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# ***An Empirical Case Study of the Effects of Training and Technical Assistance on Community Coalition Functioning and Sustainability***

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*The case study analyzes the effects of training and technical assistance on the amount of community changes facilitated by members of a community coalition to prevent adolescent substance use. The study examines the sustainability of these changes in the community over time. The coalition implemented a Community Change Intervention that focused on building coalition capacity to support implementation of community changes—program, policy, and practice changes. Over the 2-year intervention period, there were 36 community changes facilitated by the coalition to reduce risk for adolescent substance use. Results showed that the coalition facilitated an average of at least 3 times as many community changes (i.e., program, policy and practice changes) per month following the intervention. Action planning was found to have accelerated the rate of community changes implemented by the coalition. After the intervention there was increased implementation of three key prioritized coalition processes: Documenting Progress/Using Feedback, Making Outcomes Matter, and Sustaining the Work. A 1-year probe following the study showed that the majority of the community changes were sustained. Factors associated with the sustainability of changes included the continued development of collaborative partnerships and securing multiyear funding.*

**Keywords:** *technical assistance; community change; coalitions; sustainability*

Adolescent substance use represents a serious public health problem, which has substantial individual and community-level consequences (Hawkins, Arthur, & Catalano, 1995). Nationally, adolescents reporting past-year alcohol or illicit drug use were also more likely to engage in violence, have poor academic performance, and be at greater risk for suicide compared to those who did not use substances (Centers for Disease Control and Prevention, 2011). In 2011, approximately 38% of students in a national sample reported 30-day alcohol use among adolescents,

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and 18% of high school students reported current cigarette use. Additionally 23% of adolescents, in Grades 9 through 12, reported 30-day marijuana use, and 11% indicated hallucinogenic drug use (Centers for Disease Control and Prevention, 2011).

In many communities, coalitions have formed to change conditions related to risk for underage drinking and adolescent substance use (Butterfoss & Kegler, 2002; Zakocs & Guckenburg, 2007). These alliances among multiple organizations aim to promote and protect health by changing conditions related to personal and environmental factors (Roussos & Fawcett, 2000). Community coalitions have been an integral component of the prevention delivery system in supporting the implementation of evidence-based strategies at the community level (Feinberg, Greenburg, & Osgood, 2004; Feinberg, Ridenour, & Greenberg, 2008). Although in widespread use, investigations on the effects of community coalitions have often lacked measurement and evidence of intermediate and longer term outcomes resulting from coalition activities (Berkowitz, 2001; Zakocs & Edwards, 2006).

As the use of community coalitions has grown, so has the importance of training and technical assistance (TA) to support community efforts (Feinberg et al., 2008). Training and TA are frequently made available to community coalitions and have been identified as one methodology to bridge the gap between prevention research and practice (Wandersman et al., 2008). However, the empirical evidence of the effects of TA on community coalition capacity to facilitate both organizational- and community-level change is limited (Feinberg et al., 2004; Wandersman et al., 2008). Previous studies on coalition effectiveness have often noted the importance of TA approaches (Hunter et al., 2009; Kegler & Redmon, 2006; Mayberry et al., 2008; Mitchell, Florin, & Stevenson, 2002). Yet there is little evidence regarding the effectiveness of training and technical support on increased coalition capacity to support the work of the coalition in the community. Despite the lack of evidence in the community setting, TA has a rich history in other settings. Arthur, Bennett, Edens, and Bell (2003) examined the effectiveness of training in the organizational development literature. This meta-analysis examined the relationship between training effect size and several factors (e.g., training evaluation, delivery method, and skill assessments; Arthur et al., 2003). Furthermore, Fixsen and Mental (2005) identified key components of effective training: presentation of information, demonstrations, and opportunities for behavioral rehearsal (Fixsen, Blase, Naoom, Van Dyke, & Wallace, 2009; Fixsen & Mental, 2005).

The purpose of this study was to examine the effects of a training and TA intervention to implement identified key coalition processes on the amount and sustainability of community changes facilitated by a community prevention coalition to reduce risk for adolescent substance use. The article proposes an intervention that may help coalitions' effectiveness to influence community change. It suggests a possible practical tool to drive public health change, as well as a possible approach to measuring the tool's impact.

