The Journal of Primary Prevention, Vol. 16, No. 4, 1996

A Typology of Prevention Activities: Applications to Community Coalitions

Roger E. Mitchell,[1,3] John F. Stevenson,[2] and Paul Florin[2]

Use of community coalitions as a strategy for the primary prevention of tobacco, alcohol, and other drug abuse is justified in part on the prospect that these coalitions will mount comprehensive, multi-level, multi-target intervention packages. To judge the success of such coalitions, reliable and valid means for assessing the content and pattern of their overall prevention efforts are required. This article proposes a typology of prevention activities, discusses the logic on which it is based, and provides examples of useful applications in examining community coalition prevention plans. Evidence for reliability and validity is provided through assessments of inter-rater agreement, and the relation of measures of "scope of prevention activities" to independent ratings of comprehensiveness. The typology can be used in research validating the logic model on which prevention coalitions are based, and it is also demonstrably useful for improving the local planning process.

KEY WORDS: coalitions; prevention; typology of prevention strategies.

INTRODUCTION

Community coalitions are an increasingly popular choice for tackling community problems that have been seemingly intractable to other kinds of approaches. From smoking rates to teen pregnancy to underage drinking and driving, community coalitions are being touted as a key mechanism

[1]Center for Alcohol and Addiction Studies, Brown University.
[2]Department of Psychology, University of Rhode Island, and Center for Alcohol and Addiction Studies, Brown University.
[3]Address correspondence and reprint requests to Roger E. Mitchell, Center for Alcohol and Addiction Studies, Brown University, Box G-BH, Providence, Rhode Island 02912. E-mail may be sent via the Internet to REM@Brown.Edu.

© 1996 Human Sciences Press, Inc.

for launching an incredibly diverse array of prevention activities. The logic behind such coalition-oriented efforts seems compelling: local constituencies have the best sense of the kinds of prevention efforts likely to be compatible with local norms and values; broad-based community participation can increase local ownership and improve the chances of programs and activities being sustained over the long haul; and community prevention activities are likely to result in more potent outcomes when they are coordinated to address problems at multiple levels and across multiple constituencies (Butterfoss, Goodman & Wandersman, 1993; Chavis & Florin, 1990; Pentz et al., 1989).

While the general logic of coalition based approaches is clear, the best way to monitor, understand and evaluate such efforts is not. For example, comprehensive prevention programming is increasingly seen as one important standard by which community coalitions should be judged. How exactly does one define success in attaining comprehensive, community-based prevention programming? Comprehensiveness has been variously characterized as: addressing multiple risk factors; involving multiple community systems or channels (e.g., media, family, peers); involving multiple strategies (e.g., information, life skills, alternative activities); and striving toward institutional as well as individual level change (Bernard, 1988; Johnson et al., 1990; Kumpfer, 1989; Manger, Hawkins, Haggerty & Catalano, 1992). The National Research Council's recent review of the research literature, *Preventing drug abuse: What do we know?*, for example, noted a "growing recognition of the need to support educational interventions on the drug problem with broader policy and environmental changes and to engage parents, community and other social factors" (Gerstein & Green, 1993; pp. 109). However, without common frameworks and decision rules for categorizing activities and programs, i.e., a typology, it becomes increasingly difficult to understand what is happening in this whirlwind of community-based effort. Despite the voluminous (and often compelling) literature on models for prevention initiatives, there has been no demonstration to date of a reliable and valid classification system. It also becomes extraordinarily difficult to draw conclusions across the accumulation of work on community-based coalitions.

The purpose of this article is to: (a) suggest how such a typology can be a useful tool in answering basic questions about the functioning and development of coalitions; (b) discuss some of the challenges in our development of a reliable and valid typology of prevention activities; and (c) demonstrate the potential influence of such a typology on programming and research by creating a common language for talking about prevention activities.

Rationale for Creation of a Typology of Prevention Activities

There are both theoretical and practical arguments for the development of a more empirically supported typology of prevention activities. At a descriptive level, one could answer basic questions about the kinds of prevention activities most frequently used, and encourage more concrete discussion about what is a reasonable standard for "comprehensive" prevention programming. A system for categorizing prevention activities can serve as an intervention tool by encouraging community-based groups to consider more deliberately and systematically the full range of intervention options. For example, several state departments responsible for alcohol and drug abuse prevention have developed frameworks that highlight a variety of strategies beyond raising awareness and building individual skills (California Department of Alcohol and Drug Programs, 1991; Massachusetts Department of Health, 1994). Such frameworks can broaden perspectives by highlighting strategies that have not typically been used, or by encouraging use of familiar strategies in new settings. Ultimately, the use of such schemas have the potential of becoming integrated into ongoing systems for program monitoring and program planning (e.g., Crooks, Kenney, Elder, Johnson & Bal, 1992).

Theoretically, categorizing prevention strategies could aid in the development of conceptual frameworks that might help explain why different kinds of coalition characteristics (e.g., coalition structure; members' skills) result in different kinds of intermediate outcomes (i.e., pattern of activities planned and implemented) that result in different kinds of long-term outcomes (e.g., different kinds of reductions in AOD problems across different populations). Efforts to link coalition characteristics with implementation have focused primarily on summary ratings of the quality of the overall planning process or plan product, with mixed results (Butterfoss, Goodman & Wandersman, in press; Kumpfer et al., 1993). In one set of coalitions, for example, measures of coalition effectiveness (e.g., decision-making, member satisfaction with planning process) were not related to summary ratings of plan quality (Butterfoss et al., in press). If Implementation of Activities is a key linking construct between organizational variables and subsequent coalition impact, as McLeroy et al. (1994) suggest, then examining the patterns of planned or implemented activities seems an important piece of this puzzle. Oros and Cook (1993), for example, describe development of a typology of prevention strategies as a necessary first step in relating structural characteristics of community coalitions with the kinds of intermediate activities (i.e., comprehensive efforts) they produce. In examining a set of community coalitions, they found that more established partnerships displayed greater scope in the activities they produced (ISA, 1992).

