

# NIH Public Access

**Author Manuscript** 

Acad Med. Author manuscript; available in PMC 2014 March 01.

# Published in final edited form as:

Acad Med. 2013 March ; 88(3): 335-342. doi:10.1097/ACM.0b013e318280d8de.

# The Community Leaders Institute: An Innovative Program to Train Community Leaders in Health Research

# Dr. Lori E. Crosby, PsyD [associate professor of pediatrics] [co-director of training],

Community Engagement Core, Center for Clinical and Translational Science and Training (CCTST), Cincinnati Children's Hospital Medical Center, University of Cincinnati College of Medicine, Cincinnati, Ohio.

# Mr. William Parr, MBA, MEd [director],

Community Partner Council, Community Engagement Core, CCTST, Cincinnati Children's Hospital Medical Center, University of Cincinnati, Cincinnati, Ohio.

#### Ms. Teresa Smith [program manager], and

Community Engagement Core, CCTST, Cincinnati Children's Hospital Medical Center, University of Cincinnati, Cincinnati, Ohio.

# Dr. Monica J. Mitchell, PhD [associate professor of pediatrics] [co-director]

Community Engagement Core, CCTST, Cincinnati Children's Hospital Medical Center, University of Cincinnati School of Medicine, Cincinnati, Ohio.

# Abstract

An emerging best practice of addressing health and improving health disparities in communities is ensuring that academic health centers (AHCs) are engaged with area schools, primary care practices, and community advocates as equal partners in research, services, and programs. The literature documents the importance of ensuring that academic-community collaboration is based on equity, trust, and respect, and that there is capacity (time and resources) and a shared culture (language, skills, and applied knowledge) for accomplishing mutual goals in academic-community research partnerships. It is also essential that an academic-community collaboration results in tangible and measurable goals and outcomes for both the target community and the AHC. Currently, the models for implementing best practices in community health partnerships, especially training programs, are limited.

This paper article summarizes the goals and outcomes for the Community Leaders Institute (CLI), a six-week innovative leadership development training program designed to enhance academiccommunity research, integrate the interests of community leaders and AHC researchers, and build research capacity and competencies within the community. Based on two years of outcome data, the CLI is achieving its intended goals of engaging faculty as trainer-scholars while promoting academic-community partnerships that align with community and AHC priorities. The training and collaborative research paradigm utilized by the CLI has served to accelerate AHC-community

Correspondence should be addressed to Dr. Crosby, Cincinnati Children's Hospital Medical Center, 3333 Burnet Avenue, MLC 3015, Cincinnati, OH 45229, Phone: (513) 636-5380; FAX: (513) 636-7756; Lori.Crosby@cchmc.org.

Other disclosures: None.

Ethical approval: Not applicable.

*Previous presentations*: Information from this manuscript was included in a poster presented at The Partnering to Improve Health: The Science of Community Engagement Conference, May 2010.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final citable form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Despite emerging studies citing academic-community collaboration as a best practice for community capacity building, health research, and health promotion<sup>1-3</sup>, few models of such collaborations demonstrate successful research training and implementation over time. Establishing successful academic-community partnerships requires commitment and compromise from both sides. Academic health centers (AHCs), for example, face challenges related to aligning their clinical, research, or training interests with those of community organizations (e.g., primary care practices, school-based clinics, and health departments) whose goals are often programmatic and health service-oriented rather than academic or research-focused<sup>3,4</sup>. For AHCs, building trust, mutual respect, and common communication with community partners takes time, and engaging in a participatory process often requires that AHC members compromise to ensure that community needs are met. For community organizations, the additional time, skills, resources, and collaborative expertise required to engage in AHCs' research efforts cannot always take precedence over their own goals and responsibilities in the community.<sup>5</sup> Limited capacity and resources also make it difficult for community organizations to apply technical learning to real-world settings in ways that ensure positive health outcomes<sup>4,5</sup>. The literature also shows that misaligned goals and priorities, distrust, and differences in organizational culture and communication between AHCs and potential partners may discourage academic-community collaboration.<sup>3,4,6</sup> Given these challenges, integrating AHC faculty and community members in training partnerships that build capacity for community health research within community organizations may be a first step to addressing barriers in broader academic-community partnerships and research collaborations.<sup>3,5</sup>

# Academic-Community Partnerships at the University of Cincinnati College of Medicine

In October 2005, the University of Cincinnati (UC) College of Medicine established the Center for Clinical and Translational Science and Training (CCTST)<sup>7</sup> to provide support, resources, and training for researchers in the AHC and in the community. When UC, Cincinnati Children's Hospital Medical Center, and the Cincinnati Veterans Administration Medical Center received a Clinical and Translational Science Award (CTSA)<sup>8</sup> in April 2009, we were able to expand the CCTST services available to the community. In 2009, supported by the CTSA, the CCTST Community Engagement Core was developed to expand community engagement.

