# IMPLEMENTING EVIDENCE-BASED PRACTICES



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## IMPLEMENTING EVIDENCE-BASED PRACTICES

The emergence of the evidence-based movement is arguably one of the most significant developments to occur in criminal and juvenile justice in recent years. In the early 1990s, the term "evidence-based" was largely unknown in the criminal and juvenile justice communities. Today, the imprint of the movement is widespread. Crime control policy and program development processes are increasingly being informed by scientific evidence, and many practices in policing, corrections, delinquency prevention, and other areas are being shaped by evidence generated through research.

Programs that have been shown to work through rigorous evaluation are being promoted nationwide, as incentives and even mandates for evidence-based programming are increasingly being used by funding sources at both the state and federal levels. Identifying and adopting what works, however, is only part of what is needed to produce positive outcomes. In order to be successful, evidence-based programs still have to be delivered properly in complex, real-world settings. Simply put, both an effective program and sound implementation are needed to achieve positive results, and even the best programs are unlikely to realize their potential without proper implementation.

This briefing deals with the important issue of program implementation. It describes key implementation challenges in the context of evidence-based programs and presents research-based strategies that organizations can use to facilitate sound implementation. It is designed to help State Administrative Agencies (SAAs) and their grantees realize the full potential of the evidence-based programs they adopt.

In criminal and juvenile justice, the term "evidence-based program" has generally been used to describe a program deemed to be effective based on rigorous scientific evaluation. While the process for determining whether a program is effective — and hence, evidence-based — is complex, conclusions about a program's effectiveness are based on evidence produced through scientific research, rather than on anecdote, opinion, or conventional wisdom. In addition, those conclusions are derived from evaluations of a specific set of program components and activities, typically referred to as the program model. Hence, an evidence-based program should be implemented in a manner that is consistent with its program model. Changing the model prior to or during implementation defeats the purpose of using an evidence-based program, as it changes the program itself, and any expectation for a positive result is no longer valid.

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Implementation fidelity refers to the degree to which a program's implementation in any real-world setting matches the original program model. Research has consistently shown that programs that have been implemented with a high degree of fidelity are far more likely to be successful than those that have not. In fact, a lack of adherence to the program model can not only degrade a program's effectiveness, it can actually create a situation where an otherwise effective program does more harm than good.

Implementation fidelity, however, is hard to achieve. Perfectly ordinary and routine circumstances can present serious obstacles to sound implementation, and failing to recognize the inherent challenges associated with implementation can lead to problems that undermine a program's effectiveness. Fortunately, a knowledge base known as implementation science is available to help organizations and practitioners deal with the challenges of implementation.

While numerous scholars have contributed to the development of implementation science, researchers at the National Implementation Research Network (NIRN) at the University of North Carolina have played a pivotal role in synthesizing research on implementation and building a knowledge base that policy makers and practitioners can easily access and use. In their 2005 report titled *Implementation Research: A Synthesis of the Literature*, researchers at NIRN pointed out that implementation occurs through a series of stages that typically take 2-4 years to complete. Moreover, many of the strategies that have been traditionally employed to promote the use of evidence-based programs — such as information dissemination, using mandates or funding incentives, and simple training — are insufficient to achieve sound implementation.

Based on the commonalities found among successfully implemented programs, researchers at NIRN also have identified several drivers of sound implementation. These include staff selection, pre-service and in-service training, on-the-job staff coaching, staff and program evaluation, facilitative administrative support, and systems interventions. The use of data to inform decision making and support implementation also is key. A facilitative administration routinely uses data on staff and program performance to monitor implementation, identify problems, and make mid-course corrections that can maximize program effectiveness.

Unfortunately, systems tend not to be very accommodating to innovation and change. They almost always exert pressures to alter a new initiative so it fits into the existing system and program delivery structures with the least amount of change. Implementation science suggests that the use of implementation teams, communities of practice, and practice-to-policy feedback loops can help address the pressures to resist innovation and change that are inherently found in existing systems.

Organizations can also help ensure the evidence-based programs they adopt will realize their full potential by measuring implementation fidelity in a systematic manner. A number of strate-

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gies for doing this have been developed in recent years that provide valuable insights for establishing fidelity criteria and conducting fidelity assessments.

At the broadest level, both program structure and processes should be examined. Program structure refers to the prerequisites that must be in place for a program to operate, such as the participation of requisite partner organizations, program staff qualifications and numbers, practitioner-consumer ratio (i.e., caseload size for a specialized probation or parole officer), and completion of requisite training. Program processes, on the other hand, refer to the way services are delivered, including adherence to program protocols or procedures, the frequency and intensity of services provided (i.e., supervision contacts or treatment sessions), and the quality with which program staff delivers services.

Research has shown that several factors can affect an organization's ability to implement an evidence-based program with a high degree of fidelity. These include the complexity of the program, facilitation strategies that are available to the implementing organization, and the responsiveness of program clients and staff. Complex interventions are generally more difficult to implement with fidelity than simple interventions. But the manner in which a program model is described can make a difference. When the program model information that is available to an implementing organization lacks specificity, even simple programs can be difficult to implement with fidelity. Conversely, program models that provide specific implementation guidelines or protocols to follow tend to facilitate higher levels of adherence, regardless of the complexity of the program.

Facilitation strategies refer to the level of support an implementing organization can access. These include, for example, manuals, training, and certification processes provided by the program's developers, and technical assistance that may be provided by the program developer or a purveyor organization. The technical assistance provided to jurisdictions across the country by the U.S. Department of Justice, Office of Justice Programs' Diagnostic Center is an example of the latter. Generally, when implementation guidance and support can be readily accessed, organizations have a much greater chance of optimizing implementation fidelity, even if the program is highly complex.

Participant responsiveness and engagement in the program can affect implementation fidelity too. If clients fail to see the relevance of program activities or are unable to benefit from them for developmental, cultural, or other reasons, engagement and therefore implementation fidelity are likely to suffer. But responsiveness and engagement also apply to program staff and leadership. If buy-in and commitment are inconsistent or missing altogether, the quality of program delivery is likely to be adversely affected.

Finally, considerable debate has taken place in recent years among program developers,

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researchers, and practitioners about the perceived need for, and inevitability of, program adaptation. Adaptation refers to the deliberate or accidental modification of a program prior to or during implementation. While program integrity can certainly be compromised by a number of factors, the excessive adaptation of an intervention is a common problem.

From an implementation science perspective, adaptation is a concern. Finding the right balance between fidelity and adaptation remains exceptionally difficult, as the core components of a program — those that are indispensable for program success — are often unknown, and guidelines or thresholds that are empirically tested and that might be used to inform adaptation decision making are often unavailable. Thus, the best approach is to implement an evidence-based program with the highest degree of fidelity possible, and only adapt using data and ongoing assessment after successful implementation and positive outcomes have been achieved.

In summary, evidence-based programs can help jurisdictions across the country produce results in a cost-effective manner. These programs must be delivered with integrity and fidelity in highly diverse and complex, real-world settings to be successful. Implementing an evidence-based program is not an easy task. A wide range of problems can derail implementation, thereby degrading the program's effectiveness or even creating a situation where the program does more harm than good. Implementation science provides important insights that can be used to facilitate the sound implementation of evidence-based programs. Drawing on the common characteristics of properly implemented programs, implementation science has identified "drivers" of sound implementation. Systematically measuring and monitoring implementation fidelity also is critically important. Finally, the core components of an evidence-based program should be known before adaptation of any kind is attempted.