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Successful Program Implementation: Lessons From Blueprints

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The Blueprints for Violence Prevention initiative, developed by the Center for the Study and Prevention of Violence at the University of Colorado–Boulder and supported by the Office of Juvenile Justice and Delinquency Prevention, is a leader in identifying effective violence prevention and drug prevention programs that have been evaluated in rigorous, controlled trials. However, the identification of such programs is only the first step. Once an effective program has been identified, practitioners are faced with the challenge of implementing it properly. A sound program will not produce the desired results if it is implemented poorly.

Programs are often thought of as a uniform set of elements that are provided to clients in a consistent manner; however, in fact, great variability exists in the manner in which programs are delivered. For example, the U.S. Department of Education's Safe and Drug-Free Schools and Communities Program found that programs were not implemented with the same attention to core components and dosage as found in the research models (Silvia and Thorne, 1997). Furthermore, based on evidence that schools were meeting only about half of the indicators of program quality or quantity needed to effect behavior change,

the National Study of Delinquency Prevention in Schools concluded that the quality of school prevention activities is generally poor, and prevention activities are not being implemented with sufficient strength and fidelity to produce a measurable difference in the desired outcomes (Gottfredson, Gottfredson, and Czeh, 2000).

As science-based programs become more readily available to practitioners, the need for identifying and overcoming problems associated with the process of implementation becomes critical. A major goal of the Blueprints initiative has been to enhance the understanding of program implementation by studying the factors that hinder the successful implementation of programs. This was accomplished by conducting process evaluations at each of the Blueprints replication sites.

Blueprints Process Evaluation

The Blueprints process evaluation had two major goals:

- ◆ Monitor the implementation process to identify and help resolve problems, provide feedback to sites, and ensure that programs were implemented with

A Message From OJJDP

Over the past several years, federal, state, and local agencies have become increasingly concerned that the programs they support should demonstrate positive effects. Many federal agencies have supported the effort to evaluate and replicate programs showing positive or promising results. Through a national effort to understand what works and outline a series of best practices, legislators, researchers, and practitioners have produced several lists of effective programs. Among these efforts is OJJDP's Blueprints for Violence Prevention Initiative, developed by the Center for the Study and Prevention of Violence at the University of Colorado–Boulder.

Discovering what works, however, does not solve the problem of program effectiveness. Once models and best practices are identified, practitioners are faced with the challenge of implementing programs properly. A poorly implemented program can lead to failure as easily as a poorly designed one.

In recognition of this fact, OJJDP sponsored a process evaluation of the Blueprints programs to systematically measure common implementation barriers experienced across a variety of contexts and programs. Focusing on the quality of implementation of nine different programs, the Blueprints team closely monitored and evaluated the quality of implementation across 147 sites. This Bulletin presents the results of this process evaluation, identifying critical components of program implementation.

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fidelity to their original intent and design.

- ◆ Gather and disseminate information regarding factors that enhance the quality and fidelity of implementation.

The process evaluation focused on 9 programs (8 violence prevention programs and 1 drug prevention program) in 147 sites. The Blueprints team used several methods to evaluate implementation quality. A series of questionnaires were constructed to measure how well and to what extent agencies had accomplished key program elements such as

- ◆ Securing funds and resources.
- ◆ Serving the targeted population.
- ◆ Establishing links with other agencies.
- ◆ Hiring and training staff.
- ◆ Completing core and critical program elements.
- ◆ Providing the recommended dosage and duration of treatment.

Whereas a set of common questions was asked across the eight programs involved in the violence prevention initiative, an additional series of questions was developed to measure the quality of implementation and technical assistance within each program. Blueprints field representatives administered these questionnaires once every 4 months for 2 years. In the drug prevention initiative, questionnaires were administered once a year over the 3-year implementation period. This difference in procedure was necessary because of the brevity of the Life Skills Training (LST) program (15 sessions in the first year, which could be implemented 1 to 5 times a week), an element of the drug prevention initiative. During LST implementation, local observers, hired by Blueprints, monitored teacher adherence to the program during unannounced visits to each teacher's classroom to observe lessons and complete a checklist of the major objectives covered. The observer made four visits in year 1, three visits in year 2, and two visits in year 3. To identify and describe implementation barriers, the Blueprints team developed a series of qualitative questions for site coordinators, administrators, and teachers. Teachers also completed written questionnaires after they had taught the program.

With this systematic research design, and using site visits, phone interviews, and qualitative and quantitative information provided by the sites, the Blueprints team discovered and validated a number of

conditions necessary for effective and sustained program implementation. The following sections describe the critical components of successful program implementation: site assessment, effective

organization, qualified staff, program champion(s), program integration, training and technical assistance, and implementation fidelity.

