Skill improvement among coalition members in the California Healthy Cities and Communities Program

By: Michelle C. Kegler, Barbara L. Norton and Robert Aronson\

Abstract:
Community-driven, collaborative approaches to health promotion have the potential to enhance skills among community members and, in turn, increase community capacity. This study uses data from an evaluation of the California Healthy Cities and Communities (CHCC) Program to examine whether, and how, community problem-solving and collaboration skills are improved among coalition members and local coordinators in 20 participating communities. Methods include semi-structured interviews with coordinators and mailed surveys with coalition members ($n = 330$ in planning phase and $n = 243$ in implementation phase). The largest number of coordinators reported skill improvement in defining health broadly and assessing needs and assets. Similarly, coalition members reported greatest skill improvement for defining health broadly, assessing needs and assets and setting priorities and developing action plans. Modest correlations were observed between number of roles played in the local healthy cities and communities project and each skill area assessed. Time committed to the local CHCC coalition and its activities was not meaningfully correlated with any of the skills. Types of skill-building opportunities may be more important than number of hours devoted to meetings and activities in strengthening community problem-solving and collaboration skills among coalition members.

Introduction
Participation in community-based coalitions, such as those typically established in healthy cities and communities efforts, has the potential to strengthen collaborative and community problem-solving skills among community members. Coalition approaches can provide an opportunity structure and real, task-oriented roles in which members can lead and serve the community, thereby developing skills through direct application and action. Learning new skills can also occur through networking and the sharing of diverse experiences, perspectives, strategies and solutions with fellow coalition members, or in multisite initiatives, with coalition members from other communities.

Foster-Fishman et al. [1] state that community coalitions need members with diverse skills to achieve 'collaborative capacity'. They discuss how coalitions should use technical assistance and training to support development of skills and to facilitate non-traditional participants to identify and contribute their talents to collaborative efforts. Indeed, many large-scale, coalition-based interventions incorporate tangible skill-building strategies such as technical assistance, training events and conferences into the overall support structure for the initiative [2–5].

In recent theoretical work on coalitions, Butterfoss and Kegler [6] state that strengthened community capacity, which includes skill development, is an important outcome resulting from coalition-based efforts. Conceptualizing skills as a dimension of community capacity is consistent with theoretical work

on the topic; most authors who write about community capacity mention the importance of individual skills or capacity in their discussions [7–9].

Expanded descriptions of particular skills, strategies for developing these skills and evaluation results related to skill development, however, are relatively rare [7, 10, 11]. In one of the few detailed discussions of skills, Lackey et al. [12] state that 'local groups with well-developed, problem-solving skills' and 'citizens with a broad repertoire of problem-solving abilities who know how to acquire resources' are key characteristics of healthy communities (p. 2). They argue that the level of community health depends, in part, on the extent to which individuals have the skills to perform a series of community development functions. These functions range from identifying and agreeing on long-term community goals, to determining the influence of historical factors on the selected problem, to developing action plans.

Several evaluation frameworks have been developed for healthy cities and communities initiatives, with at least a few of them incorporating skills and related individual-level capacity outcomes in the models [13–19]. The current paper uses data from an evaluation of the California Healthy Cities and Communities (CHCC) Program to answer three questions: (i) What specific skills are strengthened among coalition members who participate in community-driven, coalition-based health promotion programs?; (ii) What are the characteristics of coalition members who report the greatest improvements in skill level as a result of their participation? and (iii) What skills are strengthened among local coordinators and how are these skills strengthened?

Methods
Description of the CHCC Program
In 1998, the Center for Civic Partnerships received funding to expand its existing healthy cities program to 20 additional California communities [20]. The goal of this expanded CHCC Program was to enhance the capacity of recognized and indigenous leaders in underserved areas to address the structural and environmental determinants of community health. Participating communities were selected through a competitive process and were awarded a total of $125 000 over a 3-year period.

The CHCC model involves the formation of a governance structure (termed coalition here) that is broad-based and multisectoral. In the first year of funding, this coalition engages the larger community to create a vision for the future, conducts a community assessment, selects a priority issue to address and develops an action plan. The remaining years are spent implementing and evaluating the action plan, as well as developing strategies for sustainability. This process requires the involvement of individuals with a variety of existing skills, but is also intended to build skills in diverse individuals who are engaging in this community development process for the first time and to strengthen skills in more experienced participants by exposing them to new ideas and innovative approaches. In addition, the CHCC Program sought to strengthen skills by providing on-site and distance technical assistance, as well as skill-building opportunities such as workshops on evaluation and sustainability.

