

Community-Based Coalitions' Capacity for Sustainable Action: The Role of Relationships

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Abstract:

Given both the importance and difficulty of promoting community-based public health coalitions, their capacity for sustainable action merits systematic examination. The current study addresses this need, focusing specifically on the relational dimension of capacity, that is, how relationships both among members and with external actors affect coalition-level activity. The context is a multimethod comparative case study of two rural cancer control coalitions. The authors began by using quantitative and qualitative data to characterize relational capacity in each coalition and then assessed the association between coalition-level relational capacity and level of subsequent interventions. The more active coalition had a more inclusive relational structure than did its less active counterpart but also placed less emphasis on personal friendships. The authors conclude that coalitions' relational structures are measurable and that this dimension of capacity may affect sustainable capacity for health promotion.

Keywords: coalitions; capacity; sustainability

Article:

Community-based coalitions, through which local agencies, businesses, and individuals work voluntarily together to achieve common goals (Butterfoss & Kegler, 2002), have now become a prominent part of health promotion in the United States. Activities include assessments of area health and human service needs, action plans specifying coalition participant roles, pursuit of funding, educational outreach to local citizens and legislators, and evaluation. Synonymous terms include partnership, consortium, and alliance (Mitchell & Shortell, 2000). Regardless of the name used, these structures offer the potential of coordinated, community-level responses to local health needs, ideally beginning with the preferences of the people thus served.

Government agencies, private foundations, and coalition member organizations have all supported community-based coalitions as a strategy for sustainable, adaptive health promotion (Kreuter, 1992; Mitchell & Shortell, 2000). As one expert in this field has noted, however, coalitions have “turned out to be far more complicated and different than most initially believed.... The diverse interests, history, and power of participants create a more complex setting than any other type of community organization” (Chavis, 2001, p. 310). These challenges—as well as the continued promise of collaboration—merit empirical investigation into coalition capacity.

BACKGROUND

Drawing on work by Goodman et al. (1998) and others (“The Singapore Declaration,” 1998), Elliott et al. (2003) defined capacity as entailing both the commitment and resources necessary to identify and address community problems. As such, capacity is a “potential state” representing ability to act (Goodman et al., 1998, p. 260), whereas “actualized capacity” (Freudenberg, 2004) manifests in the activities themselves. Foster-Fishman, Berkowitz, Lounsbury, Jacobson, and Allen (2001) concluded from their review of the literature that capacity must emerge at four levels for community-based coalitions: (a) within their members, (b) within their relationships, (c) within their organizations (including funding and staffing), and (d) within the programs they sponsor.

Among these four aspects of capacity, in the current study, we chose to focus on relational capacity, the “structures that facilitate the inclusion of all participants” (Foster-Fishman et al., 2001, p. 250). This was particularly relevant for us because our study settings were in rural Appalachia, and our goal was to conduct research with generality to other underserved (and poorly resourced) areas. Thus, we wanted to focus on an aspect of capacity that did not require new members or money. Instead, the question that attracted us was how community-based coalitions made the most of the human and financial resources they already had. Our first research question was therefore, “How can we measure relational capacity in community-based coalitions?”

Conceptually, coalitions’ relational capacity entails both internal power sharing and external relationships, as well as a general tendency to value diversity (Foster-Fishman et al., 2001). The types of diversity depend on those present locally and generally entail inclusion of members from multiple sectors and representation of the groups being served (e.g., cancer survivors), as well as of the racial/ethnic groups in the area. Relational capacity goes beyond member recruitment to the mechanisms supporting substantive involvement by the full range of partners.

Of course, capacity remains academic unless it relates to action. Our second research question was therefore, “How does coalition-level relational capacity affect sustainable health promotion activity?” Research on health-related networks has tended to examine connections between agencies whose members refer patients to each other for independently provided services. These studies have emphasized the benefits of relational efficiency. For instance, in a systematic comparison of four mental health networks, Provan and Milward (1995) found that the most centralized was the most effective, from which the authors inferred coordination benefits. Similarly, a study of elder service networks used patterns of interagency ties to demonstrate the benefits of coordination across subgroups, although they did not test associations with network performance (Bolland & Wilson, 1994).