As one of its first activities, the Community Engagement Core formed a Community Partner Council (CPC), a 32-member board of academic and community members who advise and direct the CCTST and institutional leadership on matters of community engagement, training, and research. The CPC began meeting bi-monthly in an effort to make recommendations for programming. In addition, 10 CPC members were interviewed to gain their perspective on strategies for engaging the community and facilitating collaboration. This information was reviewed at quarterly meetings of the CPC and Community Engagement Core in 2009, and the two groups recommended the development of the Community Leaders Institute (CLI), a training program designed to enhance community capacity building and research competencies in community leaders (e.g., directors, administrators, advocates, and other persons who play a key role in data usage and decision making). Feedback from the CPC and a literature review informed the overall goals, format, and structure of the CLI.

In the following sections, we describe the development, implementation, and outcomes of the CLI and examine how the CLI has progressed toward achieving its goals. Finally, we discuss how the CLI compares to similar community training programs, our plans for sustainability and expansion, and the CLI's potential to influence the field of community engagement in academic medicine.

# Aligning the CLI with Community Partners' Needs

#### **Building a foundation**

Best practices indicate that community-based training should have clear objectives that are relevant and responsive to the needs of the community and enable the community to advance its goals.<sup>9</sup> Training should also ensure that participants are able to apply knowledge in real-world settings to make certain that objectives and learning translate into measurable goals and outcomes.<sup>10</sup> Finally, training should build capacity to ensure a positive benefit relative to the investment of time, cost, and other resources.<sup>11</sup>

In our efforts to develop a community research training model to promote community health, we explored a number of possible solutions in the literature and by seeking academic and community input. We considered community training models for research ethics and community health education to improve community partners' understanding about health, health disparities, and their own role in health promotion and research.<sup>10,12,13</sup> However, we also needed to be mindful of CPC members' feedback which was consistent with the literature and suggested that any program we developed must result in tangible and measurable outcomes for both the AHC and the target community.<sup>3,6</sup> On the community side, training should lead to expanded research capacity; increased access to data and evidenced-based practices; more rigorously developed programs and community-based studies; and, ultimately, improvements in the health and well-being of community members.<sup>5</sup> From the AHC's perspective, collaboration with community partners can help faculty understand community health priorities, engage collaborative partners in translational studies aimed at improving health outcomes, and broaden academic and research networks to include other community stakeholders.<sup>6</sup> To achieve shared goals, it is critical to develop a common understanding and language with respect to research, ethics, and the use of data.<sup>14</sup> With these goals in mind, we designed the CLI to build individual competencies and organizational capacity in community health research while fostering academic-community partnerships.

#### Addressing challenges and barriers to collaboration

To build research capacity and accelerate the implementation of evidence-based practice in the community, we purposefully addressed emerging challenges in academic-community collaboration that we identified in our literature review and that were echoed by CPC members. Specifically, we wanted to address challenges from the community members' perspective related to understanding community-based research, finding the right AHC collaborator, understanding the culture of the AHC, and being better prepared to be a community collaborator. CPC members also suggested that the training should address the needs of both community members and the AHC, building capacity and fostering sustainability in both parties.

Research suggests that structural barriers in the AHC often hinder the formation of academic-community partnerships.<sup>5</sup> For example, faculty members from different divisions or departments may be conducting research in a similar area. In the case of asthma research, researchers may be housed in a variety of divisions, including pulmonary medicine, general pediatrics, and allergy and immunology. How does a community collaborator who wishes to study asthma know which AHC researcher may be the best partner and what is the best way

to approach that researcher? Additionally, AHCs have been described as intimidating, confusing, and difficult to access.<sup>15</sup> The CPC recommended that the AHC be transparent with respect to its overall strategic goals, requirements for faculty members (i.e., publishing the results of community research), and ways the community can access AHC resources. Such transparency encourages communication and inclusion of community members in the academic process and counters mistrust.

