Guidance Document

Selecting, Planning, and Implementing Evidence-Based Interventions for the Prevention of Substance Use Disorders

Michigan Department of Community Health Bureau of Substance Abuse and Addiction Services Evidence-Based Workgroup

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The purpose of this guidance document is to increase uniformity in the knowledge and application of evidence-based prevention programs, services, and activities to reduce and prevent substance use disorders in the state of Michigan.
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I. Introduction

The purpose of the “Guidance Document: Selecting, Planning, and Implementing Evidence-Based Interventions for the Prevention of Substance Use Disorders” is to increase uniformity in the knowledge, understanding, and implementation of evidence-based substance abuse prevention programs, services, and activities in the state of Michigan.

This document is a compilation of the latest information and research from the Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Substance Abuse Prevention (CSAP), who provided guidance for the document entitled, Identifying and Selecting Evidence-Based Interventions,” including additional supporting resources, and input from a panel of prevention professionals in the state of Michigan. The goals of this guide are to:

A. Strengthen local ability to identify and select evidence-based interventions.
B. Provide capacity building tools and resources.
C. Foster the development of sound community prevention systems and strategies as part of comprehensive community planning to establish prevention prepared communities.

The Evidence-Based Workgroup hopes that this document will result in an increased ability for local prevention planners to critically assess prevention interventions based on the strength of evidence that an intervention is effective, to implement evidence-based interventions with a balance between fidelity and necessary local adaptations, and to demonstrate the relationship between evidence and achieving outcomes.

The Bureau of Substance Abuse and Addiction Services (BSAAS) offers a special thank you to the workgroup members who took the time to research and provide the information for this document. Leadership was provided by the chair, Kori White-Bissot, who gathered input and content from the Evidence-Based Workgroup membership in compiling this document.

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II. Evidence-Based Practices – Overview and Background

Definition: A prevention service (program, policy, or practice) that has been proven to positively change the problem being targeted.

In general, there needs to be evidence that the intervention has been effective at achieving outcomes through some form of evaluation. This is done by collecting evidence through an evaluation process when a specific intervention is implemented in a community. The evaluation process monitors outcomes to determine whether the intervention positively impacted the target problem and/or contributing condition. The type of evidence collected during an evaluation process will vary for different types of interventions.

The remainder of this guide will assist in thinking critically about these issues, while identifying interventions appropriate for individual communities.

A. Program: Usually thought of as an intervention that is:

1. Guided by curricula or manuals.
2. Implemented in defined settings or organized contexts.
3. Focused primarily on individuals, families, or defined settings.

Examples: Strengthening Families Program, Botvin’s Life Skills, and Project ALERT. 
Evidence: Evidence is usually collected by tracking participants for a period of time after receiving the intervention and comparing them to a group of similar individuals who did not receive the intervention. The evaluation then determines whether the individuals who received the intervention report having lesser rates of substance abuse than those who did not receive the intervention.

B. Policy: Efforts to influence the courses of action, regulatory measures, laws, and/or funding priorities concerning a given topic. A variety of tactics and tools are used to influence policy, including advocating their positions publicly, attempting to educate supporters and opponents, and mobilizing allies on a particular issue.

Example: Smoke-free laws and regulations.
Evidence: Usually evidence that a policy was effective is collected by looking at communities that have implemented the policy and the impact that was documented when they did so. In some cases, evidence is collected by looking at communities that have historically had the policy and then removed it. The negative outcomes of this change may be appropriate to use in order to document the positive benefits of the policy.

C. Environmental Strategy/Practices: Activities working to establish or change written and unwritten community-focused standards, codes, and attitudes, in order to change behavior in the community. This is done by changing the shared environment through three interrelated factors: norms, availability, and regulations. By changing the shared environment of a community, the desired behavior change is supported by everyone in the community (Arthur, M. D. & Blitz, C., 2000).
Example: Consistent enforcement of *Youth Tobacco Act*.

**Evidence:** Evidence for an environmental strategy is usually assessed by looking at communities that have implemented the strategy and the impact it has on the local condition (e.g., easy access to tobacco) targeted by the strategy.

It is often difficult to determine how one environmental strategy contributes to the longer-term goal of changing the problem being targeted (e.g., tobacco use). Since it is challenging to document how strategies impact the larger problem being targeted:

1. Environmental strategies must be incorporated into a comprehensive plan addressing multiple contributing conditions that have been shown to positively impact the problem being targeted.

2. Each strategy that makes up the comprehensive plan needs to have been documented to positively impact the contributing condition that each targets, often demonstrated in a logic model. (See Attachment 2.)

**Strength of Evidence:** The strength of evidence will fall along a continuum from weak to strong. Where an intervention falls on this continuum is determined by the scientific rigor of the evaluation process that was employed to document the intervention’s positive impact on the problem and/or contributing condition. It is not determined by how large an impact the intervention has demonstrated on the problem being targeted.

One should not to confuse ‘strength of evidence’ with the magnitude of an intervention’s impact on the targeted problem. There may be evidence-based interventions that have documented small levels of impact on the problem they target. However, they may be rated as having ‘very strong’ evidence because they used a rigorous evaluation process to document their small impact and have submitted their research for review to experts in the field. In turn, there may be untested interventions that have a large impact on the problem targeted. However, until the outcomes are tested and documented using rigorous evaluation standards, the intervention will not be categorized as ‘evidence-based.’

**Additional Considerations:** When selecting an intervention it is important to assess more than just whether an intervention has been effective. In order for the intervention to be effective in the community, one must also consider a practical and conceptual fit and the framework for the plan must be logical and data-driven throughout. This is especially important for prevention practices that are more effective when they are completed as a component of a comprehensive prevention plan and are unlikely to be included on a federal registry of effective prevention programs due to the nature of the activities.

