

A methodology for monitoring and evaluating community health coalitions

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Abstract

Community coalitions are prominent mechanisms for building local capacities to address health and social concerns. Although there are case studies and descriptive reports on coalitions, there is little empirical information about coalition process and outcome. This paper describes a case study using a methodology for monitoring and evaluating community health coalitions. Data are fed back to coalition leaders and members, funding agents, and other relevant audiences as part of the development process. The monitoring system provides data on eight key measures of coalition process and outcome: the number of members, planning products, financial resources generated, dollars obtained, volunteers recruited, services provided, community actions and community changes. Illustrative data are presented for two different community health coalitions. Finally, challenges and opportunities in evaluating community coalitions are discussed.

Introduction

Health promotion is a process of enabling people to improve their health status by influencing the behaviors and conditions that affect their health (World Health Organization, 1986, p. iii; Green and Raeburn, 1988). Such initiatives attempt to change individuals' behaviors associated with health risk, such as smoking or dietary fat intake, and features of the environment, such as availability of tobacco

products to minors, that affect relevant behaviors. When using community development methods, health promotion efforts reflect the values of self-help, citizen participation and community control (Green and Raeburn, 1988; Fawcett *et al.*, 1993a).

Community coalitions are alliances among different sectors, organizations or constituencies for a common purpose. They represent an increasingly prominent strategy for promoting health through community development. Community coalitions are widely used in both foundation grantmaking, such as Robert Wood Johnson's 'Fighting Back' initiative, and government programs, including the US Center for Substance Abuse Prevention's 'Community Partnership Program'. Community coalitions attempt to build collaborative relationships (Gray, 1991), forging partnerships among business, government, religious, media and other community sectors that may contribute to health and other locally-defined problems and solutions.

Community coalitions mix two distinct approaches to community development: social planning and locality development strategies (Rothman and Tropman, 1987; Fawcett *et al.*, 1993a). As a social planning process, community health coalitions use a top-down approach that involves professionals in problem solving and building linkages; as a locality development process, they encourage citizen involvement and enhance the capacity of indigenous leadership to address local concerns. The literature on community coalitions is largely descriptive, offering case studies (e.g. Wolff and Huppert, 1987; Zapka *et al.*, 1991), and insights into coalition development (e.g. Brown, 1984; Chavis and Florin, 1990), management (e.g. Mizrahi and Rosenthal, 1991) and support (e.g. Feighery and Rogers, 1990; Fawcett *et al.*, 1993a).

Empirical information on community coalitions can inform relevant audiences about the process and outcomes of coalition building. Such measures must reflect the diverse goals and objectives of coalitions, their various stages of development, and the dual missions of capacity building and community change. The measures must be sensitive to changes in the environment—intermediate outcomes—that may effect changes in ultimate health and social outcomes. Accordingly, a monitoring and evaluation system for community coalitions might have two purposes: to enhance our understanding about these community organizations and to improve their functioning (Fawcett, 1990, 1991b).

Little empirical work has been done, however, to understand the coalition development process. Data on coalition process and outcome could be used to provide feedback to coalitions. Performance feedback has been shown to be useful in improving productivity and effectiveness in private sector organizations, particularly when feedback is accompanied with group member participation in goal setting (Erez, 1977; Fellner and Sulzer-Azaroff, 1984) and differential consequences (Balcazar, 1986). In our collaborative consultation with community coalitions, we have helped community coalitions set reasonable short- and long-term goals, and provided feedback on organizational development and goal attainment. Empirical information on process and outcome measures, such as actions taken in the community, and accomplishments resulting from the coalition's actions, help bridge the long delay between coalition formation and ultimate health or social outcomes.

This paper presents a case study of the use of a methodology for monitoring and evaluating community coalitions. Eight measures are used to assess the process and outcome of coalitions: the number of members, planning products, financial resources generated, dollars obtained, volunteers recruited, services provided, community actions and community changes. The event logs and recording procedures used to assess these aspects of coalition functioning are described. Data from two different community health coalitions illustrate the empirical information available for use by coalitions, funding

agents and other relevant audiences. Finally, challenges and opportunities in monitoring and evaluating community coalitions are discussed.

Context and development of the monitoring system

This methodology was developed by the Work Group on Health Promotion and Community Development as part of its responsibility for evaluating community health promotion initiatives for the Kansas Health Foundation. With the mission of improving the health of Kansans, the Kansas Health Foundation is the largest (per capita) health foundation in the United States. The Foundation supports state and local health promotion initiatives in the areas of adolescent health, including substance abuse and adolescent pregnancy, cardiovascular disease, cancer, rural health, and health promotion for older adults. All of its funded projects include detailed evaluation plans requiring process, outcome and impact data.

The initial form of the monitoring system was developed in collaboration with two community health coalitions supported by the Kansas Health Foundation. The first coalition, a cardiovascular disease prevention coalition known as Kansas LEAN, began as a funding partnership between the Kansas Department of Health and Environment's Office of Health Promotion (KDHE, OHP), the Kaiser Family Foundation's Project LEAN and the Kansas Health Foundation. The coalition grew from its beginning in Sedgwick County to a statewide coalition in about 1.5 years. Kansas LEAN has the mission of reducing the incidence of cardiovascular disease by promoting decreased intake of dietary fat and increased intake of fiber, fruits and vegetables among Kansans. This coalition had about 70 members representing organizations such as the Kansas Wheat Council, the Kansas Beef Producers, the largest chain of supermarkets in Kansas (Dillon's), representatives of local restaurants and businesses large enough to have a cafeteria, representatives from KDHE and local health departments, and Pizza Hut International. This is essentially an agency-based coalition, with little consumer representation.