## ► METHOD

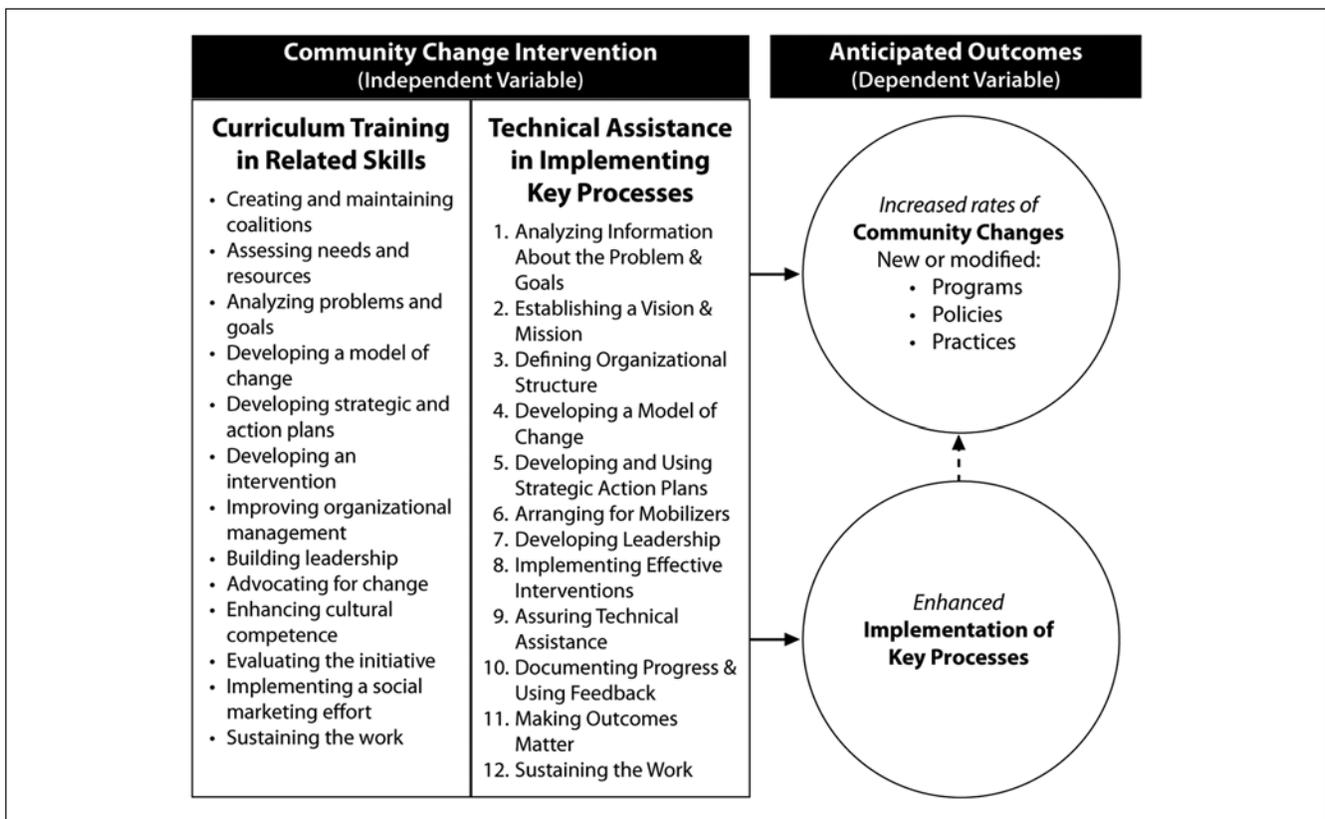
### *Context and Participants*

The Youth Community Coalition (YC<sup>2</sup>) of Columbia, Missouri, was formed in 2003 by the Columbia Housing Authority to address local community needs. Coalition membership includes over 70 organizations and individuals, including middle, junior high, and high school students. In 2004, the coalition began to focus on adolescent substance use prevention after receiving funding from the Drug-Free Communities Program grant. In 2009, the coalition was selected to participate in the NIDA Coalition Research Project (NCRP) funded by the National Institute on Drug Abuse of the National Institutes of Health, as part of a larger research study. The coalition was not provided funding as part of the study, receiving only the intervention and travel reimbursement for participation.