Conceptual and Empirical Efforts at Categorizing Prevention Activities

The idea of categorizing prevention efforts is certainly not new. Benard (1988), for example, described five basic program categories (i.e., Information Dissemination, Developing Life Skills, Creating Alternatives, Influencing Policy, and Involving and Training Impactors) in order to highlight the range of efforts that should be undertaken in order to come up with a comprehensive approach. Similarly, Labin et al. (1992) describe ongoing efforts to categorize prevention programs before proceeding with meta-analytic procedures designed to determine "what works." In a widely-cited study, Tobler (1986) categorized adolescent drug prevention programs (i.e., knowledge only, affective only, peer programs, knowledge plus affective, and alternative activities) and then subjected them to meta-analysis in order to determine their relative effectiveness across different outcome indices. The potential influence of such meta-analytic studies can be considerable, highlighting the importance of reliable and valid means of making program categorizations.

As the focus shifts to coalitions, the task of figuring out what is going on can become both more daunting and more critical. At any one time, coalitions are likely to be initiating a wide array of community-based prevention activities of varying duration, intensity and direction. As Cook, Roehl, Oros, and Trudeau (1994) suggest, coalition approaches represent a "macro-strategy" for preventing alcohol and other drug abuse rather than a neatly defined set of programs.

How, then, does one characterize such a coalition's range of activities? Linney, McClure, & Wandersman (1989) have developed a schema of prevention activities in the course of developing a workbook for evaluating the success of prevention activities. Various state departments concerned with alcohol, tobacco, and other drugs have also developed typologies (i.e., CA Dept. of Alcohol and Drug Programs, 1991; MA Dept. of Public Health; 1994). However, the most extensive empirical work has been done by Cook and his associates in the evaluation of the Community Partnership Program (ISA Associates, 1992; ISA Associates, 1994; Cook et al., 1994). They characterized the prevention activities of 250 diverse community coalitions in several ways. First, they asked coalition respondents to describe whether they had planned or implemented any of 20 specific activities (e.g., provide education materials; school-based prevention; neighborhood empowerment; workplace ATOD prevention, and so on). ISA staff then categorized these into six activity clusters (i.e., ATOD prevention programs, ATOD public education, alternative activities to ATOD use, community organizing and empowerment, advocacy for policy change, and other community activities).

Such categories provided a framework for linking coalition characteristics to the completion of subsequent prevention activities.

A comparison of these various efforts to characterize prevention efforts is presented in Table 1. Despite somewhat different terminology, the greatest commonalities across schemata occur in the first three categories: Increasing Knowledge/Raising Awareness; Building Skills/Competencies; and Increasing Involvement in Drug-Free Alternative Activities. Categories related to community or social policy change have considerably more variation in definition.

Such work serves useful heuristic functions, but a major limitation is the lack of any data regarding the reliability with which such categories can be applied. We may heartily agree on broad categories such as "skill building" or "policy change," but how well do we agree on how to characterize specific cases? For example, a social service agency offers a Parenting Skills Program at a local school. Clearly, this is a skill-building effort. A local advocacy group has now persuaded the school to make a policy change and to offer this program annually to all parents of incoming students. Is this characterized as a policy change or still a skill-building effort? Similarly, the National Evaluation of CSAP Community Partnership Programs (ISA, 1992) highlighted the importance of "Community Organizing and Empowerment" strategies, that is, those activities that can bring "the community together to motivate them. . .showing them that they can work together and achieve common goals" (p. 63). Within this category, they included "neighborhood clean-ups and marches, community forums or assemblies, neighborhood celebrations or recognition days, the creation of community teams, and other activities. . .that bring the community together" (p. 64). When does a public forum represent an awareness raising event versus a "community empowerment" event to mobilize the community? Does the categorization depend upon the primary intent of the initiator (assuming that a consensus about purpose could be ascertained about an event that may have multiple sponsors)? At what point do terms such as community organization or empowerment become so inclusive that they lose their descriptive value?[1]

To the extent that major conclusions are going to be drawn regarding the effectiveness of particular approaches (e.g., through meta-analytic studies), it seems critically important to have a classification system that can demonstrate reasonable inter-judge reliability and some independent evidence of validity.

[1]In our original typology, we had a category entitled "Reducing Environmental Support for Alcohol and Other Drug Use." However, we ran into similar definitional and conceptual problems regarding the boundaries of the category.

Table 1. Categorizations of Prevention Activities/Programs

Mitchell et al. (1992)	Linney et al. (1989)	Labin et al. (1992)	ISA (1994)	CA Dept. of AOD Programs	MA Dept. of Public Health
Increasing Knowledge/ Raising Awareness	Raise Awareness and involvement in the community Increase knowledge of teachers, parents, students	Information Dissemination	ATOD Public Education	Education, Information, and Skill Development	Information
Building Skills and Competencies	Enhance Student skills Enhance parenting and positive family influence	Preventive Education	ATOD Prevention Programs focused on skill-based change	Education, Information, and Skill Development	Skill Development
Increasing Involvement in Drug-Free/Healthy Alternatives	Increase involvement in healthy/legal alternatives	Alternatives	Alternative Activities to ATOD use		Alternatives
Changing Institutional or Organizational Policies			Advocacy for policy change	Health-focused Policy Development	Policy Change

Increasing Law Enforcement and Regulatory attention	Deterrence through regulatory and legal action	Social Policy	Advocacy for policy change	Reducing Environmental Risks Enforcing Laws and Regulations	Environmental Change
Building Internal Capacity of Task Force			[Includded in a typology of internally focused activities]	Building Coalitions	
Building Capacity of Institutions/ Community	Increase involvement in school by parents, teachers and students	Community (e.g., emphasizes community development)	Community organizing and empowerment Other Community Activities [i.e., not aimed directly at ATOD]	Reducing Environmental Risks	Coalition-Building
Other: Not Clearly Fitting in the Above Categories	Increase support services for students, teachers, and parents Change norms and expectations about AODA		Other ATOD Prevention Programs	Community Health Promotion	

Developing a Reliable and Valid Typology

Our work originally began in the Spring of 1989, when we were attempting to evaluate the initial development of 35 municipal coalitions (or "task forces" as they are called in Rhode Island) that were formed to reduce alcohol and other drug abuse.[2] Each of these task forces had been formed (or at least reinvigorated) in response to a legislative initiative providing funding for broadly based, municipal substance abuse prevention task forces. Our conceptual model of coalition development was based on an open systems model of organizations that looked at initial resources or inputs, throughput (organizational structure), and outputs (Florin, Chavis, Wandersman & Rich, 1992). How for example, were a variety of initial resources such as varied community constituencies, member skills, member commitment, mobilized? How did different patterns of organizational structure succeed in nurturing these resources and helping them translate this energy into effective outcomes? As part of this process, we were also concerned with characterizing the proximal short-term products of the task forces, such as their initial plans and proposed prevention activities.

