

## A multiple case study of implementation in 10 local Project ASSIST coalitions in North Carolina

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### Abstract

Community health promotion relies heavily on coalitions to address a multitude of public health issues. In spite of their widespread use, there have been very few studies of coalitions at various stages of coalition development. The purpose of this study was to identify factors that facilitated or impeded coalition effectiveness in the implementation stage of coalition development. The research design was a multiple case study with cross-case comparisons. Each of the 10 local North Carolina Project ASSIST coalitions constituted a case. Data collection included: semi-structured interviews, observation, document review, and surveys of members and staff. Some of the major factors that facilitated implementation included: the ability of the coalition to provide its own vision, staff with the skills and time to work with the coalition, frequent and productive communication, cohesion or a sense of belonging on the coalition, and complexity of the coalition structure during the intervention phase. Barriers to effective implementation included: staff turnover and staff lacking community organization skills, dependence on the state-level staff

during the planning phase and lack of member input into the action plan. Conflict contributed to staff turnover, reluctance to conduct certain activities and difficulty in recruiting members, all of which had implications for implementation.

### Introduction

In recent years, communities have formed coalitions to address a multitude of public health and social problems (Herman *et al.*, 1993; Kumpfer *et al.*, 1993; Rogers *et al.*, 1993; CDC, 1995; Butterfoss *et al.*, 1996; Fawcett *et al.*, 1996). Indeed, community health promotion as it is currently practiced relies very heavily on coalitions. In some communities, coalitions—defined as organizations and individuals working together to achieve a common goal (Feighery and Rogers, 1990; Brown, 1984)—exist for almost every disease, risk factor and social problem. This growth in the popularity of coalitions is due to mandates by funding agencies, in combination with the belief that by bringing multiple community sectors together to share resources and combine energy, coalitions can demonstrate widespread support for action and provide a vehicle for solving problems that are too complex for single agency solutions (Black 1983; Brown, 1984; Feighery and Rogers, 1990; Butterfoss *et al.*, 1993). Further, coalitions are believed to foster community ownership which, in turn, is thought to increase the likelihood of long-term changes in physical and social environments that support health-related and health-directed behavior (Winett *et al.*, 1989; Bracht, 1990; Thompson and Kinne, 1990).

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In spite of their popularity and widespread use, until recently, there have been relatively few systematic studies of coalitions (Altman *et al.*, 1991; Mizrahi and Rosenthal, 1992; Butterfoss *et al.*, 1993). A better understanding of coalitions would help us assess under what conditions a coalition approach is best suited and how to increase the likelihood that a coalition's efforts will have a positive impact, both on the public's health, and on the capacity of a community to respond to future social and health concerns. Developing an understanding of coalitions is complicated, however, by the many different types of coalitions and the various stages of coalition development.

The literature discusses two ways to conceptualize stages of coalition development. The first focuses on relationships among partners. Alter and Hage (1993) describe networks as beginning as loosely linked organizations held together by individuals who serve as boundary spanners by exchanging resources and coordinating tasks across organizational boundaries. As the relationships between partners evolve, more long-term, formal relationships are formed to jointly produce a product, program or service. A second approach to conceptualizing stages of coalition development is to ground the stages in the community-wide health promotion process (Butterfoss *et al.*, 1993; Florin *et al.*, 1993). Florin *et al.* (1993), for example, describe seven stages of coalition development: initial mobilization, establishing organizational structure, building capacity for action, planning for action, implementation, refinement and institutionalization.

Recent studies in community health promotion have focused on the formation and early maintenance of coalition development, using member satisfaction, participation, commitment and quality of the action plan produced by the coalition as intermediate measures of coalition effectiveness (Kumpfer *et al.*, 1993; Rogers *et al.*, 1993; Butterfoss *et al.*, 1996). These studies have shown that competent leadership, shared decision making, linkages with other organizations, a supportive group environment, communication and benefits

of membership outweighing costs are related to satisfaction and participation among coalition members.

Given that coalitions evolve over time, it is likely that different factors are important to coalition functioning at various stages of development. Very little research has been conducted on the factors that facilitate or inhibit coalition effectiveness in the middle or later stages of coalition development. Gottlieb *et al.* (1993) reported on correlates of implementation among state-level coalitions, but these were not community-based coalitions and membership averaged only five organizations. Fawcett *et al.* (1996) have developed a monitoring system for community coalitions in which the number of volunteers recruited, planning products produced, resource generated, community actions and community changes are tracked. Although the system provides valuable feedback to the participating communities, its primary use has not been to identify factors that influence coalition effectiveness in various stages of coalition development.