CPC members also expressed their frustration with accessing research training in the community. Although many research training seminars were offered each year, the expense and length of the seminars often acted as barriers to participation. In addition, some CPC members reported that when they did attend a research capacity-building seminar, such as a grant writing seminar, they often had little or no opportunity to apply the skills they learned once they returned to their agency, resulting in a fragmented approach to skill development and subsequent delays in the initiation of community research or the evaluation of health improvement projects.

#### Identifying program goals

CPC members warned that traditional approaches to community collaboration, such as grant funding to support community initiatives without initial and ongoing support, would not be sufficient to address these challenges. Instead, they recommended a coordinated approach that focused on building research skills and capacity while fostering academic and community collaborations. Any program we developed, however, would also need to align with the AHC's strategic priorities and fit within the budgetary allotment for the CCTST Community Engagement Core. Thus, we created the CLI with the goals of addressing the challenges identified by the CPC, facilitating AHC-community interaction, engaging the community in research, and capitalizing on the research expertise in the AHC. The CLI strives to support agencies in learning how to use data to improve services and programs, leveraging funding for sustainability, and accessing AHC resources. It also provides participants with an opportunity to apply the skills learned in the CLI through implementation of a capacity-building health-focused research project funded by a small grant. Overall, the objectives of the CLI are to ensure training in core competencies, promote academic-community collaboration, and foster translational research.

#### CLI Implementation: Successes, Challenges, and Opportunities

Once we had established goals for the CLI, we began work on developing and implementing the program in 2009, and recruiting our first cohort of participants in 2010. In this section, we provide an overview of the program structure and requirements, the faculty and staff, the application process for participants, the program outcomes, and the challenges and lessons learned thus far.

#### **Program details**

**Curriculum**—We developed the CLI curriculum based on literature reviews, input from the CPC, and recommendations from AHC members and those experienced with community participatory research. The CLI curriculum includes topics supported by research for community capacity building and/or community engagement<sup>16</sup> and recommended by the CPC for inclusion.

Participants attend nine, three-hour interactive sessions (four half-day and two full-day sessions over six weeks) designed to build skills and confidence and address general and participant-specific challenges. The topics and objectives of each session are detailed in Table 1. Each session is a blend of didactic instruction, experiential exercises, group

Crosby et al.

discussion, skills development, and networking. The seminars are video recorded, so participants can access them after the sessions as needed. Participants complete evaluations for all sessions, and the data are shared with instructors. The CCTST leadership has also been supportive of the program, ensuring that all participants become CCTST members and receive all membership benefits (i.e., 10 hours per year of free technical assistance from the AHC).

**Learning environment**—The CLI training room is set up classroom-style. Each participant has a laptop computer preloaded with presentations or handouts to ensure an interactive format (e.g., analyzing data, accessing public datasets). The back of the room is set up for small-group exercises. Participants are encouraged to ask questions throughout the training sessions and to apply what they have learned each week to their project or organization as homework. We encourage participants to network with each other, and we facilitate academic-community partnerships as appropriate. Upon completion of the program, CLI participants are invited to a graduation dinner featuring a national speaker on community engagement.

**Program requirements**—To successfully complete the CLI, participants must: (1) designate a "real world" project that they will complete over the course of 12 months using their CLI training and technical assistance from faculty as needed; (2) attend the nine, three-hour interactive training sessions, and present their project proposal and plan for completion during the last session; (3) access technical assistance as needed to complete projects; and (4) complete six-month and final reports and project summaries. Examples of projects include submitting a grant proposal, creating an agency database that builds capacity or efficiency, or using data to develop a community health profile. Appendix 1 contains information about two CLI projects, including the participant's profile, the title and type of project, project outcomes, and sustainability outcomes. All applicants accepted to the CLI receive a \$1,500 grant to complete their project within a 12-month period.

#### Faculty

The CLI is implemented by a diverse faculty and staff, including five AHC members (four associate professors and one assistant professor) and two community partners (CLI graduates) who serve as instructors, a program coordinator, and volunteer research assistants. Faculty members are selected based on the following criteria: (1) prior teaching experience (rated positively by students or a member of the CCTST), (2) previous experience participating as a faculty member in a community research project, and (3) expertise in one of the topic areas (see Table 1). All CLI faculty and staff members are responsible for refining the curriculum and reviewing data from participant evaluations. Faculty members are responsible for developing the content and exercises for the CLI sessions and they divide teaching responsibility for the sessions.