Confronted with the task of somehow characterizing and making sense of the proposed activities of these municipal coalitions, we reviewed the work of Tobler (1986), Linney et al. (1989), and examined hundreds of proposed activities (e.g., "provide parenting courses," "develop school athletic department policy on steroid use," and "make liquor license renewals contingent on participation in alcohol server training"). The result of this work was the development of the following categories listed in Table 2: 1.) Increasing Knowledge/Raising Awareness; 2.) Building Skills/Competencies; 3.) Increasing Involvement in Drug-Free/Healthy Alternative Activities; 4.) Changing Institutional or Organizational Policies; 5.) Increasing Attention to Law Enforcement and Regulatory Practices; 6.) Building Coalition/Partnership Capacity; 7.) Building General Institutional/Community Capacity; and 8.) Treatment/Early Identification and Referral.

The logic behind these categories perhaps may become clearer after we describe some of the issues that we struggled with in developing this typology:

Level of Specificity: Narrow vs. Broad and Inclusive. What level of specificity should the categories involve? Should a focused school-based program be classified as "Enhancing Students' Drug Refusal Skills" or the more general "Building Skills and Competencies?" In part, this depends upon one's ultimate purpose in applying the framework. Our interest was in: (a) having enough generality to be able to draw summary distinctions across coalitions as well as to be able to make comparisons with other work in the field;

[2]These groups meet the definition of a coalition, as described by Butterfoss et al. (1993).

Table 2. Typology of Prevention Activities

Category	Description	Examples
1) Increasing Knowledge/Raising Awareness:	Efforts to increase knowledge, raise awareness about the negative effects of drugs, symptoms of drug use, and/or availability of resources for help.	Use of mass media; special events to heighten awareness (e.g., poster contests, community forums); direct, face-to-face, instructional experiences to inform adults or youth; and so on.
2) Building Skills/ Competencies:	Efforts to develop skills and competencies. Could be directed at youth, parents, teachers, families, and so on.	Drug refusal skills programs; parenting skills programs; communication, decision-making, and conflict management skills training; and so on.
3) Increasing Involvement in Drug-Free/Healthy Alternative Activities:	Efforts to create drug-free alternative activities, including school and non-school based activties.	Support of youth athletic leagues; development of drop-in centers; expansion of school-supported drug-free Prom night activities; and so on.
4) Changing Institutional or Organizational Policies:	Efforts of organizations or institutions to initiate or continue policies relevant to substance abuse prevention.	Athletic department policy regarding steroid use, or efforts by the Chamber of Commerce to encourage businesses to adopt a policy of alcohol server training
5) Increasing Attention to Law Enforcement and Regulatory Practices	Efforts to alter law enforcement activities and/or influence government policies/regulation.	Increased enforcement of underage drinking laws; Efforts to increase the tax on alcoholic beverages; efforts to make renewal of liquor licenses contingent upon participation in alcohol-server training programs; and so on.

Table 2. Continued

Category	Description	Examples
6) Building Coalition/ Partnership Capacity	Efforts at increasing the coalition's general viability and capacity to launch future activites	Recruitment efforts to increase Coalition membership; advocating for additional funds; conducting needs assessments; seeking out technical assistance and training for long term planning; and so on.
7) Building General Institutional/ Community Capacity	Efforts at increasing an institution's or neighborhood's general viability and capacity to launch future activities	Supporting a general membership drive or fund-raising effort of a PTA; providing technical assistance to a neighborhood association to do needs assessment of its community; and so on.
8) Other Prevention Activity:	Activities that were clearly prevention activities but that could not be placed in any of the above categories.	
9) Treatment/Early Identification and Referral:	Activites directed at those already experiencing substance abuse problems in one form or another, rather than toward prevention.	Training for teachers to identify early signs of substance abusers; informing community professionals about availlable sources of substance abuse treatment.

and (b) being able to provide specific feedback about the degree of success that community coalitions had with policy and community-level change strategies. This led us to a workable number of eight categories.

Channel of Intervention vs. Type of Change: Much of the literature on prevention strategies and programs is organized by channel (e.g., media-based, school-based, work-based), since there is particular knowledge about intervening and working in these different kinds of settings. However, it also seemed useful to characterize the intended type of change (e.g., attitudes/knowledge, skills, institutional policies), especially as a way of distinguishing more individual versus system oriented approaches. [In fact, some have argued that the most useful way of organizing one's thinking about prevention efforts is to look at activities in terms of both the strategy and the setting in which it occurs (i.e., CA Dept. of alcohol and Drug Programs, 1991; MA Dept. of Public Health; 1994).]

Policy Change: Organizational vs. Legislative. One of the major intentions of this work was to be in a better position to document a shift from exclusive "individually-oriented" initiatives to more policy and system change efforts. However, "Advocating for Policy Change" can refer to change efforts at a variety of levels, from changing workplace policies at a small business to lobbying legislatures for increased alcohol taxes. We distinguished between efforts to change the policies of local organizations (e.g., businesses, schools, chambers of commerce), versus efforts to influence law enforcement or governmental regulatory practices. Our experience suggested to us, first, that the advocacy skills needed for legislative change might not be the same as those needed for negotiating policy changes in organizational settings closer to home. Second, local, municipally based task forces seemed particularly well-positioned to influence organizational policies (e.g., school policies regarding smoking; church-based support of alternative youth programs). However, broader state-wide associations seemed more likely to take the lead in state house oriented legislative advocacy.

