

Community Interventions and Effective Prevention

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ABSTRACT

The prevalence of pregnancy, substance abuse, violence, and delinquency among young people is unacceptably high. Interventions for preventing problems in large numbers of youth require more than individual psychological interventions. Successful interventions include the involvement of prevention practitioners and community residents in community-level interventions. The potential of community-level interventions is illustrated by a number of successful studies. However, more inclusive reviews and multisite comparisons show that although there have been successes, many interventions did not demonstrate results. The road to greater success includes prevention science and newer community-centered models of accountability and technical assistance systems for prevention.

Family, school, and community systems influence the status of youth problems for alcohol, tobacco, and other drug abuse; violence and delinquency; and mental illness. Large improvements across these domains depend on favorably influencing the development of large numbers of youth with effective prevention and health promotion interventions. Over the past decade, community-level interventions combining multiple strategies across multiple settings have been embraced as a promising approach for broad outreach. In this article, we define community-level interventions for prevention and health promotion and briefly describe their appeal, present examples of community-level interventions that demonstrate their promise and summarize literature reviews that document that the promise is not realized regularly, and propose that models to bridge the gap between science and practice via accountability processes and technical assistance systems for prevention may increase the effectiveness of preventive interventions.

Community-Level Interventions: Definition and Rationale

Community-level interventions are multicomponent interventions that generally combine individual and environmental change strategies across multiple settings to prevent

dysfunction and promote well-being among population groups in a defined local community. ¹, ²

For example, a community-level intervention for tobacco control might combine a school curriculum for youth to prevent initiation of smoking and a media campaign aimed at reducing parental smoking in the presence of youth (individual change strategies) with policy change efforts advocating a municipal smoking ban for restaurants and increased enforcement of ordinances prohibiting youth access to tobacco.

The popularity of community-level interventions for prevention and health promotion stems from their multiple roots. For example, ecological theory and its accompanying intervention logic stimulated the development of community trials research. Ecological frameworks in psychology (e.g., [Bronfenbrenner, 1979](#)) have long served as touchstones for those interested in prevention and health promotion. A consensus emerged in public health and health psychology that viewed the etiology of many health problems as arising from multiple levels, and, therefore, interventions focused on a single level of influence were limited ([Flay, 2000](#); [McLeroy, Bibeau, Steckler, & Glanz, 1988](#); [Pentz, 2003](#); [Stokols, 1992](#); [Winett, 1995](#)). If the problem was viewed (at least partly) as a community problem, then it would require (at least partly) a community solution. Concurrently, concepts with historical roots in community development, such as empowerment, community capacity, and social capital, provided other rationales for community-level interventions (e.g., [Connell, Kubisch, Schorr, & Weiss, 1995](#); [Minkler, 1997](#)). These concepts emphasized engaging grassroots participation, increasing interorganizational linkages, and strengthening community problem solving. These rationales served as catalysts for public agency and foundation initiatives that produced a proliferation of community-level interventions over the past decade. Some of these community interventions have been primarily research-driven, and others have been community-driven.

Research-driven prevention is typically directed by university or research institute professionals and often uses experimental or quasi-experimental designs. These efforts have been funded by federal agencies such as the National Cancer Institute, the National Institute on Drug Abuse, and the National Institute on Alcoholism and Alcohol Abuse. Although researchers work closely with community constituencies, the interventions are generally designed, implemented, and evaluated by the researchers. Community-level trials that are research-driven use entire communities (e.g., neighborhood, city, county) as units of intervention and analysis; therefore, they are expensive and relatively few in number.