In summary, when selecting prevention services, consider interventions that have both conceptual and practical fit for the community, that have the strongest level of evidence, and that are effective at addressing the targeted problem and local contributing conditions. For more information, refer to Section IV (B).
III. Evidence-Based Categories

For more in-depth information about the following three categories, please refer to Identifying and Selecting Evidence-Based Intervention, (Health and Human Services [HHS], 2009).

Because evidence-based categories fall along a continuum, it can be challenging to determine which evidence-based category an intervention falls within. Interventions will often straddle categories as they work to move up the continuum to a stronger level of evidence category. Local prevention planners should do their best to review the evidence available and determine which category most closely represents the strength of evidence for an intervention.

A. Federal Registries

1. National Registry of Effective Prevention Programs (NREPP): A program that was previously listed on the SAMHSA model program list or currently listed on NREPP with positive outcomes demonstrated. SAMHSA no longer publishes a list of “model” programs. NREPP now posts the results found for each program that they have reviewed, including programs that were found not to be effective. Therefore, being listed on NREPP does not alone provide evidence of effectiveness. It is imperative that agencies critically review the outcomes detailed and the strength of the evaluation described in the NREPP review. For more information about using the NREPP registry, refer to Section IV D.

2. Other Federal Agency: The program/model is listed by another federal agency as an effective prevention program/model. Federal lists or registries are limited in scope since they are geared to interventions most amenable to assessment using traditional research designs and methodologies for evaluation. For more information, refer to Section IV C.

The following should be considered when assessing programs on other federal registries:

- Does the intervention have evidence that it positively impacts the local contributing conditions being targeted? If the intervention is promoting broad outcomes (e.g., reduction in alcohol and tobacco use), it will be necessary to identify the contributing conditions that the intervention targeted in order to reach those broad outcomes. If unable to identify the targeted contributing conditions, it will be challenging to determine whether the intervention is an appropriate fit for the community.

- Is the intervention culturally appropriate for the community and target audience? Has it been tested with a target audience similar to the one selected? If not, is it possible to modify the program to meet the needs of the target audience while maintaining the minimum fidelity standards to achieve the desired outcomes? For more information, see Section V (A).

- What research standards are required to be included on the registry? The level of evidence required varies greatly between federal registries. Review the standards to
ensure confidence that the outcomes are well documented and were documented using rigorous research standards.

B. Peer Review Journal

This category refers to interventions whose research findings have been published in a peer-reviewed journal. It is best if there are multiple studies and look for consistently positive outcomes. This option should only be selected if planned activities are closely replicating the key components of the program described in the peer-reviewed journal.

Please note that the burden for determining the applicability and credibility of the findings falls on the local prevention planners. Even though the research is published, this category still requires local prevention planners to think critically about the evaluation methodology and determine whether the claimed results are warranted based on the evaluation design. Consider the scope of the evaluation, the measures used, and whether the claims of effectiveness exceed what the evaluation actually assessed.

What is a Peer Review Journal?

When researchers submit their research articles to a peer review journal, the journal subjects the research to the scrutiny of other experts in the field. These journals have a panel of experts in the field determine whether the research meets accepted standards for research methods, and has appropriately interpreted the research findings. Only articles that meet both of these standards are published in peer review journals.

It should be noted that the purpose of a peer review journal is scholarly and to further the area of research, which is very different from the purpose of a federal registry. Sometimes research findings that an intervention was not effective can be useful in helping plan future efforts. One may find that there were key components of the intervention that were left out that need to be included, or the findings might indicate that the theory of change was flawed and that it is necessary to explore other intervention options.

When using peer review journals to determine whether an intervention has evidence of effectiveness:

1. Review all relevant articles, not just those with positive results. If there is more than one study that reviews the intervention, there should be consistently positive results found.

2. One can feel more confident about articles written by authors who are not the developers of the program because they do not have a vested interest in the program’s success.

3. If available, use meta-analysis and literature review articles:
• Meta Analysis: In these articles, researchers conduct a review of as much research as possible published about an issue and use statistics to analyze and summarize results across multiple research studies. These types of articles can be extremely useful in making sense of multiple research studies about an issue.

• Literature Review: In these articles, researchers analyze and summarize results across multiple research studies and other scientific sources and create a narrative that summarized the research findings across studies.

How to Review a Peer Review Journal Article:

Research findings published in peer review journals are presented in a prescribed format with clearly defined sections. Each section provides information about the research study that can be used to assess the quality and relevance of the research presented.

Do not be intimidated. Breaking an article down into its sections allows one to determine the relevance of an article and to gather the information needed to make informed decisions. First, scan the abstract to determine whether the article is relevant to the planned work. If it seems relevant, skim the introduction and discussion section to further determine the relevance of the research. If the article still seems appropriate to aid in planning, it may warrant a full reading of the article.

A helpful article that provides thorough descriptions of the sections of a peer review journal article and how each section can provide useful information is included as Attachment 1. The following is a brief description of the sections:

1. Abstract: A summary of the key points in the article and the hypothesis being tested. This section is the first step in determining whether the article is relevant to the planned work.
2. Introduction: Provides the context of the study.
3. Methods: Explains how the researchers set about testing their hypothesis.
4. Results: Findings of the researchers are detailed in this section.
5. Discussion: A summary of the results, written in a narrative rather than statistical form. This section explains whether the results support the hypotheses and give suggestions for future research.

C. Other Sources of Documented Effectiveness:

In this category, the specific intervention has documented proven results impacting the targeted factors (contributing conditions, intervening variables, and/or risk/protective factors) through an evaluation process. In addition, the intervention must meet the following four guidelines:

1. The intervention is based on a theory of change that is documented in a clear logic or conceptual model.
2. The intervention is similar in content and structure to interventions that appear in registries and/or peer-reviewed literature.

