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Challenges and Facilitating Factors in Sustaining Community-Based Participatory Research Partnerships: Lessons Learned from the Detroit, New York City and Seattle Urban Research Centers

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ABSTRACT *In order to address the social, physical and economic determinants of urban health, researchers, public health practitioners, and community members have turned to more comprehensive and participatory approaches to research and interventions. One such approach, community-based participatory research (CBPR) in public health, has received considerable attention over the past decade, and numerous publications have described theoretical underpinnings, values, principles and practice. Issues related to the long-term sustainability of partnerships and activities have received limited attention. The purpose of this article is to examine the experiences and lessons learned from three Urban Research Centers (URCs) in Detroit, New York City, and Seattle, which were initially established in 1995 with core support from the Centers for Disease Control and Prevention (CDC). The experience of these Centers after core funding ceased in 2003 provides a case study to identify the challenges and facilitating factors for sustaining partnerships. We examine three broad dimensions of CBPR partnerships that we consider important for sustainability: (1) sustaining relationships and commitments among the partners involved; (2) sustaining the knowledge, capacity and values generated from the partnership; and (3) sustaining funding, staff, programs, policy changes and the partnership itself. We discuss the challenges faced by the URCs in sustaining these dimensions and the strategies used to overcome these challenges. Based on these experiences, we offer recommendations for: strategies that partnerships may find useful in sustaining their CBPR efforts; ways in which a Center mechanism can be useful for promoting sustainability; and considerations for funders of CBPR to increase sustainability.*

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The first three authors are the Principal Investigators of the three Urban Research Centers. The other coauthors from the three Centers are listed in alphabetical order. See the acknowledgements at the end for a list of all of the partner organizations involved.

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INTRODUCTION

The social and physical environment and the availability of social and health services are important determinants of the health of urban populations.[1–4] There is growing evidence, for example, that residents of high poverty, urban communities are disproportionately exposed to hazards in the physical environment such as airborne particulate matter, materials dumped illegally, and poor housing[1–4] and to hazards in the social environment such as financial strain, discrimination, social disorganization and racism.[3–5] These hazards contribute to the increasing gap in health status between rich and poor, white and nonwhite and urban and nonurban.[6–12]

In order to address these social, physical and economic determinants of urban health, researchers, public health practitioners, and community members have turned to more comprehensive and participatory approaches to research and interventions.[4,13–17] One such approach, community-based participatory research (CBPR) in public health, is characterized by a partnership between community members, representatives from community-based organizations and health and social service agencies, and academic researchers. The partnership equitably involves all members in all aspects of the research process. All members contribute their expertise and share decision making and ownership in projects aimed at both enhancing knowledge and improving health of community members through interventions and policy and social change.[14,15,17] Over the past decade, numerous publications have described theoretical underpinnings, values, principles and practice of CBPR.[14,15,18–24] This literature has contributed greatly to our understanding of the challenges and facilitating factors associated with developing CBPR partnerships.[14,16–19,21,22,25–29] In contrast, issues related to the long-term sustainability of partnerships and activities have received limited attention.[30–32]

The purpose of this article is to examine the experiences and lessons learned from three Urban Research Centers (URCs) in Detroit, New York City, and Seattle, which were initially established in 1995 with core support from the Centers for Disease Control and Prevention (CDC). The experience of these Centers after core funding ceased in 2003 provides a case study to identify the challenges and facilitating factors for sustaining partnerships and their activities.

OVERVIEW OF SUSTAINABILITY

Sustainability has been discussed in the public health literature in terms of both partnerships,[30,32,33] and specific health programs or interventions.[34–38] Sustainability depends on numerous factors that impact the formation and maintenance of CBPR partnerships for which a considerable literature exists.[14–16,18,19,21,22,25–29] However, there is little agreement on how to define and conceptualize sustainability. Numerous terms are used in referring to program continuation, for example, "institutionalization," "sustainability," "incorporation," "routinization," "community ownership," and "capacity building."[38] Several conceptual models or approaches describe theoretical perspectives, partnership attributes, and contextual factors that contribute to sustainability.[30,38] For example, Shediac-Rizkallah and Bone[38] discuss three different perspectives regarding program sustainability: (1) maintaining the

health benefits of a program over time; (2) institutionalizing a program or its components within an organization; and (3) building the capacity of the community involved. In an examination of the sustainability of community health partnerships, Alexander and colleagues[30] differentiate between sustaining a partnership as an organization, and sustaining the partnership's values or its initiatives.