Community-driven prevention is conducted every day in schools and other community settings that reach millions of people. Community-driven prevention is owned and operated by agencies and other organizations in the community and has little, if any, direct contact with researchers (although they may be required to cooperate with program evaluators). In the past decade, community coalitions have become a popular community-driven strategy for identifying needs and developing solutions for health problems in communities. *Community coalitions* have been defined as “an organization of diverse

interest groups that combine their human and material resources to effect a specific change the members are unable to bring about independently” (Brown, 1984, p. 1). Butterfoss, Goodman, and Wandersman (1993) discussed the promise and popularity of coalitions, including that they allow individuals and organizations to become involved in new and broader issues without sole responsibility, demonstrate widespread support for issues and unmet needs, maximize power through joint action, and minimize duplication of services. Coalitions try to mobilize different community sectors (e.g., business, school, churches, media, government) to bring about changes through processes of participation, collaborative planning, and implementation across different agencies and community sectors. Coalitions have been funded by federal agencies, such as the Centers for Disease Control and Prevention (CDC) and the Center for Substance Abuse Prevention (CSAP); state agencies; and foundations. In this article, we use community coalitions as a prime example of community-driven interventions. The categories of community-driven prevention and research-driven prevention represent a typology rather than a dichotomy, and hybrids are possible and encouraged (e.g., the Consortium for the Immunization of Norfolk's Children [CINCH] immunization coalition began as a CDC-funded research demonstration project and evolved into a community-driven coalition project; Butterfoss et al., 1998).

Promising Results From Community Interventions

Both research-driven and community-driven approaches to community interventions have accumulated sufficient literature from which to draw broad conclusions and from which to identify noteworthy examples. Here, we provide examples demonstrating the promise of community-level interventions for prevention.

Research-Driven Prevention

Research-driven community trials use articulated theory, careful measurement, and designs with comparison or control communities that provide evidence for the potential of community-level interventions. We briefly describe several successful community trials that demonstrate effective alcohol, tobacco, and other drug prevention.

Substance abuse prevention.

The Midwestern Prevention Project was a six-year longitudinal project consisting of five sequenced, phased, and interrelated components (Pentz, 1998; Pentz et al., 1989). A mass media component, school-based social skills training for youth, and a parent program in communication skills were combined with school policy change efforts and a community organization component focused on changes in local ordinances regulating the availability of alcohol and tobacco products. The project was implemented with a quasi-experimental design in 26 schools in Kansas City, Missouri (later replicated with an experimental design in 57 schools in Indianapolis, Indiana). Prevalence rates for adolescent alcohol, cigarette, and marijuana use were significantly lower at the one-year follow-up in the intervention group, and three-year effects were found for both high- and

low-risk adolescents on 30-day prevalence rates of cigarette and marijuana use (but not alcohol use).

Project Northland consisted of school-based curricula in sixth through eighth grades, parental involvement and educational activities, peer leadership opportunities, and community-wide task force activities. Each year a specific theme focused on the developmental stage of the students was used to integrate the four components ([Perry, 2000](#)). Twenty-four school districts and surrounding communities were randomly assigned to intervention and delayed program conditions. At the end of eighth grade, students in intervention communities had significantly reduced their alcohol use, and baseline nondrinkers (about two thirds of the sample) also reported significant reductions in cigarette and marijuana use ([Perry et al., 1996](#)). Analyses demonstrated that the effects of Project Northland, consistent with the theory behind the program design, were mediated by changes in peer norms toward more prosocial behaviors and less support for alcohol use ([Komro et al., 2001](#)).

Smoking prevalence.

[Biglan, Ary, Smolkowski, Duncan, and Black \(2000\)](#) tested the effects of adding a comprehensive community-level intervention to a school-based program. Eight matched pairs of small Oregon communities were randomly assigned to receive either a school-based prevention program alone or a school-based program plus a community program (comprehensive). The community program included components of (a) media advocacy for publicizing the tobacco problem, (b) youth antitobacco activities, (c) a family communication module designed to promote no-use messages from parents, and (d) activities to reduce youth access to tobacco. Smoking prevalence in communities with the comprehensive program was significantly lower than that of comparison communities after one year of intervention and one year after the intervention had ended.

High-risk drinking and alcohol trauma.