The program manager is responsible for scheduling all training sessions and technical assistance consultations as well as preparing all materials. The program manager also coordinates the CLI application review process (detailed below), correspondence, and evaluation data. Research assistants help with various tasks, including setting up the room, breaking down the room, distributing handouts, and facilitating small-group exercises. All instructors and the program coordinator donate their time, which has significantly decreased overall program costs. Computers and room space are also donated. Additional program expenses include catering, grant funds, flash drives, and office supplies (e.g., binders, pens).

#### Participants

The program was designed to recruit program administrators, organizational/community leaders, key program staff, or community advocates who will use the CLI training to build capacity in their health, social service, or educational programs and neighborhoods. These leaders are also critical to developing successful and productive partnerships within the AHC.

Eligible participants complete an application packet that asks them to address the following statements: (1) Briefly describe your reasons for wanting to participate in the CLI and what you hope to gain from your involvement; (2) Please explain how you would use the information gained in the CLI in your organization, agency, and/or community; and (3) Please describe a real-world project that you could bring and work on as part of the CLI. In addition, applicants submit a resume or curriculum vitae along with a letter of support from their organization.

A CPC Training Subcommittee, which consists of 12 AHC members and representatives from community organizations, reviews all applications. Each application is independently reviewed by at least three committee members. Committee members score applications on their fit with the CCTST priority health focus areas (childhood asthma, pediatric injury, infant mortality, obesity, diabetes, adult neuroscience, and minority health), the potential for the applicant to use the CLI training to influence the community or organization, the strengths of the applicant and the applicant's organization, and the potential for the applicant's project to affect the community. Decisions are made at a committee meeting during which committee members review each applicant's scores. Enrollment is limited to 15 trainees per cohort, and we strive to promote diversity among the CLI participants with respect to agency type and participant career background. Each year, planning for the CLI begins in the fall, applications are due in January, and the program ends in mid to late April.

#### **Program outcomes**

A total of 41 participants have graduated from the CLI program in three cohorts. There were 11 participants in the Year 1 cohort, 15 in the Year 2 cohort, and 15 in the Year 3 cohort. The CLI has trained community leaders from over 25 health organizations.

The outcomes reported here are from the final reports submitted by the Year 1 class and the Year 2 class. All participants successfully completed the CLI course and had completed their projects or were on track to complete their projects. The 26 participants received 690 hours of training through the CLI and 294 hours of training or technical assistance since completing the CLI.

In the final class evaluations, satisfaction data shows that 26 (100%) of the participants strongly agreed or agreed that they were satisfied with the quality and format of the CLI. Almost all strongly agreed that they gained new knowledge or skills. The sessions that were rated most helpful (Grant and Proposal Writing and Survey Development and Accessing Community Health Needs) were those that were also reported to be most relevant to the jobs, interests, and goals for a majority of the attendees. These sessions also most aligned to participants' proposed projects.

Data from the reports indicates that 18 participants developed surveys and 19 analyzed data or conducted program evaluations using software skills gained through the CLI. Moreover, 13 participants accessed public datasets, while 15 used quality improvement methods in their organization. Twenty-two participants reported that they conducted staff training in their organizations. It is notable that 20 participants submitted over 100 grant applications to

state, local, federal, and private funders, 55 of which were awarded, and many of which were attributed to participation in the CLI.

The CLI has achieved a number of milestones. In particular, the Year 2 class was surveyed about their participation in academic-community partnerships. Thirteen out of 15 participants (86%) strongly agreed that they were more likely to participate in an academic-community partnership after the CLI. In fact, 10 out of 15 participants (66%) reported that they had sought out an academic or community partner as a result of the CLI, and seven reported that they participated in an academic-community collaborative or project as a result of the CLI. Anecdotal data from Year 1 CLI graduates suggest that these participants developed three community-community partnerships and two academic-community partnerships.