Building on this work, and based on the experiences of the URCs, we have identified three broad dimensions of CBPR partnerships that we consider important for sustainability. These dimensions are: (1) sustaining relationships and commitments among the partners involved; (2) sustaining the knowledge, capacity and values generated from the partnership; and (3) sustaining funding, staff, programs, policy changes and the partnership itself. The presence or absence of core funding for a Center affects each of these dimensions of sustainability. In some local contexts, it may be necessary to sustain the partnership itself through other means in order to continue these dimensions while in other contexts they may continue without a formal partnership/entity/organization/coalition.

URBAN RESEARCH CENTERS: KEY COMPONENTS AND PROCESSES

Overview of the URCs

The CDC established three URCs for applied research in public health in Detroit, New York City and Seattle in 1995.[29,39,40] The overall goal of the URCs is to improve the health and quality of life of urban residents through the conduct of etiologic research and intervention research using a CBPR approach.[29,39,40] Following a Center mechanism, each of the URCs was expected to obtain additional funds to conduct CBPR projects aimed at addressing local health concerns identified by Center partners.[29] Each of the URCs: developed and adopted a set of CBPR principles and operating norms to guide their partnership's functioning; established a conceptual model of social determinants of health to guide their research and intervention efforts; assessed health needs and established priority areas to address; conducted an evaluation of its partnership process; conducted a demonstration project; established core infrastructure; and worked with a CDC researcher who was assigned to their site.[19,21,26,27,41,42] In early 2003, CDC announced termination of funding for the URC initiative. Since then, each of the Centers has engaged in a somewhat different process to sustain its commitment to addressing social determinants of health using a CBPR approach—with somewhat different outcomes.

Key Components of the URCs

Key components of the three URCs are summarized in Table 1. The following section describes several of these components (see the Centers' websites for a more in-depth description, http://www.sph.umich.edu/urc, http://www.nyam.org, and http://www.metrokc.gov/health/sphc).

Setting As required by the CDC Initiative, each of the URCs has operated within urban communities of concentrated disadvantage defined as having at least 20% of a community's population below the U.S. federal poverty level. The communities are ethnically and racially diverse. They have experienced prolonged social stress from, for example, high unemployment, business disinvestment, gentrification, low-

TABLE 1 Key components of urban research centers (URC)

Component	Center location		
	Detroit	New York City	Seattle
Setting	Eastside and Southwest Detroit	East and Central Harlem	Central and South Seattle
Institutional Location	University	Private Research Institution	City/County Health Department
Partners Involved in URC Board			
Individual community members		×	×
Community-based organizations	×	×	×
Faith-based organizations		×	
Local health department	×	×	×
Hospital/Integrated Care System	×	×	×
University	×	×	×
Other organizations		Private Research Institution, State Health Department	Public Housing Agency
Number of Board Members	15–18	25 + affiliates and work group members	12–18
Priority Areas	Social determinants of health Access to quality health care Environmental health issues Violence prevention Prevention and management of chronic disease (e.g., diabetes, asthma, cardiovascular disease)	Social determinants of substance use HIV prevention Health issues that impact the Harlem community in areas that correspond with the expertise and interest of partnership members: Prison Reentry, Obesity, Cervical and Colon Cancer Screening, Asthma, Rapid vaccination	Social determinants of health Domestic violence Asthma Community building at public housing site Technical assistance and evaluation support for small CBOs
Organization Structure/Operating Procedures			
CBPR principles	×	×	×
Operating norms	×	×	×
By-laws		×	×
Steering Committee or Intervention Work Group established for each new CBPR project	×	×	×
Dissemination/publication guidelines	×		×
Number of FTEs for core infrastructure support	2	3	2

TABLE 1 Continued

Component	Center location		
	Detroit	New York City	Seattle
Conducted partnership evaluation	×	×	×
Average annual direct CDC funds and direct funds for total period[a]	$448,000 $3,584,000	$250,000 $1,000,000	$400,664 $3,205,315
Topic Areas of Funded Projects (examples)	Intimate partner violence for Latinas	A web-based referral guide for Harlem providers	Decreasing exposure to indoor asthma triggers through community health worker intervention
	Enrollment of uninsured children in Medicaid	"Survival Guide" for prison reentry to community	Domestic violence social support intervention
	Environmental triggers of childhood asthma	Community mobilization for HIV prevention—ESAP	Increasing access to lifelong learning opportunities
	Diabetes management and prevention	VIVA: Rapid vaccination of hard-to-reach populations	Developing social cohesion in public housing site
	Social and environmental determinants of cardiovascular disease	"PATLINK": Pharmacists as Treatment Linkages	Community Research Center: supporting program development and evaluation in smaller CBOs
	Obesity and the built environment	"Big Girl": addressing obesity in Harlem women	Increasing immunization rates among senior center members
	Physical activity and food access	Community mobilization for colon cancer screening	
		Child Asthma Management through Head Start program	
Accomplishments			
Number of funded CBPR projects	18	10 Direct, 6 Indirect[b]	12
Continuation of interventions after initial funding ended	×	×	×
Translation of research findings to affect policy	×	×	×
Number of peer-reviewed publications	55	25	30

[a]Detroit and Seattle received CDC core funds beginning in 1995. New York received core funding beginning in 1999.

