



# Applying Community Organizing Principles to Assess Health Needs in New Haven, Connecticut

*Alycia Santilli, MSW, Amy Carroll-Scott, PhD, and Jeannette R. Ickovics, PhD*

The Affordable Care Act added requirements for nonprofit hospitals to conduct community health needs assessments. Guidelines are minimal; however, they require input and representation from the broader community. This call echoes 2 decades of literature on the importance of including community members in all aspects of research design, a tenet of community organizing.

We describe a community-engaged research approach to a community health needs assessment in New Haven, Connecticut. We demonstrate that a robust community organizing approach provided unique research benefits: access to residents for data collection, reliable data, leverage for community-driven interventions, and modest improvements in behavioral risk.

We make recommendations for future community-engaged efforts and workforce development, which are important for responding to increasing calls for community health needs assessments. (*Am J Public Health*. 2016;106:841–847. doi:10.2105/AJPH.2016.303050)

**T**he Patient Protection and Affordable Care Act, enacted March 23, 2010, added new requirements for nonprofit hospitals to conduct a community health needs assessment at least triennially.<sup>1</sup> Guidelines are minimal; however, they require that hospitals obtain input from persons who represent the broad interests of the community the hospital serves, including leaders, representatives, and members of medically underserved, low-income, and minority populations and populations with chronic disease needs.<sup>2</sup>

This call for community engagement echoes 2 decades of public health efforts that articulate the importance of including

community members in all aspects of research design, which is called “participatory research,”<sup>3</sup> “participatory action research,”<sup>4</sup> or “community-based participatory research.”<sup>5</sup> It has been argued that this approach is critical for understanding and reducing health disparities.<sup>6–9</sup> This is particularly important because demographic shifts further complicate efforts to understand community health behaviors and needs,<sup>10</sup> and national trends demonstrate that socioeconomic and ethnic disparities in health care access, quality, and outcomes are intransigent.<sup>11</sup>

Although it can be difficult to measure community engagement and its benefits, recent

reviews have demonstrated evidence of the value of community-engaged approaches to research processes and outcomes. These benefits include

1. improved participant recruitment,
2. enhanced capacity among research stakeholders,
3. productive conflict resolution,
4. increased quality of outputs and outcomes,
5. increased sustainability of project goals beyond funding timelines, and
6. new projects and activities, including systems change.<sup>3,12</sup>

Moreover, community engagement can enhance linguistically and culturally appropriate measures, field testing, and survey administration.<sup>3,11</sup>

Implicit in participatory research practices is the incorporation of community-organizing principles. Community organizing refers to the process of mobilizing residents to contribute their expertise and resources to create change with

a focus on social justice.<sup>13–15</sup> This includes identifying and cultivating the participation of individuals with an emphasis on leadership development and building community capacity.<sup>12–14</sup> Organizing models often value nurturing, consensus building, decision-making, and collaboration with the aim of empowering communities to change allocation of resources and power. The community in which change is being made must accept responsibility for problems that arise.<sup>12–14</sup>

Community organizing frameworks in public health are typically focused on implementing interventions. Indeed, when community organizing approaches are incorporated into health interventions, the likelihood of success and sustainability increases.<sup>16,17</sup> In a review of community-based research programs targeting heart disease prevention, Mittelmark et al. concluded that exemplar interventions incorporated community organizing as a central component, including community analysis, identification of

## ABOUT THE AUTHORS

*At the time of the study, Alycia Santilli, Jeannette R. Ickovics, and Amy Carroll-Scott were with the Community Alliance for Research and Engagement, Yale School of Public Health, New Haven, CT.*

*Correspondence should be sent to Alycia Santilli, MSW, Community Alliance for Research and Engagement, Yale School of Public Health, 135 College Street, Suite 200, New Haven, CT 06510 (e-mail: alycia.santilli@yale.edu). Reprints can be ordered at <http://www.ajph.org> by clicking the “Reprints” link.*

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leaders, development of community ownership, fostering capacity, and directly employing a community organizer as a program staff member.<sup>18</sup> These interventions demonstrated positive health effects, such as less weight gain, lower blood pressure and cholesterol, and a decrease in risk factors.