The second organization is a substance abuse

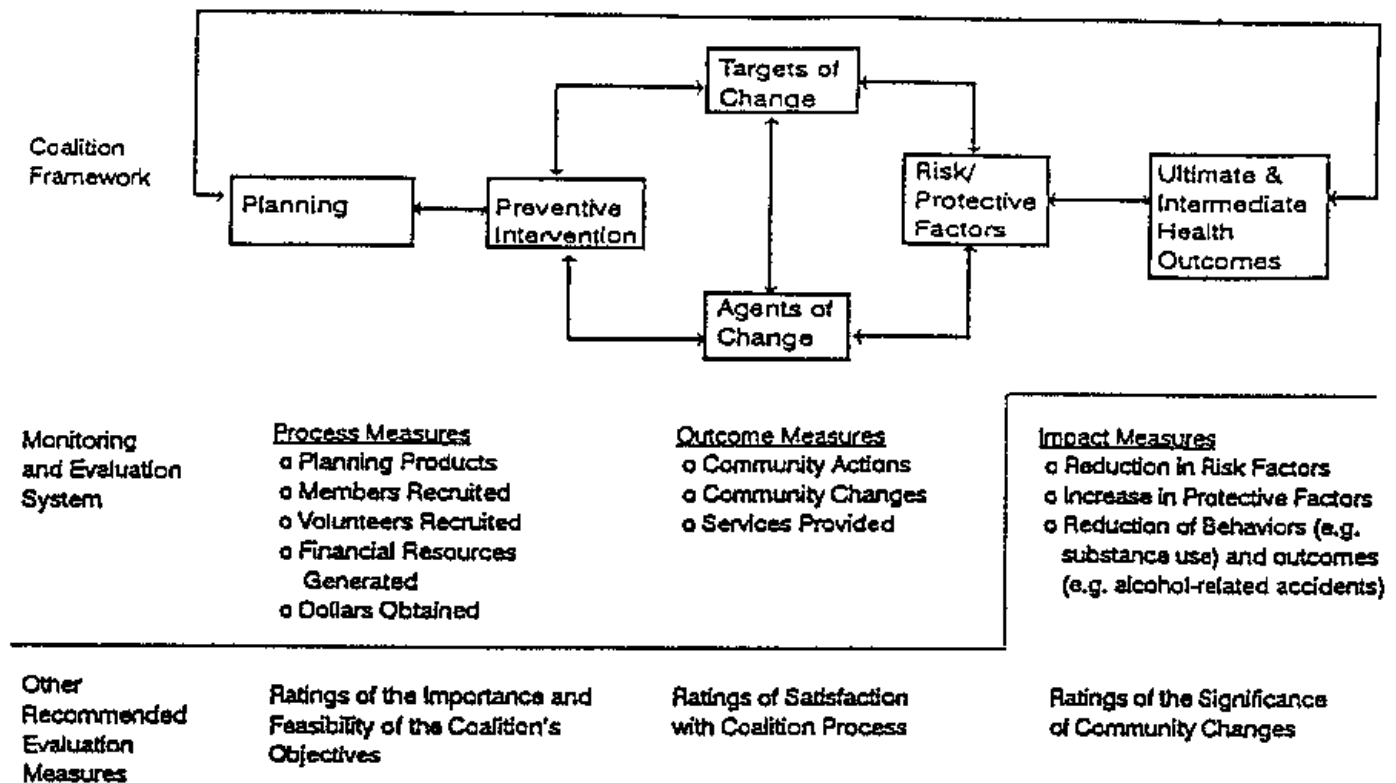


Fig. 1. A framework for community health coalitions and their evaluation.

prevention coalition known as Project Freedom. Begun in unsuccessful attempts to attract grants from the Robert Wood Johnson Foundation's 'Fighting Back' initiative and the US Center for Substance Abuse Prevention's Community Partnership Program, it secured successive planning and operational grants from the Kansas Health Foundation. This coalition focuses on reducing substance abuse among residents in Wichita, Kansas (population 300 000) and surrounding Sedgwick County. It received national recognition from the President's Drug Advisory Council, with its executive director later hired to lead the newly formed Council of Anti-Drug Coalitions of America. Project Freedom grew from a small coalition to a community partnership of over 500 participants representing nearly all the political, civic and private organizations interested in reducing the use of tobacco, alcohol and drugs among county residents.

Figure 1 presents the framework that guides both the process of coalition development and design of the evaluation (Fawcett *et al.*, 1993a). In this adaptation and simplification of the PRECEED

model (Green and Kreuter, 1991), community coalitions plan for and launch preventive interventions designed to have an impact on risk and protective factors, such as skills or opportunities, and eventually on the ultimate and intermediate outcomes, such as substance use and its consequences, that define the mission of the initiative. Preventive interventions can be universal initiatives aimed at the general population, or programs targeting a specific at-risk subset of the population, such as youth with multiple risk markers.

According to this framework, preventive interventions are launched by coalitions to effect changes in targets of change, such as youth and elected officials, and agents of change, such as peers or elders. Channels of influence, such as schools or religious organizations, define the sectors through which targets and agents of change are reached. Evaluation of the coalition, and the intervention projects conducted by the coalition, is represented through the process, outcome and impact measures developed by the evaluation team and the coalition membership.