Data collection procedures
The overall evaluation used a multiple case study to examine both process and outcome components of the CHCC Program. Qualitative and quantitative data were collected from all 20 sites using multiple methods. The evaluation protocol was approved by the Emory University Institutional Review Board. Data reported here are from the member survey and interviews with local coordinators.

The coalition member survey is a 12-page, self-administered questionnaire that included an assessment of personal skill building and was based on similar surveys reported in the coalition literature [21–24]. The survey was issued to active coalition members, defined as attending at least one meeting in the past 6 months, in each of the participating communities near the end of the 1-year planning phase and again

near the end of the 3-year project. The overall response rate across both years was 70.0%, with 330 out of 469 (70.4%) surveys returned in the planning phase and 243 of 350 (69.4%) returned in the implementation phase. In addition, four semi-structured interviews were conducted with each local coordinator over the course of the 3-year project period. The first implementation phase interview, conducted in the second year of each local project included a qualitative skill assessment with coordinators.

Measures
The member survey asked respondents, 'For each of the skill areas listed below, indicate whether your skills have improved *Not at All*, *Not Much*, *Some* or *A Great Deal*, as a result of participating in the Healthy Communities initiative'. In the planning phase survey, nine skill areas were assessed; four additional skill areas were added in the implementation phase.

Two indicators of level of participation were created from items in the member survey: average number of hours per month devoted to the healthy communities coalition and number of roles played in the local healthy cities and communities project. The latter was calculated by summing the total number of roles played by the respondent from a list of 10 pre-defined roles.

The survey was also used to obtain descriptive information on members, including type of participation and level of education. Type of participation was assessed by asking, 'Is your participation in the coalition: 1) Voluntary, not paid for by any group or organization; 2) Part of your paid duties for an organization/agency; or 3) Other'.

For each of eight skill areas, coordinators were asked in a semi-structured, telephone interview 'Has participation in the healthy cities and communities initiative helped you acquire or strengthen it?' If the coordinator responded affirmatively, he/she was then asked, 'How did your involvement in the healthy cities and communities process help you improve it?'

Data analysis
Survey data were double entered into an Epi Info 6 database to minimize data entry errors and then converted into SPSS Version 11 for analysis. Analysis of variance was used to examine associations between level of education and skill improvement. Spearman's Rho was used to obtain correlations between the two indicators of level of participation (i.e. average time devoted per month and number of roles played) and skill improvement. The interviews were tape-recorded, transcribed verbatim and entered into QSR NUD*IST. Major themes were identified through content analysis [25].

Results
CHCC coalition members
During the planning phase, 65.8% of the local CHCC coalition members were women. Approximately 34.2% had graduated from college and 36.0% had a graduate degree. The majority (66.4%) of the participants was white, reflecting the large number of participants from rural communities (11 of the 20 communities being rural). Demographic characteristics did not change significantly over time. The majority of members regarded their participation as voluntary (68.4% in the planning phase and 57.1% in the implementation phase).

Skill improvement ratings by phase
Table I presents the mean level of skill improvement among coalition members by phase of the project. In the planning phase, greatest gains were observed for defining health broadly, assessment and action planning. Defining health broadly means that physical and social environments are acknowledged as critical conditions for health [26]. At the end of the implementation phase, greatest improvements were observed for understanding different perspectives, assessing needs and assets, coalition building, solving

community problems, action planning and defining health broadly. Overall, each skill area was reported as improved by coalition members, with the least skill improvement noted for grant-writing and conflict resolution.