In contrast, in coalitions, whose services are provided collectively rather than by individual members, there is evidence that decentralization, or inclusivity, may be necessary to foster effective action. Examination of interview data from four community health promotion coalitions identified both internal infrastructure development and community linkages as contributing to sustainability of collaborative capacity (Alexander et al., 2003). Analyses of 10 cancer prevention coalitions indicated that the quality of communication among members and staff, a factor related to inclusivity, was significantly associated with the extent of plans implemented and the absolute number of activities executed (Kegler, Steckler, McLeroy, & Malek, 1998). Similarly, in drug prevention coalitions, work plan quality was better, and members perceived greater collective success when leaders pursued empowerment strategies, including encouraging information sharing among members (Kumpfer, Turner, Hopkins, & Librett, 1993). Finally, there was a positive correlation between decentralization, measured as the number of direct ties among members, and sustainable activity among youth violence prevention coalitions (Feinberg, Riggs, & Greenberg, 2003).

The current study builds on previous work in several important ways. It is among the few studies of coalitions to use sociometric data on ties between both individuals and organizations, as well as qualitative data to provide interpretive context for these patterns (Foster-Fishman, Salem, Allen, & Fahrback, 2001). This study is also the first empirical test of coalition capacity and the first to examine quantitative similarities between patterns of interpersonal and interorganizational ties in health-related coalitions. The latter is important because most individual members also represent organizations within coalitions, and thus both interpersonal and interorganizational networks are relevant to collective dynamics. The comprehensiveness of our approach yields previously unavailable information on the nature of relational capacity within community-based coalitions and how this may lead to differential levels of coalition activity.

METHOD

Study Area

The Appalachia Cancer Network was funded in 1992 by the National Cancer Institute to build local coalitions’ capacities to engage in health promotion and cancer screening (Friedell et al., 2001). Because of their interest in identifying successful coalition models, the Northern Appalachia Cancer Network’s leadership has collected

systematic data on participation within member coalitions as well as on their community interventions, defined in Network documentation as “planned events sponsored or co-sponsored by the coalition and primarily intended to directly change behavior, detect risk or disease, or educate person who are not in the coalition (non-members).” The study reported here drew on those records for two coalitions as well as additional data collection from those coalitions.

Sample Selection: Identification of Coalitions and Sampling Frames

Two coalitions were chosen to form a purposive sample, Cancer Free Women’s Coalition (Cancer Free Women) and Oak County Cancer and Tobacco Coalition (Oak).¹ Similarities between the two coalitions included a common mission, similar age, rural locations (albeit differing in level of rurality), comparable member demographics and professional backgrounds, and a shared Appalachia Cancer Network staff member responsible for ongoing reporting (see Table 1). Their primary differences were in size, with Cancer Free Women having more members (27, compared to 18 in Oak); a larger budget (in the thousands rather than hundreds of dollars); and a larger home county (population more than 125,000, compared with a population under 50,000 in Oak County). Case studies are particularly appropriate to examining complex phenomena in their natural contexts, such as coalition social dynamics and interventions (Yin, 2003).

Table 1. Coalition Profiles

	Cancer Free Women	Oak
County population (statistics given in ranges to protect coalition confidentiality)	125,000-150,000	25,000-50,000
% White, 2000 ^a	94	99
Coalition founding date	1993	1993
Number of active members	27	18
Number of organizations represented	20	12
% active coalition members, female	100	94
Mean number of coalition members’ related academic degrees	1.31	1.23
Information centralization (based on mutual ties)	18%	55%
Friendship centralization (based on mutual ties)	6%	32%
K-core sequence structure for friendship ties	No k-cores >1	“Bumpy”
Number of friendship cliques	0	4
Number of “friends” on mailing list (in addition to active members)	56	3
Correlations between mutual friendship and information ties of individual members (using quadratic assignment procedure [QAP])	**	****
Correlations between mutual interorganizational cooperation and individuals’ information ties (using QAP)	*	Nonsignificant

NOTE: The relevant comparisons for correlations of matrix data are between levels of statistical significance rather than coefficients because of the potentially confounding effects of differing nonindependence within coalitions, which can differentially inflate these coefficients. See Method section for more detail on the Quadratic Assignment Procedure.

a. From U.S. Census Bureau (2000).