Building Programs versus Building Institutional and Community Capacity: One of the most complex issues was how to characterize the notion of broad-based community development, community organization and empowerment activities. Basic to much of the coalition literature is the assumption that prevention efforts can empower communities "by providing the resources necessary for the community to act on its own behalf; by creating opportunities for the development of community involvement and leadership; and by encouraging new relationships among groups and organizations within communities" (MA Dept. of Public Health, 1994). Clearly, a number of activities that are focused on community organizations and conditions do not have an immediate programmatic focus on alcohol, tobacco, or other drugs (ATOD). On the other hand, many specific and "traditional" alcohol, tobacco, and

other drug (ATOD) oriented activities (e.g., media efforts, parenting skills, alternative activities) were often described by task forces as also serving the purpose of fostering community empowerment. Such activities were seen as potential tools for mobilizing the community and altering community attitudes, above and beyond their immediate ATOD effects. Our solution was to identify efforts that were aimed at increasing an institution's or neighborhood's general capacity to launch activities in the future (e.g., starting neighborhood crime watch; increasing diversity of membership in parent-teacher's association) and label them "Building general organizational and community capacity." These efforts were distinguished from activities with a more specific focus on promoting an immediate prevention activity (e.g., alternative activities, building skills, changing policies).

Building Programs versus Building Coalition Capacity: Coalitions devote the majority of their time and energy to developing and implementing prevention activities in their community. But coalitions are complex organizational entities facing multiple tasks (Florin, Mitchell & Stevenson, 1993). Evidence with other voluntary community organizations (Florin et al., 1992) suggests that maintenance, let alone growth, is by no means assured without conscious efforts. Therefore, in our typology, we have created a category which captures the organization's efforts toward its internal capacity building (e.g., planning training for members; advocating for additional funds) independent of any specific program activity.

Comprehensiveness: How does one characterize the comprehensiveness of a coalition's prevention efforts? One person's sense of reach and scope of activity may be experienced by another as a lack of focus. In addition, looking at the percentage of activities devoted to any one category can be misleading, especially when there is great variability in the number of activities proposed by coalitions. For example, a very promising alcohol server training policy initiative can look very different when it is 1 of 25 coalition activities versus one of eight coalition activities. In struggling with this, we derived the variable of scope, which counts the number of typology categories in which there was at least 1 proposed activity. This presents at least one alternative to measures of quantity (i.e., number of activities, percentage of activities).

RELIABILITY AND VALIDITY OF A TYPOLOGY OF PREVENTION ACTIVITIES

To what extent can these categories be reliably used, and are they a valid representation of what we think we are trying to measure? We attempted to address both reliability and validity issues.

Material to be Coded. The basic material to be coded involved comprehensive yearly plans from 35 municipal substance abuse prevention task forces. These plans contained a brief description of each activity that they intended to implement over the coming year, along with a description of the target population and intended implementers of the activity. The typology in Table 2 was applied to plans submitted in 1992 and in 1994.[3] A randomly selected set of activities from a randomly selected set of plans were used to calculate reliability each year.

Inter-rater Reliability. We calculated the inter-rater reliability of the typology using different sets of raters with differing levels of training, and reached adequate levels of reliability.

First, we calculated reliability among a set of raters associated with our research team. Three graduate student raters attended training sessions and discussed samples of randomly selected activities from the 1992 plans.[4] After several meetings, raters independently coded a sample of 47 strategies. Average agreement among pairs of raters was very consistent: 68% to 70% agreement. Cohen's Kappa was then used to examine the inter-rater reliability among each pair of raters, since this statistic corrects for the number of agreements expected to occur by chance. We then averaged Kappa ratings across pairs. The averaged Cohen's Kappa across all pairs of raters was .57. This process was repeated in 1994 with one continuing and one different rater. Plan requirements and format had changed somewhat over this period, with the level of detail on activities varying across years. Agreement between the two raters was 73%. A Cohen's Kappa of .65 was achieved with a sample of 51 randomly selected strategies from the 1994 plans.

Second, we calculated inter-rater agreement between our raters and individuals outside of our research group. One of the difficulties in developing reliable typologies of any sort is that raters trained in the same "research culture" and by the same trainer/investigators are likely to develop informal, implicit coding rules for problematic or unclear aspects of the typology. Inter-rater agreement *within* such groups is often higher than the agreement found when the typology is applied in the field more broadly among raters using the same coding schema but trained independently. The ability to summarize findings across programs and studies, however, is undermined if some minimal level of reliability of a typology cannot be sus-

[3]Our initial categorization was formulated in 1989 (Florin, Mitchell & Stevenson, 1993). The original coding team (two faculty members and two graduate students) developed descriptions of the initial coding categories and discussed them in detail. Training, discussion, and rating of random samples of activities continued until adequate interrater reliability was achieved. This typology was subsequently modified into the version presented in Table 2.

[4]Contact the first author for a complete version of instructions for coders.

tained across groups of independently trained raters. Thus, we wondered, if practitioners independently tried to use our typology categories, how much agreement would they have with our raters?

To investigate this, we calculated inter-rater agreement between developers of the plans and our raters using the same set of 1994 activities described earlier. The state agency responsible for the development of continuing funding applications incorporated the categories described in Table 2 into the 1994 continuing funding application. Municipal task forces were provided the same written instructions that our raters had received, and were asked to assign each activity into one of the categories of the typology. We took the random sample of activities described earlier, and calculated the agreement between the assignment made by the plan developers and the assignment made by each of our two raters. The agreement between pairs was 73% and 75%. The averaged Cohen's Kappa was .68. (Of course, our raters were blind to plan developers' assignment of activities to categories.) This provides evidence of the robustness of these categories, since the individuals developing these activities had no training in using the categories beyond written instructions, and still demonstrated reasonable agreement with raters from our staff. (As we describe below, we think that this agreement has implications for the validity of the categories as well.)

We also found evidence that as the quality of the plan material improved, so did inter-rater reliability. In addition to being assigned to a category, each activity was also rated as to the degree of clarity (1 = not clear, 2 = somewhat clear, 3 = very clear) by one of the raters. Raters had 28% agreement across the 7 "very unclear" activities. They had 62% agreement across the 13 "somewhat clear" activities, and 83% agreement across the 31 activities rated as "very clear." Thus, as the perceived quality of the material rated improved, so did the agreement among raters.