[b]Refers to studies that provide mechanism to update community assessments.

performing schools, and unaffordable housing; exposure to adverse environmental conditions such as substandard housing and air pollution; and consequent high rates of morbidity and mortality from cancer, asthma, cardiovascular disease, diabetes, HIV, and other diseases.[43–45] The communities also have valuable assets to address these challenges, including strong social networks and community-based organizations and a history of social activism with the goal of improving socio-economic conditions and health.[19]

The Detroit URC focuses its efforts in two geographic communities, Eastside and Southwest. Southwest Detroit is the most culturally diverse within the state of Michigan (50% Hispanic, 35% African-American, 11% White, 3% Native American, and 1% Other) and has the largest concentration of Hispanic/Latinos in the state (65,000 or 6% of the Detroit city population).[46] Eastside Detroit has a population that is predominantly African American (97%).[46] The New York URC operates in East and Central Harlem in New York City. The East Harlem community is predominantly Hispanic. Central Harlem residents are predominantly people of color (95%), with the majority of the population (77%) being African American.[45] The Seattle URC operates in the Central and South Seattle communities. Asians make up 26% of the population (including Filipino, Chinese, Japanese, Vietnamese, Cambodian, Laotian), African Americans 27% and whites 40%, with growing East African and Latino populations during the past decade.[47]

Organization Structure/Operating Procedures As shown in Table 1, each of the three URCs involves diverse partners and organization structure/operating procedures.[2,21,26,27,41,42] All three Centers are guided by a policy-making Board. The Detroit, New York and Seattle Boards are comprised of representatives from each of the partner organizations involved, with the latter two also including community residents not affiliated with a particular organization. Board roles include: determination of priority areas for activities and funding; reviewing requests for and establishing new CBPR projects; serving as a resource to prospective research partners and project teams; dissemination of research results within the community and through peer-reviewed publications; training and capacity building; and coordination and communication across all affiliated projects. Each of the Centers has resources to support its core infrastructure. During the CDC funding period, each Center designated approximately $50,000 a year to cover basic operating expenses (e.g., office supplies, duplicating, communications, travel), and additional funds for 2–3 FTE staff persons (see Table 1). The activities provided by the core staff to support the partnership include, preparing minutes and other materials for Board meetings, facilitating communication among partners outside of Board meetings, monitoring expenditures, participating in grant proposal preparation and fund raising, organizing training events, and coordinating efforts across URC-affiliated projects.

Activities Implemented to Promote Sustainability of URCs For the most part, the Centers did not address the issue of sustainability to a great extent prior to 2003, when CDC core funding ended. All three Centers were actively engaged during their early years in a number of activities aimed at increasing understanding of and support for CBPR among potential funders (e.g., made presentations to top level officials at CDC, held meetings with federal and foundation funders, assisted in the development of the trans-NIH Interagency Work Group on CBPR, and participated

in the efforts of the Association of Schools of Public Health). While these activities were conducted primarily to promote the general concept of CBPR, the URCs hoped that any decisions to provide increased funding for CBPR projects would provide opportunities to support their work as well. However, the URCs now recognize that it was a limitation of their efforts to not consider the issue of sustainability at an earlier point in time.

When the URCs were notified in February 2003 that CDC would not provide further funding, they explored joint strategies to identify resources to continue the URC initiative. After several months, the Centers decided that it would be most effective to examine sustainability issues independently. Each site conducted a series of activities to promote sustainability based on the context of their setting and organizational placement.