About the Blueprints Initiative

Blueprints for Violence Prevention began at the Center for the Study and Prevention of Violence (CSPV) as an initiative of the State of Colorado, with funding from the Colorado Division of Criminal Justice, the Centers for Disease Control and Prevention, and the Pennsylvania Commission on Crime and Delinquency. The project was originally conceived as an effort to identify model violence prevention programs and implement them within Colorado. Soon after the creation of Blueprints, the Office of Juvenile Justice and Delinquency Prevention (OJJDP) became an active supporter of the project and provided funding to CSPV to sponsor program replications in sites across the United States. As a result, Blueprints evolved into a large-scale prevention initiative.

The Blueprints for Violence Prevention initiative has two overarching goals:

- ◆ Identify effective, research-based programs.
- ◆ Replicate these effective programs through a national dissemination project sponsored by OJJDP designed to
 - ❖ Provide training and technical assistance (through the program designers) to transfer the requisite knowledge and skills to implement these programs to sites nationwide.
 - ❖ Monitor the implementation process to troubleshoot problems, provide feedback to sites, and ensure that programs are implemented with fidelity to their original intent and design.
 - ❖ Gather and disseminate information regarding factors that enhance the quality and fidelity of implementation.

OJJDP sponsors two Blueprints replication initiatives:

- ◆ **Violence prevention.** The Blueprints violence prevention initiative successfully delivered training and technical assistance for 2 years to 42 sites replicating 8 of the Blueprints model programs.
 - ❖ Big Brothers Big Sisters of America (BBBSA)
 - ❖ Bullying Prevention Program
 - ❖ Functional Family Therapy (FFT)
 - ❖ Multidimensional Treatment Foster Care (MTFC)
 - ❖ Multisystemic Therapy (MST)
 - ❖ Nurse-Family Partnership
 - ❖ Promoting Alternative Thinking Strategies (PATHS)
 - ❖ Quantum Opportunities Program¹
- ◆ **Drug prevention.** The Blueprints drug prevention initiative provides program materials, training, and technical assistance for 3 years to 105 sites (representing more than 400 schools) implementing the Life Skills Training program.

While the designers of each program provide expert training and technical assistance to sites, Blueprints staff monitor the quality of replication by conducting a detailed and comprehensive process evaluation at each site.

¹ The Quantum Opportunities Program is no longer a Blueprints model program.

Identifying Effective Programs

Identifying effective programs has been at the forefront of the national agenda on violence prevention for the last decade. Federal funding agencies have increasingly emphasized the need to implement programs that have been demonstrated effective. The focus on research-based practices has stimulated communities to search for the best practices and to determine what types of programs would be most effective and appropriate for their local problems and population.

In recent years, various governmental agencies, and some private organizations, have produced lists of programs that demonstrate at least some evidence of positive effects on violence/aggression, delinquency, substance abuse, and their related risk and protective factors.¹ Taken as a whole, this work has resulted in a large repertoire of research-based programs from which the practitioner community may choose. Although these lists provide a valuable resource for communities, they can be confusing. Some lists are narrow in focus—for example, limiting their descriptions to drug abuse, family strengthening, or school-based programs only. In addition, and perhaps more importantly, the criteria for program inclusion vary tremendously, with some agencies adopting a more rigorous set of criteria than others (Elliott, 1997; U.S. Department of Health and Human Services, 2001). In fact, one must be diligent when examining the lists to ensure that at least a minimal scientific standard has been applied; for example, programs should demonstrate effectiveness using a research design that includes a comparison (i.e., control)

group. Anything less rigorous than this approach cannot provide sufficient evidence to justify disseminating and implementing programs on a wide scale.

The Blueprints initiative likely uses the most rigorous set of criteria in the field:

- ◆ Demonstration of significant deterrent effects on problem behavior (violence, aggression, delinquency, and/or substance abuse) using a strong research design (experimental or quasi-experimental with matched control group).
- ◆ Sustained effects at least 1 year beyond the intervention.
- ◆ Replication in at least one other site with demonstrated effects.

This high standard is necessary if programs are to be widely disseminated because conducting an outcome evaluation during every implementation effort will be costly, time consuming, and not always possible. Therefore, it is important that programs demonstrate effectiveness, based on a rigorous evaluation, before their widespread dissemination. Programs meeting all three of the criteria are classified as “model” programs, whereas programs meeting at least the first criterion but not all three are considered “promising.” To date, Blueprints has identified 11 model programs and 21 promising programs (see list of Blueprints programs on page 4).

¹ See Center for Substance Abuse Prevention, 2002; Elliott, 1997; Greenberg, Domitrovich, and Bumbarger, 1999; Mendel, 2001; Posey et al., 2000; Mihalic and Aultman-Bettridge, 2004; National Institute of Drug Abuse, 2002; Sherman et al., 1998; Strengthening America's Families, 2002; U.S. Department of Education, 2002; U.S. Department of Health and Human Services, 2001; U.S. Department of Justice, 2002.