Examining the patterns of agreement/disagreement, we found no categories that seemed clearly more problematic than others across multiple pairs of raters. However, this might be easier to judge in larger samples where the frequency of "system change" activities (e.g., "Changing institutional or organizational policies") would be higher.

In summary, our latest round of efforts achieved consistent inter-rater reliability in the .65 to .70 range using both our research group and practitioners in the field as raters. We believe that this is a reasonable start in area where no reliability information has been previously reported in the literature.

Validity: Even though we were able to come up with a reasonably reliable system of categorization, do these categories have any relationship to reality? Are they tapping what they purport to measure? Although exploratory, we examined the sources of evidence for validity that we had available.

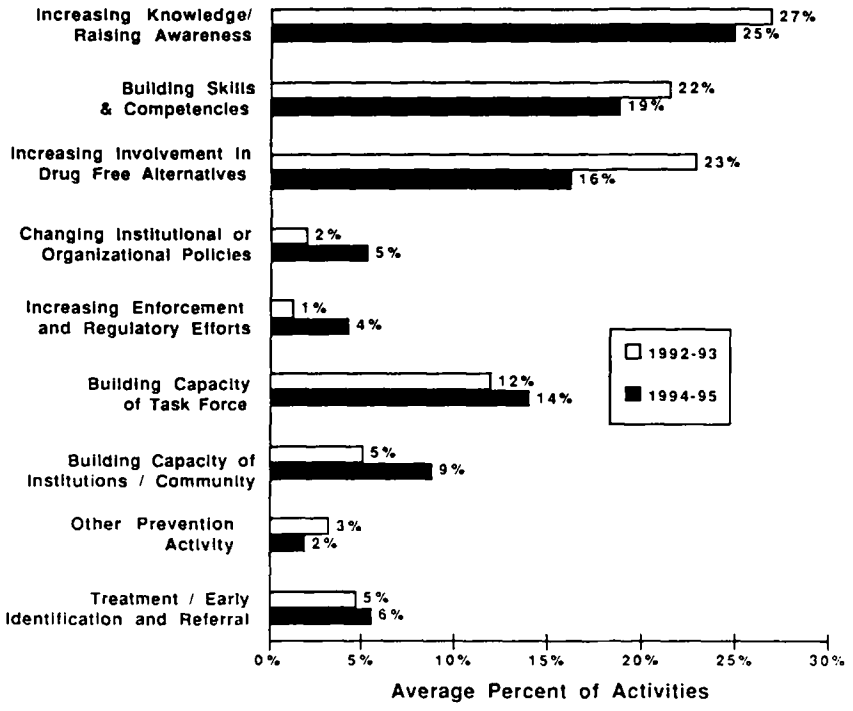

Fig. 1. Profile of task forces' (n = 21) activities categorized by prevention strategies.

First, we examined the degree to which the scope variable created from plan activities was related to independent judgments of the comprehensiveness of the activities that the task forces had actually *implemented*. If scope is indicative of the comprehensiveness of the proposed programming, then presumably it should be significantly related to such summary judgments of comprehensiveness. As part of a federally funded Community Partnership project (i.e., the Consortium of Community Initiatives), training and technical assistance staff were made available to consult with task forces to increase their capacity to do prevention programming. At the end of 1993, these staff participated in an interview in which they rated their impression of the "scope of programming" of the task forces with which they were working.[5] Thus, respondents were providing ratings in 1993 at the time when proposed 1992 plan activities would have already been carried out and would

[5]Staff ratings of scope were available for only 20 of the Municipal Task Forces, since not all communities were participating in this federally funded project.

presumably have had a visible impact. When we performed a correlation between scope (as calculated from the plan activities) and comprehensiveness as judged by staff, we found a correlation of $r = .51$ ($p < .05$). Comprehensiveness had nonsignificant correlations with the number of activities per plan ($r = .35$), and the number of different groups or community sectors that were targeted ($r = .27$). Thus, independent assessments of comprehensiveness of programming were more strongly related to the ratings of scope of strategies than measures of activity quantity or number of different community constituencies or groups involved. Given the likely degree of slippage in correlating a measure of *proposed* activities with a measure of *actually implemented* activities, a correlation of .51 seems more impressive.

Second, we were encouraged by the agreement between the plan developers and our raters. Our "blind raters" were using only brief written descriptions of the proposed activities. The plan developers had the most information about what these same activities were intended to accomplish and how they were likely to be implemented, and might be considered a "referent group" for what the activities were "really" about. The plan developers are as close as we are likely to come in having a referent group to examine the "concurrent" validity of these proposed categories

USING A TYPOLOGY TO EXAMINE INTERMEDIATE OUTCOMES

Profiles of prevention strategies may be one useful tool in assessing intermediate outcomes of interventions with coalitions. Changes in patterns of prevention activities may be a critical link in the logic of one's intervention. For example, 21 of the task forces described earlier have been receiving technical assistance and support as part of a federally funded project to increase the effectiveness of community-based prevention efforts. A primary project thrust of the past two years has been to encourage task forces to develop more comprehensive prevention programming as well as launch more policy and system change initiatives. Presumably, task forces should alter where they are proposing to put their effort. We examined the profiles of proposed prevention activities in the 1992-1993 and 1994-1995 plans and found the following significant changes: (a) *Institutional Policies:* the average percentage of activities aimed at changing institutional or organizational policies related to AOD use increased from 2.12% per task force to 5.28% ($t = 2.72$, $df = 20$, $p < .05$); (b) *Enforcement and Regulatory Efforts:* the average percentage of activities aimed at focusing on changes in law enforcement or regulatory practices increased from 1.31% to 4.31% ($t = 2.67$, $df = 20$, $p < .05$); (c) *Building Institutional/Community Capacity:* the

average percentage of activities aimed at building the capacity of institutions and community groups increased from 5.10% to 8.84% ($t = 2.21$, $df = 20$, $p < .05$). (d) *Scope of Prevention Activities:* the scope of prevention activities increased from an average of 4.38 per task force to 6.05 ($t = 4.61$, $df = 20$, $p < .001$). There were no significant changes in any of the other categories (i.e., raising knowledge/awareness, building skills and competencies, increasing alternative activities, building internal task force capacity, treatment/early identification initiatives). Whether these policy initiatives are the most meaningful ones, or whether they will have the desired effects are questions for subsequent examination and discussion. At the very least, this data provides an early and clear indication that an expected step in the logic of this intervention was carried out successfully. Figure 1 displays graphically the aggregate profiles of the 21 communities in terms of their use of different prevention strategies.