Table I. *Mean level of self-reported skill improvement among CHCC coalition members by phase of project*

Area of skill improvement	Planning phase, mean (SD)	Implementation phase, mean (SD)
Community problem-solving skills[a,b]		
Assessing needs and assets	3.17 (0.747)	3.29 (0.730)
Setting priorities and developing action plans	3.15 (0.867)	3.22 (0.803)
Evaluating the progress of a community initiative	3.05 (0.861)	3.13 (0.780)
Solving community problems[c]	—	3.26 (0.724)
Developing and/or advocating for policy change	2.93 (0.888)	3.01 (0.872)
Writing grants and proposals[c]	—	2.40 (1.06)
Collaboration skills[a,b]		
Defining health broadly	3.18 (0.809)	3.19 (0.775)
Understanding different perspectives[c]	—	3.36 (0.753)
Building coalitions	3.09 (0.864)	3.26 (0.777)
Using an empowering style	3.06 (0.850)	3.11 (0.823)
Facilitating groups	2.96 (0.896)	3.09 (0.823)
Communicating effectively in groups[c]	—	3.12 (0.800)
Resolving conflict	2.79 (0.909)	2.88 (0.897)

[a]Response options were 1 = not at all, 2 = not much, 3 = some, 4 = a great deal. [b]Excludes those who identified themselves as 'already very skilled'. *n*'s vary accordingly for each item. [c]Not asked in planning phase survey.

Skill level prior to CHCC involvement
Coalition members were given the opportunity to indicate they were already very skilled for each of the skill areas assessed in the member survey. Prior to their involvement in the local CHCC projects, >20% of participants felt they had significant skills in setting priorities and developing action plans, understanding different perspectives, facilitating groups, communicating effectively in groups and conflict resolution. The only skill area for which <10% of participants felt very skilled was in evaluating the progress of a community initiative.

Associations between skill improvement and participant characteristics
In an effort to understand who experienced the most significant levels of skill improvement, we examined improvement by education level and participation type (not shown). Those with less education were more likely to report improvement in setting priorities and developing action plans ($P = 0.031$) and resolving conflict ($P = 0.017$) than those with more education. We also compared the level of skill improvement in voluntary participants relative to those who participated as part of their paid work. Voluntary participants reported more skill improvement in resolving conflict than those who participated as part of their paid positions.

In an attempt to examine how skill improvement might be associated with level of participation in the local CHCC projects, we examined correlations between level of skill improvement and two indicators of participation. As shown in Table II, the number of hours spent on healthy cities and communities activities was not strongly correlated with skill improvement. Correlations were stronger, but still fairly modest, between the number of roles played on the coalition and skill improvement.

Table II. *Correlations between hours spent on CHCC activities, number of roles played in CHCC project over time and skill improvement in CHCC coalition members, implementation phase*

Area of skill improvement	Average hours spent per month, Spearman's Rho, (*P*-value)	Total number of roles played, Spearman's Rho, (*P*-value)
Community problem-solving skills		
Assessing needs and assets	0.125 (0.091)	0.362 (0.000)
Setting priorities and developing action plans	0.161 (0.034)	0.292 (0.000)
Evaluating the progress of a community initiative	0.139 (0.045)	0.348 (0.000)
Solving community problems	0.168 (0.018)	0.289 (0.000)
Developing and/or advocating for policy change	0.111 (0.125)	0.396 (0.000)
Writing grants and proposals	0.163 (0.026)	0.258 (0.000)
Collaboration skills		
Defining health broadly	0.098 (0.173)	0.303 (0.000)
Understanding different perspectives	0.089 (0.253)	0.167 (0.030)
Building coalitions	0.178 (0.013)	0.361 (0.000)
Using an empowering style	0.121 (0.099)	0.249 (0.001)
Facilitating groups	0.220 (0.005)	0.345 (0.000)
Communicating effectively in groups	0.121 (0.149)	0.282 (0.001)
Resolving conflict	0.238 (0.002)	0.324 (0.000)

Strengthening of selected skills among coordinators
Community problem-solving skills
Skill development among the local coordinators was assessed qualitatively. Almost all of the coordinators strengthened or acquired skills in assessing community needs and assets, most commonly through actually conducting an assessment in the planning year. The CHCC Program's emphasis on assets was also mentioned by the coordinators as helpful. For some, it was their first exposure to the concepts of asset-based community development. For others, it was an opportunity to apply these concepts to their own work. Most of the coordinators also felt they had strengthened or acquired strategic planning skills. Many attributed their sharpened skills to the work plan development process they went through with CHCC staff. Similarly, most of the coordinators felt they strengthened their evaluation skills. They discussed having a better understanding of objectives and outcomes, as well as an increased appreciation for the value of evaluation. Over half of the coordinators felt they had strengthened their policy development and advocacy skills. Coordinators attributed skill development in policy work to immersion in the process.