Extending community-organizing frameworks into research has been largely within the context of community health assessments.<sup>19</sup> The benefits have included greater successes in reaching community members, asking relevant questions, and using results to design responsive health improvement strategies.<sup>20–23</sup> Indeed, community participatory research approaches include using the research process to mobilize communities for change—a clear community-organizing strategy.<sup>24–31</sup> However, the exploding field of community health assessments is still predominated by quantitative methods, particularly secondary data sources, and minimal community input; thus, assessments are often not designed to maximize the potential of the process to build active and collaborative partnerships among multiple community stakeholders.<sup>19</sup>

We have described a community-engaged research approach to a longitudinal community health needs assessment in New Haven, Connecticut. Community-organizing strategies provided unique and important research benefits, such as access to residents for data collection, reliable community-reported data, and leverage for community-driven interventions. The success of this research stemmed from incorporating community organizing into our methodology. We have provided workforce

development recommendations, which are important for responding to the increasing call for community-engaged efforts.

## PROJECT DESCRIPTION

Since 2009, the Community Alliance for Research and Engagement (CARE) at the Yale School of Public Health has conducted a longitudinal community health assessment to understand prevalence, health behaviors, and social determinants related to chronic disease. CARE's goals are to use baseline data to inform, develop, and build community support for neighborhood-focused chronic disease prevention and to detect change over time.

In 2009, we conducted baseline health surveys in the 6 lowest income New Haven neighborhoods, which are those that experience the largest health disparities. The purpose was to understand and document community health status, health behavior, and perceptions of social and built environments. We employed a neighborhood-stratified, population-based research design. We hired 20 community residents and trained them to administer the surveys via interview. Surveyors conducted 1205 interviews in 10 weeks. Topics included health status; chronic disease conditions; health care access; diet, exercise, and tobacco use behaviors; neighborhood environment and social cohesion; demographics; and socioeconomic status.

Recognizing the importance of this work and motivated by Affordable Care Act requirements, Yale–New Haven Hospital (the fifth largest hospital system in the nation<sup>32</sup>) partnered

with CARE to support a follow-up survey in 2012 as part of their required community health needs assessment. Nineteen community resident surveyors collected 1298 surveys in 9 weeks, generating 2 repeated cross-sectional samples, with plans for a third triennial survey in 2015.

## COMMUNITY APPROACH TO COLLECTING DATA

Guided by community-organizing principles, CARE began by working with residents, leaders, and community-based organizations in the 6 neighborhoods to develop trusted partnerships and to gain deep knowledge of history, norms, and leadership. This included input into survey development and extensive piloting. For a focused period leading up to the survey in 2009 and 2012, we employed survey-specific outreach methods. We invested resources in outreach to inform residents of the purpose of the survey and when surveyors would be in their neighborhood and to encourage participation. We employed various outreach methods: flyer drops, meeting announcements, e-mails, and having a table at community events.

Drawing on traditional organizing tactics, we mailed letters to and canvassed door-to-door at each randomly selected household 10 days before the survey. We also reached out to community-based organizations and neighborhood groups, including conducting 1-on-1 meetings with key stakeholders and community leaders (generating  $\geq 100$  meetings or contacts). Additionally, we sent letters to 30 elected members of the Board of

Alders, which we followed by telephoning and meeting with key members and committees. We asked alders to contact their constituents about the study. Capitalizing on well-established relationships with the local press, we held a press conference before the survey launched, which resulted in multiple news media stories. We created a social media presence through a Web site, Facebook, and e-mailing lists.

We established strong field identity by incorporating the CARE logo and its orange color into outreach materials, including surveyor jackets worn in the field. We intentionally sent all 20 surveyors into each neighborhood concurrently, which amplified our presence.

## Training Residents to Collect Data

Because of the history of mistrust regarding academic and medical research in these low-income communities neighboring Yale University, we expected that local data collectors reflecting and familiar with the study neighborhoods would be more successful recruiting participants than would traditional academic research staff. In fact, we built on a previous success in which we conducted asset mapping of these same neighborhoods by hiring and training local youths, which added acceptability and rigor to sampling and data collection.<sup>33</sup>

We hired 33 individual surveyors over both time points, 6 of whom were employed in both 2009 and 2012. Twenty-four were Black/African American, 6 were White, and 3 were Hispanic/Latino. Approximately one half completed high school. The other half had some college or a college degree; a few of these (including some retirees) had



advanced degrees. We paid staff members \$15 per hour.

Most of this temporary staff had no research experience. We conducted an intensive 3-day training addressing basics of chronic disease and prevention; research, data collection, and survey methods; human participants protection and certification; and survey administration skills, including building rapport and standardizing survey administration. The diverse backgrounds of the staff members enhanced training because they were able to draw on each other's skills. Surveyors improved outreach, gained trust, and paved the way for rapid survey completion.