Another milestone has been the level of involvement of CLI graduates in CCTST activities. Thirty-five CLI graduates are now members of the CCTST. In addition, 11 CLI members are also CCTST scholar members (members who serve on AHC academic or advisory boards). As members or scholar members, these graduates are invited to AHC training events, can receive technical assistance from AHC faculty, are eligible for some AHC funding opportunities, and have access to a social network of investigators with complementary interests via networking events. It is also notable that four CLI graduates have participated as speakers in AHC grand rounds, resulting in increased interactions between the community and AHC faculty. This increased visibility within the AHC has resulted in AHC faculty members making referrals to CLI faculty or community partners for technical assistance around community engagement initiatives. As an example, the AHC's Institutional Review Board recommended that a research team consult with the CLI faculty and the CPC on a project to get feedback before proceeding. This indicates a growing awareness of the expertise of AHC faculty engaged in community research and recognition of the important role they play in the AHC's research efforts. As noted, CLI graduates have also been recruited to serve on internal advisory committees (e.g., AHC bioethics and steering committees), suggesting that the AHC is meaningfully engaging community stakeholders and ensuring significant outcomes.

Some of the most significant milestones have occurred in the areas of grant funding and the AHC strategic priorities. When asked, "how much grant funding was received as a result of the training, technical assistance, or academic-community partnerships received/fostered through the CLI," CLI graduates reported grant funding in excess of \$3 Million attributed to CLI participation (\$1.8M for Year 1; \$1.2M for Year 2). Other grant proposals have been submitted or are pending.

We have also seen an increase in the number of academic-community partnerships addressing AHC strategic priority areas. For example, new academic-community partnerships have been formed in the areas of obesity, infant mortality, and diabetes as a direct result of networking that occurred in the CLI. In the area of obesity, AHC faculty and a local public school system have partnered to implement an evidence-based program in a nearby school with the goal of decreasing obesity rates for children in the community. Similarly, the AHC and several community partners have formed a coalition to address infant mortality. In the area of diabetes, AHC faculty and community partners are collaborating to implement a community health worker intervention in an underserved neighborhood with one of the highest rates of diabetes in the county.

#### **Challenges and lessons learned**

The most significant barriers we faced during the initial implementation of the CLI were finding a convenient location for the sessions and receiving applications of varying quality.

In Year 1, CLI classes were held in one of the main AHC buildings. While this location was convenient for AHC faculty, it was difficult to find for community residents. Based on feedback from Year 1 participants, the CLI is now held in a location that has curbside parking and is on the shuttle stop for the AHC. The new location has been rated very highly by participants and faculty.

In an effort to improve the quality of CLI applications, the CPC Training Subcommittee recommended developing a set of frequently asked questions, holding an information session, and offering technical assistance for applications. These strategies served to significantly improve the quality of applications we received in Years 2 and 3. The director of the CPC and CPC members have advertised the program through networking within the health community and by sending emails to their listservs, employers, local affiliations, and professional networks. We received 13 applications for Year 1, 26 applications for Year 2, and 16 applications for Year 3.

An ongoing challenge has been balancing class time with networking. To achieve an appropriate balance, we encourage participants to arrive to each session 15 minutes early and use their break time for networking. In addition, each week participants are seated next to someone different to facilitate interaction.

Although we have faced significant challenges, our experience has taught us some important lessons, including the importance of choosing a convenient day, time, and location for sessions; ensuring that the cohort includes participants who work with a variety of stakeholders in the community; providing technical assistance throughout the CLI and the entire project completion period; and having community leaders and AHC faculty members co-lead sessions when possible, as AHC faculty and community leaders bring different perspectives to the training sessions.

According to best practices, partnerships should ensure sustainability in learning and outcomes. In addition to offering follow-up training sessions, we offer continued technical assistance to graduates through e-mail, phone, or in-person consultation during the 12 months following the CLI to ensure project completion and capacity building. We also offer additional training sessions throughout the year, including REDCap (Research Electronic Data Capture) II, Community-Based Participatory Research, Quality Improvement II, Health Landscape, Grant Writing II, Program Evaluation II, and Survey Development II. In addition, we try to maintain CLI outcomes through academic-community partnerships and the opportunity for CLI graduates to become CCTST members, which gives them access to additional consultation and services through the AHC and community.

#### Leading the Way in Building Community Partnerships

Other CTSA grantees have addressed challenges related to engaging the community in research as well. For example, the University of Michigan CTSA has developed a training program for community partners with instruction in ethical protections in research.<sup>10,13</sup> This four-hour workshop helps community partners understand their role in research and the protections in place when conducting research. The CTSA at the University of Maryland School of Medicine hosts a "Mini-Med School" each year to help community residents and leaders understand research and clinical trials<sup>12</sup>. Although these programs provide excellent training in research for community partners, they do not take the extra step of facilitating hands-on projects that will build organizational research capacity. The CLI is unique in this regard.