Detroit URC. Prior to the end of funding notification, the Detroit URC Board began to examine the issue of sustainability and decided in May 2002 to establish a policy that required all new URC-affiliated projects to include funds to support the URC core infrastructure (the amount determined on a case-by-case basis) in return for the services provided by the Center to the affiliated projects (e.g., cross-project coordination; technical assistance on grant proposal preparation). Beginning in the summer of 2003, the Board conducted a year-long strategic planning process in which it discussed: past accomplishments and what the URC wants to be known for, how to spend its collective and individual energies, and its mission, goals and objectives, priority areas, and potential projects/activities during the next 5 years. The Board reaffirmed its desire to continue the URC to focus its energies on cross-project dissemination, translation of research findings into policy, and enhancement of the partners' and others' capacity to conduct CBPR. The Board acquired funds from the University of Michigan, Office of Academic Affairs for stipends for community partner involvement on the Board (for a 3-year period), and from the W.K. Kellogg Foundation to support the core infrastructure for a 1-year period. The Board has responded to numerous requests, both locally and nationally, to provide training on CBPR for which the URC requests fees to compensate the presenters and help support the URC infrastructure. The Board unsuccessfully sought funds from NIH to support training and capacity building activities to foster the use of CBPR. At the same time, the Board met with colleagues from across the country engaged in policy-related work, and decided to focus on pursuing its research translation and policy objectives. The Board is presently refining these objectives and discussing funding possibilities with foundations.

New York URC. The New York URC went through a strategic planning process that was similar to that described for Detroit. First, in 2003, the partnership revisited its mission and goals. Members reaffirmed their commitment to the partnership, and identified next steps including establishing a funding subcommittee, addressing group morale, figuring out how to approach current and future projects, and enhancing communication with communities. In 2004, members revised the mission statement, principles, and by-laws originally adopted in 2001 and broadened the partnership's objectives from social determinants of substance use to health in general. The organizational structure was renamed the Harlem Community & Academic Partnership (HCAP) to reflect the growing need to move beyond community driven projects to academically funded opportunities. In addition, the structure was formalized to have the HCAP Board directly appoint and oversee

Intervention Work Groups (IWGs), subcommittees which are project-specific and built into funding proposals, and ensure the application of a CBPR approach to targeted research endeavors. In addition, the Board also recognized that they could serve as a resource to other organizations interested in conducting CBPR.

Seattle URC. The Seattle URC Board held a retreat in October of 2003 to discuss the future and sustainability of the partnership. The Board conducted interviews with current and former project partners to inform the planning process. The interviews showed that all respondents supported the partnership's CBPR principles and recognized the benefits of doing research and program evaluation. However, these benefits were offset by concern about performing these activities in the context of providing services. A few respondents cited a preference for seeking resources independently rather than collaborating with other agencies because of the current competitive environment of diminishing funding options. About half expressed enthusiasm for remaining on the URC Board, but a number of respondents did not want to participate due to time constraints. Most preferred that the URC play more of a technical assistance role in the future rather than implement large-scale research projects.

In 2004, the Board gave highest priority to conducting applied, small-scale program evaluation projects. Community partners felt this type of work was more immediately supportive of CBOs. The Board also gave high priority to capacity building approaches such as the URC's Community Research Center, which provided technical assistance and resources (e.g., grant writing support, program evaluation) to CBOs and grassroots groups. Several grant proposals were submitted to fund these activities (without success). In these instances, the feedback received from funders suggested that the reasons these grants were not funded were primarily due to the limited funds available and the competitive nature of the funding process. Thus, the failure of these proposals to acquire funding was not due to a lack of support for CBPR projects per se. It became apparent to Board members that the existence of a Center was not necessary to conduct these activities, and they decided to end the formal URC. Individual members continued seeking funding for conducting specific CBPR projects, promoting CBPR locally and nationally, and maintaining the network of partners.

PARTNERSHIP SUSTAINABILITY: CHALLENGES AND FACILITATORS

Sustaining Relationships and Commitments: Challenges and Facilitating Factors

The presence of strong relationships has been identified as a critical component of the CBPR approach.[14] A key dimension of partnership sustainability is the extent and manner in which relationships and commitments among partners are continued over time. As noted above, this has played out somewhat differently in the context of the three Centers.

Challenges

There are numerous challenges to sustaining partnership relationships. These challenges, as discussed below, are magnified when core funding ends. Partners may conclude that the time spent on the partnership is not matched by the benefits of participation.

Lack of Time and Resources The loss of staff and structure that a Center provides and a lack of ongoing funding for CBPR activities can weaken relationships. Maintaining relationships within CBPR partnerships takes considerable time and commitment,[14,15,25] yet partners have less time for relationships, and communication among them becomes less frequent when resources diminish. For example, in Seattle, lack of funding for URC activities resulted in academic and public health partners becoming less available to work with the URC community partners as URC-related work was replaced by other responsibilities. A related challenge is when CBOs are struggling to obtain funds for their own sustainability it is difficult to remain an active partner.