The implementation stage of coalition development, defined as the carrying out of planned activities, is a critical link between organizing a community coalition, engaging in a planning process and changing behavior, social and physical environments and health status. Without implementation of activities that logically lead to the outcome of interest, the impact of coalitions on the public's health will be minimal. In spite of its critical nature, the implementation stage of coalition development has not received much attention in the literature.

The purpose of the present study was to use a multiple case study design to identify factors that influenced coalition effectiveness in the implementation stage of coalition development in 10 community-based tobacco control coalitions. The study was guided by a conceptual model that posited relationships between various coalition factors and implementation. The factors were categorized into operational processes and structural characteristics of coalitions (Table I). Operational processes, defined as factors related to the

**Table I.** Study factors and case study questions

Study factor	Case study questions
Leadership	How are leaders selected? Which community sectors are leaders from? What tasks do chairs perform? When in the process are chairs selected? How skilled is the leadership in working with the coalition? How does leadership influence implementation?
Decision-making	How much influence do various players have in developing the action plan? in selecting chairs? in budget decisions? in setting coalition policy? How is member influence in decision making related to implementation?
Communication	How does the coalition keep its members and leaders informed? What are the mechanisms for communication? What is the quality of communication among members? Between staff and members? How is the quality of communication related to implementation?
Conflict	What types of conflict arise on the coalition? How is the conflict resolved? How does conflict influence implementation?
Benefits and costs	What are the organizational costs and benefits of participation? How are the organizational costs and benefits of participation related to implementation?
Organizational climate	What are the members' perceptions of cohesiveness and task focus of the coalition? What are the members' perceptions of cohesiveness and task focus of the coalition?
Staff roles	How is work distributed between the coalition members, leaders and staff? How skilled are staff in supporting the coalition? How does staff role influence implementation?
Capacity building	What capacity-building activities are conducted? Which activities are most helpful? What linkages exist between the community sectors? Which are formed through the coalition? How does capacity building affect implementation?
Member profile	Describe the composition of the coalition membership, including expertise, experience, demographic characteristics and community sectors. How does the composition of the coalition membership influence implementation?
Recruitment pattern	Describe the recruitment pattern. Was there a core group? Which sectors were involved first? Were there recruitment cycles? How does the recruitment pattern influence implementation?
Organizational structure	What is the organizational structure of the coalition? How did it evolve? How formal is the coalition? How does level of formalization affect implementation?
Community capacity	Had the community addressed tobacco control prior to this project? Had the lead agency addressed tobacco before? Did the coalition build on a pre-existing network? How does the capacity of the community to address tobacco influence implementation?

ongoing operational functioning of the coalition, included leadership, decision making, communication, conflict, costs and benefits of participation, organizational climate, staff role, and capacity building. Structural characteristics were defined as the relatively stable, descriptive characteristics of the coalition, and included member profile, recruitment pattern, complexity of the structure and level of formalization. Community capacity to engage in tobacco control was also examined. The overall research questions were: (1) what factors facilitate coalition effectiveness in implementation and (2) what factors inhibit coalition effectiveness in implementation? A series of case study questions were developed for each factor and its influence on implementation of activities.

Table I presents the factors studied and the accompanying case study questions.

## Methods

### Description of the coalitions

All 10 of the community-based tobacco control formed as part of the American Stop Smoking Intervention Study (Project ASSIST) in North Carolina (Shopland, 1993; Malek and Enright, 1995) participated in this study. Project ASSIST is a 7 year, two phase, collaborative effort between the National Cancer Institute (NCI) and the American Cancer Society (ACS) designed to reduce the prevalence of smoking in participating states by 1998 (NCI, 1991). At the state level, the state

**Table II.** Site-ordered matrix of key descriptive characteristics of coalitions

Coalitions <sup>a</sup> by implementation level (high to low)	No. of sectors involved during planning phase	No. of sectors involved during intervention phase	No. of members during intervention phase	Urban or rural	Single or multi-county coalition	No. of activities implemented
<b>A</b>	7	7	76	urban	single	12
<b>J</b>	4	7	47	rural	single	10
<b>B</b>	3	4	32	rural	multi	8
<b>D</b>	4	5	63	urban	single	7
<b>G</b>	5	7	44	urban	single	6
<b>I</b>	4	5	53	rural	multi	5
<b>F</b>	3	3	13	rural	single	5
<b>H</b>	2	3	26	rural	multi	4
<b>E</b>	4	5	36	rural	multi	3
<b>C</b>	4	4	40	rural	single	2