More broadly, our understanding of coalitions can be strengthened by documenting and thinking through the process by which community coalitions consider and adopt particular prevention components or patterns of components. Why does one coalition seek out the most effective school-based prevention curriculum available, a second focus on policy initiatives, and a third continue to focus on information dissemination, which by itself is likely to be ineffective? Although the most popular prevention question of the moment seems to be "What Works?," an equally important question is "Under what circumstances are 'programs that work' adopted?" To the extent that "comprehensive" approaches are increasingly seen as the standard to be sought, we need to understand what factors distinguish coalitions that are more likely to implement "comprehensive" and "system change" approaches. Do coalition characteristics such as the diversity of member representation and work group climate relate to comprehensiveness? Or are leader characteristics and initial member skills more important? Some research is beginning to address these issues (ISA, 1994), and in our own work, we are in the process of conducting analyses that focus on the factors most strongly associated with offering "comprehensive" versus more "limited" prevention efforts (such as initial resources, lack of widespread community representation, quality of training to task force members). A reliable and valid typology is a critical tool in sorting out such relationships.[6]

[6]In a recent Community Prevention grant announcement, CSAP (1995) has provided categories of prevention activities as examples for evaluators, for the purpose of linking types of activities (e.g., incentive activities, strategic activities, policy/legislative activities, outreach activities, and community development/empowerment activities) with preceding Coalition characteristics as well as subsequent outcomes. However, there was no description of the development or reliability of these categories, and only minimal detail regarding their definition.

USING A COMMON TYPOLOGY TO INFLUENCE PROGRAMMING

In articles describing new evaluation instruments, there is often a standard, obligatory statement about the "powerful effects that can occur when such tools are incorporated into a coordinated planning and development process." While we would hardly disagree with such sentiments, anyone who has actually tried to improve program planning processes among community coalitions has found it to be neither an easy nor turbulence-free experience. Manger et al. (1992), for example, implemented a community mobilization process to assist communities in designing and implementing comprehensive, risk-focused plans for adolescent drug abuse prevention. A team-training process was instituted to demonstrate the logic of assessing risk factors and then planning interventions specific to those risk factors. Nonetheless, a number of teams were unable to translate their knowledge of risk factors into relevant proposed activities. Manger et al. (1992) suggest the need for additional training and technical assistance to communities in linking their overall prevention philosophies with their prevention plans. Similarly, Butterfoss, Goodman, Wandersman, Valois, & Chinman (1995) describe the difficult process of translating a form for evaluating coalition plans into a successful consultation and feedback tool. They conclude from their data as well as their experience that specific skill-building is needed for the planning process, since "leadership, commitment, and input in the planning process alone do not *assure* plan quality or coalition success" (p. 15). Successful evaluation tools must be reliable, valid, adapted to the community with which one is working, and supported by training in their application and use.

Our own experience in successfully using this typology in the field confirms these insights and suggests an additional one. Repeated efforts with multiple constituencies at different systemic levels are necessary to adequately disseminate any planning tool. Multiple efforts with varied constituencies in the use of this typology ultimately created the kind of critical synergy needed to facilitate dissemination. For example, our use of the initial typology as an evaluative instrument in 1989 resulted in summary feedback about a lack of policy and community change initiatives. We were "Providing Information and Raising Awareness," with the typical lack of impact that such "educational" efforts produce. We then began to use the typology as one element of a "Program Evaluation for Prevention" workshop series which was attended by significant numbers of municipal task force representatives. These "Skill-Building efforts" resulted in a lot of positive feedback from participants about the usefulness of the typology in organizing their thinking about the diverse activities their task forces were

considering. However, the more positive the feedback the more troubled we became. Individual workshop participants had only sporadic and limited success in integrating these ideas into their work groups' ongoing and often last minute planning processes.

Thinking about what our own typology said about behavior change, we began to talk with varied community collaborators about how to change "Institutional and Organizational Policies" or practices so that the typology could become better institutionalized as a planning tool. Ultimately this typology was incorporated into multiple community settings relevant to coalitions: (a) *Planning Workshops:* As part of a CSAP funded training and technical support consortium to support municipal task forces, intensive planning sessions were held for individual task forces to help them assess more systematically the comprehensiveness of their prevention activities and strategies. A large visual display was used to place each activity in a matrix that indicated focus of strategy (e.g., building awareness to changing policies) as well as target population. The collective profile that results is a powerful visual display that graphically indicates weak and strong areas in the comprehensiveness of their prevention planning.[7] (b) *Program Resource Bank:* As part of this same effort, a resource bank of "Promising Programs" was developed to allow task force members to call in and request information about potential programs in specific areas of interest. All programs in the data bank were classified according to the typology so that coalition members could request information consistent with the categories to which they had been exposed to in their planning process. In addition to calling for a specific "refusal skills curriculum," for example, one could also ask for programs dealing with "Institutional or Organizational Change" involving the school or targeted toward 7th- and 8th-grade youth. (c) *Continuing Funding Applications:* Each of the task forces described earlier is eligible for annual funding allotments from the State, pending their completion of yearly plans of proposed activities. We worked with the Department of Substance Abuse in revising the plan application format, so that the description of activities was organized around categories from the typology. The high inter-rater agreement described earlier between developers of task force plans and our own independent raters supports the idea that the typology is being used reliably at the community level. Thus, the typology is in use at the very time when task forces are most intensively involved in their planning processes. (d) *Evaluation Feedback:* As part of the ongoing evaluation process, we are creating "Activity

[7]This typology has been incorporated as one element of a two day training curriculum, "Foundations of Prevention" offered by the Center for Substance Abuse Prevention through its Community Training System.

Profiles" in order to feedback aggregate results regarding changes in prevention activities. These results compare the proposed activities of municipal task forces in their 1992-1993 plans versus their 1994-1995 plans. Such concrete information should stimulate discussion within task forces as to whether they are heading in the directions they had planned. All the informal feedback we have received is that the use of a common typology across different settings has sensitized them to important distinctions among strategies and made it easier to communicate during the planning process. In addition, this typology seems robust enough to withstand being transplanted to the community level without loss of reliability.