Collaboration skills
Almost all of the coordinators felt they strengthened or acquired an ability to define health broadly, most commonly through exposure to the CHCC model along with reflection and discussion. Others mentioned the CHCC Program conferences and teaching others in their communities as learning mechanisms. Coalition building and group facilitation were other skills significantly enhanced through participation in the CHCC process. Coordinators improved their coalition-building skills by expanding and maintaining the governance groups that guided their local initiatives. Coordinators felt that opportunities to practice facilitating groups led to improvements in their group skills, as did facilitating groups that were more diverse than those they had previously worked with and teaching others facilitation skills. Others mentioned that they learned from observing the group facilitation abilities of CHCC Program staff. Of all the skills discussed, conflict resolution was the least developed as a result of the CHCC process. Half of the coordinators reported they either had no conflict to address within their projects or already had strong conflict resolution skills.

Discussion
The current study combined qualitative and quantitative methods to examine whether, and how, specific skills were strengthened through participation in local CHCC coalitions. Understanding whether and how participation in coalitions can improve skills will help guide coalition-based efforts with a capacity-building agenda and provide empirical support for coalitions as a capacity-building mechanism. Results

suggest that the experience of conducting an assessment, setting priorities and developing an action plan, along with the technical assistance and skill-building opportunities provided by CHCC Program staff, had a positive impact on members, and contributed to capacity for community problem solving.

We were also interested in identifying characteristics of coalition members that might be associated with greater levels of skill improvement. We were particularly interested in level of education, type of participation (paid versus voluntary) and level of participation (average hours devoted per month and number of roles played). This type of information could help practitioners target potential coalition members and create opportunity structures for the greatest capacity-building impact. In the current study, time committed to the local CHCC project in an average month was not meaningfully correlated with any of the skills; thereby suggesting that quantity of time invested is not a good indicator of personal skill development. The total number of roles played within the local CHCC projects was modestly correlated with skill development. These findings suggest that a breadth of volunteer opportunities may be key to developing individual skills that could be applied on behalf of community problem solving. Overall, our expectations that those with less education and that those who were participating without compensation as part of a job would experience greater skill gain were met for only a few of the skill areas. The rather limited variation in education level among the coalition members (i.e. the majority was highly educated) may have restricted our ability to detect differences in skill improvement by education.

This study also provided insights into the types of skills readily prevalent in a community. Among those involved in the local CHCC projects, the most common reservoir of skills was those related to group process, perhaps, because these skills were practiced more regularly and because they transfer to a wide range of interpersonal and work settings. Capacity-building efforts may wish to consider integrating application of less common skills, such as evaluation and policy advocacy, into more facets of coalition activities. Lastly, the study assessed skill development among the local coordinators. It was typically these individuals who had the most interaction with CHCC Program staff, and they were the most deeply engaged in the CHCC process in their communities. Consistent with adult learning principles, coordinators reported learning a great deal by applying what they learned in their own real-life settings [27].

This study has several limitations which should be considered when interpreting the results reported here. First, skill improvement was assessed through self-report. With only subjective assessments, we cannot be certain as to whether these self-reported skill improvements translate directly into improved community capacity. Second, the skill areas were pre-defined by the evaluation team based on the literature and CHCC Program staff input. It may be that additional skills were strengthened, but not captured through the measures used. Third, the survey was limited to those who were active members of the local CHCC coalitions and does not represent the full range of individuals who participated and may have developed skills due to their involvement.

Skill development is essential to community capacity building whether through coalition-based approaches or other models of community development. It takes skilled individuals, for example, to engage and build trust across sectors of a community; to recognize and capitalize on traditionally unacknowledged community assets and to create, implement and sustain new programs, policies and practices that improve health. As a critical element of community capacity, skill development warrants further attention in terms of identifying effective strategies for improvement and as a valued outcome of coalition-based initiatives.

Partnership staff for the opportunity to conduct an evaluation of the CHCC Program and their feedback and guidance throughout the evaluation process. We also appreciate their comments on an earlier version of the manuscript. In addition, we would like to thank several former graduate research assistants who assisted with preliminary analyses of the qualitative data presented here: Nancy Hood, Amy Berlin and Kai Young. Lastly, we would also like to thank the participants of the local healthy cities and communities projects for their many contributions to this study.

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