<sup>a</sup>Primary case coalitions are in bold.

health department and the state division of the ACS served as lead agencies in forming tobacco control coalitions and designing and implementing statewide tobacco control initiatives. North Carolina formed a statewide coalition, and recruited and funded 10 local ASSIST sites through an application process. These local sites were required to form local coalitions. County health departments served as lead agencies, in partnership with the local ACS chapters. This study focused on the 2 year planning phase and the first year of intervention (October 1991–September 1994). The planning phase (October 1991–October 1993) included coalition development, site analysis, development of a 5 year strategic plan and development of an action plan for the first year of the intervention phase. Phase II, the 5 year intervention phase, began in October of 1993.

Table II lists each of the coalitions and some accompanying descriptive information, including membership size, number of community sectors involved (out of a total of 11 sectors such as media, business, health, recreation, etc.), single versus multiple county coverage and population size. Four of the coalitions operated in more than one county and six served a single county. Three of the coalitions were considered urban, with populations greater than 300 000. The health sector was the best represented community sector by far

(51% of members). The most common coalition structure was an advisory board, a coordinating committee, and task forces for worksites, schools, health care settings, community groups and public education.

Implementation, operationalized as the number of activities completed by the coalition, is also listed in Table II. Table III contains brief descriptions of selected activities implemented by the local Project ASSIST coalitions in the first year of intervention. The state level NC ASSIST staff and coalition members provided strong technical support for several of these activities, including the youth tobacco buying operations, the non-smoking worksite policy manual and the training events.

Although the study involved all 10 of the local NC ASSIST coalitions, five primary cases were selected for more in-depth data collection and analysis. The primary cases were selected to capture variation in the role of the staff and structure of the coalitions. Other considerations were region of the state, whether the coalition covered a single or multiple counties and whether it was primarily rural or urban (see Table II). Individual case studies were written for the primary case coalitions (Kegler, 1995). This article reports key findings from the cross-case comparisons across all 10 coalitions.

**Table III.** Description of NC Project ASSIST local coalition activities

Activity	Description
Youth tobacco buying operation	Sent youth to area stores to purchase cigarettes in an effort to demonstrate youth access to cigarettes; followed up with a press conference.
Merchant education campaign	Distributed 'Do not sell to minors' materials to area merchants in an effort to increase their awareness of and commitment to complying with youth access regulations.
Commit to quit	Invited smokers to quit smoking for 1 month in return for eligibility for a major prize such as a \$1 000 shopping spree. Gave away prize at a big party planned for one month after the start date. Usually heavily promoted through the media.
Health professional training	Trained health professionals to counsel smokers to quit using NCI's 4 A's approach.
Youth and Elders Teleconference on smoking and youth	Organized satellite hookups for a national press conference on the release of the Surgeon General's Report on tobacco and youth.
Non-smoking worksite policy manual	Assessed smoking policies of area worksites and developed a manual with model worksite non-smoking policies using worksites from the ASSIST communities as the models.
Community smoking cessation resource guide	Compiled information on area smoking cessation services, published and distributed a resource guide.
Public service announcements	Distributed public service announcements on environmental tobacco smoke to local media outlets.
Smoking control ordinances	Provided information and support to local governments attempting to pass smoking control ordinances.

### Data collection

The study used multiple methods of data collection: semi-structured personal interviews with key informants, observation of coalition meetings, document review, and surveys of the coalition membership and staff. The research design and all data collection instruments were reviewed and approved by the University of North Carolina's Institutional Review Board.

#### Interviews

Fifty-two semi-structured interviews were conducted with key informants during the planning and intervention phases of ASSIST. During the planning phase, interviews were conducted with 10 local coordinators and three NC ASSIST staff. During the intervention phase, interviews were conducted with 12 local coordinators (including four co-coordinators), five health directors, 15 coalition and/or task force chairs, and seven NC ASSIST staff. Interview guides containing open-

ended questions were developed for each major category of key informant.

#### Observation

All 10 of the coalitions were observed once in the planning phase (Spring 1993) and the primary case coalitions were observed again during the intervention year (Spring 1994). An observation guide was developed for both rounds of observations. In addition to the site visits, over 15 state coalition meetings, retreats and training events were observed.

#### Documents

The documents collected for each case included the following: original grant application to the state health department, membership rosters during the planning phase and again for the intervention phase, bylaws, meeting agendas, minutes, site analysis reports and the year 1 action plans. These documents were used in writing case descriptions

and developing some of the measures. In addition, NC ASSIST documents were collected. These included quarterly reports to NCI, state coalition meeting minutes, agendas and handouts, and training materials.