The Prevention of Alcohol Trauma: A Community Trial project was a five-year community trial implemented in 2 communities in California and 1 community in South Carolina, each with a matched comparison community ([Holder et al., 1997](#)). The project was guided by a systems model of community processes that hypothesized how individuals and the social, economic, and physical environments interacted to produce alcohol-related accidents and fatalities. The intervention consisted of five interacting components ranging from community mobilization and education, to training of bar staff to increase responsible beverage service practices, to increasing enforcement of local driving-while-intoxicated laws. There was a significant reduction in alcohol sales to minors in intervention communities (off-premises outlets in these communities were half as likely to sell alcohol to minors as were those in comparison communities) and significant reductions in alcohol-involved traffic crashes (dropping about 10% annually in intervention communities, with drinking-and-driving crash arrests dropping by 6% annually). Other randomized community trials using similar community-organizing principles targeted at policies have demonstrated results on youth access to tobacco and smoking in a 14-community trial ([Forster et al., 1998](#)) and on alcohol sales, arrests, traffic

crashes, and prevalence among 18–20-year-olds in a 15-community randomized trial ([Wagenaar et al., 2000](#)).

Community-Driven Prevention

A number of community-driven coalitions have documented positive outcomes with youth in a variety of domains, including reduced pregnancy risk status, immunizations, arson prevention, and substance use.

Adolescent pregnancy and healthy births.

The Hampton Healthy Families Partnership is a public/private coalition that includes a hospital, public libraries, public schools, the United Way, and neighborhood organizations. It has Healthy Start coalition funding from the U.S. Health Resources and Services Administration as well as local and state funding. Services provided include home visitation, parent education, resource centers in the library, child growth and development newsletters, and teen pregnancy prevention programs. Evaluation results include reduced pregnancy risk status (85% of intervention mothers have had no risk factors vs. 50% of the control group mothers) and reduced birth complications (18% of intervention mothers have had children with one or two birth complications vs. 40% of the control group mothers; [Galano & Huntington, 1997](#)).

Immunization.

CINCH is a coalition dedicated to improving child health outcomes in a seven-city region of eastern Virginia ([Butterfoss et al., 1998](#)). CINCH is a hybrid because it was first research-driven as a CDC-funded demonstration project initiated by an academic research center. However, starting with its community needs assessment, the intention was to gradually develop this coalition to be more and more community-driven. CDC funds were used only for pre- and postintervention household surveys and administrative support. Local institutions, agencies, and businesses funded the interventions. In its early years (1993–1996), CINCH focused on improving immunization rates for children under two years of age in Norfolk. At the end of the CDC funding period, immunization rates rose from 49% to 66% in Norfolk, a significant increase. In later years, CINCH demonstrated sustainability by expanding its region and mission (e.g., childhood asthma) and continues its activities with long-term community support.

Arson prevention.

Arson is a public health problem because it causes injuries and deaths, destroys homes, and destabilizes neighborhoods ([Maciak, Moore, Leviton, & Guinan, 1998](#)). After a record number of arson fires in Detroit, Michigan, on Halloween “Devil’s night” (many committed by youths), a long-term community coalition was formed that included the mayor’s office, Detroit neighborhood city halls (nine decentralized city halls), city government departments and agencies, public schools, community-based organizations, and the private sector. Strategies included redeployment of public safety personnel, elimination of arson targets, volunteer mobilization and training, the media, activities for

children and teenagers, a youth curfew, and limitations on purchasing of fuel in portable containers during the Halloween period. Maciak et al. concluded that there was a decrease in the number of fires in a 10-year period of arson prevention interventions and an inverse relationship between the number of fires and the number of volunteers, suggesting a causal effect.

Substance abuse prevention.