The present study examined the effects of a Community Change Intervention—training in core competencies and TA in implementing key processes—on community changes related to reducing risk for substance use. The intervention involved group training using a field-tested curriculum and monthly TA sessions via telephone. The primary dependent variables measured for this study were the rate of community (environmental) changes and the implementation of prioritized key processes based on a case study approach (see Figure 1). As part of the study, the YC<sup>2</sup> staff members documented environmental changes and other activities using an online documentation and technical support system. The documentation system supported participatory research among community and research team members to engage in shared sensemaking through the review of documented changes.

### *Components and Elements of the Community Change Intervention*

The Community Change Intervention consisted of two components: (a) in-person training in core competencies using a field-tested curriculum and (b) telephone-based TA for implementing priority key



**FIGURE 1** Framework of the Community Change Intervention

processes identified by the coalition. The in-person curriculum training occurred at the partnering university. Figure 1 outlines the 13 curriculum modules covered and illustrative skill areas trained on from the Community Tool Box Curriculum (<http://ctb.ku.edu>). The in-person training was conducted over the course of two 3-day sessions and was facilitated by research staff. Each day, two curriculum modules were taught using PowerPoint presentations, facilitated dialogue, and hands-on learning activities (e.g., creating action plans for a specific intervention to be used by the coalition). The theoretical foundation of the curriculum is based on systematic research and associated reviews of the literature. From this preliminary work, researchers recommended key processes or mechanisms to improve community coalitions' capacity to effect community change and improvements (Fawcett, 2011; Fawcett, Francisco, Schultz, et al., 2000). Watson-Thompson, Fawcett, and Schultz (2008) specifically recommended 12 key processes, for example, developing and using action plans, operationalizing the implementation of TA, and improving coalition functioning

(Watson-Thompson et al., 2008). The list of key processes, the main components of the curriculum, is based on empirical research from multiple case studies (Fawcett, Francisco, Hyra, et al., 2000; Mitchell et al., 2002; Shortell et al., 2002), experiential knowledge (Fawcett, Francisco, Hyra, et al., 2000; Mitchell et al., 2002), and systematic reviews of the literature (Israel, Schultz, Parker, & Becker, 1998; Kreuter, Lezin, & Young, 2000; Roussos & Fawcett, 2000). These recommended key processes reflect dimensions of capacity building, such as community skill building, identified by experts convened by the U.S. Centers for Disease Control and Prevention (Goodman et al., 1998). The curriculum was designed to be delivered and consumed by practitioners of community health with no specific training or expertise (<http://ctb.ku.edu>).

The TA component of the intervention occurred monthly and consisted of three elements that were implemented sequentially. The three elements of TA were delivered on a rotating schedule and were led by a member of the research team. During the first element of TA, coalition staff were provided with data

from their self-assessments on the level of implementation and importance of the 12 key processes (see Figure 1). This led to prioritized areas of importance and/or need (i.e., processes rated as higher importance and lower implementation). The second element included facilitated action planning for (a) implementation of key coalition processes and (b) community changes. During this TA element, coalition members reviewed previously documented community changes with a research team member and then planned for upcoming community changes to be pursued in the following months. The coalition staff members also reviewed implementation of prioritized key processes. Separate action plans were developed for implementation of key processes and community changes, which included information about actions to be sought and who would do what tasks to bring about the change by a specified time frame. The resulting action plans were stored and retrieved using a shared online workstation to assure ongoing access by participating coalitions.

The last element of TA was shared sensemaking about the documented community changes. This consisted of semistructured interviews that reviewed documented data from the previous 3 months using automated graphing and reporting capabilities available through the online documentation system to prompt reflection and adjustments. During this dialogue, coalition members reflected on what they saw (e.g., moderate and steady rates of change in past quarter), what it meant (e.g., this increase was associated with hiring a new staff member), and implications for adjustment (e.g., would like to increase rates of change in schools over next year). Coalition staff members were also asked to identify any critical events that occurred during the previous 3 months that significantly affected their work.

### **Measurement**

The study examined three questions: (a) What were the effects of the training and TA intervention on the rate of community changes facilitated by the coalition? (b) Was the intervention associated with increased implementation of key processes? (c) Were the documented community changes sustained after the intervention? To examine these questions, the study used several types of measurements: (a) implementation of key processes (e.g., strategic and action planning), (b) documentation of community changes (i.e., new or modified programs, practices, and policies), and (c) a sustainability assessment.