Sharing Reduced Resources Inequity among partners in receiving benefits can strain relationships and threaten their long-term viability, especially when resources are reduced. For example, a small CBO with few staff members may not be able to serve as lead organization and fiduciary of a grant (which would bring them additional resources). In contrast, a larger CBO is more likely to have the capacity to do so, thereby gaining the resources associated with that role.

Maintaining Morale and Energy Another challenge was maintaining group morale and participation when core funding became uncertain. In addition, regardless of funding, it may be difficult to maintain the cohesiveness and commitment of the partners over time. Inconsistent and changing participation, which may occur when some members miss numerous meetings, or when new partners join, can affect partnership identity and focus.

Facilitating Factors or Strategies for Overcoming Challenges

Development and Adherence to Collaborative Principles. A major factor in sustaining relationships within the URCs is the use of collaborative principles. These principles encourage trusting relationships in which there is recognition of the inherent value of all partners' perspectives. Such relationships foster open communication, development of shared history, coherence of goals, an honest exchange of ideas, and resolution of conflicts. Community partners have emphasized the importance of equal sharing of power and resources among all partners, recognition by researchers of the realities of working in the community, and sensitivity to the burden research can place on community organizations. Attention to these issues encourages the development of trusting, durable relationships.

Combination of Structure and Flexibility in Rules Governing Partnerships. A combination of structures (e.g., by-laws or guidelines adopted by the partnership), processes (e.g., dissemination procedures), and flexibility (e.g., willingness to shift and expand priorities over time) has fostered adherence to these principles. We recognize the importance of balancing respect for mutually agreed upon "rules and regulations" with a willingness to incorporate other perspectives and to renegotiate the rules as appropriate.

Long-term Commitment and "Right People Around the Table". Having the "right people around the table" and garnering the long-term commitment from both the organizations and the individuals helped sustain relationships. One advantage in having organizations as partners (rather than individuals), is that while individual

representatives might come and go, organizations can remain committed to the partnership over an extended period of time. At the same time, relationships among individuals within the URCs have flowered over the years and kept members committed to sustaining their efforts.

Champions. "Champions" of community–academic partnerships have made large contributions to sustaining partner relationships. Champions stay with the partnership through high and low points, promote the partnership, facilitate relationships among members, and serve as spokespersons. The presence of champions from multiple sectors (e.g., community, university, public health agency), has enhanced the visibility and value of the partnership across these sectors.

Building New Relationships. Building new relationships can maintain the partnership as inevitably some members leave and new members are added. Providing new members with an in-depth orientation, consciously welcoming them during Board meetings, and including them in the discussions and decision-making processes is critical.

Clear Community Benefit. Partners need to experience personal, organizational, and community benefits in order to stay engaged.[14] CBOs have accrued multiple benefits from URC projects, including: interventions that have increased knowledge, access to services, and health for community members; research findings that CBOs have used to obtain funding and enhance their credibility; and enhanced skills and job promotions for individuals. CBOs that have played a lead role in CBPR projects, including serving as the fiduciary agent, have reaped fiscal benefits. Board members of some URCs receive partial compensation for their efforts. However, partners recognize that the benefits of being involved extend well beyond financial matters. They recognize that while the types of support and resources they receive vary in intensity over time, the amount of benefits will balance out over time across the partners. This is similar to the concept of "banking" in the social network literature, in which social support is provided at one point in time (i.e., "put in the bank") with the understanding that similar support will be received at a later point in time when needed.[43]

Sustaining Knowledge, Capacity, and Values: Challenges and Facilitating Factors

Another dimension of sustainability for CBPR partnerships is sustaining the knowledge gained about the local community and conducting CBPR that is accumulated by the partnership. The URC partners gained expertise in CBPR approaches through participation on the Board, individual projects, and evaluation of the partnerships. All three URCs have trained and provided project-specific technical assistance to practitioners, community members and researchers, as well as medical and public health students, on how to integrate principles and practices of CBPR into partnership efforts. These activities promoting CBPR, have resulted in increased capacity for conducting CBPR in communities locally and nationally. In all three URCs, partners have also incorporated a CBPR approach into their ongoing work and disseminated it within their organizations. In Seattle, public health staff have used CBPR in subsequent research grants. The URC experience was a major influence in the creation of the Community-Based Public Health

Practice unit within the local public health department, and in increasing the Department's commitment to community engagement in its other activities. In Detroit, CBO partners require researchers outside of the URC to also follow the CBPR principles in order to work with the CBO. Because partners have sustained their CBPR knowledge and skills, they are in a position to effectively promote the use of CBPR principles and processes in multiple arenas. In New York City, the URC developed a practice internship for medical and public health graduate students to undergo training in CBPR.