[Hingson et al. \(1996\)](#) reported on the Saving Lives Program in Massachusetts in which community coalitions of multiple city departments and private citizens engaged in program initiatives to reduce drunk driving and speeding. They found that alcohol-related driving accidents, injuries, and deaths were significantly lower than in comparison communities. [Shaw, Rosati, Salzman, Coles, and McGeary \(1997\)](#) studied a community coalition for alcohol, tobacco, and other drug prevention in Gloucester, Massachusetts. They found an increase in middle and high school students' disapproval of and perceived risk of tobacco and alcohol use, from baseline to the end of the intervention, as well as a reduction in alcohol use and heavy smoking by high school seniors as compared with national trends (but not for 8th and 10th graders). They attributed the differential outcomes to the older students' involvement as peer educators for younger students.

Reviews and Cross-Site Evaluations: A Mixed Record

The preceding examples demonstrate that population-level impacts can be produced by research-driven and community-driven interventions—that is, they can work. However, reviews and cross-site evaluations have shown a modest and mixed record; many interventions did not demonstrate results. Reviews of research-driven interventions have found a mixed record of outcomes. For example, [Pentz \(1998\)](#) reviewed 17 research-driven studies that had a community organization component and found that 9 of them reported drug use outcomes. Community-level interventions that did not show outcomes tended to be those that focused on community public education or organizing or training community leaders for prevention; those that did show outcomes tended to be multicomponent interventions (e.g., school, policy, parent, and media programs). [Roussos and Fawcett \(2000\)](#) reviewed 34 studies and found 12 that produced impacts on community-wide behavior change (e.g., alcohol, tobacco, and other drug use). They concluded that “the reviewed studies suggest that collaborative partnerships can contribute to widespread change in a variety of health behaviors, but the magnitude of these effects may not be as great as intended” ([Roussos & Fawcett, 2000](#), p. 376). [Merzel and D'Afflitti \(2003\)](#) conducted a systematic review of 32 community-based (community-driven and research-driven) prevention programs. Generally, they found a very modest record of impacts, although they found that a number of HIV-prevention programs were successful. They credited this success to an emphasis on specific populations, targeting social norms and using formative research.

Reviews and cross-site evaluations of community-driven coalitions also have shown a mixed record. [Kreuter, Lezin, and Young \(2000\)](#) examined 68 published evaluations of coalition impacts on health status or systems change and found only 6 occasions of

documented success. In a cross-site evaluation of CSAP's Community Partnership Program (which funded 251 community partnerships), Yin and colleagues ([CSAP, 1998](#); [Yin, Kaftarian, Yu, & Jansen, 1997](#)) found 8 of 24 communities showed statistically significant lower substance abuse rates than comparison communities on at least one of six outcomes examined.³ The in-process evaluation of the Robert Wood Johnson Foundation's Fighting Back initiative has compared each of 14 intervention communities with 2–4 comparison sites. So far, there have been few significant differences, and when found, differences have not always favored the coalition communities ([Hallfors, Cho, Livert, & Kadushin, 2002](#)). (We are not aware of the equivalent type of study in which there would be a cross-site evaluation of research-driven community interventions; we are curious about what the rate of outcomes would be because studies with nonsignificant results are usually put in the file drawer.)

In summary, the research on research-driven and community-driven community interventions has demonstrated that there are numerous examples showing health and psychological impacts. However, reviews and multisite comparisons have shown that many interventions did not demonstrate the hoped-for results.

Why Don't More Community Interventions Show Results?

The lack of consistent impacts from community interventions is a major concern. The reviews do not recommend abandoning community-level interventions. Rather, they call for further improvements, including greater articulation of theory, increased sensitivity of measures, improved (or different) methods or designs, and expanded use of best practices ([Hallfors et al., 2002](#); [Kreuter et al., 2000](#); [Pentz, 2003](#); [Roussos & Fawcett, 2000](#)). Looking at outcome and process issues offers valuable clues.