* $p < .10$. ** $p < .05$. **** $p < .001$.

Cancer Free Women’s Coalition

Cancer Free Women served a largely rural county with a total population of more than 100,000 and median household income just below the state average (U.S. Census Bureau, 2000). The majority of the population was non-Hispanic White. The farming community was spread countywide and tended to be isolated from the rest of the population.

Together with the County Department of Health and local hospitals, since the early 1990s, the coalition had provided low-cost/no-cost breast and cervical screenings to women who met income-based eligibility requirements. Funding came from multiple sources, including a state breast health partnership with funding from the Centers for Disease Control and Prevention's Breast and Cervical Cancer Early Detection Program. Members were almost all White (reflective of the county's racial composition), almost all female, and generally held professional positions in health and human services (see Table 1).

Oak County Cancer and Tobacco Coalition

Oak served a rural county with a population of fewer than 50,000 and a median household income just above the state average (U.S. Census Bureau, 2000). The coalition's community centered economically on a local factory. Its residents were virtually all (99%) White. Local leaders had worked together in the past decade to build a medical center to address a shortage of health care professionals.

The coalition was formed in the early 1990s by a small group of citizens brought together by staff from the local Cooperative Extension Office and a cancer organization at the invitation of university researchers. The coalition's first project was a door-to-door community assessment of citizens' perceptions about cancer in each of the county's three major communities. The group then conducted interventions responding to needs identified through that survey. In 2002, the coalition began to receive funds from the county's tobacco settlement. Reflecting the increasing importance of tobacco to its mission, the coalition had recently changed its name to incorporate that term.

The demographics of Oak's membership were very similar to those of Cancer Free Women, being almost all White women in area health and human services, with a very similar mean number of related academic degrees. Meeting attendance records from the year prior to fieldwork were used to identify the initial sampling frame for members within each coalition, with individuals attending at least one regular meeting in those 12 months considered to be "active" (Human & Provan, 2000). Cancer Free Women had 27 active members, of whom 93% participated in the study. These individual members, in turn, represented 20 organizations. Oak had 18 active members, all of whom participated in the study. These individuals represented 12 organizations. Thus, this study had three levels of analysis: (a) the coalition ($n = 2$), (b) individuals within each coalition ($n = 27$ and 18), and (c) organizations represented within each coalition ($n = 20$ and 12).

Data Collected

In addition to U.S. Census data on the two coalitions' respective counties, we collected five types of data on each coalition (see Table 2). The first were Appalachia Cancer Network archival records, used to define our sampling frame, as noted above, to learn about the history and context of each coalition, and (using reports from the year after fieldwork) to quantify coalition interventions and the proportion thereof evaluated. The same staff member collected member participation and coalition intervention data for both coalitions, thus removing the potentially confounding factor of differential biases in reporting.

Second, in the summer of 2002, a member of our team asked each coalition member to complete a forced-choice survey addressing his or her own background and coalition goals ($n = 43$; 25 of Cancer Free Women's members and all 18 Oak members). We used those data in part to validate the Appalachia Cancer Network staff's report that the two coalitions' missions were similar.

Third, we collected network data about ties both between individuals and between the agencies they represented. We did this by asking each informant to check off from a list of all active coalition members whom he or she would ask for information or advice regarding coalition interventions and whom he or she considered personal friends. In addition, we asked each individual representing an agency how his or her agency related to others represented in the coalition. To improve reliability of these data, when more than one coalition member represented the same organization, we included both individuals from that organization in an additional interview and recorded their consensus opinions about agency ties.