Challenges

Limited Time and Resources. Consolidating and sustaining the knowledge, skills and values necessary to support CBPR efforts more broadly requires time and effort. For example, when resources are reduced, time is constrained for partners to share critical self-reflection on the CBPR process in order to improve it. In addition, Board turnover requires additional time for new members to gain the necessary knowledge and skills to promote CBPR. Providing training in CBPR is also time consuming, and partners are less likely to serve as trainers without resources to support their efforts.

Lack of Broader Awareness of CBPR. A related challenge is that organizations and key leaders not directly engaged with the URCs are often unaware of their accomplishments and the benefits of using a CBPR approach in their own work. Hence, if the value of CBPR is not fully understood, it is difficult to sustain this capacity building component of a partnership.

Facilitating Factors

Collaboration Principles and Critical Self-reflection. Similar to sustaining relationships, using CBPR principles is a major facilitating factor for sustaining knowledge and capacity. Collaboration principles create a safe and productive environment for critical self-reflection on the partnership's process that allows partners to develop further their expertise in CBPR and to integrate it into their work both within the partnership and beyond.

Power Through Organizational Affiliation. Another facilitating factor for sustaining knowledge and capacity is a commitment of organizations to participate in the partnership. The information and capacity gained through being a partner remains within the organization even if the individual representative from that organization moves on. In order to institutionalize the use of a CBPR approach, the URCs developed senior leadership support within the organizations involved, including Schools of Public Health, public health departments and CBOs. They held meetings with top leaders and boards to explain the contributions of the URC to their organizations, and maintained ongoing communication with them to enhance their awareness of the Center's accomplishments.

The Power of Centeredness. Another major facilitating factor has been the existence of the Center mechanism itself. Rather than a single CBPR project, which is limited to a particular focus and staff expertise, the URCs have each conducted a number of CBPR projects. Partners have been able to build upon the

lessons learned in one project (e.g., how to train community members as interviewers, training community health workers) to enhance the success of subsequent projects. This cross pollination has created capacity and synergy broader than any one project could attain. Through these efforts the partnerships gained a national reputation for their expertise in conducting CBPR, leading to increased requests for training, which provided opportunities for achieving their educational mission.

Recognition of Community Knowledge and Skills. Community partners have knowledge and skills that improve the quality of CBPR. For example, they can enhance the cultural appropriateness of interventions and evaluation tools and clarify findings by placing them in a community context. Recognizing these contributions and promoting the ongoing availability of community CBPR expertise through Centers or networks can sustain this knowledge.

Sustaining Funding, Staff, Programs, Policy Change and Partnership: Challenges and Facilitating Factors

A third important dimension of sustainability involves continuing specific programs, policy changes and partnerships. More often than not, this requires some level of funding and staff.[30,33,35,36,38] While the Detroit and New York Centers have sustained their partnerships as Centers, all three Centers have been able to sustain specific programs, relationships and capacity to conduct CBPR, and to a lesser extent policy changes. Each of the Centers has obtained subsequent funding for CBPR projects that built upon other projects sponsored by the URCs. In addition, local health agencies and CBOs have institutionalized some URC interventions that proved to be effective. In most instances the organization has obtained external funding for these "new" programs, often with technical assistance from the URC. In a few cases, these programs have been sustained with internal support provided by the organization hosting the program. However, due to the usual constraints in obtaining external funding (e.g., competitive process, limited funds), the URCs have not been able to sustain all intervention projects initiated with core funding despite evaluations showing benefit. The URCs diffused and thereby sustained some of the "products" they have developed (e.g., healthy home assessment tools, partnership evaluation questionnaire, Web-based Provider Resource Guide). Detroit has secured some external and internal institutional funds for core infrastructure support that has allowed core staff to continue their efforts. New York has sustained core activities through honoraria received by investigators for giving lectures, and through project-related grants.

Making institutional and governmental policy changes can be a powerful approach to sustainability if implementation of the policies continues beyond the life of the partnership. Each of the URCs has had some, albeit limited, success in this area. For example, as part of the Seattle–King County Healthy Homes I project developed by the Seattle URC, partners worked with the local housing authority to develop and implement a policy to assure "asthma-friendly" units for tenants whose asthma was worsened by conditions in their homes, either through remediation of the conditions or relocation. Since core CDC funding has ended, all three URCs have expanded their efforts to translate research findings into policy change (e.g., around issues related to air quality, food access, syringe access for drug users to prevent HIV infection).