Site Assessment

A successful initiative requires that communities assess their needs, commitment, and resources before implementation. To help sites complete this work, Blueprints created a detailed application form focused on these areas and conducted onsite feasibility visits to verify this information. The visits were important, given that applications and grant proposals are usually completed by persons (such as professional grant writers) who are removed from frontline implementing staff and who have little or no knowledge of the problems that may be encountered when adopting a new program. Implementing staff and other key participants were required to attend the feasibility visit, and much time was devoted to reviewing specific issues related to implementation. These discussions were an important part of the site assessment, as those charged with delivering the interventions were invaluable in identifying potential problems and brainstorming ways to avoid these obstacles before implementation. Moreover, these individuals are often left out

of such discussions and administrative decisionmaking processes, and they seemed to appreciate the opportunity to express their opinions.

The feasibility visits were designed to fully inform participants of the nature of the new initiative. In addition to requiring that key parties attend, Blueprints staff also invited those with more peripheral roles, such as parents and community members. Visits were conducted jointly by a Blueprints team member and the program designer or designated technical assistance provider(s) who conducted formal presentations describing the program and grant requirements. This process allowed participants to have direct contact with those most knowledgeable about the program and, for many, this was their first opportunity to learn about the rationale of the program and the duties they would be asked to perform. A discussion period followed in which the Blueprints team learned more about a site's capabilities to adopt the program, and, just as importantly, staff and community members were able to have their questions answered.

These visits provided a deeper understanding of the program elements, decreased fear and resistance, and enhanced the staff's motivation for the program. The visits also tended to create a stronger motivation within the organization to implement the program, as at least a minimal level of familiarity with the program was established.

Effective Organization

To implement a program effectively, an organization needs administrative support, agency stability, a shared vision, and interagency links.

Administrative Support

Every successful program depends on strong administrative support. Administrative support is important because, first and foremost, decisions about adopting a program are generally made at the administrative level, while decisions about implementing a program are usually made at lower organizational levels (e.g., by program coordinators, teachers, therapists,

The Blueprints Programs

The Blueprints for Violence Prevention initiative has identified the following model and promising programs.

Model Programs

Big Brothers Big Sisters of America (BBBSA)
Bullying Prevention Program
Functional Family Therapy (FFT)
Incredible Years: Parent, Teacher, and Child Training Series
Life Skills Training (LST)
Midwestern Prevention Project
Multidimensional Treatment Foster Care (MTFC)
Multisystemic Therapy (MST)
Nurse-Family Partnership
Project Towards No Drug Abuse (Project TND)
Promoting Alternative Thinking Strategies (PATHS)

Promising Programs

Athletes Training and Learning to Avoid Steroids (ATLAS)
Brief Strategic Family Therapy (BSFT)
CASASTART
Fast Track

Good Behavior Game
Guiding Good Choices
High/Scope Perry Preschool
Houston Child Development Center
I Can Problem Solve
Intensive Protective Supervision
Linking the Interests of Families and Teachers
Preventive Intervention
Preventive Treatment Program
Project Northland
Promoting Action Through Holistic Education (PATHE)
School Transitional Environment Program (STEP)
Seattle Social Development Project
Strengthening Families Program: Parents and Children 10–14
Student Training Through Urban Strategies (STATUS)
Syracuse Family Development Program
Yale Child Welfare Project

Descriptions of these programs are available in the Blueprints for Violence Prevention Report (see Online Report on page 10) and on the Blueprints Web site (www.colorado.edu/cspv/blueprints/index.html).

nurses). Even after a program is adopted, administrators can make or break a program depending on their abilities to lead and motivate other people and to articulate the vision of the program. The failure to generate enthusiasm among all key players involved in adopting and implementing a new program can undermine even the best plans. Administrators also have the power to allocate resources and make organizational changes that can facilitate the success of a program. Failure to make the necessary changes in work routine to accommodate a program or to provide adequate resources demonstrates an administrative lack of resolve to fully support the program. Although administrators may voice their support of a new initiative, tangible actions, such as those just mentioned, more clearly demonstrate commitment to a program. When implementing staff feel fully supported, they will be more motivated to follow through with a program and to make it a success.

In the drug prevention initiative, the most effective school administrators were active participants in the project,

explaining the grant to teachers and eliciting their support before implementation, attending teacher training workshops, observing lessons, keeping informed of implementation progress, and, in some cases, even co-teaching classes. In the violence prevention initiative, strong administrators kept themselves informed of progress, listened and responded to problems that arose, met with implementing staff regularly, and often expanded the program to other local sites or other internal divisions of the organization.

On the other hand, a lack of support from the top levels was an issue in each of the failed Blueprints sites. In most cases, administrators at these sites voiced support for the program to Blueprints staff and the technical assistance providers. However, their passive actions on behalf of the program indicated a lack of support to implementing staff, who then tended to lose motivation and interest in the program. Administrative apathy was especially problematic at school-based sites. In two cases, teachers rejected the new program, emphasizing that increasing academic

demands left them no time or desire to teach another curriculum. Rather than finding alternate ways of integrating the program into the school or trying to reduce teachers' workloads, the school principal upheld the teachers' decision to discontinue the program. In two other sites, outside prevention agencies had coordinated the project and provided instructors to teach the curriculum, but had not engendered full support from school administrators. As a result, when these agencies were unable to continue teaching the program, principals refused to take on the burden. In cases involving treatment programs, some administrators chose to terminate programs when implementation problems arose. Instead of taking an active role in championing the program and working to overcome obstacles, the administrators reverted to the status quo.