3. The intervention is supported by documentation that it has been effectively implemented in the past, and multiple times, in a manner attentive to scientific standards of evidence and with results that show a consistent pattern of credible and positive effects.

4. The intervention is reviewed and deemed appropriate by a panel of informed prevention experts that includes: well-qualified prevention researchers who are experienced in evaluating prevention interventions similar to those under review, local prevention practitioners, and key community leaders as appropriate (e.g., officials from law enforcement and education sectors or elders within indigenous cultures).

This category of evidence-based criteria recognizes that some complex interventions, which usually include innovations developed locally, look different from most of those listed on federal registries. Because complex interventions exhibit qualities different from those of a discrete nature or interventions using a manual, they often require customized assessment.

When it’s Appropriate to Apply

This category should be used if an evidence-based intervention in one of the preceding categories does not exist to meet the identified community needs, and there is not one that can be adapted to do so. Keep in mind that there may not be an exact match within one of the preceding categories but there may be a modifiable intervention that could be adapted to meet needs. Please refer to Section V (A) for more guidance.

It is recognized that there may be prevention initiatives that a community is committed to which have not gone through the process to have documented a stronger level of evidence that it is effective. In addition, many environmental interventions have limited evidence that isolate the impact of the specific intervention components of a community plan.

It may also be necessary to rely on weaker evidence when no appropriate interventions are available in categories with stronger evidence. An appropriate intervention addresses the targeted problem and local contributing condition, and is appropriate for the cultural and community context in which it will be implemented.

Under one of these circumstances it may be appropriate to select or continue to use an intervention that does not meet a stronger category of evidence. The following conditions should be addressed in these situations:

1. Evaluation methodology documenting effectiveness should meet rigorous scientific standards and evaluation of local implementation should work to move the intervention further along the continuum of evidence strength. It may be appropriate
to work with a local university, a researcher, an evaluator, or local epidemiology workgroup in order to strengthen the evaluation plan.

2. The intervention should follow best-practice principles. For more information, refer to Section VI (B).

3. Many interventions that fall within this category are strategies that should be combined to develop a comprehensive community plan to address a community’s contributing conditions.

4. Because this category has a weaker level of evidence, there is an additional burden on the local prevention planner to evaluate the intervention. When documenting this local evidence, a summary of local evaluation results indicating effectiveness should be developed. This should include a description of the following:

   - Evaluation methodology.
   - Outcomes tracked as well as the results for each.
   - The scope of the evaluation (e.g. Sample size for surveys, number of series, during what time period, etc.).
   - The research/theory on which the activities/programs are based, including a clearly documented theory of change, which is often communicated through the use of a logic model.

Note: Addressing risk and protective factors is not adequate; evidence of effectiveness for the specific intervention/set of activities is actually needed.

Key Elements to Support Documented Effectiveness

Documentation to justify the inclusion of a particular intervention in a comprehensive community plan is important. Prevention planners are encouraged to provide as many types of documentation as are appropriate and feasible in order to provide strong justification of documented effectiveness.

The following are elements of documentation that might be provided to demonstrate an intervention has other sources of documented effectiveness and meets the four guidelines established by CSAP (HHS, 2009).

   - Documentation that clarifies and explains how the intervention is similar in theory, content, and structure to interventions that are considered evidence-based by scientific standards.
   - Documentation that the intervention has been used by the community through multiple iterations, and data collected indicating its effectiveness.
   - Documentation that indicates how the intervention adequately addresses elements of evidence usually addressed in peer-reviewed journal articles. These elements
may include the nature and quality of the evaluation research design; the consistency of findings across multiple studies; and the nature and quality of the data collection methods, including attention to missing data and possible sources of bias.

- Documentation that explains how the intervention is based on an established theory that has been tested and empirically supported in multiple studies. This documentation should include an intervention-specific logic model that details how the intervention applies and incorporates the established theory.

- Documentation that explains how the intervention is based on published principles of prevention. This documentation should provide references for the principles cited and should explain how the intervention incorporates and applies these principles.

- Documentation that describes and explains how the intervention is rooted in the indigenous culture and tradition.

D. Community-Based Process Best-Practice

Activities conducted through formal coalitions, task forces, community-planning teams, or collaborative groups are necessary to foster prevention prepared communities. While this type of activity was not separately identified within the guidance from CSAP, it is a key component that Michigan recognizes for the success of comprehensive community plans addressing local conditions and targeting community-level change in risk behaviors.

Community-based process is an approach that enhances the efficacy of prevention efforts by working to breakdown silos, streamline services, and to engage the community in a comprehensive multi-layered plan. Community-based process includes activities such as: coordinating and managing coalitions, task forces, community planning teams, and/or collaborative groups.

1. Community-Based Process – Evidence and Importance

Because community-based process is designed to assist communities in implementing community-level interventions and to increase the community’s ability to provide prevention services, rather than target specific community problems, it does not require the same type of evidence.

- In order to effectively implement prevention practices, it is often necessary to engage in a community-based process. Planners may need to mobilize the community to implement a strategy as a component of a comprehensive, multi-layered prevention plan. For example, environmental interventions must be done through a community-based process in order to succeed. These are often efforts to make change to the larger environment through reduced access, changing
community norms, and influencing policy and enforcement. However, these activities do not meet evidence-based criteria in the way that an intervention targeting a certain issue would do so.

“Community Building” is not an intervention, nor is it expected to meet evidence-based criteria at affecting the targeted community problem. Keep in mind that the interventions completed through the community-based process should meet evidence-based criteria.