Table 1. *Coalition process and outcome measures and their definitions*

Measures	Brief definitions
Process measures	
Members Recruited	new members, affiliates or partners of the coalition
Planning Products	new objectives, by-laws, committees, etc., resulting from planning activities
Financial Resources Generated	instances of grants received, donations, free professional services and other instances of financial resources received by the group
Dollars Obtained	dollar amounts of grants and other monies received by the group
Volunteers Recruited	persons donating their time to assist in services provided by the group
Outcome measures	
Services Provided	classes, workshops, newsletters, screenings, or other informational or service programs provided by the coalition for members of the community
Community Actions	actions (e.g. phone calls, personal contacts) taken to bring about changes in the community that are related to the group's goals and objectives
Community Changes	changes in programs (e.g. new services established), policies (e.g. modified city ordinance) and practices (e.g. enhanced enforcement) of agencies, businesses and governmental bodies that are related to the group's goals and objectives

The monitoring system underwent extensive development and revision in collaboration with Coalition leaders and Foundation staff. Coalition leaders critiqued the utility and sensitivity of the measurement system, providing suggestions for the content of the measures and the form of reports based on them. Coalition representatives listed every event that was important to them, and categories of process and outcome measures were developed based on their list of valued events. Foundation staff noted the importance of having data that captured both process and outcome, and which could be communicated clearly and efficiently to other program officers and trustees. Based on feedback from Foundation representatives, the content and graphical display of monitoring information was changed to communicate the data more clearly to potential funders of the coalitions. Recent modifications in the methodology reflect ongoing use of this system by the authors with health and human service coalitions funded by the Kellogg Foundation in Massachusetts (Wolff, 1991), and with the Jicarilla Apache Tribe's Decade of Hope Coalition in Dulce, New Mexico, supported by the US Center for Substance Abuse Prevention.

Methodology of the monitoring system

This methodology for monitoring and evaluating coalitions consists of several key process and

outcome measures, related observational procedures, and mechanisms for providing regular feedback to coalition members and other relevant audiences. These protocols were developed and adapted in collaboration with coalition representatives and representatives of funding agencies. This participatory evaluation involves coalition leaders in data collection and provides data useful to the coalition and funding agents. Implementation of the monitoring system is a dynamic process that can, and should, result in variations in the types of data collected by individual coalitions.

Process and outcome measures

Table I outlines the eight measures of process and outcome that are used to monitor a coalition's progress and accomplishments. These include the number of members, planning products, financial resources generated, dollars obtained, volunteers recruited, services provided, community actions and community changes. Members Recruited indicate the number of new affiliates, partners and group members who are identified as part of the coalition. Planning Products refer to statements of objectives, numbers of committees formed, by-laws adopted and other results of planning activities by the group. Financial Resources Generated indicate the number of grants, donations of professional services and other financial resources received by the group.

Table 2. Example objectives, activities and outcomes, and their scoring for each of two coalitions

Objective	Activity	Outcome
Project Freedom Coalition (mission—to reduce substance abuse among adolescents)		
1. By 1996, before- and after-school and summer activities for middle school youth will be established county-wide.	Meeting took place between the Superintendent and the Director of Project Freedom. [Community action]	\$150 000 grant awarded to Project Freedom for Summer Academy serving 300 youth. [Financial resource generated; community change]
2. Each year, at least four mini-grants will be awarded to grassroots groups wishing to address substance abuse.	Committee established to create and fund program. Thirty-five applicants received in the first year. [Planning product; community action]	Microgrant program established with \$10 000. Sixteen programs established in the first year. [Financial resources generated; 16 community changes]
3. By 1994, to establish a standard policy of reporting results of drug testing for obstetric and emergency room patients.	Inter-hospital task force created among three area hospitals through coalition efforts. [Planning product; community action]	Standardized reporting forms created and adopted by two of three area hospitals. [Community change]
Kansas LEAN Coalition (mission—to reduce dietary fat intake and associated cardiovascular disease)		
1. By 2000, increase to 75% the number of people who can identify the dietary factors associated with heart disease, hypertension and cancer.	Meeting with Dillon's (grocery) store executives to solicit involvement. Met and approved final form of 'Heart Test'. Five news segments about 'Heart Test' aired on area TV stations. [Two community actions; five services provided]	'Heart Test' available in all Kansas Dillon's (grocery) stores. [Community change]
2. By 2000, increase by 10% the proportion of adults whose dietary intake of fat is in the medium to low range of national BRFSS reported data.	Meeting with Dillon's grocery store executives to promote low-fat foods in deli. Follow-up visit with store managers. [Two community actions]	Dillon's stores introduce price reductions, shelf prompts and posters to encourage purchase of lower-fat foods. [Community change]
3. By 1994, establish programs for teaching skills for changing behavior in 10% of area youth groups.	Meeting with Girl Scouts volunteers to prepare pamphlet on low-fat snacks for kids. [Community action]	Girl Scout volunteers create pamphlet and distribute to leaders and parents. [Community change; service provided]

Dollars Obtained represents the dollar amount of grants, contracts and other monies provided to the coalition and its projects. Volunteers Recruited refer to the number of persons donating their time to assist in services provided by the group. Services Provided denote the number of classes, consultations, educational programs or promotional activities delivered by coalition staff and membership. Community Actions indicate those actions taken to bring about changes in the community relative to the group's goals and objectives. Finally, Community Changes refer to those changes in programs, policies and practices of governmental bodies, service agencies, businesses or other sectors that may effect attainment of the coalition's goals and objectives. A more detailed description of the definitions is provided in the coding instructions.¹

Observational system

To record instances of these process and outcome measures, the observational system uses event logs and structured interviews with key informants. Data are then scored by independent observers, with established protocols for verifying reports and assessing inter-observer agreement.

Event logs

Event logs are maintained by key informants in the community coalitions, usually a professional-level staff member with responsibilities for administration or coordination. The logs are designed to answer the questions of who, what, where, when and why for all events and outcomes related to the group's goals, and for which the coalition has some responsibility. Information on actions and outcomes outside of the

coalition is not included, since the coalition cannot use this information to celebrate their success or better understand failures.

The event log is used to document the actions and occurrences, such as completion of an action plan (planning product) or action taken on an issue (community action), related to the coalition's goals and objectives. The event log requests information about: (1) the program or objective, (2) actions (what was done), (3) date of action, (4) target of action (to or with whom), (5) actors' names (by whom) and (6) the location of the action (where).