These examples demonstrate that violence and drug prevention may not be a priority for many school and prevention agency administrators, particularly when they face other challenges. Some administrators may

be willing to adopt a program as long as it is easy to do so and few costs are involved. However, the presence of a strong commitment to prevention is necessary to overcome barriers when obstacles arise. These situations reinforce the need to assess a site's commitment before implementation to ensure that it is strong enough to endure if problems develop.

The Blueprints team tried to foster enthusiasm and support from administrators throughout the project by requiring their attendance at feasibility visits to ensure that they learned about the program's basic elements, encouraging them to attend training workshops, and meeting with them during onsite visits. Letters of Commitment and Memorandums of Agreement were also obtained before site selection.

Agency Stability

Lack of agency stability (i.e., high rate of staff turnover) also proved to be an important factor in implementation quality, typically delaying implementation, or increasing caseloads for others, while new staff were hired and trained. Although most of the programs suffered from staff turnover to some extent, it seldom resulted in program failure. The training and technical assistance provided through Blueprints, however, likely reduced the probability that turnover would lead to serious problems; real-world implementations without adequate support may face more negative consequences.

Shared Vision

Having everyone involved in the program share the same vision of the program's goals and objectives is important. Often, the emotional and psychological reactions to change are centered on ideological conflicts. Competing philosophies between program goals and agency goals arose at several Blueprints sites. At one site, the discordance emerged when the site chose to deliver one component of the program to all the students of an alternative school, rather than deliver all components to a smaller group of students in the ninth grade who were most at risk of dropping out. At other sites, therapists in the family therapy programs sometimes failed to adapt to the new theoretical orientations of the programs, making implementing the models with fidelity difficult.

Blueprints worked to resolve philosophical conflicts by asking about such issues

in the application and later discussing potential problems during the feasibility visits. This process eliminated most problems in the early stages of a project. However, program implementers would occasionally take issue with certain aspects of the programs they were learning. These persons usually either adapted to the new goals or left the program if their feelings and beliefs could not be resolved. In fact, changes in personnel resulting from philosophical disagreements often enhanced implementation, as morale among the remaining group usually increased as a result.

Interagency Links

Programs fare better when larger systems are receptive to them. Many of the Blueprints programs required substantial interagency links, especially in treatment programs that required the coordination of a client's treatment plan and those requiring a referral base of clients. The Blueprints team tried to foster these relationships at the feasibility visits by inviting key participants from all organizations. Occasionally, however, links were weak, and multiple agencies would try to exert control over clients. In these cases, Blueprints brought all agencies and technical assistance providers together to resolve their communication problems and to develop an ongoing system of mutual interaction. This helped everyone gain a clear understanding of the program and resolve turf issues early in the process.

Qualified Staff

Support and Motivation

The adoption of a program by administrators does not necessarily mean that it will be implemented or sustained at lower levels, such as in schools and classrooms. Here, the support, motivation, and buy-in of implementing staff are crucial to program survival. Program success is fostered by individuals who carry out an initiative with high shared morale, good communication, and a sense of ownership. Interestingly, although program sustainability may depend on motivated staff, it is not necessarily true that implementation quality will fail without strong commitment. In the drug prevention initiative, measures of teacher support and commitment were uncorrelated with sites' overall implementation rating (i.e., the percentage of objectives taught in each lesson).

In fact, many successful classes were taught by teachers who stated that they did not want to teach the curriculum, either because they resented being excluded from their school's decision to adopt the program, or because they felt overwhelmed with other obligations and did not have the time or desire to add another curriculum to their workload. While implementation quality did not necessarily suffer, teachers who were unsupportive of the program reported that they were less likely to teach all the lessons of the curriculum.

The Blueprints team was usually able to motivate and support staff, primarily through the training and technical assistance package that was delivered, but also through the feasibility visit. As noted earlier, the feasibility visit was the first attempt to generate enthusiasm for the program by bringing together all key players who would eventually be involved. During implementation, the Blueprints team met with staff to solicit their feedback regarding the program. When problems arose, staff were encouraged to contact their technical assistance providers to obtain expert advice on ways to overcome these obstacles. Sites also were encouraged to schedule regular meetings to foster communication and support among implementers and to troubleshoot problems. When motivation could not be generated, unhappy staff sometimes voluntarily left the project and new staff were hired, and this turnover generally increased the overall level of staff satisfaction.