Table 2. Data Uses in Study

Type	Specific Data Source	Used to:
Archival	Meeting agendas, meeting minutes, correspondence between coalition and Appalachia Cancer Network staff, local newspaper articles about coalition interventions, Appalachia Cancer Network staff summaries of meeting dynamics, 1990-2002	Develop history of each coalition
	Coalition membership and meeting attendance, 2001-2002	Define sampling frame of individuals within each coalition for 2002 field data collection
	Appalachia Cancer Network staff member reports on coalition interventions, 2002-2003	Compare levels of sustainable interventions across coalitions
Survey	Forced-choice survey given in person to each coalition member, addressing personal background (e.g., relevant degrees) and priorities for coalition, 2002	Compare member demographics and mission across coalitions
Network	Interpersonal ties: friendship, information seeking, 2002	Measure relational capacity
Observational	Interorganizational ties: cooperation, 2002	
	Field researcher observations of coalition meetings during summer of 2002; additional observations of dynamics during this period contributed by Appalachia Cancer Network staff members	Add interpretive context to evaluations of relational capacity
Interview	Face-to-face individual interviews with all members participating in the study, summer 2002; follow-up with Appalachia Cancer Network staff member, spring 2003	

The fourth type of data, collected during the same time period as the survey and network data (summer 2002), consisted of researcher and Appalachia Cancer Network staff member observations of coalition meetings. Researcher field notes were composed immediately following each meeting. Field staff notes provided an independent perspective on the dynamics of each meeting.

Finally, we used interview data, based on a semistructured protocol first pilot-tested in another Northern Appalachia Cancer Network coalition. Drawing on previous research (e.g., Feinberg & Greenberg, 2002; Fernandez & Gould, 1994; Human & Provan, 2000; Krackardt, 1999; Monge & Contractor, 2001; Provan & Milward, 1995; Stevenson & Greenberg, 2000), the protocol included prompts for the coalition's goals, atmosphere, ties to the community, decision making, and performance. Coalition chairs and Northern Appalachia Cancer Network staff were asked additional questions regarding the coalition's history, resources, dynamics, and collaboration with other organizations, and their impressions of each member's role within the group. All but one of these interviews occurred face-to-face and were held at the location of the informant's choice, often an office, restaurant, or home. Immediately following each interview, the researcher wrote a field note outlining informant responses to prompts and any additional unprompted or emphasized points made by the informant during the interview. Researchers also noted parenthetically their own reflections on member disclosures.

Data Analyses

This study entailed two methods of analysis. First, one member of our team developed an initial codebook of explicitly operationalized constructs based on the research previously noted (Fernandez & Gould, 1994; Human & Provan, 2000; Krackardt, 1999; Monge & Contractor, 2001; Provan & Milward, 1995; Stevenson & Greenberg, 2000) as well as emergent themes from analyses that had been conducted concurrently with data collection (Boyatzis, 1998). Using the draft codebook, this author and another member of the team then independently coded two interviews and calculated interrater reliability as the proportion of total codes on which they agreed. They discussed each discrepancy until they reached consensus, clarifying the operationalizations in the codebook as necessary. Three rounds of independent transcript reviews resulted in an acceptable interrater reliability of 90% (Miles & Huberman, 1994). Next, one researcher coded the remaining 62 interviews. The second coder reviewed these additional documents and noted disagreements about coding; after discussion, the first coder made further changes based on consensus decisions. Subsequent analyses of patterns by code between the two coalitions were used to explain findings from sociometric data (Eisenhardt, 1989; Strauss & Corbin, 1998). Northern Appalachia Cancer Network staff and the members of the research team who had collected the field data then read the draft manuscript and suggested a small number of changes, which were incorporated.

UCINET software was used to calculate measures of coalition-level structure, based on patterns of both interpersonal and interorganizational ties. In all cases we used only confirmed ties, that is, those reported by both people (Mitchell & Shortell, 2000). First, we calculated estimates of network centralization for information seeking and for friendship ties. Centralization indicates the extent to which ties within a given network (or in this instance, coalition) go through a small number of actors and thus how widely influence is shared (see Table 1; Brass & Burkhardt, 1993; Wasserman & Faust, 1994). Mathematically, Freeman's Betweenness calculates centralization as the ratio of the actual sum of differences between the centrality score of the most central actor and those of all other actors and the maximum possible sum of these differences (Scott, 2000).