The log is also used to document those accomplishments of the community coalition related to the group's goals and objectives. It asks for information about: (1) the program or objective for which actions were taken, (2) the outcome achieved (change in program, policy or practice), (3) the date the change began, (4) major actions by group members believed to have contributed to the outcome, (5) major actions by others outside the coalition believed to have contributed to the outcome and (6) the date the change ended, if applicable. The logs are completed monthly by key informants in the coalition (usually staff and the most active coalition members) and mailed or transmitted by FAX machine to the evaluators. The log provides a history of the coalition's accomplishments.

Table II presents examples of objectives, actions and outcomes for the substance abuse coalition, Project Freedom, and the cardiovascular disease prevention coalition, Kansas LEAN. Each coalition took actions to produce outcomes related to their objectives. The coalitions and community members identified aspects of their community that need to change relative to their mission. Coalition members met with each other and community members to discuss and establish changes in the community related to their objectives. The bracketed notations provide an illustration of how those example events would be scored using the monitoring and evaluation system.

Structured interviews

Once the logs are received, the evaluators call the persons filling out the logs to clarify the information

and check for completeness. Usually, the evaluators have specific questions about individual items that may be unclear or incomplete. The actions and events leading up to reported outcomes are also discussed, as are outcomes potentially attributable to other groups' actions.

Scoring procedures

Coding sheets and definitions are used to score the data collected on the logs. Independent observers (a primary and a secondary observer) review the logs and score them based on detailed behavioral definitions and example items.¹ Scoring by a second independent observer is used to assess the reliability of the primary observer's scoring.

Verification and reliability

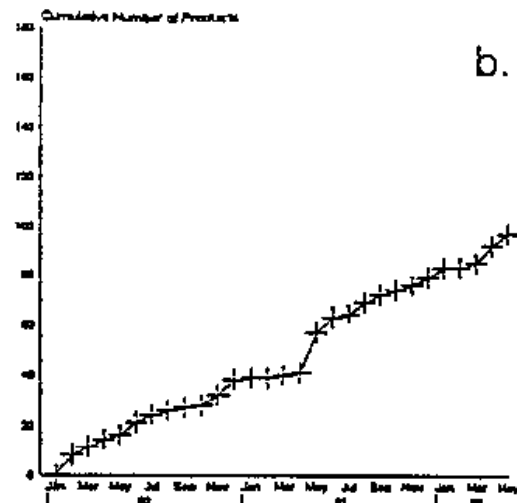
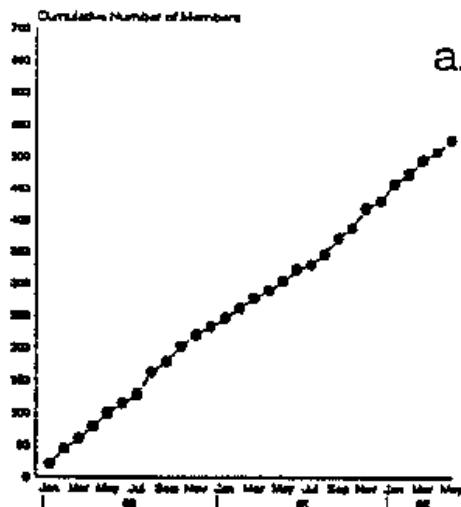
After the logs are scored, a sample of events are verified by calling a random sample of actors listed on the logs (persons listed as the initiators of the activity) or by reviewing permanent products such as newspaper articles and meeting minutes. This information is used to estimate the accuracy of events and outcomes reported in the logs. Inter-rater reliability is calculated to provide an assessment of the accuracy of scoring. Procedurally, two observers score the same logs and then compare scorings, item by item. A cross-tabulation table is used to indicate the number of accurate and inaccurate scorings. Inter-observer agreement is then calculated using Cohen's kappa and observed percent reliability (Bakeman and Gottman, 1986). Cohen's kappa is used because a large number of categories are scored, and it is a conservative measure of reliability, taking into account agreement due to chance. In addition, the kappa score can be transformed into a standard Z-score and probability of Type I error can be estimated.

Average observed percent reliability is 81.6% (range: 72.4–95.5%; $K = 0.76$) for scoring of data for Project Freedom. Inter-observer reliability was calculated for 75% of Project Freedom's event logs. Average reliability for Kansas LEAN data is 80.4% (range: 69.6–91.1%; $K = 0.68$). Inter-observer reliability was calculated for about 50% of Kansas LEAN's event logs.

Project Freedom Coalition

Members Recruited

Planning Products



Community Actions Taken

Community Changes Produced

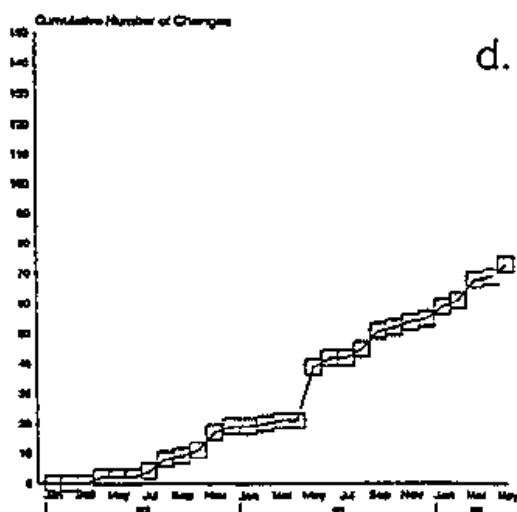
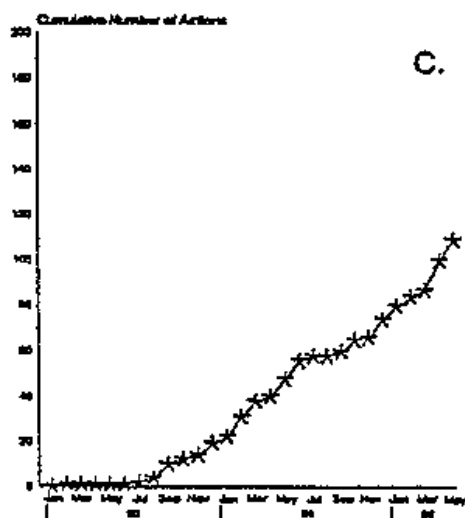


Fig. 2. Members recruited, planning products, community actions and community changes for Project Freedom.