Skills, Experience, and Credentials

Another factor that enhanced the quality of implementation was having staff with the requisite skills, experience, and credentials for the job. This factor was carefully assessed in the application and during the feasibility visit. Most sites complied with this requirement, but a few did hire staff with less than the required credentials and/or experience. These sites, in general, showed slower progress in training sessions as the more inexperienced staff members often required more background on key concepts and practice in learning program techniques. Staff turnover also occurred in many cases, as these staff typically had less satisfaction with and competence in the program.

Setting the Stage for Successful Implementation: Choosing the Right Program

Before communities and agencies face the implementation issues discussed in this Bulletin, they must first choose the program to be implemented. The Blueprints initiative recommends that agencies and organizations choose a program only after conducting careful research.

Assess the Need for the Program

Success involves more than simply selecting effective programs and importing them into a school or agency. Decisions about adopting a program should be made with careful thought about its necessity. This entails assessing the risk and protective factors in the community or school that need addressing and determining the population most in need of services. Risk and protective factors vary from community to community, and thus prevention needs also vary. Research has shown that the motivations for adopting a program often dictate its success or failure (Ellickson and Petersilia, 1983; Petersilia, 1990). Interventions that are adopted based on an internal need, rather than as an opportunistic effort to obtain outside funding, are more likely to succeed (Gendreau, Goggin, and Smith, 1999; Petersilia, 1990). If programs are adopted where similar programs are already being implemented in a school or community, this can lead to incomplete program implementation or program failure as similar programs become intermeshed. At the very least, students may become easily bored with redundant information. Thus, the needs assessment should include an overview of programs already being implemented in the area. Rather than having several redundant programs, a school or community should consider a comprehensive package of programming that is appropriate for each developmental stage and that can meet local needs.

Learn About Empirically Documented Programs

Once a site has a good idea of the degree and type of risk that exists in its area, it is time to identify programs that match the local needs. All too often, program decisions are made without the benefit of good information on best practices and model programs. Many programs are implemented despite the lack of empirical support for their effectiveness because practitioners do not always know where to turn for information and, at times, the abundance of information is difficult to sort through. In the past, prevention literature was not always readily available and was often too difficult to read.

However, a tremendous amount of literature on prevention science has been collected and is being made available to the practitioner community through agencies and other avenues, such as the Blueprints initiative, that help to bridge the gap with the scientific community. The information search can begin with the lists of effective programs identified by various federal and nonprofit agencies. The Blueprints Web site (www.colorado.edu/cspv/blueprints) has documented these various lists, the types of programs, and the selection criteria. Also, attendance at workshops and conferences that focus on prevention can be extremely helpful. Conducting this type of exhaustive information search will result in better program adoption decisions and ultimately higher quality implementation (Gottfredson and Gottfredson, 2002).

Choose a Program That Fits the Need and the Target Population

After careful planning and research, the time comes to choose a program that matches the needs of the community and that is consistent with the stated goals or mission of the school, agency, or community. Carefully matching a program to community needs will help ensure that the program is more readily accepted by other key players. Attention must also be given to matching a program to the targeted population. Many research-based programs are being implemented for populations for whom they were never intended, and for whom research has not proven their effectiveness. For instance, a universal drug prevention program, such as the Life Skills Training program, should be implemented with whole classrooms and not with populations of drug-addicted youth for whom the program has not been tested. The prevention elements of this program may not be effective with youth involved with drugs. Family-based programs, such as Multisystemic Therapy, have been proven effective with chronic and violent juvenile offenders. To use this program with youth at risk or having minor behavioral problems may be effective (this is not known since it has not been tested with this population), but it will likely not be cost beneficial. One major goal of MST is reduction in out-of-home placement at a cost savings. When programs are not well matched to the local needs and the population needing services, a risk of program failure exists as implementers may perceive the costs (e.g., time and resources) as greater than the benefits. Worse yet, the program may not have the intended results when delivered to a population for whom it has not been tested.

Paid Staff

Another staffing scenario that was found to negatively affect implementation was the use of volunteers as program coordinators. While most volunteers had the required skills, credentials, and even above-average motivation, they often lacked the necessary time needed to coordinate the program. In fact, coordinating time is generally underestimated by most sites. The site coordinator position, at a minimum, requires a half-time person, and even 20 hours per week was

often not enough time to accomplish all the tasks that needed to be completed. Because most volunteers will not have 20 or more hours a week to devote to a project, hiring paid staff to coordinate such efforts is generally better.

Adequate Time

Time issues arose at nearly every site. In the treatment programs, lost productivity resulting from time spent learning the new program and lack of time with clients resulting from client-therapist workloads

that had not been adjusted to accommodate the intensity of the new program were seldom insurmountable problems. However, within schools, lack of time to conduct the prevention program was one of the most serious difficulties faced. Teachers with already heavy workloads were asked to perform additional tasks, and, if not involved in the decision to adopt the program, instructors often became frustrated and dissatisfied with the initiative. Unless teachers, administrators, and other school staff are convinced of the usefulness of the program,

they may be unwilling to devote the time and energy necessary to implement the program fully, or to implement it at all, as was the case in our school-based failures. Blueprints strived to overcome such resistance by requiring that at least one teacher from each school attend the feasibility visit (all were encouraged to attend). It was hoped that this teacher would then inform other teachers of the importance of the project and open channels of communication between Blueprints staff and those implementing the program. Training and technical assistance were then used to continue fostering motivation and support.