LIMITATIONS

There are certainly limitations to using this work as a means of capturing a "true" picture of the efforts of coalitions and predicting the impact of their efforts. First, if we want to characterize the degree of effort coalitions direct toward different kinds of change strategies, we must examine the degree of resources associated with these efforts, not just the number or percentage of activities. For example, implementation of a school-based curriculum may represent only one activity, but absorb a majority of a coalition's political and financial capital in order to be implemented. More recent efforts at cost-benefit analysis (CSAP, 1993) could be merged with the use of a typology to create a more accurate (or at least a *different*) picture of a coalition's efforts.

Second, examining the comprehensiveness of prevention efforts through the "scope" measure is still limited. The common wisdom is that ATOD prevention efforts will be most effective when they include strategies that attempt to change community conditions and norms as well as strategies that focus only on changes in individual skills and competencies (Kumpfer, 1989; Norman & Turner, 1993; Pentz et al., 1989). For example, Ellickson et al. (1993) found that the initial, positive effects of their school-based curriculum in delaying ATOD use faded over time, in part, they suspect, because of the lack of reinforcement from the larger social environment. Similarly, Johnson et al. (1990), in reviewing the success of the Midwestern Prevention Project, speculated that the lasting effects of their school-based curriculum was reinforced by their other community-based program components. However, what would a minimum standard for a comprehensive approach look like? Would any array of more varied prevention strategies qualify? Or to what extent would they have to be focused around a common target population (e.g., junior high school youth) or specific outcome (e.g., tobacco, alcohol and marijuana as gateway drugs)

in order to be considered comprehensive? The scope of a coalition's prevention activities may have to be considered within the context of that coalition's particular goals. Thus, while the use of the scope variable has been useful as a crude measure of comprehensiveness, more sophisticated work may need to be done.

Third, these task forces represent a rather homogeneous set of coalitions with regard to the impetus for their development, their relative length of time in operation, and the kinds of planning products that they produce. There is evidence that coalitions differ in the kinds of strategies they use depending upon such characteristics as their composition (i.e., professionally dominated versus grass-roots dominated) and their length of time in operations (ISA, 1994), and the types of health/social problems they address. The successful application of this typology to a wider range of coalitions at varying stages of maturity would provide more convincing proof of its more general reliability and utility.

Fourth, we recognize that the reliability of a typology sets an upper limit upon whatever predictive validity can be achieved with it. What additional work can be done to improve upon the level of reliability demonstrated in this study? On the one hand, we may in part be limited in this study by the kind of materia we are rating, since rater agreement increased as the clarity of the activity descriptions improved. Further work with differing kinds of material may clarify the extent to which this is a factor. In addition, use of larger samples of activities may help to discern specific categories that may be contributing to unreliability. In particular, samples with larger numbers of "system-change" activities may make it easier to determine the reliability of these categories.

Finally, this typology is certainly not the only way of categorizing and viewing the world of prevention activities. Other frameworks also highlight the differences between prevention strategies that are individually versus system oriented. Indeed, the very process of using a typology to organize activities can force one to become clearer about what one means by such terms as "community organization," "community empowerment," and "community-based change" and how exactly they have their effects. It is an empirical and conceptual task to examine to what extent successful implementation of various configurations of strategies (e.g., policy change, raising awareness, organizational capacity building) result in different kinds (and perhaps different pathways) of community change. Understanding such linkages is critical to making more informed judgments about the potential effects of different kinds of technical assistance and support. However, we believe that we are most likely to achieve such goals if whatever typology that is used has been put through a process of examining its reliability and validity.

CONCLUSIONS

Given the lack of any reliability data to date concerning the categorization of prevention activities, we believe that this work represents an important effort to improve the state of knowledge in this area. Researchers are increasingly talking about the "clinical" significance of their work, however, in addition to its statistical significance. What is the "clinical" or "intervention" significance of having a reliable tool for categorizing prevention activities? First, the typology described here can be a useful tool in answering basic questions about the functioning and development of coalitions. The ability to summarize prevention activities into a meaningful profile should add to current efforts to link coalition characteristics to their planning and implementation process, which can then be linked to ultimate outcomes. Second, if different kinds of coalition characteristics are associated with more or less effective intervention profiles, an opportunity exists to provide more targeted technical assistance and support to coalitions as they plan and implement activities. Third, we see evidence that the typology described can serve as a practical tool in the work of practitioners, and has been incorporated into planning processes at the state and local levels. Finally, as coalition-based approaches move to address a wider-array of problem areas (e.g., HIV/AIDS, unplanned pregnancy), the work described here may be useful in helping to ask a more precise set of questions about the kinds of prevention activities to be implemented and their presumed impact.

ACKNOWLEDGMENTS

This study was supported in part by a grant from the Center for Substance Abuse Prevention (H86 SP 04426-01), and is part of ongoing work being conducted by the Community Research and Services team at the Center for Alcohol and Addiction Studies at Brown University.

We wish to thank a number of people who made this work possible. The staff of the Consortium for Community Initiatives, and in particular, Betty Harvey, helped develop and test these ideas through their work with community task forces. The staff of the Rhode Island Department of Substance Abuse, and in particular, Bette McHugh, provided great assistance in working to make this typology a useful planning tool to task forces. David Duncan and Frances Butterfoss provided helpful comments on earlier drafts of this manuscript.

REFERENCES

Benard, B. (1988). An overview of community-based prevention. In OSAP Prevention Monograph-3: *Prevention Research Findings: 1988.* Rockville, MD: DHHS, Office of Substance Abuse Prevention.

Butterfoss, F. D., Goodman, R. M., & Wandersman, A. (1993). Community coalitions for prevention and health promotion. *Health Education Research: Theory and Practice, 8,* 315-330.