- Even programs that target individuals (such as a curricula-based program) can be more effective when conducted within a community-based process. By collaborating, a program’s reach and sustainability can be enhanced when it is done as a component of a larger community plan.

2. **Collaborative activities should be considered under the following criteria:**

   * **Leading a collaborative effort:**
     - The intervention is conducted using community-based process (e.g. coalitions, collaborative, taskforces);  
     
     and
     
     - The collaborative process is compatible with the five-step prevention planning process: assessment, capacity building, planning, implementation, and evaluation, with consideration for sustainability and cultural competency.

   * **Participating in a collaborative effort:**
     - It is necessary to participate in other groups collaborative efforts in order to effectively conduct prevention in the targeted community;  
     
     and
     
     - Planners are representing substance abuse prevention.

3. **In addition to the above criteria, the following should be considered when conducting community-based processes:**

   - **Membership:** The collaborative should be inclusive in its membership/make-up and engage key community stakeholders. The coalition should have appreciation for local involvement and authority in choosing and carrying out actions.

   - **Evidence of Effectiveness:** Interventions implemented through the community-based process effort need to show evidence of being effective at improving at least one of the following:

     ➢ Contributing to the identified desirable outcome.

     ➢ Impacting the identified community problem/consequence.
- Improving the ability of the prevention system to deliver substance abuse services.

- Clear Purpose: Interventions implemented through a community-based process effort should begin with a clear understanding of their purpose and should consider the following initiatives:
  - Comprehensive services coordination - improving the nature and delivery of services.
  - Community mobilization - generating community activism to address substance abuse and related problems/consequences.
  - Behavior change - creating both system level change and individual behavior change.
  - Community linkages - creating or connecting resources within a community and/or connecting persons to resources.

For more information about best-practice for community based process, please refer to the Community Anti-Drug Coalitions of America website at www.cadca.org.
IV. Identifying and Selecting Interventions

A. Logical and Data-Driven

It is necessary that the intervention be data-driven, in addition to evidence that an intervention has been documented to positively impact the problem or contributing condition being targeted. This means that ‘evidence’ or data is required to support the decisions made throughout the planning, implementation and evaluation stages.

When planning an intervention it is imperative to have ‘evidence’ that supports the problem being addressed as well as data to support the local contributing conditions for that problem. This ‘evidence’ is typically collected as a part of the needs assessment phase of planning.

There should a logical connection between the intervention and the targeted local conditions and that are selected as an evidence-based practice that has been documented to impact the targeted contributing condition. A logic model can be used to demonstrate the connection between needs assessment findings, the intervention, and the intended short- and long-term outcomes, and can be a key tool in ensuring that the selected interventions are appropriate for the community’s needs. An example from the Community Anti-Drug Coalitions of America (CADCA) can be found as Attachment 2 (SAMHSA/NREPP, 2010).

B. “Goodness of Fit”

In addition to whether an intervention has been found to be effective, it is important to consider conceptual and practical fit in order to determine whether the intervention ‘fits’ well in the community. The following factors should be considered:

1. Conceptual Fit (relevant)
   - Addresses a community’s salient risk and protective factors, and contributing conditions.
   - Targets opportunities for intervention in multiple life domains.
   - Drives positive outcomes in one or more substance abuse problems, consumption patterns, or consequences.

2. Practical Fit (appropriate)
   - Feasible given a community’s resources, capacities, and readiness to act.
   - Additional/reinforcement of other strategies in the community—synergistic vs. duplicative or stand-alone efforts.
   - Appropriate for the cultural context of your community, or able to be modified as appropriate.

3. Evidence of Effectiveness
   - Adequately supported by theory, empirical data, and the consensus judgment of informed experts and community prevention leaders.
General Guidance Steps to Select a “Best-Fit” Option

1. Review or develop a logic model of the program or practice. Does the candidate intervention target the identified problem and the underlying factors that drive or contribute to changes in the problem or outcomes?

2. Consult with the broader community in which the implementation will take place to ensure that community readiness and capacity are in place.

3. Develop and review a plan of action, the steps that will be followed to implement the program/practice, to identify potential implementation problems.

A worksheet to assist in assessing “goodness of fit” is provided as Attachment 3.

C. Finding Interventions That Meet Evidence-Based Criteria

The following resources are not intended to represent a complete list.

Federal Registry - Various federal agencies have identified youth-related programs that they consider worthy of recommendation based on expert opinion or a review of design and research evidence. These programs focus on different health topics, risk behaviors, and settings including violence:

- SAMHSA National Registry of Evidence-Based Programs and Practices (NREPP) at http://www.nrepp.samhsa.gov. For more information about using NREPP, please refer to Section IV (D).
- A list of other registries may be found on SAMHSA’s website at http://www.samhsa.gov/ebpWebguide/appendixB.asp.

Additional Web Resources - Information about effective prevention planning and implementation can also be found at the following websites:

- Center for the Study and Prevention of Violence Blueprints for Violence Prevention at www.colorado.edu/cspv/.
• Stop Underage Drinking portal of federal resources at http://www.stopalcoholabuse.gov.

Peer Review Journal Research Sources - Searchable databases: these databases have a search feature for relevant research.

• Google Scholar at http://scholar.google.com/
• Peer Review Journals: The following are a few of the peer review journals with published research relevant to prevention. They can be accessed through a university library and the above searchable databases.
  o American Journal of Public Health
  o Journal of Addiction Studies
  o Annual Review of Public Health
  o Journal on Studies of Alcohol
  o Preventive Medicine
  o Journal of School Health
  o Journal of Adolescent Health
  o Journal of the American Medical Association
  o Public Health and Research

D. Using the National Registry of Evidence-Based Programs and Policies (NREPP):

NREPP is a decision support system designed to be a tool for selecting interventions. The NREPP reflects current thinking that states and communities are best positioned to decide what is most appropriate for their needs. Beginning in 2007, SAMHSA’s NREPP changed to allow local prevention providers and decision makers to identify interventions that produce specific community outcomes that meet their needs.