*Implementation of Key Processes.* The implementation of key processes was assessed using an online assessment completed by three staff and one volunteer member from the coalition. Questions were asked about implementation of each activity in the task analysis for implementing the key processes (see Figure 1). For example, Key Process 11 (Making Outcomes Matter) included yes/no implementation questions for 17 tasks; for example, one implementation question is “Does the group collect longer-term outcome measures (e.g., changes in behavior or community-level indicators of improvement)?” The overall implementation score for each process was calculated by dividing the total number of “yes” responses by the total number of discrete tasks in the process.

The implementation of the 12 key processes was measured at two different time intervals using an online survey. The first assessment was preintervention (prior to the in-person training), and the second assessment took place at the end of the intervention. Three staff and one volunteer member from the coalition took the assessment each time it was administered. The volunteer coalition member was selected based on both the length of time they had been involved with the coalition and knowledge of coalition activities. The 255-item survey included questions assessing levels of implementation and use of the processes.

Research team members provided TA via monthly phone conversations. TA was based on coalition-identified areas of importance and/or need based on the curriculum training received. TA focused on a subset of the 12 key processes (e.g., developing organizational structure, documenting progress, sustainability) that the coalition prioritized. Table 1 summarizes the 12 key processes for change and improvement.

*Documentation of Community Change.* Community change, the primary dependent variable, was defined as new or modified *programs* (e.g., classes in peer refusal skills that target new groups), *policies* (e.g., social hosting laws), or *practices* (e.g., terminating alcohol home delivery liquor store practices) facilitated by the coalition and related to preventing adolescent substance use. For an activity to be documented as a community change, it had to meet all of the following scoring criteria: (a) has already occurred (e.g., when a policy is already adopted or when a new program is first implemented, not just planned); (b) was related to the initiative’s chosen goals and objectives; (c) was a new or modified program, policy, or practice in some parts of the community or system (e.g., government, business, schools, health organizations); and (d) was facilitated

**TABLE 1**  
**Twelve Key Processes (and Illustrative Tasks) for Promoting Community Change and Improvement**

<i>Process (No. of Tasks)</i>	<i>Illustrative Tasks</i>
1. Analyzing Information About the Problem or Goals ( <i>N</i> = 17)	Define community, engage stakeholders in planning, collect and analyze information about the extent of problem
2. Establishing a Vision and Mission ( <i>N</i> = 13)	Establish vision and mission statements, convene group to guide development of statements, apply and use vision and mission statements
3. Defining Organizational Structure and Operating Mechanism ( <i>N</i> = 45)	Assess organizational needs and resources and develop goals to enhance the functioning of the organization, develop organizational structure, establish operating mechanisms for doing things within the organization (e.g., bylaws)
4. Developing a Framework or Model of Change ( <i>N</i> = 16)	Convene key stakeholders to develop a logic model for the effort, identify intended uses of model, identify core components and elements
5. Developing and Using Strategic Action Plans ( <i>N</i> = 26)	Develop objectives that serve as a marker of accomplishments and provide benchmarks for accountability, identify strategies to carry out objectives
6. Arranging for Community Mobilization ( <i>N</i> = 17)	Identify need for community mobilizer or organizer, define the roles and responsibilities, assure effective functioning through training, support, and feedback
7. Developing Leadership ( <i>N</i> = 26)	Identify the composition of the ideal leadership team, recruit new leaders to the team, develop leadership plan, identify methods to support leadership development goals
8. Implementing Effective Interventions ( <i>N</i> = 24)	Engage community members and other key stakeholders in designing the intervention, identify objectives, research past interventions, identify core components and elements, evaluate efforts
9. Assuring Technical Assistance ( <i>N</i> = 13)	Assess the stage of development and readiness of the effort to use technical assistance, identify appropriate technical assistance and support providers for the initiative
10. Documenting Progress and Using Feedback ( <i>N</i> = 18)	Identify the measures to be used in the documentation and feedback system, document or collect the data using systematic methods, analyze, communicate, and use the data to make improvements in the initiative
11. Making Outcomes Matter ( <i>N</i> = 17)	Identify indicators of success for the initiative, specify reporting requirements about the activities and outcomes of the initiative, use incentives and disincentives to encourage outstanding implementation of activities and improvement in outcomes
12. Sustaining the Work ( <i>N</i> = 23)	Determine whether the initiative or activities should be sustained, identify and implement tactics for sustainability

by individuals who are members of the initiative or are acting on behalf of the initiative. Community changes were also classified by behavior change strategy used, duration of change, and targeted ecological level. For each of these categories, community documenters indicated the implementation status of the duration of the activity (e.g., ongoing or onetime event, etc.).