Program Champion(s)

The program champion is the motivator behind the innovation, guiding its day-to-day operations, fostering communication, and serving as a base of support for implementing staff. Typically the program director or coordinator, the champion needs to have enough power in the organization to influence decisions and effect change (which is why most champions are from the administrative level), but also must have rapport with the implementing staff to motivate them to carry out the day-to-day program elements. In the Blueprints initiative, sites with strong champions experienced fewer problems. In the evaluation of the drug prevention initiative, the rating of the site coordinator was significantly correlated with the site's overall implementation score, with stronger coordinators ensuring that a greater percentage of the curriculum was taught. In contrast, poor coordinators likely negatively affected implementation scores because when they failed to fulfill their duties, the Blueprints team could not effectively identify problems or help schools overcome them. Problems can arise if the champion is not given adequate time to coordinate the effort. For example, coordinators in many school-based sites were assigned to the project on a half-time basis, which was typically not enough time to accomplish the many program tasks.

A program may also fail if the champion leaves the organization and has not been successful in piquing the interest of others, as occurred in one of the sites. With the lack of a strong champion and generally passive administrative support, the program failed. Reliance on a single champion may be problematic; developing multiple champions within a site may be a better strategy. A team of individuals may be assigned to manage all of the

initial planning and development tasks required in adopting a new program, which could be overwhelming for one individual. A team approach can also improve communication among all levels of management and staff and build a strong base of support within the organization. Sites that had dual champions, particularly from both the management and mid-management (i.e., coordinating) levels, were especially successful in motivating staff and initiating change within the organization to accommodate all facets of the program. In addition, these dual champions often successfully expanded the program within and outside their organizations.

Program Integration

Devoting ongoing and serious attention to linking prevention programs to the stated goals and objectives of the host agency was also important. On the agency's part, this entails creating comprehensive plans to identify problems, searching for programs that can best resolve the problems, and instituting a plan of action. A clearly developed prevention plan provides a road map for all to follow and demonstrates the real commitment behind the initiative. Program integration is most likely accomplished when prevention activities are initiated within the host agency, rather than by external forces (Gottfredson and Gottfredson, 2002), because commitment to the larger goal of prevention is usually stronger. The integration of a specific program within a school can be facilitated by aligning the objectives of the prevention curriculum with state and local learning standards mandates. In the Blueprints initiative, schools that completed this work typically had higher levels of satisfaction with and commitment to the new program.

Training and Technical Assistance

The Blueprints initiative provided training and technical assistance from the program designers and their designated technical assistance providers to all sites. The initial training introduced staff to core program philosophies, garnered key administrative and community support, and provided much needed direction to staff members. Many sites received subsequent booster training sessions, but the number and type of these supplemental training sessions varied from program to program. In their written comments, trainees suggested

that the training workshops instilled motivation and a deeper understanding of the programs.

Blueprints' emphasis on training and technical assistance is based on earlier research in school-based prevention training that indicates the following:

- ◆ Trained teachers are more likely to implement, and to implement more of, the curriculum than untrained teachers (McCormick, Steckler, and McLeroy, 1995). For example, among no-shows at one program's teacher training, nearly 50 percent failed to use the program at all or abandoned the program before the end of the semester (Ross et al., 1991).
- ◆ Fully trained teachers complete a greater percentage of the program with greater fidelity. For example, fully trained teachers completed 84 percent of the curriculum and adhered to the curriculum more than 80 percent of the time; partially trained teachers completed 76 percent of the curriculum and adhered to it 70 percent of the time; and teachers with no training completed 70 percent of the curriculum and adhered to it 60 percent of the time (Connell, Turner, and Mason, 1985; Fors and Doster, 1985).
- ◆ Trained teachers report greater preparedness to teach the program, teach the curriculum with greater fidelity, and achieve better student outcomes than untrained teachers. Booster training was needed to enhance fidelity among seasoned teachers (Parcel et al., 1991).
- ◆ Trained teachers are more effective and have more favorable student outcomes than untrained teachers (Taggart et al., 1990).
- ◆ Teachers without followup and support over time often fail to fully implement or continue use of a program (Gingiss, 1992).

Blueprints found that a strong, proactive package of training and technical assistance builds confidence and can help agencies overcome and even avoid many implementation barriers. Programs that failed to provide a well-integrated technical assistance package often found their sites lagging in implementation, unsure how to proceed, and having difficulty overcoming challenges. Many of the technical assistance providers assumed that sites would contact them if they had implementation problems. However, Blueprints

found that program staff and administrators did not always recognize their own weaknesses, or assumed they would have to handle them on their own. In some cases, Blueprints staff recommended or initiated technical assistance contacts. By the end of the Blueprints grant, most of the technical assistance providers had developed and fine-tuned a strong technical assistance package.