The CLI offers an innovative model for training community leaders and health advocates in research skills while incorporating best practices in community engagement<sup>16,17</sup>.

Incorporating input from the CPC on program design and the selection of applications helps to foster respect and equity between the AHC and community members. We have also found that including community partners as co-teachers is an effective way to ensure that the curriculum continues to meet the needs of community partners.

Since the inception of the CLI, we have worked to maintain mutual benefit to the AHC and to the community participants. We believe this effort, which we refer to as creating "winwins," is the basis for effective and sustainable academic community partnerships. Data from the program and from AHC and community partners has allowed us to better understand what these "wins" are for the community, what the potential benefits are for the AHC, and what the mutual benefits are for both community and academic members. The "win" for the AHC has been that the innovative CLI model creates a pathway for faculty members to collaborate with community leaders and advocates with similar research interests. The program has resulted in novel academic-community partnerships, collaboration on grant submissions, and important developments in the CLI program. The "win" on the community side has come in the form of capacity building, access to technical support, and grant funding to implement and scale evidence-based practices, collect pilot data, or complete other projects. Networking during the CLI program has also led to community-community partnerships.

Our experience with the implementation and evaluation of the CLI has afforded a number of key lessons and implications for community engagement in medical schools and teaching hospitals. First, a research training program for community leaders can be an effective method for increasing academic-community partnerships for health. Second, a model that engages AHC and community leaders as co-teachers is an excellent way to integrate the expertise and contributions of community members in the AHC. Last, given that community leaders and AHC members often operate in silos, the CLI helps to build a common language that can be used to advance community health research.

The CLI has been sustained for three years, and the CCTST leadership is committed to continuing support for the program. Next steps include the creation of a collaborative Web site where CLI participants can network and access training information from all cohorts and beyond the CLI, across agencies and AHC partners. In addition, there has been interest in formalizing the role that some community leaders play in the AHC through the development of a community faculty track. The University of California, Los Angeles' Clinical and Translational Science Institute has developed such a track that could be used as a model for this<sup>17</sup>. In addition, we recently accepted four community health advocates (individuals who are not a formal part of any community organization but have a strong interest in improving the health and wellness of children or adults in the community) into the CLI. There are plans to develop a formal community advocate track in the CLI in future years.

The training and collaborative research paradigm created by the CLI supports communityengaged training and research. In total, the program offers pathways for partnerships, grant funding, scholarship, and strategic alignment, both for community members who want to increase the sustainability of their work through AHC integration and partnerships, and for AHC faculty members who seek to extend the influence of their work beyond the walls of the AHC. In both cases, the CLI and similar academic-community models have positive implications for health impact from both the AHC and community perspectives.

In summary, the CLI is an effective program for community capacity building and developing research competencies in community leaders. The CLI also offers an opportunity for community leaders and faculty to begin to work together in a collaborative and productive way with the aim of improving health in the community. The CLI is a testament

to the fact that developing a common language and culture for health research through training can be an effective step to establishing mutual trust, respect, and expertise, as well as enhancing integration and collaboration among academic and community partners.

# Acknowledgments

The authors would like to thank the Community Partner Council, Community Leaders Institute staff, Center for Clinical and Translational Science and Training leadership, and the Cincinnati-Hamilton County Community Action Agency for their commitment and dedication to the program. The authors would also like to acknowledge Ms. Demaree Bruck for her assistance with data collection and formatting the references.

*Funding/Support:* This program was supported by an Institutional Clinical and Translational Science Award, NIH/ NCRR Grant Number 5UL1RR026314-03. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the National Institutes of Health.

# Appendix 1: Examples of Final Projects from the University of Cincinnati (UC) Center for Clinical and Translational Science and Training (CCTST) Community Leaders Institute (CLI)\*

# **CCTST CLI Participant Profile 1**

#### Agency/Participant

Urban Appalachian Council (UAC) - Year 1

#### **Needs and Project**

In her CLI application, the Program Director for UAC described a specific need to improve the way the organization collects, analyzes, and maintains client data. For her CLI project, this participant developed and piloted a participant satisfaction survey with the goal of assessing and improving customer experiences and outcomes. The participant noted a focus on using new skills learned in the CLI for survey development, such as standardizing questions, keeping questions succinct and at a reading level appropriate for their clients, and developing other tools used to ensure reliable and valid data collection. Additionally, she developed electronic databases in Excel and REDCap (Research Electronic Data Capture). The participant also learned important grant writing, data analysis, and other research skills.