One staff member from the coalition was designated with the task of documenting (recording and scoring) coalition activities and accomplishments after they occurred. This person was trained by research team members at the beginning of the study using a codebook and protocol that included scoring instructions,

examples and nonexamples, and opportunities to practice and obtain feedback on scoring. A research team member assured the quality of the data on an ongoing monthly basis by providing secondary (independent) coding of the data. Reported community changes were also validated on a monthly basis during TA phone calls and through review of coalition meeting minutes. The second staff member from the coalition confirmed the occurrence of reported community changes during the TA phone calls. Additionally, 10% of the documented community changes were validated through review of coalition meeting minutes by a research team member. The mean number of community changes

pre- and postintervention were examined to assess if the intervention contributed to increased rates of community change.

### Sustainability

**Semistructured interviews.** A year following the intervention, the coalition director (one of the staff members whom completed the assessments) was invited to participate in a semistructured interview and survey to assess the sustainability of documented community changes. The participant answered “yes,” “no,” or “don’t know” when asked if each of the reported changes had been maintained by the coalition or coalition partners over the past year. For all changes that were reported to have been maintained, the coalition partner was prompted to describe and evidence how the change had been sustained. The research team member also had two independent reviewers who listened to the interview and scored if the community change had been sustained based on the description provided by the coalition director and external validation (e.g., web reference, news article, meeting minutes). Sustainability was then more generally assessed by answering the following questions: (a) How has the coalition been sustained over time? (b) How have the activities/programs been sustained? (c) Which strategies are most commonly used in sustaining the coalition’s efforts? (4) What has been the greatest success to support the sustainability of the initiative? (5) What is the greatest challenge in sustaining the coalition and its activities?

**Sustainability tactics survey.** The last sustainability assessment component was a 13-item questionnaire rating sustainability tactics (e.g., shared positions, public funding, fund-raisers) used by the coalition on a Likert-type scale. This assessment was adapted from previously reported sustainability assessment research (Paine-Andrews, Fisher, Campuzano, Fawcett, & Berkley-Patton, 2000).

**Data Analysis.** The data collected to evaluate the intervention included key processes, community change, and sustainability data. It was analyzed by three research team members. A faculty research team member led the analysis supported by two graduate research assistants in an applied behavior analysis doctoral program. Descriptive statistics were used to describe the data.

**Design.** This study used a case study design with staggered implementation of the two intervention components: in-person training conducted at two different times (conducted 6 months apart), followed by monthly TA.

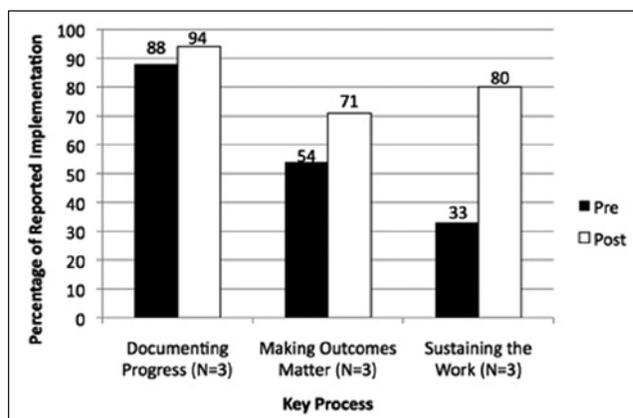


FIGURE 2 YC<sup>2</sup> Reported Implementation of Prioritized Key Processes

NOTE: YC<sup>2</sup> = Youth Community Coalition.