For friendship ties, we also conducted clique and k-core analyses, which indicate dense subgroups within each coalition. In network terms, a clique is a subgroup of three or more actors who are connected by all possible ties (Wasserman & Faust, 1994). Cliques indicate a lot of connection among a few people who are not as connected to others within a given network (or in these cases, coalition). K-core analyses show how many actors in the network are connected at each degree, that is, how many are directly tied, how many are separated by only one degree, how many are separated by two degrees, and so forth. Like cliques, "bumpy" k-core structures can indicate the presence of dense subgroups (Seidman, 1983). Cliques and bumpy k-core structures therefore both indicate that some members of the network are included more than others.

Finally, we calculated Pearson correlations between pairs of matrices reflecting different types of ties within each coalition (e.g., friendship versus information) and used the Quadratic Assignment Procedure to test the statistical significance of those correlations. The latter was necessary because network data are not independent. For instance, each of the 17 responses from each member about ties with other members in Oak came from a common source. Standard parametric tests of significance are therefore not appropriate (Kilduff & Krackhardt, 1994). After calculating the Pearson correlation coefficient of association between two matrices, the Quadratic Assignment Procedure compares the actual correlation to a randomly large number of correlations (in this case, 2,500) between one of the original matrices and rearranged versions of the other matrix (i.e., with shifted rows and columns; Borgatti, Everett, & Freeman, 1999). We then compared the proportion of those trials that yielded correlations as high as those found in the observed data (for instance, .019 for Cancer Free Women's correlation of friendship and information ties) to the usual thresholds for describing statistical significance (in this instance, below $\alpha = .05$ generally used as the cutoff for statistical significance). The relevant sample size was the number of trials (2,500) rather than the number of responses within each coalition; this made tests of significance robust relative to the differing sizes of the coalitions. The correlations between interpersonal and interorganizational networks excluded individuals who did not represent organizations; thus, the number for each was the number of organizations in that coalition.

As noted previously, our research focus was twofold. First, we wanted to determine how the relational capacities of the two study coalitions differed, through the systematic use of complementary quantitative (sociometric) and qualitative (interview and observational) data. Second, we were interested in how any differences in relational capacity might affect the coalitions' respective levels of intervention and evaluation thereof—that is, how relational capacity affected sustainable activity levels. Our first discovery was that the patterns of relationships differed substantially between Cancer Free Women and Oak.

RESULTS AND DISCUSSION

Relational Capacity

Both task-related information exchange networks and personal friendship networks revealed striking contrasts between the two coalitions in relational capacity. There was a much less concentrated pattern of information seeking related to coalition activities in Cancer Free Women than in Oak, indicated by a lower coalition-level centralization index (at 18%, versus 55%). Thus, members were seeking information from a broader range of other people within Cancer Free Women than within Oak. Previous evidence indicates that including both members and the external community enhances coalition effectiveness (Alexander et al., 2003; Kegler et al., 1998; Kumpfer et al., 1993). A greater number of close ties and less brokerage have also been associated with readiness at the community level (Feinberg et al., 2003). These findings imply that Oak's greater centralization of information ties may have been a structural weakness.

The difference between the two coalitions in information ties was paralleled in their respective patterns of friendship ties. Sociometric data indicated that Cancer Free Women members were less frequently friends than were Oak members. At the same time, data from five field notes (four interview, one observational) indicate that Cancer Free Women was friendly (e.g., a previous chair was "very warm and welcoming"), whereas there were no qualitative data to support that conclusion for Oak. There was a much less concentrated pattern of friendships in Cancer Free Women than in Oak, indicated by a lower coalition-level centralization index for friendship (6% in Cancer Free Women versus 18% in Oak) and a less fragmented friendship structure, as assessed through clique analysis and a k-core "collapse" sequence (Scott, 2000). Collectively, these data imply that the greater number of personal friendships in Oak may actually have contributed to an atmosphere that some other members found less welcoming because of the cliquish (exclusive) nature of the friendship structure.

Relative Salience of Personal and Organizational Relationships

Another important facet of coalitions is the participation of most individuals as representatives of organizations. The differences between the two coalitions in the number of friendships and their cliquishness piqued our interest. How closely were personal relationships and agency ties, respectively, associated with information seeking about coalition activities? To address this issue, we examined the associations between both friendship and agency ties with patterns of communication about coalition matters. Again, we used only mutually confirmed ties in the analysis.