Illustrative data from two coalitions

Figures 2 and 3 depict these process and outcome measures for Project Freedom, the substance abuse coalition, for the first 2 years of its development. The number of participating members, shown in

Figure 2(a), increased quickly at first, then leveled off, with marked increases occurring again in November 1990 and June 1991. The number of planning products (Figure 2b) grew steadily, with a sharp increase in May 1991, which corresponded with the conclusion of a strategic planning process.

Project Freedom Coalition

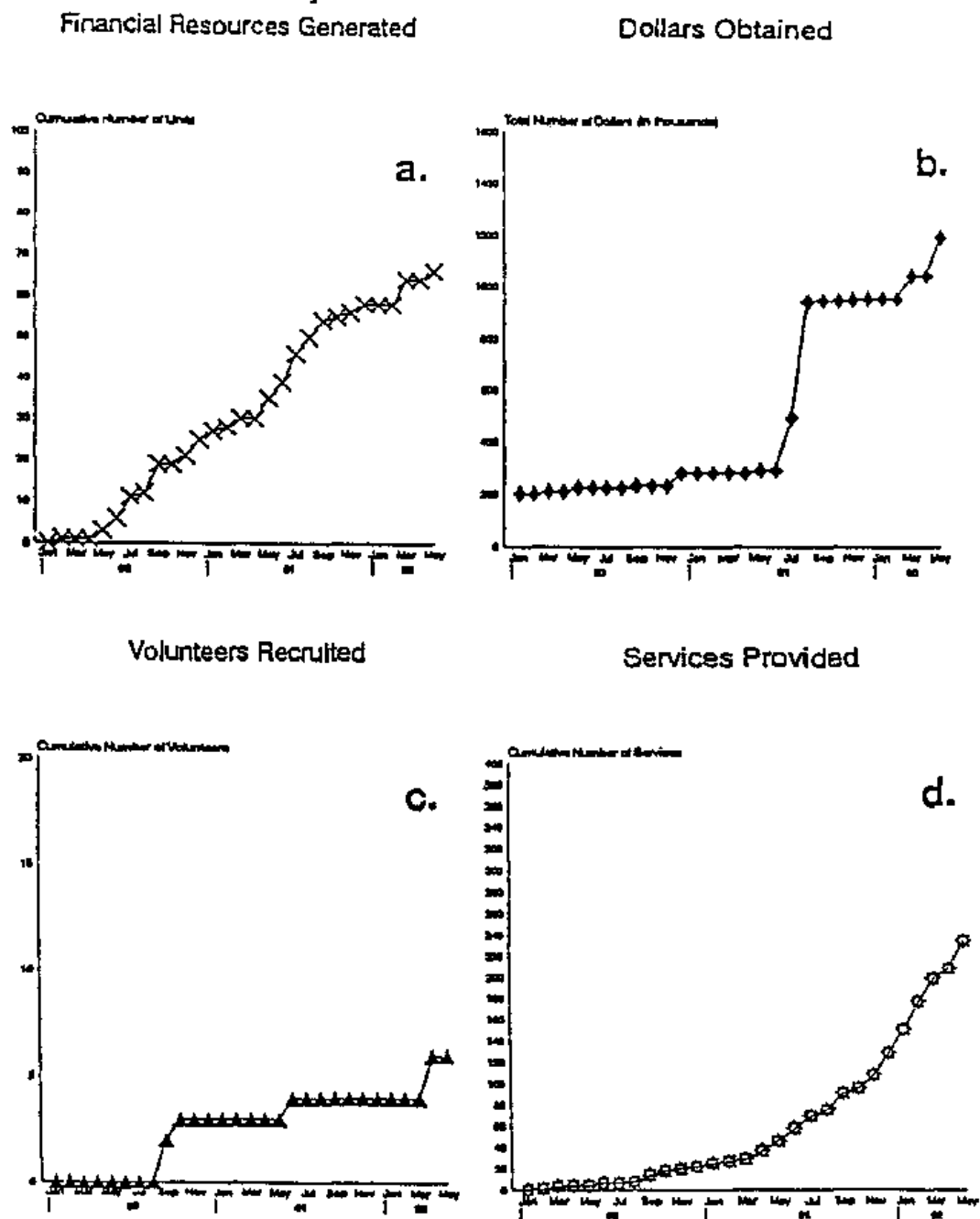


Fig. 3. Financial resources generated, dollars obtained, services provided and volunteers recruited for Project Freedom.

Figure 2(c) shows a steady increase in the number of actions taken in the community after August 1990, with some leveling off in the summer of 1991. Community changes (Figure 1d) followed community actions, with early changes occurring nearly immediately after the first actions and a marked increase in May 1991.