Key points about the revised NREPP are as follows:

1. A review posted on the NREPP site is no longer adequate to document evidence-based status. All programs that are reviewed will be posted on the NREPP site regardless of evaluation results, including programs with minimal or no positive outcomes found.

2. NREPP is a voluntary rating and classification system designed to provide the public with reliable information on the scientific basis and practicality of interventions that prevent and/or treat mental and substance use disorders.
3. Outside experts review and rate interventions on two dimensions: strength of evidence and dissemination capability. Strength of evidence and readiness for dissemination are assessed according to pre-defined criteria and are rated numerically on an ordinal scale of zero to four, with four being the highest score and zero being the lowest score.

4. Detailed descriptive information and the overall average rating score on each dimension (regardless of the rating score) is included and posted on the NREPP website, for all interventions reviewed. Average scores achieved on each rating criterion within each dimension are also provided.

A list of questions to ask while exploring the possible use of an intervention that is listed on NREPP has been provided as Attachment 4.
V. Implementing Evidence-Based Interventions

When implementing an evidence-based intervention locally, it is necessary to maintain a balance between adaptation and fidelity, follow best-practice principles, and conduct evaluations to monitor and ensure local effectiveness.

A. Balancing Fidelity and Adaptation

A dynamic process, often evolving over time, by which those involved with implementing an intervention address both the need for fidelity to the original program and the need for local adaptation.

There are typically two places in the implementation process when this occurs: (1) at the front end, with the decision to adopt an evidence-based intervention that needs some modification to fit local circumstances; and (2) during implementation, if the expected outcomes are not being achieved locally.

There are three key terms when discussing the issue:

- **Fidelity**: The degree to which implementation of an intervention adheres to the original design. Sometimes is referred to as program adherence or integrity in some of the literature on this subject. Medical terms, such as dosage, strength of treatment, intensity, and exposure are sometimes used to discuss the overall degree of fidelity (Boruch & Gomez, 1977), (Pentz, 2001).

- **Core Components**: The elements of a program that analysis shows are most likely to account for positive outcomes. Some programs contain essentially only their core components. Others have discretionary or optional components which can be deleted without major impact on the program’s effectiveness, or which are not essential for the program’s main target audience.

- **Program Adaptation**: Deliberate or accidental modification of the intervention, including: deletions or additions (enhancements) of program components; modifications in the nature of the components that are included; changes in the manner or intensity of administration of program components called for in the program manual, curriculum, or core components analysis; modifications required by cultural and other local circumstances.

1. Examples of Adaptations

- Cutting the number or length of program sessions.
- Reducing the number of staff involved in delivering a program.
- Using volunteers or paraprofessionals who do not have adequate experience or training.
- Changing the intervention as it is implemented over time; such as when a facilitator adjusts the program to fit their style, eliminates content they don’t like,
or adds in pieces from other curricula that may not support the goals of the program.

2. Cultural Adaptation

- Cultural adaptation refers to program modifications that are culturally sensitive and tailored to a cultural group’s traditional world views.
- Consider the language used – the visuals, examples, and scenarios – and the activities that participants are asked to engage in. These types of changes, which tailor the existing intervention to a particular group of participants, are unlikely to diminish effectiveness.
- Cultural adaptation should address the core values, beliefs, norms, and other more significant aspects of the cultural group’s world views and lifestyles.
- Effective cultural adaptation involves understanding and working effectively with cultural nuances and requires appropriate cultural knowledge and sensitivity among developers, those adapting the intervention, and delivery staff.

3. Strategies for Maintaining Effectiveness

- Select an intervention that meets the community’s needs. To the extent possible, find an intervention that will need little to no adaptation for targeted circumstances; if this is not possible select an intervention that has been adapted for other audiences in the past or whose developer is willing to assist in the adaptation process.
- Ensure that staff members are committed to fidelity, as they need to be comfortable with the material and the style of interaction. They also must commit to delivering the intervention as agreed.
- Ensure individuals implementing the intervention have appropriate training and skill sets necessary to assure consistent implementation.
- Contact the program developer to ensure that any adaptations made are appropriate. If they are unavailable, discuss it with supervisor, funder, or other local experts. It may be desirable to discuss adaptations locally and then attempt to contact the developer for feedback.
- Determine the key elements that make the intervention effective. This information is usually obtained from the program developer based on his or her research and experience.
- Stay true to the intensity and duration of the intervention. It is important to follow the guidelines for how often the program meets, the length of each session and how long participants stay involved.
- Monitor the intervention’s implementation and address any unintentional variation from the original design.
- Stay up-to-date with overall program revisions.
- Be aware that adding material or sessions to an existing intervention while otherwise maintaining fidelity does not generally seem to have a detrimental effect.
4. Adaptations That Are Likely To Reduce Effectiveness

- Eliminating parts of an intervention’s content – a piece may be removed that was critical to effectiveness.
- Shortening the duration or intensity of an intervention – there may not be enough time for participants to develop a key skill or to build the relationships that are critical to the change process. Sufficient dosage and the opportunity to form positive relationships with well-trained staff have been identified as important principles of effective prevention programs.
- Making adaptations to the intervention’s targeted risk and protective factors, or intervening variable, should not be attempted unless it is done in collaboration with the program’s developer.

B. Best-Practice Principles

Even when using an evidence-based intervention it is important to ensure that implementation follows best-practice principles. Most programs that have been found to be effective have been based on these principles. However, it is important that these be well understood by those implementing an intervention, since attention to these principles will likely enhance the success of the intervention. For a detailed description of these principles, refer to Section VI (B).