In both coalitions, information ties were more strongly associated with interpersonal friendship ties than with interorganizational ties. The strength of the association between friendship and information exchange, however, was weaker in Cancer Free Women ($p < .05$) than in Oak ($p < .001$). In other words, task-related information exchange was significantly less associated with friendship in Cancer Free Women than in Oak.

Conversely, the strength of the correlation between interorganizational cooperation and information exchange was stronger in Cancer Free Women ($p < .10$) than in Oak (nonsignificant). In other words, whereas in Cancer Free Women there was a weak association between patterns of agency cooperation and interpersonal communication about coalition activities, in Oak there was no such connection. This raises the possibility that member communication within Oak was completely decoupled from agency interests.

Thus, our data indicated two quantitative patterns of difference between Cancer Free Women and Oak. First, at the coalition level, Cancer Free Women was more structurally inclusive than Oak, with more direct information

ties between members and no friendship cliques. Qualitative data complemented sociometric measures by depicting Cancer Free Women as “friendlier” than Oak. Second, personal friendships were much more strongly related to task-related information seeking in Oak than in Cancer Free Women, whereas interorganizational cooperation was more strongly associated with information seeking in Cancer Free Women than in Oak. Further analyses revealed that connections between the two coalitions and their broader communities paralleled their internal differences in relational capacity.

Relationships With the Broader Community

By their very nature, having few of their own resources, coalitions are highly dependent on the communities within which they are embedded. We were therefore interested in relational capacity relative to external actors as well as internally. Interview field notes cite the current chair of Cancer Free Women noting that they would “partner with ‘everyone’ ... basically any group that is willing to help them reach people.” In contrast, the leadership of Oak was described as “limit[ing] the coalition’s interaction with other groups to churches for advertising interventions and programs in their bulletins, and to (‘some’) schools.” Whereas members of Cancer Free Women described a number of specific physician ties, the Oak chair said of physicians, “Maybe they know who we are, but they are too busy to be bothered.” An apparent result of these differing styles was the number of nonmembers listed on the coalition’s mailing list: Cancer Free Women had 56 nonmembers listed on their mailing list as “friends.” Oak had 3. Nor was this pattern unique to the time of our field data collection: Archival records revealed that in 1994, half of the leaders in Cancer Free Women’s community (excluding coalition members) gave resources to the coalition, versus fewer than one third of Oak County’s leaders.

One of the most important respects in which coalitions depend on their local communities is for members. Both interview and observational data indicate more openness toward outsiders and newcomers in Cancer Free Women than in Oak. For instance, a founder in Cancer Free noted that new members brought “fresh, new ideas” and described specific measures intended to attract and retain them. One longtime member in Oak, in contrast, said that it was “fine with her” if new, professional, and more health care-oriented members made her own contributions less necessary, but that “others among the group’s founding members do not feel as gracious about giving up their roles in the coalition.”

The apparent result of Cancer Free Women’s greater relational capacity was the development of human resources able to support more activity than Oak was able to sustain. For instance, a theme emerged from Cancer Free Women field notes that did not appear in Oak data, originating in unprompted comments about the diversity of skills among members. As one person put it, “No matter what the task, there is someone within Cancer Free Women that has the skills needed to complete the job.”

Surprisingly, this qualitative contrast was not fully congruent with quantitative data on meeting attendance at the two respective coalitions: During the year after our field observations, Cancer Free Women had a slightly lower average number of members present at meetings than Oak (10.5, versus 10.9), despite their larger size (with 27 members, versus Oak’s 18), and held fewer meetings (9, versus 11). Results below suggest that this may reflect an important distinction between meeting attendance and participation beyond meetings.