## ► RESULTS

### Implementation of Key Coalition Processes

As shown in Figure 2, the implementation scores for each of the prioritized key coalition processes increased from pre- to postintervention for YC<sup>2</sup>. The three processes prioritized all showed noted improvements in level of implementation with a 6% increase in implementation score for Documenting Progress and Using Feedback, a 17% increase for Making Outcomes Matter, and a substantial increase of 47% for implementation of the process of Sustaining the Work (Figure 2). Within each process, there were specific activities with reported greatest improvement. For Documenting Progress, ensuring stakeholders were involved in designing the documentation system reported a 75% increase. For Making Outcomes Matter, activities related to incentives, accountability, and use of longer term outcomes with accountability increased from 50% to 100%. Activities from the Sustaining the Work process included identification of sustainability decision maker(s), determining what to sustain, and duration of sustained effort (increases ranged from 42% to 75%; Table 2).

### Effects of the Intervention on the Facilitation of Community Changes

There were 36 community changes implemented by the community coalition during the study period. The mean number of community changes documented by the coalition increased from 1.0 per month preintervention ( $SD = 1.15$ ) to 6.20 per month during intervention ( $SD = 1.5$ ).

**TABLE 2**  
**Key Process Activity Implementation Ratings**

<i>Activity</i>	<i>Pre, %</i>	<i>Post, %</i>
<b>Key Process 10: Documenting Progress</b>		
10.1 Key stakeholders involved in documentation system design	25	100
10.2 Identified types of data important for key stakeholders	75	100
10.3 Identified primary purposes of data	75	100
10.4 Developed evaluation questions	75	100
10.5 Collects process measures	100	100
10.6 Documents activities to address problem/goal	75	100
10.7 Collects longer term outcome measures	100	100
10.8 Identified data sources and assured access	100	100
10.9 Types of data collected consistent with identified measures of success	100	100
10.10 Established methods for collecting data	100	100
10.11 Established process for systematically recording and categorizing information	100	100
10.12 Established process for regularly assessing reliability and validity of data	75	100
10.13 Regular review of data for accuracy and completeness	100	100
10.14 Regular review of data about implementation	100	67
10.15 Regular review of evaluation questions and documented data	75	67
10.16 Regular analysis of data to make adjustments and improvements	100	100
10.17 Review and use data to celebrate accomplishments	100	67
10.18 Regular disseminates data to key stakeholders	100	100
<b>Key Process 11: Making Outcomes Matter</b>		
11.1 Identified indicators of success for different stages of initiative	75	100
11.2 Indicators of success included in objectives	75	100
11.3 Indicators reflect interests of identified stakeholders	75	100
11.4 Regular communication/report of progress to internal audiences	100	67
11.5 Regular communication/report of progress to external audiences	50	67
11.6 Clear expectations and requirements for reporting	75	67
11.7 Established consequences for performance of key activities	50	33
11.8 Established consequences for attainment of outcomes	0	33
11.9 Identified conditions to use incentives/disincentives	0	33
11.10 Consequences administered consistently and fairly	0	33
11.11 Consequences administered often enough and at appropriate level of initiative	0	33
11.12 Document activities used to address problem/goal	50	67
11.13 Collects longer term outcome measures	100	100
11.14 Regularly reviews evaluation questions and documented data	75	100
11.15 Regularly shares data to key stakeholders	75	100
11.16 Regularly celebrates progress and outcomes	75	67
11.17 Regularly provides formal recognition for individuals who contribute to change/ improvement	50	100
<b>Key Process 12: Sustaining the Work</b>		
12.1 Identified who decides to sustain initiative and activities	50	100
12.2 Determined overall initiative/project should be sustained	50	100
12.3 Determined sustainability of specific activities	25	100
12.4 Determined intended duration of initiative/activities to be sustained	25	67

*(continued)*

TABLE 2 (CONTINUED)