The difficulty of detecting outcomes from community-level interventions is a major issue. Many articles recount the methodological difficulties of evaluating community-level interventions, including questionable appropriateness of random assignment, difficulty in finding suitable (e.g., pure) comparison sites, and problems in making connections between immediate outcomes of specific programs and ultimate community-wide impacts (cf. [Gabriel, 2000](#); [Pentz, 2003](#)). [Stevenson and Mitchell's \(2002\)](#) review of collaborative effects on substance abuse prevention categorized studies into three broad strategies: building capacity, increasing service integration, and influencing policy change. They concluded that the strongest evidence existed for the strategies targeting policy change.

Another major theme for explaining the lack of results from community-level interventions concerns the difficulty of actually producing outcomes through these interventions—the process of community-level interventions. Community-level interventions are complex and difficult interventions to implement, whether they are community trials or community coalitions. For example, valuable lessons can be learned from community trials for prevention of cardiovascular disease. [Schooler, Farquhar, Fortmann, and Flora \(1997\)](#) reviewed the results from 13 community-based interventions (including the classic Stanford Five-City and North Karelia studies) and concluded that

“results support a dose-response relationship by evidence of stronger effects where adequate exposure to the intervention was achieved” (p. 561). However, they found that community-level outcomes were difficult to demonstrate because it is expensive to get sufficient doses in media campaigns that stand out from the everyday media, and although some components of the intervention (e.g., specific programs) might work, they do not affect the whole community. We suggest that if expensive community trials have these difficulties, it should not be surprising that community-driven coalitions have difficulty demonstrating results.

The process of developing and implementing a coalition is complex. [Wandersman, Goodman, and Butterfoss \(1997\)](#) used an open systems framework to describe coalitions as organizations that require resources, organizational structure, activities, and outcomes. The framework suggests that coalitions are complex organizations that require considerable effort to operate successfully—in collaboration, organization, and planning as well as in the implementation of multiple programs and policies (e.g., [Florin, Mitchell, & Stevenson, 1993](#)). Therefore, we next consider interventions that can be used to increase the results found in community-driven prevention, including community coalitions.

Prevention Science Is Necessary but Not Sufficient

In the past two decades, prevention science has made considerable progress. For example, [Nation et al. \(2003\)](#) conducted literature reviews in four areas of prevention: substance abuse, risky sexual behavior, school failure, and juvenile delinquency and violence. They identified nine characteristics that were consistently associated with effective prevention programs: comprehensive, varied teaching methods, sufficient dosage, research-based/theory-driven, positive relationships, appropriately timed, socioculturally relevant, outcome evaluation, and well-trained staff.

Prevention science needs much further development. Results from the preceding reviews (e.g., [Pentz, 1998](#)) show a mixed record of achieving outcomes, and reports of outcomes themselves may be open to contention ([Gorman, 2002](#)). It is clear that more detailed models of what works and what does not work in prevention science are needed. Still, prevention science has produced much information that may be helpful to community-driven prevention. However, a gap exists between science and practice in prevention (e.g., [Altman, 1995](#)) that limits the outcomes of community-driven prevention. One way of bridging the gap between prevention science and practice is the technology transfer approach ([Backer, David, & Soucy, 1995](#)). This approach views the gap as representing a lack of information dissemination from science to practice and, therefore, works to improve this transfer of knowledge. It brings science to practice by disseminating proven programs through conferences, journal articles, and training workshops. This approach has a well-established history in the prevention intervention research cycle (e.g., [Mrazek & Haggerty, 1994](#)).

The prevention intervention research cycle begins with identification of the problem, proceeds to risk and protective factors, the conduct of efficacy trials, then to the conduct

of multisite effectiveness trials, and finally moves to large-scale implementation in the community. However, this approach of bringing science to practice does not appear to have led to the widespread adoption that is hoped for in community-driven prevention. For example, Drug Abuse Resistance Education (DARE) programs have been adopted in 70% of the school districts in the United States, but systematic reviews (e.g., [Ennett, Tobler, Ringwalt, & Flewelling, 1994](#)) have shown that DARE has limited effectiveness compared with other programs. Interventions with much more evidence of success (e.g., [Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995](#)) are used much less frequently because of cost, political difficulty, and other factors. Therefore, a major gap exists between science and practice, and the technology transfer approach may have some of the limitations of a trickle-down approach. The gap indicates that prevention science has insufficiently affected the capacities that communities need to plan and implement effective prevention programs.