#### *Member and staff surveys*

A survey of all of the local coalition members ( $N = 430$ ) was conducted during the first year of intervention. The survey instrument was a self-administered questionnaire adapted from those used by Butterfoss *et al.* (1996) and Rogers *et al.* (1993). The Member Survey addressed each of the coalition factors specified in the conceptual model and is described in detail elsewhere (Kegler *et al.*, 1998). A survey of the local Project ASSIST staff was also conducted during the first year of intervention. It contained many of the same questions with slight wording changes to reflect a staff rather than member perspective

#### *Implementation measure*

The main outcome of interest for this study was the implementation of activities in the first year of intervention. The number of activities that were completed during the first year of intervention, regardless of the number of activities the coalition hoped to accomplish, was the primary outcome measure used in the cross-case comparisons. This relatively crude measure of implementation was used over a more complex measure of quality of implementation due to ease of data collection, similarity of activities across coalitions and simplification of the cross-case comparisons.

#### *Case study analysis*

A case study protocol was followed for two rounds of site visits (Yin, 1989). In addition, a case study database was maintained for each coalition. This involved maintaining the data in a manner such that other investigators could review the evidence; thus increasing the reliability of the case study (Yin, 1993; Patton, 1990). The coalition databases included relevant documents, field notes, interview transcripts and summaries of the survey data for each coalition.

All of the case materials were coded using open and axial coding as discussed by Strauss and Corbin (1990). Open coding refers to the initial labeling and categorizing of the data. Axial coding refers to making connections between categories identified in the open coding process. The factors specified in the conceptual model served as initial sensitizing concepts for the open coding. More specific coding categories emerged during the actual coding of the data. The interview transcripts and field notes were coded and organized using Ethnograph (Seidel *et al.*, 1988), a software package designed for analyzing qualitative data. This helped to facilitate cross-case analysis by providing a storage and retrieval system for the large amount of data.

The case study data were analyzed one case at a time for the primary case coalitions. Data were displayed in matrices as described by Miles and Huberman (1994). Initial displays were developed for each study factor with dimensions of the factor identified through the coding on one axis and data source on the other axis. The cells were completed with the actual data. These matrices were used to answer the case study questions for each of the primary case coalitions. Once the primary cases were analyzed and tentative statements that accounted for the patterns in the primary case data were formulated, the site-ordered matrices were expanded to include data from the secondary cases. The statements were then revised to explain the patterns in all 10 of the cases. These patterns and relationships are reported in the following results section.

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## **Results**

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This section presents the case study findings on the factors that influence health promotion coalitions in implementation. A variety of factors previously shown to be important in earlier stages of coalition development were examined.

### **Factors found to facilitate implementation**

*Leadership* was defined as the skills of the coalition leaders in guiding the coalition toward the

accomplishment of its goals, including running meetings, articulating a vision for the coalition, and nurturing commitment to the coalition from members, their organizations and the community. One of the dimensions of leadership that emerged as important to implementation was the source of vision for the coalition. The 10 Project ASSIST coalitions varied in terms of who actually provided direction and vision. Vision was provided by either the local coordinator, the state-level staff assigned to consult with the local coalition or it was shared between the coalition chairs and the local coordinators. The data strongly suggested a relationship between source of vision and implementation. Those coalitions for which the vision was held at the local level had higher levels of implementation than coalitions that were lacking a local vision. The staff-dominated coalitions, in which the chairs (if they existed) and coalition members did not seem to share a vision for the coalition, generally had medium levels of implementation. Coalitions that were dependent on state-level NC ASSIST staff for direction and leadership had the lowest levels of implementation.

*Staffing* was defined as the ability of the paid staff to guide and support the coalition, including the ability to shift responsibility from themselves to the coalition as the coalition evolved. The case study data suggested several dimensions of staffing that may facilitate coalition effectiveness in implementation, including the amount of time staff can devote to a coalition and the role the staff play with a coalition. The case study data, supported by the survey results reported elsewhere (Kegler *et al.*, 1998), suggested that coalitions with more staff time devoted to them had higher levels of implementation. During the planning phase of Project ASSIST, for example, the coalitions were just one responsibility among many for the local coordinators, most of whom were already employed by the county health department. The local coordinators' time was donated and the actual time spent working with the coalitions during the planning phase ranged from 10 to 30 h per week. Many of the local coordinators felt stretched thin between the responsibility of forming a coalition,

completing the site analysis required by the NCI and state-level NC ASSIST, and continuing with their other job responsibilities. Lack of adequate staff time during the planning phase, combined with fairly inflexible deadlines for various deliverables such as the site analysis report and the annual action plan, contributed to a tendency among some of the local coordinators to complete these activities without much input from the coalition members.