<i>Activity</i>	<i>Pre, %</i>	<i>Post, %</i>
12.5 Used evaluation data in sustainability decisions	25	100
12.6 Identified target community/population to participate and assessed benefit from sustained efforts	25	67
12.7 Have sufficient internal/external support to sustain effort	75	100
12.8 Has sufficient human resources to sustain effort	50	100
12.9 Has sufficient financial resources to sustain effort	25	100
12.10 Assessed costs/benefits of activities and that of competition	50	67
12.11 Decided what activities should be maintained	25	67
12.12 Identified amount/type of human resources and financial resources needed to sustain initiative and activities	25	67
12.13 Established written mission statement, goals and objectives related to sustaining initiative/activities	25	67
12.14 Assessed progress in attaining anticipated goals/objectives related to sustainability	25	67
12.15 Determined current mission/objectives need to be expanded/changed to support sustainability	25	100
12.16 Determined costs of specific activities to be maintained	25	67
12.17 Established specific short-term and long-term financial goals/budget	25	33
12.18 Selected specific strategies to sustain initiative/activities	25	100
12.19 Developed and implemented action plan for each sustainability strategy/tactic	25	67
12.20 Developed action plans for implementing components of sustainability plan	25	67
12.21 Systematically documents activities/results of efforts to secure/maintain resources	25	67
12.22 Regular review of short and long-term sustainability implementation plan results	25	100
12.23 Developed relationships/networks with potential partners/funders	50	67

The documented community changes targeted three populations: adults ( $n = 13$ , 36%), all community members (including both children and youth and adults of any age;  $n = 12$ , 33%), and children and youth ( $n = 11$ , 31%). The type of approach was classified as universal or broad impact for nearly all of the documented community changes ( $n = 35$ , 97%). Duration of changes were more than once ( $n = 18$ , 50%) or onetime events ( $n = 17$ , 47%). Documenters reported using four behavior change strategies including: enhancing services and support ( $n = 20$ , 55%); providing information and enhancing skills ( $n = 10$ , 28%); modifying access, barriers, exposures, and opportunities ( $n = 5$ , 14%); and changing the consequences ( $n = 1$ , 3%).

### ***Sustainability of Documented Community Changes***

Based on scoring by two independent researchers, nearly 64% ( $n = 23$ ) of the 36 community changes were

identified to have been sustained by YC<sup>2</sup>. The highest rated sustainability tactics used to maintain the community change activities were sharing positions and resources with similar organizations, incorporating activities/services in organizations with a similar mission, and applying for grants. Additional factors that were reported to have contributed to the sustainability of coalition activities included a consistent core leadership team, multiyear funding, and partnerships with established community collaborators.

### **► DISCUSSION**

This study examined the effects of a Community Change Intervention—training and TA—on the rates of community change facilitated by a substance use coalition. The coalition members used their own assessment data to prioritize three key processes to focus TA supports. The coalition prioritized processes included

Documenting Progress, Making Outcomes Matter, and Sustainability. There were increased reported implementation scores from the pre- to postassessment for each of the prioritized key processes. The results for levels of implementation of key prioritized processes are based on the independent self-report of multiple coalition members, as direct observation of all aspects of implementation was not possible. Partial verification of implementation levels for key processes was supported through documentation of coalition activities and further validation through a review of a sample of products (e.g., meeting minutes, newsletters, media materials). These particular processes may have been interrelated and collectively prepared the coalition to support the sustainability of the initiative. For example, the prioritized process of Making Outcomes Matter may have been further supported by fuller implementation of the prioritized process Documentation Progress and Using Feedback, as it supports the use of data for evaluation.

The results show an increase in amount of community change facilitated by the coalition after implementation of the intervention. The increases were associated with the addition of new community collaborations and partnerships to support change and improvement related to the prevention of substance use. However, other events, such as additional community support for a related adolescent issue, may have influenced the rate of community change observed during this period. The coalition reported community changes were prioritized for children and youth the majority of the time (64%), and nearly all of the changes were classified as universal or broad impact (97%). In addition, half of the changes were reported to have a duration lasting more than one occurrence and were primarily focused on enhancing services and support. These characteristics of community change efforts may have been a result of the TA related to sustainability.

The majority of documented community changes were reported as sustained during the follow-up assessment. The coalition participant reported several important sustainability tactics as critical to their continued success, including successful acquisition of grant funding and the importance of collaborative work with organizations that share a common mission or goal. This is consistent with previously reported coalition sustainability studies (Paine-Andrews et al., 2000).

Improvements in reported implementation of key processes were associated with increased rates of documented community changes. It is possible that the Community Change Intervention (training and TA) enhanced key processes (process outcome) and that these effects generalized to increased rates of community

changes (intermediate outcome). Further research over a longer period of time, and with stronger experimental designs, is needed to further demonstrate a cause-and-effect relationship between the Community Change Intervention and implementation of key processes and rates of community change. It is also possible that other factors could have been associated with reported coalition improvements, such as external grant funding, existing relationships within the community, and experience of coalition staff and volunteer members. The study design cannot account for or control for these external factors. More research is also needed to examine whether (and under what conditions) the effects on community changes generalize to improved population-level outcomes (e.g., reduced 30-day use of alcohol) and other more distal measures of coalition effectiveness. The 2-year intervention period did not permit examination of longer term outcomes.