Challenges

Funding of Infrastructure for CBPR and Noncategorical Programs is Rare. One of the major challenges faced by all of the Centers has been the difficulty in finding funders who will support the core infrastructure critical to sustaining partnerships (e.g., staff support, general operating expenses). In Seattle, staff spent a major portion of their time in the final year of the Center on seeking funding opportunities, with limited success. Once funding ended, the partnership no longer had dedicated staff. While some former staff remained in the local public health department, they had limited time to provide support for the partnership. The Centers have also faced challenges locating funding to support new programs aimed at addressing social determinants of health that do not fit neatly into traditional categories of public health activities. Funders are usually interested in supporting "new" ideas and programs, often for categorical purposes, rather than providing funds to support noncategorical programs or the infrastructure of existing programs or Centers.

Insufficient Time to Complete Research to Translation Cycle. As in other fields (e.g., medicine), it takes considerable time to: plan and implement the large scale etiologic research and intervention studies carried out by the URCs; analyze the data; feedback data to the community; engage the community in interpreting the results; identify the policy and practice implications of the findings; and translate the results into policy and practice. In all three Centers, when the core funding ended, most of the CBPR projects had not evolved to the point where they could provide compelling evidence to drive policy change. The time period was insufficient for the URCs to position themselves to have a major impact on the policy making process, although each of the Centers continues to pursue this agenda.

Facilitating Factors

Bridging Funds. A major factor in sustaining the Detroit URC partnership was securing bridging funds for infrastructure support. Detroit obtained these critical funds by showing the value of the Center to the mission of the University of Michigan and to a program funded by the W.K. Kellogg Foundation related to the URC (a postdoctoral training program in CBPR). For example, the URC had periodically informed members of the central administration of the University of Michigan (e.g., through written communication, meetings, a hosted visit in Detroit) of the work that was being carried out by the URC and affiliated projects and how the URC was consistent with the University's commitment to research and community service. Hence, when the Board requested funding, the University administrators involved were already familiar with and supportive of the URC. Through additional funding mechanisms (described below), this Center was able to extend these funds. The Detroit Center pursued additional funding streams to support the core infrastructure. It established a policy in which new URC-affiliated projects are required to contribute fiscal support for the services provided by core Center staff. It has charged fees for capacity building activities (e.g., training, technical assistance) provided by the Center. Over the past 2 years, approximately 80% of the Center's secretary's time and 50% of the project manager's time have been covered by these two funding streams. The high level of commitment of these

core staff and their willingness to accept the job insecurity associated with external funding has been critical. The New York URC, without a University base, sought funds through competitive NIH and CDC grants for topics involving community mobilization interventions. From each grant, a portion has been allocated to support core activities.

Institutional Base and Flexibility in Funding. The Detroit and New York partnerships are based in institutions that have provided flexibility in budgeting and staff and faculty time. Such institutional support has been instrumental for sustainability. In the case of Detroit, the institutional base is the University of Michigan, School of Public Health. Given that instructional faculty are on 9-month "hard money" salaries, and that conducting research is an ongoing responsibility of faculty and an expectation of the University, key faculty have had the flexibility to be actively involved in the Center without having to obtain external funding to cover their salaries, and have had the commitment to continue without additional financial compensation (i.e., to cover summer salary). Thus, this Center has been able to devote any external funds to support core staff, operating expenses and partner honorariums rather than faculty time. Furthermore, faculty have research incentive accounts and have agreed to use funds from these accounts to support core staff, if necessary. The institutional base of the Seattle Center, Public Health–Seattle & King County, was unable to provide these types of support given the lean local public sector fiscal environment. While the New York setting is fully supported by "soft money," which makes Center support precarious, the Center has been able to obtain funding essentially through existing and new topic oriented projects.

Partner Organizations Continue Programs. Another factor facilitating the sustainability of specific programs or program components has been the ability of usually larger partner organizations, with some core funding and flexibility in staffing, to institutionalize and/or obtain external funds to continue the programs.

Continuous Planning and Reorganization to Reflect Realities. The reassessment and continuous planning processes of the Detroit and New York Centers allowed for an evolution of priorities, objectives and actions, and helped reestablish commitments to the Center concept and CBPR. New York used Intervention Work Groups, subcommittees of the Board, which develop new community mobilization and policy projects that build on current activities and pursue funding opportunities. Detroit has prioritized policy change activities engaging multiple partners across numerous URC-affiliated projects as a major aim. It has formed a Policy Subcommittee to identify potential funding sources to pursue this work. These efforts have been facilitated by the involvement of Board members who are in senior positions within their organizations, hence are able to engage in decision-making regarding external policy change. While Seattle also engaged in ongoing sustainability planning for the last 3 years of its Center, this did not result in continuing the partnership.