Coalition Intervention Levels

Given the difference in the sizes of the two study coalitions, with Cancer Free having 50% more members than Oak, we would expect substantial difference in intervention levels attributable to that factor alone, so the question was whether the differences exceeded that proportion. In all aspects of interventions measured, they did. At the coalition level, three times as many Cancer Free Women volunteers logged almost four times the number of interventions that Oak did in the year after our observation period. Cancer Free’s “reach,” or number of people affected, was higher within both face-to-face and other types of interventions and included providers, whom Oak did not reach face-to-face at all (see Table 3). In addition, Cancer Free Women evaluated the majority of their interventions (84%), whereas Oak evaluated only one of its interventions (4%). Although the majority of Cancer Free’s evaluations were simply collections of participant demographics, 22% were pre-/posttests designed to identify changes in individuals’ attitudes, awareness, and/or skills.

Table 3. Coalition Intervention Levels: September 2002-August 2003

	Cancer Free Women	Oak
Number of community interventions, September 2002-August 2003	77	25
Total number of volunteers listed for these community interventions	298	79
Number of people reached through face-to-face interventions		
Cancer education programs for providers	96	0
Cancer education programs for the public	516	157
Screening	721	0
Number of people reached through other interventions		
Coalition exhibit and literature distribution	10,972	552
Cancer awareness and media outreach	647,066	34,580
Total number of people reached through September 2002-August 2003 community interventions	659,371	35,289
% community interventions formally evaluated	84	4
Types of evaluations (number of each)		
List of attendees, including basic demographic information	50	
Pre-/posttests conducted before and after intervention	14	
In-person interview assessing effects of intervention	1	1
Total number of interventions formally evaluated	65	1

Coalition members, Northern Appalachia Cancer Network staff, and researchers all indicated that Cancer Free Women and Oak faced many similar challenges, and both were also seen as becoming stronger at the time of data collection. The difference between the two coalitions in intervention levels, however, was substantial: Cancer Free Women engaged in more community interventions, reached many times more people through a greater variety of interventions than did Oak, and systematically evaluated a far higher proportion of those interventions. Although the nature of our data does not allow us to test which specific factors yielded greater intervention in Cancer Free Women than in Oak, our analyses do indicate that Cancer Free Women had a greater relational capacity, which in turn supported a higher level of sustainable intervention.

CONCLUSION

The current study suggests that relational capacity may be an important basis of sustained health promotion (Feinberg et al., 2003). In the two coalitions studied here, this dimension of capacity appeared to be more instrumental than friendship related, but feeling personally welcome still mattered. The reality of most health promotion coalitions is that their members are primarily agency representatives (Herman, Wolfson, & Forster, 1993; Maskill & Hodges, 2001; Rogers et al., 1993). At the same time, people have discretion about how much to invest themselves in various work-related interventions, and it appears from the current analyses that both informational inclusion and a generally warm or welcoming atmosphere encourage people to invest more. Even when coalitions engender active participation, they may not improve public health. One way to increase coalitions' impact is to tailor evidence-based interventions to local needs and norms. Cancer Free's diverse membership and more inclusive information sharing appeared to facilitate access to member and external resources for interventions. Because of its close relationships with local hospitals, a university, and the state Department of Health, resulting interventions tended to have professional legitimacy and grounding in health education theory. At the same time, coalition members tailored these interventions to constituencies such as religious or ethnic groups, older women, and residents of specific localities. For instance, countywide social

marketing strategies with accompanying screening resources resulted in significant increases in breast cancer screening rates. By publicly recognizing member agencies, Cancer Free built enduring support for these interventions during the past 10 years.

Oak, with fewer and less diverse resources and relationships, tended to implement smaller education initiatives, primarily at the information dissemination level. While Oak's annual programs for youth at schools or health fairs may have achieved additive awareness effects for participants who had multiple exposures, they tended to reach fewer people in less varied ways than Cancer Free Women's interventions and did not entail behavioral changes (such as screening) or measured knowledge progress. With weak relationships to the local cancer society, hospital, and clinic where free mammograms were provided, Oak failed to gain a reputation in the county as an effective cancer control organization. More recently, having included a state-funded tobacco prevention contractor and a nurse practitioner from the medical center to their membership, they have diversified their resources and possibly enhanced their ability to reach a broader range of audiences more effectively.