Staff retention was successful, with minimal attrition (3 out of 33). Surveyors felt committed to the position, both because of its community mission and because of the opportunity to work at Yale University and build skills and experience to obtain future positions. Permanent CARE staff members helped link surveyors to other job opportunities and are often called on by other university research staff to refer veteran surveyors to open positions. Three have continued on in permanent research-related positions at Yale. Ten obtained other part-time or temporary research-related positions, including working for the 2010 US Census and at the Quinnipiac Poll (a national polling organization).

## Data Dissemination and Uptake

CARE was committed to rapidly disseminating data to the community. At both time points, data collection ended in November and we released initial findings in December. We released a comprehensive report and individual neighborhood reports between January and March. We

organized community forums in each neighborhood, where staff—including community surveyors—participated in the forums, presented data directly to residents, and generated discussion about interpreting results, ideas for interventions, and interest in joining neighborhood associations to become involved in subsequent interventions. Community partners helped organize and advertise these forums and were very active in interpreting data for community action. We also presented data to elected officials and other city leadership. We organized an additional press conference to disseminate the data citywide.

Community partners continue to be involved in the interpretation and dissemination of findings at public and academic forums. Several neighborhood leaders have given presentations and have been recognized by local and statewide organizations for their leadership in improving health in their community. For example, Stacy Spell was recognized as the *New Haven Independent* Man of the Year in 2011, and Ann Greene received the Ira V. Hiscock Award for community leadership from the Connecticut Public Health Association.

A comprehensive community approach to data collection and rapid dissemination of results led to an effective and efficient uptake of data. Neighborhood associations, community-based and nonprofit organizations, hospitals and health centers, governmental entities, and businesses have widely used CARE's data in presentations, health services planning, reports, grant applications, and business plans.

For example, the New Haven Food Policy Council, a city commission comprising residents appointed by the mayor, released the New Haven Food Action Plan,<sup>34</sup> which outlines specific

goals and strategies to address food issues related to health, hunger, and the environment. Specifically, data from the community health needs assessment revealed that rates of hunger were 40% in the low-income neighborhoods compared with 31% for the city overall.<sup>35</sup> Although the hunger rate was anecdotally known to be a serious issue, this was the first time the community had access to highly localized, neighborhood-level data to provide the foundation for numerous food insecurity-related goals and initiatives for children and adults throughout the city. The city council adopted the Food Action Plan in its entirety and subsequently funded a food system director position, in part to respond to food insecurity issues.

Another example is the Greater New Haven Health Partnership, which was convened by Yale–New Haven Hospital and included representatives of the public health community (e.g., the health department, federally qualified health centers, community-based organizations). This group contributed to the development of the 2012 community health needs assessment and relies on its data and the gaps in health services it identified for their community health improvement plans (which are currently underway).

## Community Organizing

CARE's intervention work is guided by community organizing principles for training and mobilizing residents on health-related issues important to their neighborhoods. Since the 2009 baseline health assessment was completed, CARE has employed a team of community organizers—all New Haven residents—to work in

neighborhoods to strengthen capacity, responsibility, and sustainability of neighborhood-driven health interventions focused on chronic disease prevention and healthy lifestyles. Organizers helped identify where health intersects with other issues of importance to the community, such as economic development, education, violence, and safety. Organizers guided groups to identify health priorities, specifically using data collected in 2009 and 2012. Organizers then provided extensive technical assistance, working alongside residents to access resources and partners, plan and implement intervention projects, and track results.

CARE distributed minigrants to support projects (up to \$10 000 per neighborhood). Projects have focused on the built environment, policy interventions, and individual behavior change. These included building community gardens, increasing access to farmers' markets, advocating safer streets and parks, building the local food policy council, creating marked walking trails, and offering cooking classes and exercise programs.<sup>36</sup> The goal is to support neighborhoods in developing a "culture of health." Between 2009 and 2012, 42% of survey participants reported changes in their neighborhood that make living a healthier lifestyle easier. Additionally, fewer participants reported eating sweets (19% reduction), drinking sugar-sweetened beverages (11% reduction), and getting no exercise (17% reduction).

CARE staff has gained deep knowledge of the neighborhoods and has developed trust with residents. Although we did not explicitly measure trust and partnership, we feel they are evidenced by our outreach staff inclusion in neighborhood



meetings and events, our ability to provide support to increasing numbers of health programs in the neighborhoods, and our greater ease in hiring surveyors and conducting surveys in 2012.

## DATA

We employed the same sampling methods between 2009 and 2012, which we adapted from Oxford Health Alliance Community Interventions for Health.<sup>37</sup> We randomly selected households from a citywide list of addresses. Surveyors knocked at selected addresses on 3 separate days at 3 different times of day. If there was no answer, surveyors left a pamphlet letting residents know they would return. We included residents only if they were aged 18 years or older and spoke English or Spanish. Our sampling strategy yielded identical cooperation rates (consent to participate among those who answered the door and were eligible) of 73% in both 2009 and 2012 and demographic characteristics within range of US Census–created targets. Acceptability was demonstrated further in 2012: more than 75% of respondents agreed to be contacted again for future research.