C. Evaluation of Evidence-Based Interventions

Evaluation is an important part of all prevention services, even when that intervention is evidence-based. Some program developers have been known to promote to purchasers that an outcome evaluation is not necessary if the model program is implemented with fidelity. This is never the case.

A local outcome evaluation should still be conducted in order to ensure that the implementation done locally is acquiring positive results. There are many reasons why local implementation of an intervention may alter the expected results: staff delivery, program adaptations, community fit, and cultural context to name a few.

For evidence-based programs that have been rigorously evaluated and consistently shown to have positive results by the developers, a less rigorous local evaluation methodology may be warranted. For example, if doing an intervention that has been shown to reduce substance abuse initiation over time, the local evaluation could focus on ensuring that the intervention has met the immediate outcomes that were documented by the evaluation of the developers (e.g. Botvin Life Skills: decision making, goal setting, etc.). The weaker the strength of evidence for an intervention the more rigorous the local evaluation should be.

It should be noted that SAMHSA’s Strategic Planning Framework (SPF) has established evaluation as an integral component of a comprehensive community approach. In a comprehensive community approach using the SPF model, it is important to track progress toward completing the strategic plan, impact of specific strategies on targeted
community conditions, and changes in the targeted contributing conditions. The findings should provide important information to drive future coalition planning and implementation, as well as communicate the benefit of efforts to the community.
VI. Non Evidence-Based Interventions

A. When might it be appropriate to use interventions that are non-evidence-based?

Use of non-evidence based strategies for prevention should be a rare occurrence. There may be instances when a strategy that is not evidence-based is necessary to include as part of using a multi-layered comprehensive prevention approach. These interventions should be used judiciously and considered a last resort. Every attempt should be made to use interventions that meet evidence-based criteria. Instances in which to consider use of evidence-based interventions include:

1. **Complex Community Plans**
   When using a multi-layered comprehensive approach to target a specific community issue, a community will often find that there are specific local conditions that need to be addressed in order to modify the intervening variables. Research on this type of intervention usually evaluates the impact of a set of interventions designed to work together to impact the problem.

   In these cases, one should look for evidence that the intervention component was shown to impact the shorter-term outcome that demonstrates its contribution toward solving the local conditions that are being targeted for improvement.

2. **Community Commitment**
   Sometimes a community that has been implementing a prevention program for a long period of time will have established strong buy-in from the schools or the community. If this buy-in would be lost by switching to a program with a stronger level of evidence, it may not be possible to change.

   However, the program should not be used indefinitely without evidence of effectiveness. In this scenario, it would be the responsibility of the prevention providers to evaluate the program in order to document effectiveness through a local evaluation.

   Another option that the community may want to consider is to maintain the name and identity of the current program while replacing the content with that of an evidence-based program. In this option, community support may be maintained while ensuring effective services.

3. **Emerging Drug Trends**
   In some instances the field of prevention research has not yet caught up with emerging drug trends that need to be addressed. In these cases it may be necessary to consider interventions that have not yet been evaluated for their impact on the issue being targeted. Often these issues are drug specific and require interventions unique to the drug (e.g. prescription drug misuse). In these instances it is important to ensure a comprehensive, multi-layered approach that is logical and data-driven.
There may be interventions that have been shown to be effective in targeting a different drug, based on the intervening variables and community conditions that have been identified for the new drug issue. Looking for research to inform decisions about the new drug issue is a way to increase the likelihood that efforts will be effective.

B. Best-Practice Principles

It is imperative to consider what works in prevention. In the article What Works in Prevention: Principles of Effective Prevention Programs (Nation, M., et. al., 2003), the authors used a review-of-reviews approach across four areas (substance abuse, risky sexual behavior, school failure, and juvenile delinquency and violence) to identify characteristics consistently associated with effective prevention programs. They are as follows:

1. **Comprehensive:** Strategies should include multiple components and affect multiple settings to address a wide range of risk and protective factors of the target problem. Consider:
   - Does the program include multiple components?
   - Does the program provide activities in more than one setting?
   - Do the activities happen in settings related to the risk and protective factors associated with the problem?

2. **Varied Teaching Methods:** Strategies should include multiple teaching methods, including some type of active, skills-based component. Consider:
   - Does the program include more than one teaching method?
   - Does the strategy include interactive instruction, such as role-play and other techniques for practicing new behaviors?
   - Does the strategy provide hands on learning experiences, rather than just presenting information or other forms of passive instruction?

3. **Sufficient Dosage:** Participants need to be exposed to enough of the activity for it to have an effect. Consider:
   - Does the strategy provide more than one session?
   - Does the strategy provide sessions long enough to present the program content?
   - Does the intensity of the activity match the level of risk/deficits of the participants?
   - Does the strategy include a schedule for follow up or booster sessions?

4. **Theory Driven:** Preventive strategies should have a scientific justification or logical rationale. Consider:
• Does the program provide (or can one identify) a theory of how the problem behaviors develop?
• Does the program articulate a theory of how and why the intervention is likely to produce change?
• Bring the local model of the problem and model of the solution together to develop a logic model.
• Based on the model of the problem and the model of the solution, is it believable that the program is likely to produce change?

5. **Positive Relationships:** Programs should foster strong, stable, positive relationships between children and adults. Consider:

• Does the program provide opportunities for parents and children to strengthen their relationship?
• For situations where parents are not available or relevant, does the strategy offer opportunities for a participant to develop a strong connection with an adult mentor?
• Does the strategy provide opportunities for the participant to establish close relationships with people other than professional service providers?

