the translation of evidence-based interventions for local public health impact through adaptation for future community-level implementation in addressing obesity. The project provided a platform to discuss obesity, brought together public health leaders, physicians and scientists, and community members together in one forum, and facilitated discussions that led to post-event working group formation for future projects.

The community partners had accumulated research expertise from prior projects,^{8,34,35} and through the credibility developed through their Community Faculty appointments at Charles Drew University,³⁶ were essential in our particular partnership to address community concerns regarding research, such as distrust, reciprocity, and benefit to community. Launching the topic of obesity within the already-established Building Bridges to Optimum Health framework thus facilitated efforts.

While health providers are often interested in implementation of interventions, a basic understanding of the community's perspectives on obesity needed to be established first. Community members experienced in CBPR/PPR specifically expressed their views of what medical and research terms were considered acceptable, and what terms required substitutions in community settings. Concerns about negative connotations in relation to the term "obesity" were noted, as provider bias³⁷ and obesity stigma have been well-described.^{38,39,40} The description of excess body weight as "high BMI" was preferred. The survey, which was designed to solicit general perceptions and opinions, revealed that "communication with doctors" was frequently considered to be a barrier to weight loss. The survey results represent the products of the bi-directional knowledge exchange, and lay the groundwork for future investigations. Future work is needed to identify specific reasons for communication with doctors as a barrier. Results from subsequent investigations may direct potential interventions to address this and other issues.

Reciprocity was also an important element in dialogue, as it addresses historical community distrust of academia. The partnership highly valued sharing of results and joint ownership of data. A joint effort between academic and community partners to apply for Institutional Review Board approval succeeded in obtaining exempt status to analyze the data retrospectively as human participant research. Plans were made to present the data in a future forum, and this manuscript represents formal data sharing and dissemination.

Finally, the long-term goal is to implement successful evidence-based interventions to reduce health disparities. Development of robust infrastructure to support CBPR/PPR health-related efforts is underway, beginning with establishment of a community council representing a broad stakeholder base, including ethnic/cultural groups, faith-based groups, community advocacy groups, and individuals in addition to the Just Two Inches partners. "Just Two Inches Away" and other CPPR endeavors will move forward under guidance of this community council. Community-based participatory research/community-partnered participatory research results may increase the likelihood of regional policy implementation through the local, publicly-run, safety-net health care system within the Los Angeles County Department of Health Services.

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Figure 1.
Barriers to receiving weight management care or to exercise.

Figure 2.
Trust in Medical Research

Table 1.**SURVEY PARTICIPANT CHARACTERISTICS^a**

Characteristic (n= # responses)	Subcategory	Percent of Responses (%)
Age (n=111)	18–30 years	15.3
	30–50 years	31.5
	>50 years	53.2
Gender (n=105)	Male	31.6
	Female	68.4
Race (n=120)	American Indian/Alaskan Native	0
	Asian	4.2
	Black/African American	64.2
	Native Hawaiian/Pacific Islander	0.8
	Hispanic/ Latino	18.3
	White	5.0
	Multiracial	7.5
Highest Level of Education (n=119)	Up to 8th grade	0.8
	Some high school	9.2
	High School Graduate/GED	8.3
	Technical/Trade School	5.8
	Some college	20.0
	Associate degree	5.0
	Bachelor's degree	22.5
	Graduate degree	28.3
Employment/Income status (n=119)	Part-time	8.4
	Full-time	44.5
	Homemaker	0.8
	Retired	11.8
	Unemployed	30.2
	• Job-seeking	• 11.7
	• Not job seeking	• 2.5
	• Job-seeking status unknown	• 16.0
Marital Status (n=119)	Disability/Social Security Income	4.2
	Never married	33.6
	Married	31.1
	Separated	22.7
	Widowed	12.6
BMI (kg/m ²) (n=107) (from self-reported height and weight)	All responders	28.9 ± 0.6
	• Males	• 27.5 ± 0.8
	• Females	• 29.8 ± 0.8
High BMI status (self-report)	Yes	53.4
Current health/well-being	Excellent	8
	Very good	34

Characteristic (n= # responses)	Subcategory	Percent of Responses (%)
	Good	19
	Fair	27
	Poor	5

Notes

^aData are expressed as a percentage of responders.