Bridging the Gap Between Science and Practice

[Morrissey et al. \(1997\)](#) proposed a preliminary framework for bridging the gap between science and practice in prevention. They described the barriers that create the gap between practice and science, including different theoretical orientations and training, funding priorities, resource constraints, system-level barriers, and lack of community readiness. They proposed roles and resources that can be applied to bridging the gap for each of the following: practitioners, scientists, evaluators, regional and national agencies, and other funders. The bridges include user-friendly products, training and technical assistance, and clearinghouses. We suggest that a community-centered approach is necessary to supplement the technology transfer approach. The community-centered approach begins with the state of the practice of prevention in the community and assesses what needs improvement. In contrast, the prevention intervention research cycle focuses on how science can be brought into the community.

What will bring science and practice closer together and stimulate community-driven prevention to further develop its capacity to be more effective more often? We propose that (a) the capacities of community-driven prevention providers must be enhanced to perform effective prevention and (b) funders should contribute to capacity building by providing improved technical assistance systems for communities engaged in prevention.

How Schools and Communities Can Build Their Capacity to Produce Effects

Results-Based Accountability

There is an accountability movement sweeping the United States and many other countries. For example, the U.S. government passed the Government Performance and Results Act ([U.S. General Accounting Office, 1997](#)), and the nonprofit sector is being swept by the United Way outcome initiative, in which United Way agencies are urged to demonstrate outcomes ([United Way, 1996](#)). The accountability movement is bringing important changes to the field of prevention. There are thousands of prevention programs

that receive funding from federal, state, nonprofit, and foundation sources. To ensure that funds are allocated to programs that are both needed and effective, many funding agencies are requiring that programs demonstrate results. Indeed, in times of limited funding, it seems not only fair but also imperative to ask for the accountability of new and continuing programs. However, many program practitioners are given minimal guidance as to how to conduct assessments of accountability, and accountability (like evaluation) is often viewed negatively by practitioners.

[Wandersman, Imm, Chinman, and Kaftarian \(1999, 2000\)](#) developed a results-based accountability strategy that uses a win-win approach to accountability: It capitalizes on the desires of practitioners to do good and make a difference by providing them with the tools and information to achieve outcomes and to satisfy funders' hunger for accountability. Getting To Outcomes: Methods and Tools for Planning, Evaluation, and Accountability (GTO) was developed as a results-based accountability approach to help practitioners plan, implement, and evaluate their interventions to achieve results ([Wandersman et al., 1999](#), [Wandersman et al., 2000](#)). GTO is based on answering 10 accountability questions. By answering the questions well, interventionists increase their probability of achieving outcomes and simultaneously demonstrate their accountability to stakeholders. The 10 accountability questions are presented in the left-hand column of [Table 1](#); the literatures used in GTO to help answer the questions are presented in the right-hand column of [Table 1](#).

As the accountability questions suggest, program practitioners need to plan appropriate programs, use science and best practices, implement interventions with quality, and see if they work. [Wandersman et al. \(1999, 2000\)](#) developed a training framework and tools that assist prevention practitioners in systematically addressing each of the accountability questions. Each question is linked to a literature and tools that help answer the question. An empowerment evaluation orientation is used to help build the capacity for planning, implementation, and self-evaluation and uses the information for continuous quality improvement, thereby increasing the probability of obtaining results.

We hypothesize that the reason why more community-driven interventions do not show better outcomes is that they do not systematically address the 10 accountability questions. In addition, prevention science is not sufficient because there is not a strong prevention science foundation to provide guidance in addressing Questions 1, 2, 4, 5, 6, 9, and 10.