6. ** Appropriately Timed:** Program activities should happen at a time (developmentally) that can have maximal impact in a participant’s life. Consider:

• Does the strategy happen before the problem behavior?
• Is the strategy timed strategically to have an impact during important developmental milestones related to the problem behavior?
• Does the activity content seem developmentally (intellectually, cognitively) appropriate for the target population?

7. **Socio-Culturally Relevant:** Programs should be tailored to fit within cultural beliefs and practices of specific groups, as well as local community norms. Consider:

• Does the strategy appear to be sensitive to the social and cultural realities of the participants? If not, are planners capable of making the changes that are needed to make it more appropriate?
• Is the strategy flexible to deal with special circumstances or individual needs of potential participants?
• Is it possible to consult some potential participants to help evaluate and/or modify the strategy?

8. **Outcome Evaluation:** A systematic outcome evaluation is necessary to determine whether a program or strategy worked. Consider:

• Is there a plan for evaluating the program?
• Does the evaluation plan provide feedback prior to the end of the program?
• Is there a plan for receiving feedback throughout the program development and implementation?

9. **Well-Trained Staff:** Programs need to be implemented by staff members who are sensitive, competent, and have received sufficient training, support, and supervision. Consider:

• Is there sufficient staff to implement the program? If so, has the staff received sufficient training, supervision, and support to implement the program properly?
• Will efforts be made to encourage stability and high morale in the staff members who will provide the program?

**C. Evaluation and Gathering Evidence**

When using an intervention that does not meet evidence-based criteria, evaluation becomes even more important. An evaluation of interventions that are not evidence-based should be designed based on the theory of change that leads to the decision to implement that intervention. Consider “What is the issue that made planners decide this intervention is necessary?” Then track whether or not the intervention is having an impact on that issue (immediate outcomes).

If it’s found that the intervention is successfully improving the immediate outcomes, consider strengthening the evaluation method. In order to move toward collecting evaluation results, document the effectiveness of the intervention so that it will meet evidence-based criteria. This may require that the evaluation move beyond the immediate outcomes and document change at the intervening variable level and possibly the consumption or consequence level.

The goal for non-evidence-based interventions is to move as far along the strength of evidence continuum as possible. However, the initial step of documenting an impact on the most immediate outcomes should be completed as the first step. This will help determine whether the intervention is worth committing the necessary time and resources to conduct a more rigorous evaluation.

If the intervention is found to be effective and a more rigorous evaluation is conducted, consider submitting the findings to a peer review journal. If successful, it may be time to apply to NREPP for review.
VII. Glossary of Key Terms

**Contributing/Local Condition:** The factors in communities that create and maintain the root causes, or risk factors that contribute to the problem.

**Evidence-Based:** A prevention service (program, policy, or practice) that has been proven to positively change the problem trying to be impacted.

**Interventions:** Encompass programs, practices, policies, and strategies that affect individuals, groups of individuals, or entire communities.

**Long-term Outcomes:** Directly measure changes in the problem. Long-term outcomes show evidence of population-level behavior changes and are potentially influenced in 3 to 10 years (e.g., reduction in 30-day use, decrease in alcohol related crashes and fatalities).

**Practical Fit:** The degree to which an intervention is appropriate for the community’s population, cultural context, and local circumstances including its resources, capacities, and readiness to take action.

**Problem(s):** The risk behavior or consequence it has been decided to address based on the local assessment.

**Strength of Evidence:** The strength of evidence will fall along a continuum from weak to strong. Where an intervention falls on this continuum is determined by how scientifically rigorous the evaluation process was that documented the intervention’s positive impact on the problem and/or contributing condition. It is not determined by how large an impact the intervention demonstrated on the problem targeted.

**Short-term Outcomes:** Directly measured changes in the local conditions. Short-term outcomes are potentially influenced within 6 to 24 months (e.g., increased retailer compliance).
VIII. References:


July 22, 2004

How to Get the Most Out of Research Articles

Evidence-based. That is the buzz word these days, and it is critical for your coalition to use programs, policies and practices that are (as much as possible) grounded in strong theory and evidence. This is where research comes in. Research is used to test out theories and examine the effectiveness of programs, practices and policies. Coalitions need to use this information to make the best decisions about what strategies they will use to address their local substance abuse issues. It is important to be an informed consumer of research information, and this means reading a research article and assessing the quality of the findings reported and its appropriateness to the work you do. Unfortunately, deciphering these technical articles can be a daunting prospect. However, all hope is not lost!

The following article helps break down the mystery of reading research so that your coalition can get the most out of coalition-relevant research. Research published in peer review journals is typically presented in a very prescribed format, with defined sections. Each section provides you with valuable information about the research study and by linking the pieces together, you can assess the quality and relevance of the research presented. So next time you get a research article, don't toss it aside. Sit down, take a look through the article and make the most of the information in your hand. — Evelyn Yang, MA

"Reading research: Go straight to the source to make science work for you"
By Jessica Campbell

Abstract
This is a summary of the key points in the article and should mention the hypothesis being tested. Read this to determine whether the article is relevant to your work.

Introduction
A context for the study is offered in this section. It should tell you what prompted the researchers to study the question at hand and upon which past research they are building. Ask yourself whether there is a logical connection between the study being introduced and past studies. Note whether the article is a research (reporting the findings of a single study) or review (reporting on a range of related studies) article. Note also whether research is quantitative (dealing with things that can be counted) or qualitative (dealing with interpretation or critique).