Beginning in the first intervention year, funds were used to hire paid coalition staff. Over half of the coalitions hired coordinators who had been involved with ASSIST in some capacity during the planning phase. The others hired new staff, with the planning phase coordinators becoming less involved and playing a supervisory role. Staff time committed to the coalitions during the implementation phase ranged from 20 h in the coalition with the lowest level of implementation to 75 h in one of the coalitions with a high level of implementation.

The way staff perceived their role with the coalition also influenced the level of implementation. As illustrated in Table IV, the coordinators spoke about their roles with the coalitions differently and five types of roles emerged. Table V examines the relationships between staff characteristics—including staff role—and implementation. With one exception, the coalitions where the coordinator saw herself as primarily responsible for carrying out the coalition's activities (the Doers) had the lowest levels of implementation.

*Communication* was defined as the frequency and productivity of communication between the coalition staff and coalition members, and the members themselves. Coalitions with high levels of implementation had frequent and productive communication among staff and members. Both the quantitative and qualitative data supported the importance of communication in implementation. The case study data showed that communication between staff and coalition chairpersons on some of the coalitions was relatively infrequent and this appeared detrimental to implementation. In one of the coalitions, the chair and the coordinator had

**Table IV.** Five staff roles with coalitions

The Coach	<i>For me, I think the role of the health department is coaching the community along...How do you make good leaders out of people who don't take on public health projects everyday? And, how can we help them do that?</i>
The Director	<i>We don't want to recruit people to just sit on task forces. We want to recruit people to do specific things, which is again, very non-profit organization.... 'Here is what you are going to do, you are going to be a part of this project and when this project is over [waves goodbye].'</i>
Linking Agent	<i>I have been seeing my job as the liaison between the state and local people in each county, you know, to get information to them and [to get] them to act on it within their county.</i>
The Doer	<i>Well, basically...all the different reports we've had to do, I've done them sort of singlehandedly.</i>
The Coordinator	<i>Doing the preparation, organizing meetings, attending meetings, getting minutes out for the meetings...being staff to each of those groups [the task forces].</i>

**Table V.** Site-ordered matrix of state and local staff characteristics by level of implementation

Coalitions* by implementation level (high to low)	Local staff time spent on ASSIST per week in intervention phase (h)	Local staff skill in intervention phase	Were local intervention staff involved in planning phase?	Local staff role in planning phase	State staff role in planning phase
<b>A</b>	52	high	yes	coach	resource
<b>J</b>	75	medium	yes	doer	resource
<b>B</b>	50	medium	yes	linking agent	resource
<b>D</b>	60	medium	yes	director	resource
<b>G</b>	46	insufficient data	yes	coordinator	hands-on
<b>I</b>	30	insufficient data	yes	linking agent	resource
<b>F</b>	35	low	no	linking agent	hands-on
<b>H</b>	43	insufficient data	no	doer	hands-on
<b>E</b>	51	low	no	doer	hands-on
<b>C</b>	20	low	no	doer	hands-on

\*Primary case coalitions are in bold.

not spoken to one another in several months. In another coalition, at least one monthly meeting was canceled because the chair and the coordinator were not able to reach each other to set a coalition meeting date and time. These difficulties in communication were in direct contrast to communication in the coalitions with the highest levels of implementation where the chairs and the coordinators spoke frequently.

Two dimensions of *organizational climate* were examined: cohesiveness and task focus. The qualitative data supported the quantitative finding that cohesiveness was related to effectiveness in implementation (Kegler *et al.*, 1998). In one of the coalitions with low levels of implementation, some members reported not knowing many of the other

members in spite of meeting for over a year. In another of the coalitions with low implementation levels, a core group of action team chairs was quite cohesive, but the larger coalition was fragmented and lacking in cohesion. The coalitions with higher levels of implementation appeared to have a 'Project ASSIST identity' and high cohesion, particularly within task forces. One of the strong themes that emerged across the cases was the necessity of having a tangible activity for task forces to plan and conduct. This was expressed frequently by the coordinators as a reason why some of the coalition's task forces were doing better than others.

*Complexity* of coalition structure, defined as the number of functioning committees and task



fair amount of 'hands-on' assistance. As the state-level staff role changed in the intervention year and less time was spent with the coalitions and newly hired coordinators, these coalitions appeared to flounder.