How Funders Can Contribute to Capacity: Technical Assistance Systems

The second community-centered strategy complements the first strategy by establishing technical assistance systems by the government, foundations, and other funders to support prevention. A technical assistance system is an intermediary organization (or a coordinated network of organizations) that enhances and enables prevention interventions by using a broad array of strategies, including training programs for skills development, telephone and on-site consultation, information and referral services, mechanisms for creating linkages among coalitions, methods of recognizing group achievement, and

publications and other public education materials ([Chavis, Florin, & Felix, 1992](#); [Florin et al., 1993](#)).

A technical assistance system focuses on the conditions in which prevention programs are developed, implemented, and evaluated and works to build professional, organizational, and systemic capacity ([Crisp, Swerissen, & Duckett, 2000](#)). Capacity is important to the implementation of even a proven program and becomes even more important when a community intervention faces a series of complex challenges in collaboration, organization, planning, and coordination of multiple programs and policies. Capacity-building interventions have been advocated for many types of community-level interventions, from grassroots community coalitions to replications of community trials ([Pentz, 2000](#); [Roussos & Fawcett, 2000](#); [Wolff, 2001](#)).

Technical assistance systems supporting prevention have been established or stimulated by several federal agencies. For example, after providing funding directly to communities over the past decade, CSAP now supports state governments in developing comprehensive plans to coordinate prevention funding streams, revitalize prevention systems, and increase the adoption of science-based programs. In addition, CSAP established regional centers for the application of prevention technology, for which the primary role is to assist states in establishing systems to nurture and support local community-level interventions. State personnel responsible for prevention are often aware of the need for technical assistance and the necessity of an organized response. For example, the Massachusetts Department of Public Health supports prevention centers around the state to provide technical assistance and training. The centers work with coalitions, agencies, schools, neighborhood councils, and volunteers. Each center houses a multimedia library and resource center that receives materials from content-oriented resource centers (e.g., AIDS, injury control, elder health) at the central Department of Public Health.


Comprehensive technical assistance systems require careful design. [Mitchell, Florin, and Stevenson \(2002\)](#) discussed challenges faced in the design of technical assistance systems, such as allocating resources among competing priorities, balancing capacity-building and program dissemination missions, collaborating across categorical program areas, and assuring sufficient dose strength for technical assistance interventions. Technical assistance systems can vary in their quality of implementing a systems approach. A noteworthy example is the Texas Commission on Alcohol and Drug Abuse, which promoted a systemic approach to the evaluation of prevention programs by using the four-step Prevention Plus III model ([Linney & Wandersman, 1991](#)) that required all funded programs to file annual reports using the model. They provided training and ongoing technical assistance periodically (one time is not enough because of turnover), and they published a book with lessons learned. Most important, they did not use the reports merely as audits; rather, they provided feedback to the grantees regarding how they could continuously improve the quality of their programs.

Technical assistance systems for prevention should be researched. For example, different dose levels of training can be systematically manipulated as an independent variable.

There is currently little empirical data on whether technical assistance improves the outcomes from community-level interventions and how much or what kind of assistance is necessary to produce results.

In conclusion, we propose that taking a proactive community-centered practice approach may provide a powerful supplement to existing efforts to improve practice. Improving outcomes in large numbers of community-level interventions will require considerable resources and long-term commitments. We think that the investment will be worthwhile because the accountability and technical assistance system strategies will increase the probability that the enormous prevention and health promotion resources used daily in communities will be channeled into more effective action.



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¹Terms such as *community-based*, *comprehensive community*, *community coalition*, and *collaborative partnerships* have also been used to refer to interventions with similar characteristics.

²Local community is often geographically defined (e.g., neighborhood or municipality) but may be a community of presumed common interest (e.g., the gay community).

³The fact that these results represented only 8% (22) of 288 separate analyses that were performed (4 outcomes by 3 age groups by 24 matched communities) necessitated additional analyses to show that these positive outcomes were not likely to have occurred by chance alone.

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Table 1. The 10 Accountability Questions and How to Answer Them