Figure 3(a and b) shows a similar slower rise in the number of units of financial resources generated, and the corresponding total dollars obtained. The reported number of volunteers recruited (Figure 3c) occurred at a lower rate, perhaps reflecting the prominent involvement of paid coalition staff in service activities. Although coalition members appear

Kansas LEAN Coalition

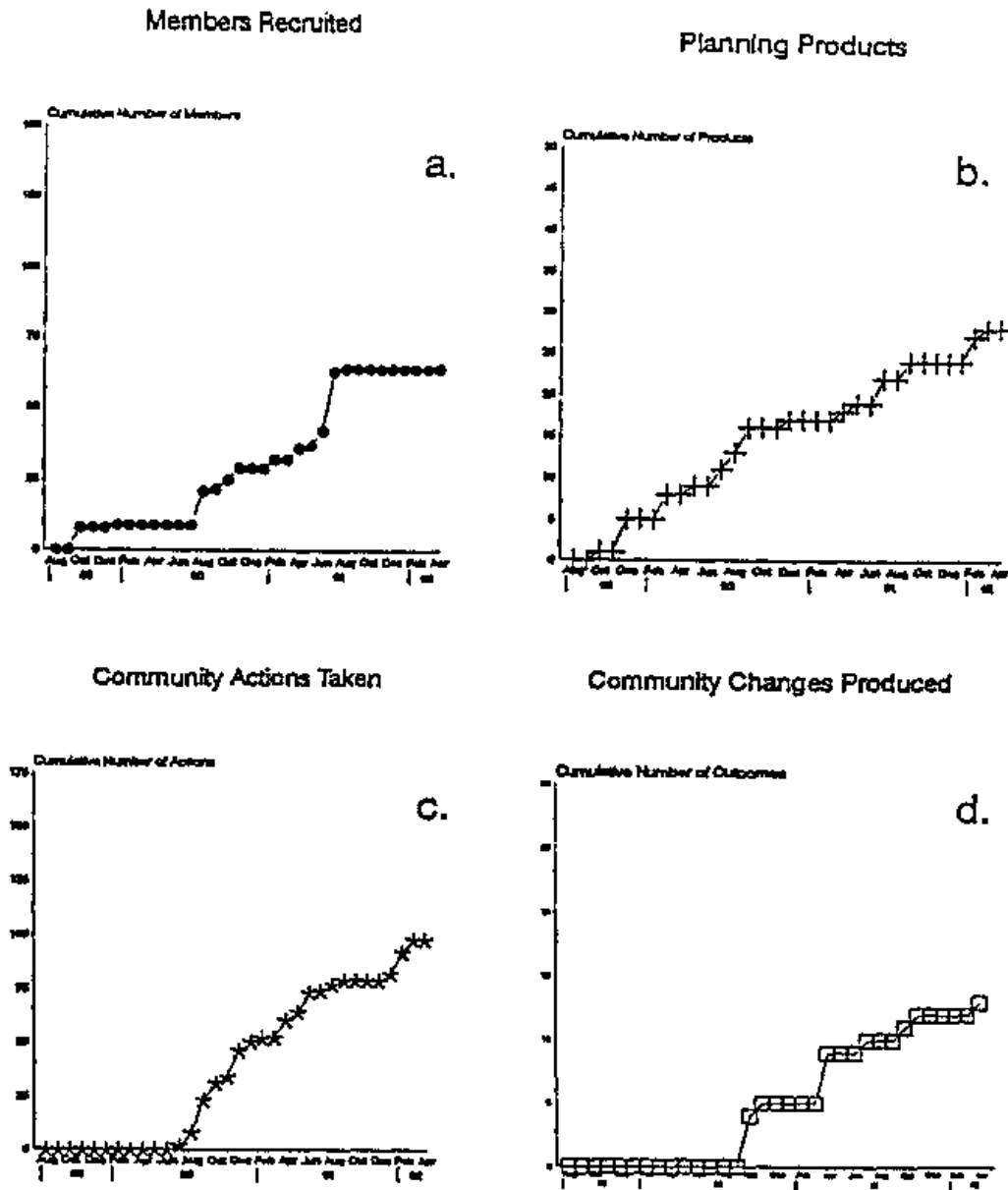


Fig. 4. Members recruited, planning products, community actions and community changes for Kansas LEAN.

to be heavily involved in non-service activities, these activities are reflected in their donated professional time (resources generated) or actions taken on issues (community actions). The number of services provided (Figure 3d) accelerated more sharply after March 1991, increasing at approximately twice the rate of many of the other measures. By comparing these figures, it is possible to examine the coalition's progress across the wide array of coalition activities monitored in this process. The numbers of members

and planning products were the first to increase. This was followed by an acceleration in financial resources generated and services provided. Community changes followed community actions, while the number of volunteers involved in providing services never increased substantially.

Figures 4 and 5 depict these process and outcome data for the cardiovascular disease coalition, Kansas LEAN, over the first 2.5 years of its development. As shown in Figure 4(a), the number of participating