#### Academic-Community Partnerships

New partnerships were developed with UC's Department of Public Health and Diabetes Center.

#### **Outcomes and Sustainability**

Upon gaining skills and developing partnerships, UAC applied for and was awarded a CCTST Community Health Grant. The primary focus of the grant proposal was to identify and intervene with those at risk for diabetes in a target neighborhood, which was highly concentrated with residents of Appalachian descent who were known to have higher rates of diabetes per capita compared with the rest of Cincinnati. Through the grant, academic partners trained community health advocates who visited over 400 homes as part of the assessment, and subsequent data were put into REDCap. Data were entered and managed by UAC and the CLI participant. In total, as a result of these efforts 48 previously undiagnosed adults and teens were determined to be at high risk for diabetes. The work has been implemented and sustained through additional funding, including a National Institutes of Health-funded supplement grant with academic partners to conduct participatory research. This example demonstrates how the CLI helps to build skills and capacity within

organizations while facilitating relationships that support academic-community health research.

# **CCTST CLI Participant Profile 2**

#### Agency/Participant

YMCA of Greater Cincinnati - Year 2

#### **Needs and Project**

In her application, the YMCA Director of Afterschool Programs recognized an opportunity through the CLI to build the organization's capacity with respect to implementing quality improvement processes in staff training for youth physical activity programs. Specifically, she noted a need to improve staff members' grant writing skills and hone their data collection and tracking processes to generate evidence-based outcomes.

#### **Academic-Community Partnership**

The partnership was expanded to include collaboration with faculty from Cincinnati Children's Hospital working on an obesity prevention project.

#### **Outcomes and Sustainability**

Through the CLI project, the YMCA established a SMART (specific, measurable, attainable, relevant, and timely) aim for its afterschool programs: to track and increase by 20% the number of minutes per day of physical activity in children in afterschool programs over a 12-month period through use of a specific curriculum. The global aim of this initiative was to increase the long-term physical health of all children in YMCA youth development programs. To facilitate these aims, training was required for site coordinators to learn the curriculum and familiarize themselves with a new software system for tracking how many minutes the children were physically active. The CLI participant conducted a series of PDSA (Plan, Do, Study, Act) cycles within the afterschool programs, some in collaboration with an academic partner. Data presented in the participant's final project showed that the use of quality improvement (QI) process and tools led to an increase in physical activity over time.

Upon completion of the CLI, the participant reported numerous examples of using the CLI's objectives to benefit the organization and the community. The YMCA successfully met their goals for training site coordinators and purchasing a data tracking tool as well as implementing needs assessments. They also submitted several grant proposals and built new relationships with other Cincinnati-area organizations, such as schools and other community partners. Notably, the YMCA was successful in receiving a number of health- and obesity-related grants, which they credited to their CLI participation and resulting partnerships. Following the CLI, YMCA leadership received more intensive QI training and technical support through ongoing academic–community initiatives. Grant funding for the afterschool programs has been received from the Centers for Disease Control and Prevention and the U.S. Department of Education's 21<sup>st</sup> Century Community Learning Centers Program. This example demonstrates the CLI's ability to help organizations share and apply learning to enhance operational capacity, increase the use of evidence-based practices, and promote health through QI.