Survey response rates are not consistently reported in community health surveys<sup>38</sup>; however, lower survey response rates are typical in studies in low socioeconomic and minority communities.<sup>39</sup> To put our response rate in context, a random digit dialing telephone survey conducted in the Greater New Haven Region in 2012 by the New Haven Community Index (DataHaven) using a subset of identical measures yielded a 19% cooperation rate<sup>34</sup>—consistent with similar telephone survey research.<sup>40</sup> Our 2009 and 2012 response rates were similar to

the baseline data collection of the longitudinal Welfare, Children, and Families survey (response rate 74%).<sup>41,42</sup> This survey was more methodologically comparable to ours, because it was an interviewer-administered survey of a randomized household sample in low-income neighborhoods in Boston, Chicago, and San Antonio. The recent Brentwood Community Health Care Assessment, similar in scope and approach to ours, had a 67% response rate.<sup>43</sup>

Table 1 compares the demographic characteristics, health status, care access, and behavioral measures of 2009 and 2012. It also compares New Haven data to Connecticut and US Behavioral Risk Factor Surveillance System health indicators.<sup>44</sup> These results demonstrate several points. First, the 2009 and 2012 survey designs, including sampling and measures, yielded nearly identical results. Second, as was known locally, residents in these 6 neighborhoods experience stark disparities in health status, chronic conditions, and behavioral risk factors compared with Connecticut and the United States. Although we cannot test statistical significance because these are repeated cross-sectional samples, differences were small (0.1% to 4.3%) except for 1 factor. Health insurance coverage rose 7.3% because of positive changes to the state Medicaid program. These results demonstrate the reliability of the measures and the resident-led survey methods.

## BENEFITS OF COMMUNITY ORGANIZING

CARE's community organizing approach—including deep community partnerships as illustrated here, comprehensive

outreach strategies, and training local residents as survey staff—led to high community acceptability and participation in the survey and contributed to data validity. Furthermore, the commitment to dissemination resulted in data uptake for action planning. Moreover, we used awareness of the survey to mobilize residents to plan interventions.

Although conducting a door-to-door population-based survey is more expensive than are telephone or intercept surveys, the payoff for the investment cannot be understated. The approximate cost of this survey was \$175 000. A large proportion of these expenses cover surveyors' wages (\$70 000) and respondent incentives (\$13 000). The remainder was spent on full-time research staff and other expenses (survey software and hardware, translation, outreach). This is substantially less costly than large population-based surveys yielding similar response rates. Indeed, evidence demonstrates that small population-based surveys can produce the same validity and reliability as larger survey efforts at a much more reasonable price.<sup>45</sup> There is also the additional benefit of collecting data that are more relevant to neighborhood realities than are area estimates from state, regional, or national surveys not representative at the neighborhood level; this allows tracking neighborhood health and social determinants over time. Additional benefits included relationship and coalition building at the grassroots level, community support of survey efforts, employment opportunities for residents, and efficient data uptake across the community.

Although we succeeded in collecting data and implementing interventions by working

alongside the communities and gaining their trust, the stigma and mistrust associated with academic and medical research among minority populations are pervasive.<sup>46–48</sup> Thus community leaders rightly protect their members from “research exhaustion” that has no clear benefit. Yet, the populations traditionally disenfranchised by research also are often the same populations experiencing intractable health disparities, which necessitate better research and more effective interventions. Therefore, we must increase responsibility and the development of effective interventions by residents and organizations with the capacity and self-efficacy to be agents of positive change. This means building relationships and trust to inform the process and conduct research and creating connections to resources, networks, training, and opportunities to develop needed interventions.

Training local residents to conduct data collection imparted marketable research skills to surveyors. This provided an important career development advantage in an academic town with high unemployment. Many CARE surveyors continue to work in research-related positions.