Blueprints staff had learned many valuable lessons by the time the initial training sessions were completed. Sites were often ill prepared to receive initial training sessions. In some cases, sites had failed to hire or appoint all staff members before a training, thus causing technical assistance providers, Blueprints staff, and members at each site to scramble for quick solutions for these new employees, such as finding subsequent training sessions they could attend. In addition, some technical assistance providers found that individuals talked during the sessions, arrived late, or failed to attend parts of their workshops.

The presence of administrators in some or all parts of the training sessions improved the quality of implementation by sending a strong message to key personnel that the program was a priority in the agency. Administrators who attended training sessions also understood programs better and were able to accommodate and support implementation efforts more effectively. Although administrative attendance requirements varied from program to program, once the Blueprints team understood the benefit of having powerful agency staff who were fully trained, they encouraged all administrators to attend the training sessions.

Additionally, after confronting attendance problems at a few sites, Blueprints sent a one-page training protocol to each site before their workshops, to be distributed to all persons scheduled to attend the training sessions. The protocol was individualized for each program and briefly outlined the purpose of the workshop, the staff members who needed to attend, and Blueprints' behavioral expectations during training. School programs faced unique training challenges regarding attendance because ensuring that principals and administrators would release some or all teachers from class to attend workshops was often difficult. Although this problem could be averted by scheduling training during planning days or vacation time, doing so resulted in additional problems of

schedule conflicts with other training sessions or the need to provide incentives for attendance.

Another problem encountered was the failure of some sites to inform staff before training that they would be implementing a new program; staff would simply arrive at the workshop without knowing why they needed to attend. Not surprisingly, most became resistant and uncooperative on learning of their new duties, and trainers had to spend much time reviewing the program and informing staff of the sites' implementation plans. To avoid this problem and to ensure that staff are prepared, sites should inform staff members of plans to implement programs, clearly describe their role in the initiative, and review the basic principles and structure of the chosen program before training sessions begin.

Given the high staff turnover experienced across Blueprints sites, costs for multiple initial training sessions should be built into program budgets. Likewise, technical assistance providers should build their capacity for ongoing initial training sessions. During process evaluation visits, Blueprints learned that some programs had delayed client recruitment; therefore, implementers were unable to immediately use the principles and skills they had learned. Also, many schools held training workshops in the late summer but did not begin the curriculum until many months into the school year. To maximize training benefits, sites should start serving clients as soon as possible after initial training sessions have been completed.

Implementation Fidelity

Implementation fidelity, sometimes called adherence or integrity, is a determination of how well the program is being implemented in comparison with the original program design (i.e., whether the program is being delivered as it was in its original

research trials). Four primary components should be examined when considering program fidelity (Dane and Schneider, 1998):

- ◆ **Adherence** refers to whether the program service or intervention is being delivered as it was designed or written (i.e., with all core components being delivered to the appropriate population; staff trained appropriately; the right protocols, techniques, and materials used; and the locations or contexts chosen as prescribed).
- ◆ **Exposure** (also referred to as dosage) may include any of the following: the number of sessions implemented, the length of each session, and the frequency with which program techniques were used.
- ◆ **Quality of program delivery** is the manner in which a teacher, volunteer, or staff member delivers a program (e.g., the person's skill in using the techniques or methods prescribed by the program, and their enthusiasm, preparedness, and attitude).
- ◆ **Participant responsiveness** is the extent to which participants are engaged by and involved in the activities and content of the program.

As programs are proven effective and disseminated widely, in real-world settings and under less favorable conditions than experienced in scientific experiments, modification of key program components and inconsistencies in program delivery become more likely. Depending on the changes made, the program may become less effective in producing the desired outcomes. Meta-analysis (Gresham et al., 1993; Wilson and Lipsey, 2000) and evaluations of numerous programs demonstrate that better implemented programs produce more desired change (Center for the Study and Prevention of Violence, 2001; Mihalic et al., 2004).

Blueprints Training Recommendations

- ◆ Hire all staff before training.
- ◆ Review program and implementation plans with staff before training sessions.
- ◆ Arrange for substitute teachers/providers for training days.
- ◆ Arrange for administrators to attend training sessions.
- ◆ Communicate expectations for staff behavior during training sessions.
- ◆ Plan for staff turnover.
- ◆ Be ready to implement program immediately after training.

The Blueprints initiative emphasizes the importance of implementation fidelity. A common theme expressed in much of the recent literature on fidelity is that communities will not implement a program with fidelity and that modifications to a program must be made to enhance local adoption and satisfaction. Contrary to this assumption, the Blueprints replication initiative demonstrates that, in fact, high fidelity and satisfaction can be achieved.