Coalitions with *minimal member input into planning* had lower levels of implementation. All of the coalitions had at least minimal input into the plan. For example, in two of the coalitions the coordinators wrote the plan and presented it to the coalition which then had an opportunity to review and revise the plan. Another spent several meetings discussing potential activities in a general way, but the actual plan was written by the staff. One of the local coordinators from this coalition explained that the plan was based on what members had discussed and what 'needed to be in it'. Two of the urban coalitions had functioning task forces at the time of plan development, and these task forces generated ideas and developed their own action plans, although the coalition with the highest level of implementation went the furthest with member involvement by having the task forces actually complete the forms provided by state-level NC ASSIST. The data suggested that the coalitions with minimal member input into the action plan were the coalitions with lower levels of implementation. Surprisingly, coalitions that recruited new members in the intervention phase did not have lower levels of implementation in spite of the fact that these new members were not involved in developing the action plan. The case studies suggested that it is important to involve current members in planning in meaningful ways, but it is possible to recruit new members after the planning phase and still develop their ownership through the planning of specific activities.

*Conflict* was defined as friction on the coalition caused by differences of opinion, personality clashes, hidden agendas, power struggles or other sources of tension. Several types of conflict influenced implementation. One source of conflict stemmed from poor interpersonal relationships. In one of the multi-county coalitions, the local coordinators developed an antagonistic working relationship which was serious enough to cause a

newly hired staffperson to quit after just a couple of months. The coalition essentially stood still for several months while a new coordinator was hired.

Another source of conflict stemmed from personal ties to tobacco farming. This source was only evident in one of the coalitions and several coalitions had clauses in their bylaws forbidding membership by someone with a tobacco interest. One of the coalitions, however, had members with personal ties to tobacco, and this contributed to lack of coalition member recruitment and resistance to carrying out some of the coalition's planned activities.

Conflict from economic ties to the tobacco industry influenced implementation as well. During Project ASSIST's second year, the North Carolina General Assembly passed a 'smokers rights' bill that gave local governments a deadline after which they could not pass any smoking control rules. Several coalitions then became involved in educational efforts to increase community support to pass local smoking control ordinances. Although for the most part the emotion and hostility generated by this debate was not directed at Project ASSIST, the political environment in which the coalitions operated became quite turbulent in some of the counties. This atmosphere seemed to energize and unite one of the coalitions, although in the long run the board of health was sued, board members were replaced with tobacco interests, the health director resigned and there was talk of a bill that would abolish many of the boards of health across the state. This atmosphere contributed to the caution and tentativeness of more than one health director concerning tobacco control activities. This clearly affected the types of activities the ASSIST coalitions engaged in.

Thus conflict, or a desire to avoid conflict, influenced implementation through staff turnover, reluctance to recruit members to the coalition, and a general apprehension of taking a stand and conducting activities that could be perceived as controversial.

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## Discussion

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Previous research on community health promotion coalitions has tended to focus on the early stages of coalition development, used member satisfaction, participation and quality of the action plan as outcomes, and relied on quantitative data (Kumpfer *et al.*, 1993; Rogers *et al.*, 1993; Butterfoss *et al.*, 1996). Several of the factors found to be related to implementation in the present study were related to member satisfaction and member participation in earlier stages of coalition development in other studies.

This research raises numerous issues for how we work with coalitions in community health promotion. It suggests that the amount of staff time spent working with a coalition is related to coalition effectiveness in implementation. The research also suggests that coalitions that benefited from local vision rather than depending on state-level NC ASSIST staff had higher levels of implementation. Developing a local vision for a comprehensive community-based health promotion project designed at the federal level is challenging, and some of the local Project ASSIST coordinators struggled with understanding Project ASSIST and a community health promotion model themselves, much less communicating it to groups they were trying to recruit to the coalition. Most of the coordinators worked with the Project ASSIST coalitions part-time during the planning phase. One of the state-level staff commented that the local coordinators often mentioned that if they could work on ASSIST full-time, they would be able to think one or two steps ahead of the coalition (rather than depending on state-level NC ASSIST staff). Thus, it seems likely that full-time coordinators during the planning phase may have helped instill a vision for Project ASSIST at the local level.

Another advantage of funding at least one full-time staff during the planning phase would have been a reduction in staff transition during the move into the intervention phase. In NC ASSIST, funds were not available to cover local staff salary until the third year when intervention funds were available. In many of the coalitions, the coordina-

tors who had been involved during the planning phase turned over responsibility for the coalition to newly hired intervention staff. These new staff came on board at a critical time without having benefited from the planning process and, in some cases, with minimal understanding of community health promotion or tobacco as a public health problem. In coalitions where the new staff had not been involved with the coalition during the planning phase, implementation was lower.