Ultimately, the intended impact of community-based coalitions is reduced burden of disease. The Appalachia Cancer Network's university-based investigators had hoped at one point to trace coalition effectiveness to increased screening rates and consequently to an effect on cancer incidence and mortality rates. However, because coalition screening efforts are sporadic and vary regionally, recruitment to screenings, data collection, and analysis for this purpose were not feasible.

Implications for Practice

The current study has practical implications for community activists and those who seek to support their work. From a coalition leader's perspective, these findings imply that relational capacity affects collective performance over time and thus merits careful and continual attention. This study also indicates that external sponsors of community-based intervention should pay attention to how well coalitions are including specific key stakeholders. The coalition leaders in this study did not always have an accurate perception of how welcome other participants felt; thus, those considering investment in coalitions may wish to get input from a range of members.

Initiatives to support coalitions may make substantial contributions at relatively modest cost through technical assistance focusing on this issue. Such input would ideally come from people from the same region as the coalition, who demonstrate respect for the existing organizational culture even as they suggest possible modifications. Our experience in this case study offers promise in this regard: Members of Oak were very receptive to the report our study team member provided after data collection, and the Appalachia Cancer Network field staff believed that this discussion helped spur the subsequent revitalization of that coalition. Another way that coalitions may increase their public health impact is through recruitment and retention of a range of health care, health promotion, and marketing professionals who are familiar with evidence-based practices and/or social marketing techniques. Such a membership strategy raises a number of challenges, most notably how to balance these participants' priorities with those of lay volunteers. One way to maintain involvement of a diverse range of coalition participants may be to support active working committees with more limited (and homogeneous) agendas.

Implications for Theory

Previous research on interagency referral networks has tended to emphasize the benefits of centralized coordination (Bolland & Wilson, 1994; Provan & Milward, 1995). In contrast, the current study supports the contention that decentralization is necessary to support health promotion coalition effectiveness (Alexander et al., 2003; Feinberg et al., 2003; Kegler et al., 1998; Kumpfer et al., 1993). This illustrates the importance of distinguishing among different types of networks even within the field of health. Whereas efficiency appears to be vital for referral networks, inefficient structures of inclusion may be necessary for coalitions to mobilize enough resources to support sustained action.

The current study also contributes to network theory by probing implications of the fact that most individuals involved in health promotion coalitions also represent agencies. We examined only one facet of this dynamic, discovering that information seeking was less strongly related to personal friendships and more strongly related to agency ties in the more active coalition than in its less active counterpart. At this point, given the nature of data available in a single case study, our findings remain highly speculative. Nonetheless, we believe that we have marked an important path for future research by highlighting the intersections of individual and agency involvement in coalitions.

Finally, in this study, we interpreted a combination of quantitative and qualitative data to theorize about how coalitions' relational capacities might affect levels of sustainable health promotion activity. Again, the results at this stage are only suggestive. We believe, however, that this study made a significant contribution by making an empirically grounded case that better processes may lead to more effective outcomes.

This study had limitations that will need to be addressed by future work. The sample was in the distinctive rural area of Appalachia. The members were predominantly professionals rather than lay activists, and the coalitions were at the county rather than regional or national level. There was little or no racial diversity. These factors may yield dynamics that do not fully generalize to other coalitions. Although qualitative data provide a link between relational capacity and intervention levels, we did not identify corroborating quantitative data. Future work should trace the path from relational capacity to intervention levels more fully. For instance, do different types of inclusivity encourage different types of coalition members to contribute? What types of interventions work best to help traditionally exclusive coalitions become and stay more inclusive? Finally, even Cancer Free Women's modest budget undoubtedly provided an advantage relative to Oak in supporting a greater level of interventions. Those familiar with the two coalitions believe that the difference in funding levels reflected Cancer Free Women's superior relational capacity, but rigorous longitudinal data would be necessary to test that impression.

The current study offers insight onto one basis of community-based coalition activity. Analyses of complementary data provided a systematic characterization of relational capacity, which appeared to be based more on task-related inclusion than personal friendships. Qualitative data indicated that such coalition-level capacity supported sustainable intervention activities. Through studies such as this, we may better understand the nature of coalitions' capacities and how they affect sustainable action and thus identify focused ways to help them improve community health.

Note

Both pseudonyms.

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