Kansas LEAN Coalition

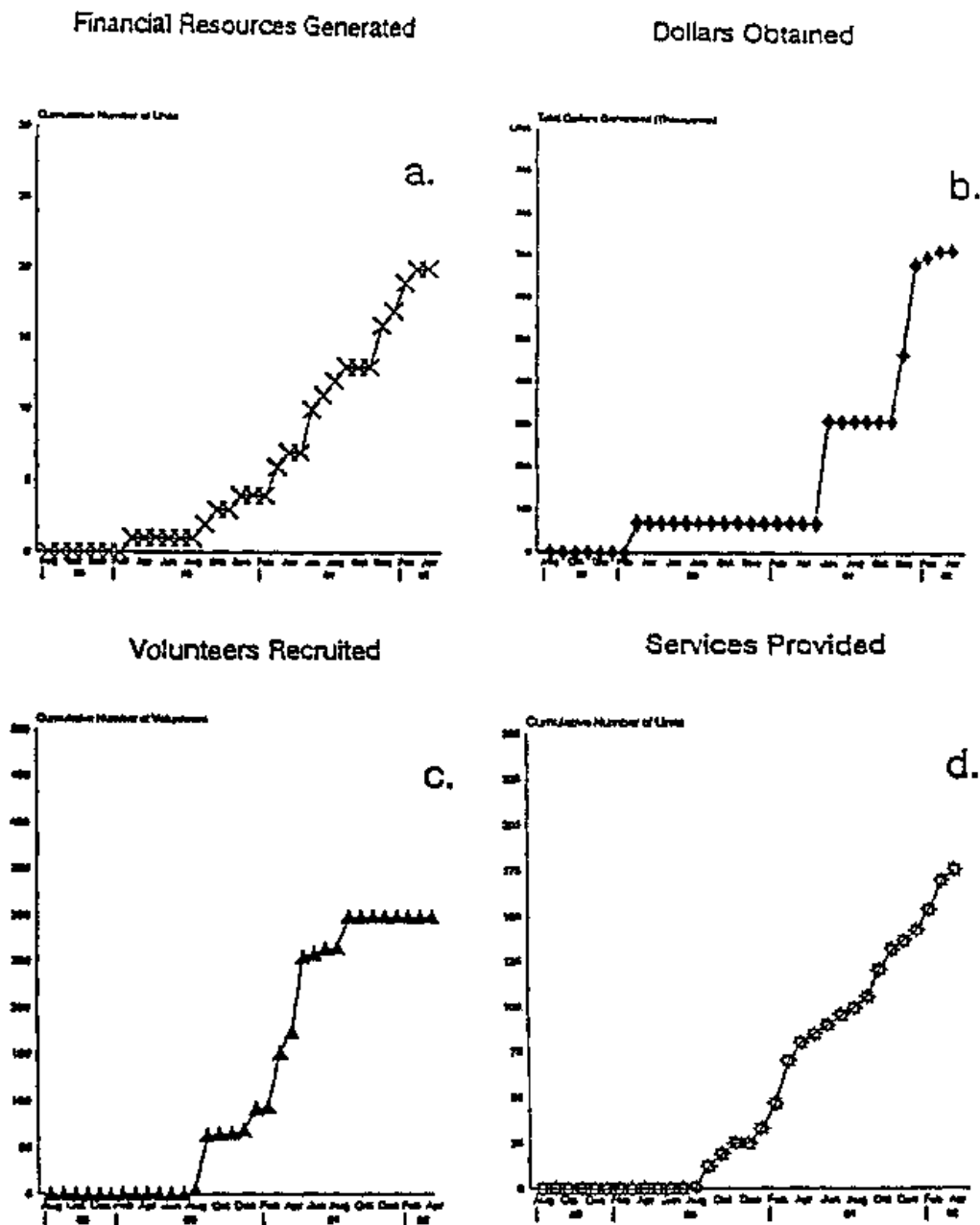


Fig. 5. Financial resources generated, services provided and volunteers recruited for Kansas LEAN.

members started to increase steadily by about July 1990 and leveled off after July 1991. Planning products, shown in Figure 4(b), increased slowly but steadily after November 1989. Community actions, as presented in Figure 4(c), showed a sharp and steady increase starting in July 1990, not leveling off until the summer of 1991. Figure 4(d) shows a slower but steady climb in community changes, with

the first change lagging only 2 months behind the first reported community actions.

Figure 5(a and b) depicts a slow, steady increase in the units of financial resources generated, with a corresponding increase in the dollars obtained by the group. Figure 5(c and d) displays the number of volunteers recruited and services provided. Both increased steadily starting about August 1990 with

volunteers for services increasing at about twice the rate as services provided. By using a similar ordinate and observing the slopes of these cumulative records, the relative rates of each indicator of coalition functioning can be compared. We can also note the point in the coalition's history at which the various indicators started to accelerate: the number of participating members increased first, followed by the first products of planning. Financial resources were then generated; these were followed by community actions, services provided, volunteers recruited and community changes, in that order.

Feeding data back to interested audiences

Ongoing graphing of measures of coalition process and outcome permits regular feedback to representatives of coalitions and funding agencies. Initially, we provided these data monthly in consultations involving coalition leaders, Foundation program officers and the researchers. Later, at the request of coalition leaders and Foundation representatives, data were fed back quarterly. More frequent feedback may be particularly helpful when groups are just beginning, providing an opportunity to detect and celebrate early successes.

The data also serve a prompting function, pointing out areas in which adjustments could be made. For Project Freedom, for example, the high rate of service provision concerned Foundation representatives who saw the goal of the coalition as community action and change. Data presentations set the occasion for discussions about how to strike a balance between coalition efforts in service delivery and community action.

Coalition leaders used the data to communicate evidence of progress and accomplishments to their constituents. By recording the data cumulatively, the growth and evolution of the coalition is more apparent and the visual impact of month-to-month variability is minimized. We have observed coalition leaders and members using the data to elicit peer support for their efforts at local, state and national levels. These data on accomplishments have also

been displayed prominently in successful applications for financial support.

In addition to graphical displays, a database contains lists of the specific events and outcomes that are represented on the figures. This information can be especially useful in describing activities and accomplishments to the coalition's board of directors or to funding agents.

Discussion

This manuscript describes a case study of the use of a monitoring and evaluation system for collecting process and outcome measures with community health coalitions. Data on coalition activities and outcomes are collected, analyzed and summarized according to eight major categories. Information from the monitoring and evaluation system helps document the development process, providing empirical information on key events and outcomes associated with the group's mission. Answers to questions such as 'how are we doing?' and 'what have we accomplished?' are important for community coalitions. Not only can this information be fed back to coalitions, but it can also be used to compete for scarce resources. Funding agents appear to be more willing to invest in community coalitions with clear action plans and evidence of prior accomplishment. Since the methodology was used with coalitions with quite different goals, it may have generality with a variety of community coalitions. Future research will clarify questions about its utility and the conditions, such as this partnership between coalitions, foundations and universities, in which it may be most useful.