This study had a number of limitations. First, without replication across more communities, the evidence of the effectiveness of the community change intervention remains tentative. Measures of documented community changes and the sustainability of efforts are based on self-reports of coalition staff members. To mitigate potential bias, documented changes were validated through monthly accuracy and completeness checks conducted by reviewing most recent documented changes with coalition staff. To protect against changes in instrumentation, data were systematically scored by a second independent observer, and consistency in scoring was addressed through monthly feedback from secondary scorer. Coalition members were trained in baseline prior to implementation of the intervention to minimize the effects of training on community change-reporting behavior. Third, the generalizability of this study is not possible with the results from this case study and natural coalition maturation could not be controlled. The coalition selected to participate in this research study had defined selection criteria (i.e., urban community, consistent staff) and not all community coalitions will have the same characteristics or environmental conditions. Fourth, the research team members were both part of the intervention delivery and research design/analysis. This presents an analytical bias. To mitigate this bias, systematic methods and protocols were used including conducting interrater reliability calculations. Finally, the developmental and exploratory nature of this study limited the analyses of potential associations of resulting community changes and with longer term, population-level outcomes (e.g., 30-day use of alcohol). Additionally the successes reported by the participating coalition could

have been associated with external factors (e.g., funding, community events, coalition–community relationships) not associated with the training and TA intervention. Future studies with stronger study designs and larger groups of participating coalitions could provide needed evidence for those important research questions. Future research should also include additional measures of behavior, such as permanent products of behavior (e.g., physical evidence of substance abuse) and direct measurement of availability of illegal substances for youth (e.g., observed alcohol and tobacco sales to minors).

This study also had a number of strengths. First, this study provides one of the few systematic investigations of training and TA on key coalition processes and associated community changes to prevent adolescent alcohol use. Second, the noted effects on increased rates of community changes were supported when the intervention was implemented, although other plausible explanations cannot be ruled out. Third, the community-based participatory research approach is a key strength. The coalition partners were engaged in identifying appropriate processes and community change activities to be implemented by the coalition and supported through training and TA. Furthermore, the interpretation of the data was done collaboratively by coalition staff (community partners) and research team members (scientific partners) based on principles of participatory research. Finally, the assessment of sustained reported community changes was a strength as the tactics of the participating community coalition confirmed previously reported findings regarding strategies that can support the sustainability of coalition efforts.

The findings from this study suggest several recommendations for improved practice in coalition work. First, using Internet-based tools can help systematically analyze coalition efforts and their contributions to the community (Fawcett et al., 2008; Fawcett, Schultz, Carson, Renalut, & Francisco, 2002); and using telephone/web-enhanced TA can be an effective way to promote and facilitate community changes because it is widely available and facilitates collaborative work (Young, Montgomery, Nycum, Burns-Martin, & Butler, 2006). Second, the assessment used in this study could be broadly disseminated to community coalitions to be used as a tool for identifying training and TA needs. TA might focus on key coalition processes (e.g., action and sustainability planning) with participation from a variety of coalition members. Furthermore, additional research is necessary to better understand the relationship between the 12 coalition processes to identify if some processes may be levers or facilitative processes that support fuller implementation of other processes.

This study was designed to further understand of the role of a widespread practice—training and TA—in helping coalitions achieve the goal of changing conditions to prevent adolescent substance use. The coalition was highlighted to further examine the conditions associated with capacity development and coalition success. Over the 2-year study period, the coalition was able to increase reported implementation of three key processes prioritized by the coalition. This in turn, was associated with a noted increase in community changes in the community related to the goal of reducing adolescent substance use. In addition, these efforts led to sustained community changes in the community. Future research may help examine the relationship between community changes and potential improvements in rates of adolescent substance use in communities. Further participatory research efforts are needed to better understand how practical interventions, such as training and TA, can further collaborative action to prevent public health problems and their adverse consequences for individuals and communities.

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