Butterfoss, F. D., Goodman, R. M., & Wandersman, A. (in press). Community coalitions for prevention and health promotion: Factors predicting satisfaction, participation, and planning. *Health Education Quarterly.*

Butterfoss, F. D., Goodman, R. M., Wandersman, A., Valois, R. F., & Chinman, M. (1995). The Plan Quality Index: An empowerment evaluation tool for measuring and improving the quality of plans. In D. Fetterman, S. Kafterian, and A. Wandersman (Eds.), *Empowerment evaluation: Knowledge and tools for self-assessment and accountability.* Beverly Hills, CA: Sage.

California Department of Alcohol and Drug Programs. (1991). *Framework for preventing alcohol and drug problems.* Sacramento, CA.

Chavis, D., & Florin, P. (1990). *Community development, community participation and substance abuse prevention.* San Jose, CA: Santa Clara Co. Department of Health.

Cook, R., Roehl, J., Oros, C., & Trudeau, J. (1994). Conceptual and methodological issues in the evaluation of community based substance abuse prevention coalitions: Lessons learned from the national evaluation of the community partnership program. *Journal of Community Psychology* [CSAP Special Issue], 155-169.

Crooks, C. E., Kenney, E., Elder, J. P., Johnson, M., & Bal, D. (1992). Development of an evaluation feedback system for community-based programs funded by the California Tobacco Tax. *Journal of Health Education, 23,* 441-443.

CSAP (1993). *Cost-benefit issues in programs for prevention of alcohol and other drug abuse.* Rockville, MD: Center for Substance Abuse Prevention: US Department of Health and Human Services.

CSAP (1995). *The Community Prevention Coalitions Demonstration Grant Program: Guidance for Applicants.* Rockville, MD: Center for Substance Abuse Prevention: US Department of Health and Human Services.

Florin, P., Chavis, D., Wandersman, A., & Rich, R. (1992). The block booster project: A systems approach to understanding and enhancing grassroots organizations. In R. Levine & H. Fitzgerald (Eds.), *Analysis of dynamic psychological systems.* New York: Plenum.

Florin, P., Mitchell, R. E., & Stevenson, J. (1989). *A process and implementation evaluation of the Rhode Island Substance Abuse Prevention Act.* Report submitted to the RI Division of Mental Health and the Rhode Island General Assembly.

Florin, P., Mitchell, R. E., & Stevenson, J. (1993). Identifying training and technical assistance needs in coalitions: A developmental approach. *Health Education Research: Theory and Practice, 8,* 417-432.

Gerstein, D. R., & Green, L. W. (Eds.) (1993). *Preventing drug abuse: What do we know?* Washington, DC: National Academy Press.

Hawkins, J. D., Catalano, R. F., & Associates (1992). *Communities that care: Action for drug abuse prevention.* San Francisco: Jossey Bass.

ISA Associates (December, 1992). *National Evaluation of the Community Partnership Demonstration Program: Second Annual Report.* Rockville, MD: Center for Substance Abuse Prevention, US Department of Health and Human Services.

ISA Associates (April, 1994). *National Evaluation of the Community Partnership Demonstration Program: Third Annual Report.* Rockville, MD: Center for Substance Abuse Prevention, US Department of Health and Human Services.

Johnson, C. A., Pentz, M. A., Weber, M. D., Dwyer, J. H., Baer, N., MacKinnon, D. P., & Hansen, W. B. (1990). Relative effectiveness of comprehensive community programming

for drug abuse prevention with high-risk and low-risk adolescents. *Journal of Consulting and Clinical Psychology, 58*, 447-456.

Kaftarian, S. J., & Hansen, W. B. (Eds.). (1994). Community Partnership Program. *Journal of Community Psychology* [CSAP Special Issue].

Kumpfer, K. L. (1989). Prevention of alcohol and drug abuse: A critical review of risk factors and prevention strategies. In P. Shaffer, I. Philips, and N. B. Enzerl (Eds.), OSAP Prevention Monograph 2: *Prevention of mental disorders, alcohol, and other drug abuse in children and adolescents* (pp. 309-372). Rockville, MD: Office for the Prevention of Substance Abuse.

Kumpfer, K. L., Turner, C., Hopkins, R., & Librett, J. (1993). Leadership and team effectiveness in community coalitions for the prevention of alcohol and other drug abuse. *Health Education Research: Theory and Practice, 8*, 359-374.

Labin, S. N., Gopelrud, E., Mayerson, S., & Woodside, C. (1992, November). *Preliminary observations of alcohol and other drug prevention and evaluation.* Paper presented at the meeting of the American Evaluation Association, Seattle, WA.

Linney, J., McClure, M. & Wandersman, A. (1989). *Evaluating alcohol and other drug prevention programs at the school and the community level.* Atlanta: Southeast Regional Center for Drug-Free Schools and Communities.

Linney, J., & Wandersman, A. (1991). *Prevention Plus III: Assessing alcohol and other drug prevention programs at the school and community level.* Rockville, MD: US Department of Health and Human Services.

Manger, T. H., Hawkins, J. D., Haggerty, K. P., & Catalano, R. (1992). Mobilizing communities to reduce risks for drug abuse: Lessons on using research to guide prevention practice. *Journal of Primary Prevention, 13*, 3-22.

Massachusetts Department of Public Health. (1994). *A framework for maximizing health: Blueprint for prevention.* Boston, MA.

McLeroy, K. R., Kegler, M., Steckler, A., Burdine, J. M., & Wisotzky, M. (1994). Community coalitions for health promotion: Summary and further reflections. *Health Education Research: Theory and Practice, 8*, 315-330.

Mitchell, R. E., Florin, P. F., & Stevenson, J. S. (1992). *A typology of prevention strategies: A rater's manual.* Kingston, RI: University of Rhode Island.

Pentz, M. A., Dwyer, J. H., MacKinnon, D. P., Flay, B. R., Hansen, W. B., Wang, E. Y., & Johnson, C. A. (1989). A multicommunity trial for primary prevention of adolescent drug abuse. *Journal of the American Medical Association, 261*, 3259-3266.

Suen, H. K. (1988). Agreement, reliability, accuracy, and validity: Toward a clarification. *Behavioral Assessment, 10*, 343-366.

Tobler, N. S. (1986). Meta-analysis of 143 adolescent drug prevention programs: Quantitative outcome results of program participants compared to a control or comparison group. *Journal of Drug Issues, 16*, 537-568.