This study also suggests that staff skill in working with a coalition and how staff see their role with the coalition are both related to coalition effectiveness in implementation. The case study data suggested that skilled staff are visionary but capable of attending to details, comfortable with ambiguity and sharing control, have strong interpersonal skills, and understand complex, multi-channel, multi-level interventions. If the local pay structure prohibits hiring well-trained, experienced staff with the appropriate skills, then extensive and ongoing training and technical assistance should be provided to the coalition staff. State-level NC ASSIST successfully provided ongoing technical assistance through its field staff during the planning phase. However, the field staff became involved in state-level activities in the intervention year, and were not able to provide consistent and intensive technical assistance to the newly hired coordinators. Additional hiring of state-level field staff ultimately remedied this situation, but not before it affected implementation in the first year of intervention.

Another issue raised by this research is the possible need to add flexibility to funding timelines to accommodate the natural evolution of coalitions. During the first two planning years of Project ASSIST, the coalitions seemed to be driven, in large part, by deadlines set by state-level NC ASSIST and the NCI, and related deliverables. In an attempt to meet the deadline for the first year action plan, many of the local coordinators drafted the action plan themselves with relatively little member input. The case study data showed that these coalitions had lower levels of implementation. In addition, after the action plans were written,

forces, was correlated with implementation in the intervention phase (Kegler *et al.*, 1998), but the case study data suggested that complexity in the planning phase may not be as important. During the planning phase, the majority of the coalitions appointed 'channel' or task force chairs to aid in planning, with the task forces remaining small or non-existent until the intervention phase. The urban coalitions were exceptions, with two forming functioning task forces relatively early in the planning phase. Forming a complex organizational structure in the planning phase did not appear to be essential to implementation, as demonstrated by one of the coalitions with a high level of implementation. This coalition designated 'channel chairs' during the planning phase, but kept meeting in one large group until a few months into the intervention year.

One of the components of *capacity building* explored in the case studies was technical assistance and training. Capacity building was defined as the knowledge and skills transferred to coalition members and their organizations through technical assistance and training, and the interorganizational linkages created through the coalition. The state health department played a major role in translating national research findings into practice at the local level. Correspondingly, activities supported by state-level NC ASSIST staff were more likely to be implemented. These activities included the youth tobacco buying operation and merchant education campaign, health care training, Youth and Elders Teleconference, Commit to Quit training, media spokesperson training, and an assessment of worksite policies.

To summarize, factors that facilitated implementation included a local source of vision, staff with the skills and time to work with the coalition, frequent and productive communication, cohesion or a sense of belonging to the coalition or one of its task forces, complexity of the coalition structure during the intervention phase, and strong technical support from state-level NC ASSIST staff.

### Factors found to inhibit implementation

Coalitions with *staff* lacking community organization skills had lower levels of implementa-

tion. Staff skill was assessed both qualitatively and quantitatively. Some illustrations of low staff skill included lack of follow-up on a major recruitment event, not having a list of the coalition membership, not following through on coalition suggestions and not sharing leadership roles with coalition members. Those coalitions with more skilled staff were also those coalitions with higher levels of implementation.

Staff turnover also slowed the implementation of planned activities. The coalitions that hired intervention phase staff who were new to Project ASSIST and not involved in the planning process had lower levels of implementation. This is due, in part, to the time required for staff to get oriented to the project and coalition. Periods where there were no staff also contributed to a slowing of implementation.

The *role of the state-level NC ASSIST staff* appeared to have influenced implementation. The state-level staff assigned to consult with the local coalitions viewed their roles differently during the planning phase. One of the roles was very 'hands-on' with the state-level staff bringing agendas, sitting at the head of the table and playing a visible leadership role. Another role was that of being a resource person to the local coalitions with fairly low visibility at coalition meetings.

The coalitions where the state-level NC ASSIST staff were 'hands-on' during the planning phase had the lowest levels of implementation (Table V). There are two possible explanations for this. One may be that these local coalitions were weaker and needed a great deal of help. Another explanation may be that the 'hands-on' help fostered dependency and when the help was withdrawn, the coalitions floundered. One of the coalitions with a low level of implementation, for example, was very dependent on its state-level staff during the planning phase, but as the state-level staff became busier with state-level functions, this coalition was forced to rely on local leadership and staff. This pattern occurred in several of the coalitions—the state-level staff was very involved with the local coalitions during the planning phase, providing a

the coalitions had to wait several months before intervention funds were available. The long planning period contributed to the reluctance of some local coordinators to recruit additional members when there was nothing for the members to do at that time. Adding flexibility to the funding timeline would allow coalitions to evolve at their own pace, involve members in planning and move immediately into interventions after planning. Funding for each stage could be contingent on successful progression through previous stages.