BMI—body mass index

Table 2.**RESPONSIBILITY FOR SOLVING THE COUNTRY'S HIGH BODY MASS INDEX PROBLEMS^a**

Sector (n= # responders)	Very Large (%)	Large (%)	Moderate (%)	Little/None (%)
Individual People (n=112)	67	17.9	10.7	4.5
Parents and family members (n=110)	59.1	30.9	8.2	1.8
Primary Care Providers (n=109)	36.7	39.4	21.1	2.8
The food industry (n=108)	59.3	15.7	13.0	12.0
Schools (n=111)	38.7	37.8	16.2	7.2
Health insurance companies (n=107)	32.7	27.1	16.8	23.4
The government (n=112)	39.3	23.2	20.5	7.0
Employers (n=108)	17.6	25.9	29.6	26.9

Note

^aData are expressed as a percentage of responders.

Table 3.**INTEREST IN LIFESTYLE METHODS FOR WEIGHT LOSS^a**

Lifestyle method (n= # responders)	Favor Strongly (%)	Favor Somewhat (%)	Neutral (%)	Oppose Somewhat (%)	Oppose Strongly (%)
Programs to help start gardens (n=87)	47.1	31.0	14.9	3.5	3.5
Farmers' market coupons (n=93)	64.5	21.5	8.6	3.2	2.2
Discounted weekly produce box from a local farm (n=89)	62.9	16.9	15.7	2.2	2.2
Cooking classes (n=97)	66.0	23.7	9.3	1.0	0.0
In-home exercise (n=99)	71.7	16.2	9.1	2.0	1.0
Walking/jogging in your neighborhood (n=100)	74.0	18.0	4.0	3.0	1.0
Joining private fitness club (n=87)	58.1	15.1	20.4	5.4	1.1
YMCA (n=91)	51.6	22.0	22.0	4.4	0.0
Parks and Recreation (n=90)	63.3	22.2	12.2	2.2	0.0
Self-directed effort (n=96)	60.4	27.1	9.4	2.1	1.0

Notes

^aData is expressed as a percentage of responders.

YMCA—Young Men's Christian Association

Table 4.**METHODS FOR WEIGHT LOSS REQUIRING MEDICAL/PROFESSIONAL SUPERVISION**

Method (n= # of responders)	Favor Strongly (%)	Favor Somewhat (%)	Neutral (%)	Oppose Somewhat (%)	Oppose Strongly (%)
Liquid diets or commercial meal replacements/shakes (n=97)	27.8	13.4	21.6	17.5	19.6
Commercial weight loss program (example: Weight Watchers) (n=93)	22.6	28.0	26.9	9.7	12.9
Nutrition Class (n=102)	65.7	25.5	7.8	1.0	0.0
Behavior Counseling (n=89)	52.8	21.3	20.2	3.4	2.3
Medication (n=83)	6.0	12.0	27.7	13.3	41.0
Surgery (n=80)	5.0	7.5	13.8	21.3	52.5

Note

^aData is expressed as a percentage of responders.

Table 5.**OPINIONS ON MEDICATIONS AND BARIATRIC SURGERY FOR WEIGHT LOSS (ARS SURVEY)^a**

	Pre-Conference (%)	Post-Conference (%)
Medications—Willing to take medications to lose weight		
Yes:	22	24
• If supervised diet/exercise did not result in weight loss after some time	• 20	• 57
• Diet/exercise programs don't work	• 40	• 43
• Should not have to wait to receive effective medications	• 40	• 0
No:	78	76
• Do not think this is a medical problem	• 22	• 12
• Do not think medications work	• 25	• 25
• Once stopped, the weight will return	• 53	• 63
Surgery—Willing to undergo surgery to lose weight		
Yes:	15	11
• If supervised diet/exercise did not result in weight loss after some time	• 17	• 22
• If medications did not result in weight loss	• 17	• 28
• Other	• 67	• 50
No:	85	89
• Do not think this is a surgical problem	• 50	• 33
• Do not think surgery will work	• 17	• 9
• Surgery would drastically affect eating	• 33	• 27
• Other	• 0	• 37

Notes

^aThe responses for “yes” and “no” are expressed as percent of total responses. Specific reasons are expressed as bulleted percent of the total yes or no responses.

ARS—audience response system