RECOMMENDATIONS AND CONCLUSIONS

All three URCs pursued goals for sustainability focused on maintaining capacity to conduct research addressing social determinants of health in urban communities, continuing effective interventions, and supporting CBPR partnerships. The Detroit

TABLE 2 Recommendations for sustaining CBPR partnerships

1. Strategies partnerships may find useful include:
   - addressing multiple dimensions of sustainability (e.g., policies, systems change) rather than focusing exclusively on fundraising;
   - developing clear and replicable principles and processes for doing CBPR;
   - sustaining relationships among partners (e.g., collaborative principles, well-defined partnership structures and processes, nurturing champions in partner organizations, assuring benefits to partners);
   - implementing projects with clear short-term benefit to communities;
   - having organizational (rather than individual) commitment to assure stability of organizational participation;
   - engaging senior leaders of public health, academic organizations, CBOs, local government and funders;
   - basing activities in an institution with the capacity and flexibility to sustain efforts through lean times;
   - using the Center mechanism to develop a track record to add credibility to grant-writing efforts;
   - increasing the viability of the partnership through capacity building activities (e.g., leadership development, advocacy skills, grant-writing skills); and
   - including as Board members persons who can commit their organizations to partnership activities.
2. Centers can be useful for promoting sustainability in a number of ways, including:
   - serving as a catalyst for networking, relationship formation, trust building, conceptual thinking and skills building (e.g., communication, organization development);
   - providing a source of support to academics, health practitioners and community members for learning about CBPR so they can be successful in funding and implementing CBPR projects;
   - providing coordination and synergies across CBPR projects and partners, which can increase the effectiveness of individual projects and expand the reach of the partnership's impact within the communities involved;
   - providing flexible funding (e.g., Center grants) for exploring innovative approaches to CBPR, capacity building activities, and noncategorical projects (e.g., social determinants of health); and
   - enhancing the legitimacy of CBPR by increasing its visibility within funding agencies, public health agencies, CBOs and academia.
3. Considerations for funders of CBPR to increase sustainability, include the following:
   - centers and focused CBPR projects need flexibility to adapt funded proposals to changing community interests and needs, to facilitate sustained community interest;
   - long-term funding, incorporating sufficient time for program planning,[48] and dissemination is needed to allow maturation of relationships, well-developed capacities and sufficient time for collaborative work;
   - funding should support noncategorical approaches that address social and environmental determinants of health that affect multiple types of health disparities;
   - funding for pilot projects in preparation for applications for full-scale, competitive applications;
   - when reviewing CBPR proposals, funders need to look for inclusion of elements that promote sustainability (e.g., educating local officials, developing capacities important for CBPR);
   - require and support sustainability-enhancing activities within funded projects, and need to offer grantees technical assistance in developing and implementing sustainability plans;
   - funders need to use their influence and relationships to help grantees sustain their work, particularly in obtaining ongoing resources; and
   - develop mechanisms to provide ongoing funding for infrastructure support to sustain CBPR Centers.[48]

and New York sites also sought to maintain a Center structure for conducting urban CBPR research. While the Center mechanism was enormously helpful for the Seattle URC in initiating CBPR activities, as described above, the partners perceived the benefits the CBPR projects brought to the community (rather than the Board and Center activities) to be the most important outcome, and hence decided to shift their efforts from the Center to project-based work. The URCs used a range of strategies to pursue these sustainability goals, including maintaining relationships and commitments; increasing the capacities of partners to conduct CBPR; institutionalizing effective programs, products and policy changes; securing funding for additional CBPR projects; and securing funding for Center infrastructure support.

As depicted in Table 2, we offer a number of recommendations for sustaining CBPR partnerships that are based on the experiences of the three URCs and some are supported by findings in the literature. These recommendations address: (1) a number of strategies that partnerships may find useful in sustaining their CBPR efforts; (2) the ways in which a Center mechanism can be useful for promoting sustainability; and (3) considerations for funders of CBPR to increase sustainability.

Any partnership needs to think critically about which goals and strategies are most appropriate to their priorities and focus energy on these. Maintaining the partnership or Center may not always be the best sustainability strategy or outcome. Which strategy a partnership chooses depends on a number of factors, including the resources, capacities and commitments of the partners, and the aspects of the partnership's work that members wish to sustain. In all instances, CBPR partnerships need to address sustainability early in the life of the partnership. In order to better define the dimensions of sustainability and the factors which contribute to it, there is a need for prospective research that examines these issues. Such knowledge will help CBPR partnerships in urban communities sustain their efforts to eliminate health disparities.

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