Another issue raised by this research is the ongoing need to fund, develop, evaluate and disseminate innovative interventions. The case study data suggested that task forces that had concrete, tangible activities were the task forces that were able to maintain the interest of the members and accomplish something. Bracht *et al.* (1994), in an article on the institutionalization of the Minnesota Heart Health Program, discuss the idea of a 'shelf-life' for certain programs. Although not yet an issue with the Project ASSIST coalitions, youth buying operations and Commit to Quit events may lose their potency in later years of the intervention phase. There needs to be a steady flow of new, tested, interesting interventions for the coalitions to implement.

This research also has implications for coalition procedures, including the importance of clarifying staff roles, membership criteria, leader selection and decision-making methods. The case study data suggested that bylaws or written operating procedures served multiple purposes for the coalitions. In several of the coalitions, it was the bylaws that served as the catalyst for identifying community leaders for coalition chair positions rather than staff. Some of the bylaws restricted coalition membership to persons or organizations that did not have a conflict of interest with respect to tobacco control. Also, the decision-making process was unclear in many of the coalitions and these coalitions tended to be those with lower levels of implementation.

The findings also indicated the importance of establishing mechanisms for regular communication between staff and members, and among the

members themselves. Coalitions in which members were not communicated with frequently had lower levels of implementation. For the majority of coalitions, the most important method of communication was group discussion at meetings. Meetings should be structured to facilitate purposeful interaction and communication between members rather than as simply opportunities for updates. At a minimum, coalition staff and leaders should send minutes and maintain phone contact with members if meetings are somewhat infrequent.

The case study data also demonstrated that conflict and politics affected implementation in a variety of ways. Although conflict may not be avoidable, it should be acknowledged and addressed before it is too damaging. When coalitions are engaging in 'controversial' work such as tobacco control in a tobacco growing and manufacturing state, there is a need to openly acknowledge and discuss strategies for how best to deal with political opposition. North Carolina Project ASSIST was fairly skilled in this area, successfully framing tobacco control as a health issue, and focusing on youth, pregnant women and tobacco users who want to quit.

### **Study strengths and limitations**

Qualitative researchers emphasize the importance of triangulation for enhancing the validity of qualitative research (Lincoln and Guba, 1985; Patton, 1990). One of the major limitations of this research was the lack of triangulation among either observers, interviewers or analysts due to limited resources. This study was, however, strengthened by triangulation of methods and data sources.

An important step in qualitative research methods is the ruling out of other plausible interpretations to increase the internal validity of the findings (Patton, 1990; Yin, 1993). This involves organizing the data in different ways, in combination with thinking logically about other explanations and seeing if the data support these alternatives (Patton, 1990). Due to the large number of factors that influence implementation, it was difficult to tease out with any certainty which of the factors were more important to effectiveness in

implementation. There were numerous differences between the coalitions; positive characteristics tended to occur together in some coalitions and more negative characteristics occurred together in other coalitions, thereby making it difficult to determine which factors were most important in implementation.

Another limitation of this study was the use of the number of activities as the measure of implementation rather than a more comprehensive measure of implementation quality. It is possible that the use of a more complex measure of implementation would have resulted in different findings. In addition, the economic and political climate associated with tobacco control in North Carolina may limit the generalizability of these findings to other types of coalitions in other settings.

### Directions for future research

This research provided systematic documentation of one type of coalition: tobacco control, community based, mandated by a federal funding source, long-term and relatively formal. This research provided an in-depth understanding of these coalitions during implementation. Additional research is needed on other types of community health coalitions and on other stages of coalition development to provide a foundation on which to base our understanding of coalition behavior and coalition life cycles.

Future research should also focus on specific dimensions of coalitions more intensively than was possible in this research. Our understanding of coalitions as a vehicle for community involvement would be further enhanced by focused investigation on selected factors such as staffing or participation. Finally, two critical questions remain unanswered. First, are coalitions any better than other strategies for promoting health at the community-level? Secondly, in what circumstances should coalitions be formed to address public health issues? Answers to these questions will help move the field of community health promotion to a more sophisticated level.

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