This monitoring system is being replicated with health and human service coalitions funded by the Kellogg Foundation in Massachusetts and a Center for Substance Abuse Prevention funded coalition with the Jicarilla Apache Tribe in New Mexico. We are exploring mechanisms for local scoring and graphing of coalition actions and outcomes. The authors continue to verify actions and outcomes, however, to maintain the quality, verifiability and reliability of the data. Similar collaborative processes were used to develop and adapt the evaluation plan and specific

measures used with these coalitions. Some variation in the process, outcome and impact measures was considered, but the measures described in this monitoring system were the ones found to be most useful with these coalitions. It is still too early in the replication process to draw many conclusions from our experience, but several lessons seem to be emerging. The more experience the people have with coalitions and community development, in general, the easier it seems for them to adopt and use the monitoring system. We find it important to maintain involvement as reliability observers, for verification and accuracy, since some audiences are less likely to believe the reports of the coalition when the only observers stand much to gain or lose from the results.

Such empirical information about coalition events and outcomes helps establish normative levels of coalition activity and may aid in predictions about future coalition success or failure. Questions about the typical onset and rate of community action, for instance, may be addressed with data from a variety of coalitions over the entire span of their existence. Are continued low rates of particular measures predictive of coalition failure? Do high rates predict coalition success and survival? Does prolonged involvement in planning activities have a negative influence on eventual rates of coalition action? Is there an optimal ratio of community action to resulting community change that maintains community action with success? Would data from a variety of coalitions bear out the conventional wisdom that community actions and outcomes may occur later in grassroots coalitions than in professionally-led coalitions? This case study suggests a framework for obtaining descriptive information related to these questions. Future research using these and other process and outcome measures may help address these questions about the nature and functioning of community coalitions. Future experimental research may demonstrate functional relationships suggested by such descriptive information.

The monitoring system and resulting data can also be used to examine possible relationships between critical incidents in the coalition's history and changes in the rates of these process and outcome measures. For example, data for both coalitions showed a rather

marked increase in community actions and outcomes in June 1990 when the monitoring and feedback system was initiated, perhaps suggesting a prompting and reinforcement function of the monitoring system. Similarly, completion of the strategic planning process for Kansas LEAN in January 1991⁷ was followed shortly after by an increase in community actions and other measures. Possible relationships between changes in the support system (and other aspects of the environment) and rates on key indicators can be examined. Accordingly, this monitoring and evaluation system can help detect variables, such as goal setting and monitoring, that may enhance the functioning of community coalitions.

Several standards may be particularly appropriate in judging the value of this methodology for monitoring and evaluating community coalitions: utility, feasibility, propriety and accuracy (Stufflebeam, 1980; Voth, 1989). The monitoring data appear to be useful: they help elicit peer approval for coalition efforts, prompt discussion about how to re-direct activity, and provide information requested by funding agencies. With technical support from evaluators, the costs and complexity of data collection appear to be practical, at least for coalitions that have some professional involvement. Its feasibility for purely grassroots coalitions appears questionable, however, and the political sensitivity of feeding back consistently negative information is yet to be tested. The propriety of the system—the fairness and ethics with which it is implemented—rests on the integrity of the implementers. If the implementers are less than scrupulous, the monitoring system will not accurately and fairly represent the group's actions or accomplishments. Finally, the accuracy of the system depends on the completeness and correctness of self-reports by key informants as well as on the scoring by independent observers. Verification information provides a partial indication of the former; reliability data, an assessment of the latter.

Although this monitoring system extends our understanding, it does not constitute a complete protocol for evaluating coalitions. Several other methodologies may be helpful in completing this picture, including intervention research, impact

assessment, qualitative inquiry and social validation. First, intervention research uses appropriate experimental designs to establish causal relationships between specified changes in the environment, such as a police crackdown on sales of alcohol to minors, and behaviors and outcomes of interest (Fawcett *et al.*, 1993b; Thomas and Rothman, 1993). Although the monitoring system may help document the existence of specific changes in programs, policies and practices, their efficacy is better determined with intervention research.

Second, an assessment of the overall impact of the coalition requires baseline and post-intervention data on relevant community-wide indicators, such as, for a substance abuse coalition, the number of alcohol-related arrests, emergency medical transits related to alcohol or single night-time vehicle accidents. As with the mid-course review for attainment of national health goals (US Department of Health and Human Services, 1986), such data provide a standard against which to assess goal attainment for health outcomes of interest. Third, collecting qualitative information about the process of coalition development, such as might be negotiated between evaluators and their clients (Guba and Lincoln, 1989), is another important approach. Such information helps identify key events in the coalition-building process, contributing to both the descriptive and analytic story. Finally, social-validity assessments provide information from key client audiences about the importance of the coalition's goals, the acceptability of its methods and the social significance of the results (Wolf, 1978; Fawcett, 1991a). Rating data from coalition members and funding agents, for example, might be used to adjust the selection of goals and means and judge the value of accomplishments. In our ongoing collaborative research with community health coalitions, we have used these additional evaluation measures to complement those provided by the monitoring and evaluation system.

This monitoring and evaluation system is consistent with the values of participatory research and empowerment (Choudhary and Tandon, 1988, cited in Evaluation and Empowerment Process, 1991; Whyte, 1991). Key clients of the evaluation—including coalition members and funding agents—were in-

involved in setting goals for the evaluation, identifying information needs and sources of data, collecting and interpreting data, and developing action plans based on the results. Such involvement is a hallmark of the empowerment process in which those affected gain influence over events and outcomes of importance (Rappaport, 1981; Fawcett *et al.*, 1993c). Such monitoring and evaluation methodologies may enhance the capacities of communities to address locally-defined health and social issues. In so doing, they contribute to the aims of health promotion while embracing the values of empowerment.

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Note

1. Copies of the complete observational code (coding instructions, definitions, examples and non-examples for each definition) used to score coalition activities and outcomes are available from the authors for the cost of reproduction and distribution.

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