# References

- Minkler M, Vásquez VB, Tajik M, Petersen D. Promoting environmental justice through community-based participatory research: the role of community and partnership capacity. Health Educ Behav. 2008; 35(1):119–137. [PubMed: 16861594]
- 2. Duran B, Harrison M, Shurley M, et al. Tribally-driven HIV/AIDS health services partnerships: Evidence-based meets culture-centered interventions. Journal of HIV/AIDS & Social Services. 2010; 9(2):110–129.
- Wells KB, Staunton A, Norris K, et al. Building an academic-community partnered network for clinical services research: the Community Health Improvement Collaborative (CHIC). Ethn Dis. 2006; 16(1):1.
- Norris KC, Brusuelas R, Jones L, Miranda J, Duru OK, Mangione CM. Partnering with communitybased organizations: an academic institution's evolving perspective. Ethn Dis. Winter. 2007; 17(1 Suppl 1):S27–32.
- Wolff M, Maurana CA. Building effective community-academic partnerships to improve health: a qualitative study of perspectives from communities. Acad Med. 2001; 76(2):166. [PubMed: 11158838]
- Jones L, Wells K. Strategies for academic and clinician engagement in community-participatory partnered research. JAMA: the journal of the American Medical Association. 2007; 297(4):407. [PubMed: 17244838]
- 7. University of Cincinnati. Center for Clinical and Translational Science and Training. [Accessed November 14, 2012] http://cctst.uc.edu/
- [Accessed November 14, 2012] Clinical and Translational Science Awards. About the CTSA Consortium. https://www.ctsacentral.org/about-us/ctsa
- 9. Minkler, M.; Wallerstein, N. Community-Based Participatory Research for Health. Jossey-Bass; San Francisco, CA: 2003.
- Solomon S, Piechowski PJ. Developing Community Partner Training: Regulations and Relationships. J Empir Res HumResEthics. 2011; 6(2):23–30.
- Shiber S, D'Lugoff M. A Win–Win Model for an Academic Nursing Center: Community Partnership Faculty Practice. Public Health Nurs. 2002; 19(2):81–85. [PubMed: 11860592]
- 12. Baquet CR, Bezuneh M, Mishra SI. Addressing Health Disparities Through Community-Academic Partnerships: The Maryland Model. The National AHEC Bulletin. 2005:49–51.
- Anderson EE, Solomon S, Heitman E, et al. Research Ethics Education for Community-Engaged Research: A Review and Research Agenda. J Empir Res Hum Res Ethics. 2012; 7(2):3–19. [PubMed: 22565579]
- Wallerstein NB, Duran B. Using community-based participatory research to address health disparities. Health Promot Pract. 2006; 7(3):312–323. [PubMed: 16760238]
- 15. Dyke CV, Schlesinger HJ. Training the trainers. Admin Policy Ment Health. 1997; 25(1):47–69.
- Israel, BA.; Schulz, AJ.; Parker, EA.; Becker, AB.; Allen, A.; Guzman, JR. Critical issues in developing and following community based participatory research principles. In: Minkler, M.; Wallerstein, N., editors. Community-Based Participatory Research for Health. Jossey-Bass; San Francisco, CA: 2003. p. 53-76.
- Lizaola E, Schraiber R, Braslow J, et al. Partnered Research Center for Quality Care. Ethn Dis. 2011; 21

#### Table 1

Session Topics and Learning Objectives of the University of Cincinnati College of Medicine Center for Clinical and Translational Science and Training Community Leaders Institute

Session no. and title	Session objectives
Session 1: Quality Improvement/Ensuring Evidence Based Practices	Learn about the quality improvement process
	• Develop a SMART (specific, measurable, attainable, relevant, and timely) aim for a quality improvement project
	Complete a failure mode analysis
Session 2: Survey Development and Assessing Community Health Needs	Learn about forming the survey team and survey development
	Understand important aspects of sample design
	Discuss a variety of survey methods
Session 3: Grant and Proposal Writing	Understand key components of grant preparation
	• Understand pitfalls that lead to grant application failure
	• Be prepared to think like a grant reviewer when preparing applications
Session 4: Ethical Protections in Community Engaged Research	Understand the importance of ethics in community-based research
	Perform ethical research practices in community settings
	• Prepare for better relationships with the IRB
Session 5: Program Evaluation	Understand the importance of program evaluation and outcomes
	Understand different program evaluation models and outcomes for evaluating impact
	• Complete an evaluation model or action plan for at least one program outcome
Session 6: Integrating Design Thinking and Development Into Organizational Programs	Visualize products/services
	Translate information into design ideas and concepts
	Develop a shared/common understanding
	Prototype behavior and informational systems
	Model and test ideas quickly
Session 7: Assessing and Mining Public Datasets	• Understand policy, contextual, and cultural implications of public datasets and the use of data
	• Understand the different types of data and datasets
	Gain competencies accessing and using public datasets
Session 8: Creating Databases/Analyzing Data/REDCap (Research Electronic Data Capture)	Design a REDCap (Research Electronic Data Capture) survey
	• Enter data into a REDCap database
	• Gain experience with basic data analysis and interpretation in REDCap
Session 9: Final Project Presentation and Discussion	Present goals, progress to date, and next steps for proposed project
	Share learning and suggestions for program improvement
	Assess need for technical assistance and support to ensure successful completion of final project