With the exception of the one Quantum Opportunities Program site, all other sites in the violence prevention initiative achieved 86 to 100 percent of all core and critical domains (i.e., adherence). In the drug prevention initiative, teachers completed 81 to 86 percent of all the points in the observed lessons, a remarkable improvement over earlier research trials conducted by the designer of the program. This indicates that the level of fidelity to each program was extremely high and that the sites that had not achieved 100 percent of these elements had generally only failed in achieving one element.

Nearly all the sites strove to implement programs with fidelity and had remarkable success with the core components. Achieving fidelity to the dosage requirements of each program was more difficult, though this was a problem encountered primarily among the school-based programs. Teachers were generally unable to meet the demands of teaching all the required prevention lessons at the required frequency. For example, in the drug prevention initiative, from 56 to 78 percent of the teachers (depending on the grant and the level of the curriculum taught) reported that they taught all the lessons of the Life Skills Training curriculum. In the violence prevention initiative, Promoting Alternative Thinking Strategies (PATHS) was intended to be taught three times a week throughout the school year, for approximately 15 to 20 minutes; the Bullying Prevention Program included weekly classroom meetings throughout the school year. In practice, only one-third (PATHS) to one-half (Bullying) of the teachers taught lessons at this recommended dosage. Meeting the required dosage was so difficult that only one site implementing the Bullying program was successful in having all the instructors conduct a weekly classroom lesson on bullying. Biweekly teacher meetings were also difficult to achieve, but about half of the sites were able to implement this important element. Dosage elements (e.g., weekly meetings with youth, weekly

group clinical supervision) were so integral to the treatment programs, such as Functional Family Therapy and Multisystemic Therapy, that it was much easier for sites to achieve success in providing the correct dosage.

Blueprints' constant monitoring and presence, achieved through telephone contacts, onsite visits, and meetings with key participants, were steady reminders to sites of the importance of program fidelity. Blueprints staff tried to move sites toward high-quality programs by continually emphasizing the importance of implementing all core components at the appropriate dosage. Problems with implementation (especially in sites that were not receiving proactive technical assistance) were addressed through a technical assistance site visit or phone consultation.

The overwhelming response to these assistance efforts was positive—many coordinators commented that Blueprints served as an encouragement and support to the sites, was a good reminder to practice fidelity, was of much help during the feasibility and planning stages, and provided much-needed funding. However, several coordinators also indicated that the role of the Blueprints team was not always understood, suggesting that future endeavors should develop clearer descriptions regarding why monitoring is important and present these messages throughout the project. Additionally, in contrast to what might have been expected, the emphasis on fidelity did not create dissatisfaction with the program. In fact, 87 percent of the coordinators in the violence prevention initiative stated at the end of the 2-year period that they were “extremely” or “very” satisfied with the program, and teachers in the drug prevention initiative rated the overall quality of the program as “good” to “very good” (an average score of 3.6 on a 5-point scale).

Summary

The Blueprints initiative both identified effective programs and provided funding for their replication. Selected sites were provided a training and technical assistance package from the program designers (lasting 2 years for the violence prevention initiative and 3 years for the drug prevention initiative) to help establish the programs and to build skills and confidence in implementing the programs. A process evaluation was conducted at each site to measure accountability and fidelity.

Though most sites implemented their programs with great fidelity to the original designs, widely varying issues and problems arose throughout the process. One of the major goals of the Blueprints initiative was to learn from these problems which factors had led to successful implementation and which had led to difficulties. The broad scope of this initiative, which included prevention and treatment programs targeting youth from infancy to late adolescence (age 19), illuminated many factors across sites that could enhance or hinder the success of a program.

Sites that want to implement a new program should consider these lessons learned from the Blueprints initiative:

- ◆ Enhance readiness of site.
 - ❖ Build an environment that is supportive of the new program.
 - ❖ Plan for implementation.
 - ❖ Ensure that money, materials, and personnel are adequate.
- ◆ Build organizational capacity through administrative support.
 - ❖ Develop administrative support.
 - ❖ Demonstrate active support for the program.
 - ❖ Strive for internal stability.
 - ❖ Develop interagency linkages, as necessary.
 - ❖ Begin program efforts incrementally.
- ◆ Build staff support.
 - ❖ Include staff in planning and decisionmaking.
 - ❖ Hire staff with the appropriate credentials and requisite skills.
 - ❖ Build skills through training in the new program.
 - ❖ Provide the resources, materials, and financial compensation necessary to conduct the program.
 - ❖ Provide the time necessary to accomplish all aspects of the job.
- ◆ Ensure that site has program champion(s).
- ◆ Provide training and technical assistance.
- ◆ Understand the importance of implementation fidelity.

Creating an environment that will foster a positive experience will result in higher quality implementation and, ultimately, more positive outcomes for youth.

For Further Information

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Online Report

A detailed report on the Blueprints for Violence Prevention initiative is available on OJJDP's Web site (www.ojp.usdoj.gov/ojjdp, select Publications Search, search for keyword "Blueprints"). A limited number of hard copies are available from CSPV at a cost of \$6.00.

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