## Challenges

A major initial challenge was hiring within a large bureaucracy, which is typical in academic institutions. Complicating the process was the unique pool of applicants. We intentionally hired local residents, some of whom experienced social disparities, such as lower educational attainment, more sporadic job history, or a criminal background. Processing people through background checks was

**TABLE 1—Demographic and Health Characteristics of Community Interventions for Health: Community Alliance for Research and Engagement; New Haven, CT; 2009 and 2012**

Characteristic	2009 New Haven (n = 1205), %	2012 New Haven (n = 1300), %	2010 BRFSS Connecticut, %	2010 BRFSS US, <sup>44</sup> %
<b>Gender</b>				
Male	38.8	35.4		
Female	61.2	64.3		
<b>Race/ethnicity<sup>a</sup></b>				
White	12.2	9.7		
Black/African American	61.0	62.5		
Hispanic/Latino	21.0	19.5		
<b>Self-rated health</b>				
Excellent	16.3	15.2	25.3	22.3
Very good	23.5	24.7	38.4	34.4
Good	34.5	33.6	27.7	29.3
Fair	20.8	21.8	7.1	10.4
Poor	4.9	4.7	1.5	3.7
<b>Diagnosed with chronic condition</b>				
Diabetes	16.2	14.9	6.3	7.9
Heart disease	5.2	5.1	0.7	1.6
Asthma	19.2	18.2	16.3	14.0
<b>Health care access</b>				
Usual source of care	92.9	91.4	86.5	78.8
Has health insurance	80.5	87.8	87.9	81.9
<b>Health behaviors</b>				
Daily smoking	31.1	30.0	15.1	19.0
Meets daily fruit and vegetable recommendations	... <sup>b</sup>	18.9	28.3	23.4
Meets physical activity recommendations <sup>1</sup>	54.5	55.5	68.3	64.5

Note. BRFSS = Behavioral Risk Factor Surveillance System.

<sup>a</sup>Does not add up to 100% because of rounding.

<sup>b</sup>Survey items changed and are not comparable.

extraordinarily difficult because most universities require proper documentation and a “clean” past.

Another challenge of this rapid-style research is the intense timeframe: a 6- to 8-week preparation period followed by 10 weeks of data collection. This required dedicated and diligent staff members willing to work long hours, including evening and weekends. We recommend consistently communicating clear expectations to all staff well in advance of data collection. Maintaining morale through rewards and praise—particularly toward the end of data collection—is imperative. To this end, we scheduled weekly debriefing

sessions in which surveyors shared challenges and solutions from the field, and we provided weekly cash incentives for the team who conducted the most surveys.

### Next Steps and Recommendations

Community partners are using data to inform a community-led, citywide action planning process through CARE’s neighborhood organizing and Yale–New Haven Hospital’s community health improvement plan. These efforts continue to make structural, environmental, and policy changes aimed at chronic disease prevention in the lowest income

neighborhoods in New Haven, where resources are needed most. Follow-up data collection for 2015 is underway, replicating this survey and acquiring neighborhood-level longitudinal data. We will continue to share data with residents, leaders, and community-based organizations to support their own planning and advocacy and will again inform citywide planning.

As hospitals continue to meet the community health needs assessment requirements as set forth by the Affordable Care Act, community organizing should be considered an effective way to catalyze and sustain engagement, especially in low-income communities, where many hospitals

are located. For these assessments and plans to be successful, they must include community engagement as a central component. Employing formally trained community organizers with expertise in these principles can progress efforts exponentially.

However, there are important challenges to ensuring the sustainability of Affordable Care Act–mandated community health needs assessments and their subsequent health improvement plans. For example, this has provided a workforce development demand in neighborhoods where hospital community health needs assessments and community health improvement plans are occurring, including an



increased role for patient navigators and community health workers in the context of insurance exchange enrollment.<sup>49</sup> Using the services of non-traditional community research assistants should be considered a strategy to improve community health needs assessment processes and outcomes as well as a strategy for sustainable community engagement and economic development.

To facilitate hiring and improve research, we recommend that large institutions examine human resource processes to improve efficiency and hiring standards and work well in advance of hiring with informed human resource staff. For academic and other institutions with ongoing community-based research activities, community workforce development staff would help to facilitate the identification and hiring of qualified community residents for such research projects.

One intention of health care reform is to put consumers in charge of their health care.<sup>50</sup> This intention should be considered in all aspects of implementation, from assessments and planning to enrollment and care of patients. Community organizing provides a set of tools to help realize this patient empowerment aspect of the Affordable Care Act. **AJPH**

#### CONTRIBUTORS

A. Santilli led article writing, contributed substantively to research design and data collection instruments, led the training, and directed all aspects of the fieldwork. A. Carroll-Scott led data analyses and local adaptation and development of research design and data collection instruments. A. Carroll-Scott and J. R. Ickovics contributed substantively to writing and editing the article. J. R. Ickovics was the principal investigator and had overall responsibility for the study.

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#### HUMAN PARTICIPANT PROTECTION

This study was approved by the Yale University Human Subjects Committee.

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