Methods
This section, sometimes also called "Methodology," explains how the researchers set about testing their hypothesis. It should include information about the instruments,

http://cadca.org/coalitionsOnline/article.asp?id=475

10/18/2004
procedures, participants and analyses used by the researchers. Ask yourself whether these seem adequate to answer the question posed by the hypothesis. All of the instruments (questionnaires, surveys, interview protocols, etc.) should be described. Their appropriateness for use in the study should be justified and their quality verified. Then the procedures by which the instruments were applied to the participants should be described. This will help you compare the study to other similar studies. For example, if two studies examined coalition functioning, did one study gather information with a paper-pencil survey and the other with a face-to-face interview? Did one study gather information at just one time point and the other multiple times over the course of five years? How would these factors affect the results? Note not only the number and type of participants included in the study, but also the researchers’ reasons for choosing that number and type. Ask yourself whether the participants are demographically similar to the population with which you work and whether any differences in demographics would affect the relevance of the study to your work. The analysis is the final part of the Methods section and will explain how researchers organized and examined the data they collected. Often this takes the form of statistics, but you do not need not be familiar with statistical analysis to understand the study.

Results
The findings of the research are detailed in this section. In addition to raw data, the relationships between variables, as outlined in the introduction, should be explained here. Skim this section and note the subheadings used; they should reflect the questions in the introduction and help you organize your thoughts. The results are often depicted in graphs, tables or other illustrative elements. You might find it helpful to flip to the Discussion section for clarifications of specific findings included in this section.

Discussion
This is a summary of the results, written in narrative rather than statistical or numerical form. This section explains whether the results support the hypothesis and what they mean to previous studies on the topic. Often, suggestions for future research are included in this section. Ask yourself whether the conclusions the researchers draw here are supported by their findings. It can be helpful to read this section before reading the Methods and Results sections to get a better idea of the full scope of the research before delving into its minutiae.

Bibliography
This is a listing of all the sources cited in the article, as well as relevant articles or books that were not cited. Scan this to find other writings relevant to your work.

This article first appeared in the Spring 2004 issue of Prevention Forum, published by Prevention First. For more information, please visit www.prevention.org.

Evelyn Yang is the Evaluation and Research Manager at CADCA’s National Community Anti-Drug Coalition Institute. If you have any questions, she can be reached at eyang@cadca.org or 703-706-0560, ext. 243.

This Week in Coalitions Online
- CADCA Hosts 8th Annual Drug-Free Kids Campaign Awards Dinner
- New Legislation Introduced to Reduce Underage Drinking
- Deadline Approaches for CADCA’s Mid-Year Training Institute
- Tobacco Prevention Funding Available for Coalitions from RWJF
- SAMHSA Releases Updated Directory of Treatment Programs

http://cadca.org/coalitionsOnline/article.asp?id=475

Youth Conference
St. Paul MN
11/11/2004
CADCA Calendar

10/18/2004
Source: Community Anti-Drug Coalitions of America (CADCA), National Coalition Institute's, Evaluation Primer
Guidance Document: Selecting, Planning, and Implementing Evidence-Based Interventions for the Prevention of Substance Use Disorders
Assessing “Goodness of Fit” Worksheet

The following questions, provided by the SAMHSA Prevention Platform, can be used to assess “Goodness of Fit.”

Note that “community” could be substituted for “organization” if considering a community logic model.

<table>
<thead>
<tr>
<th>Mission, Goals, Objectives</th>
<th>Yes</th>
<th>No</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Does this program or practice fit your organization’s mission?</td>
<td></td>
<td></td>
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<tr>
<td>2. Does the program or practice fit with the values underlying your organization’s mission?</td>
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<td>3. Is the program or practice compatible with the organization’s current focus?</td>
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<table>
<thead>
<tr>
<th>Implementation Capacity</th>
<th>Yes</th>
<th>No</th>
<th>NA</th>
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<tbody>
<tr>
<td>4. Does your organization have the human resources to implement the program or practice?</td>
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<td>5. Does your organization have the material resources to implement the program or practice?</td>
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<td>6. Does your organization have the appropriate funding to implement the program or practice?</td>
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<td>7. Can you implement the program or practice in the manner it was designed?</td>
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<td>8. Does the program or practice take into account the readiness of the community and target population?</td>
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<table>
<thead>
<tr>
<th>Cultural Relevance</th>
<th>Yes</th>
<th>No</th>
<th>NA</th>
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<tr>
<td>9. Is the program or practice appropriate for the community’s values and existing practices?</td>
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<tr>
<td>10. Is the program or practice appropriate for the culture and characteristics of the community being served?</td>
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<tr>
<td>11. Does the program or practice take into account the community’s values and traditions that affect how its citizens and the targeted group regard health promotion issues?</td>
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<td>12. Has the program or practice shown positive results in areas that are important to your community?</td>
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<thead>
<tr>
<th>Evidence Based and Effective</th>
<th>Yes</th>
<th>No</th>
<th>NA</th>
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<tr>
<td>13. Is the program or practice based on a well-fined theory or model?</td>
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<tr>
<td>14. Is there documented evidence of effectiveness (such as formal evaluation results)?</td>
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<tr>
<td>15. Have the results been replicated successfully by different researchers over time?</td>
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<tr>
<td>16. Has the program or practice been shown to be effective for areas similar to those you will address?</td>
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Questions To Ask as You Explore the Possible Use of an Intervention

Implementations
- Where has this intervention been implemented? In what settings? With what populations?
- What are the particular challenges to effective implementation? How might these challenges be overcome?
- What common mistakes have been made, and how can we avoid them?
- Can you provide contact information for two or three directors of implementation sites that are currently in the process of implementing the intervention?

Notes:

Adaptations
- Has your intervention been adapted in any ways that might be relevant to its implementation in a setting like mine (describe your setting) or with a population like mine (describe your population)?
- Have you been able to identify whether there are any “core components” of the intervention—parts of the intervention that must be implemented and/or should not be adapted?

Notes:

Staffing
- What are the staffing requirements (number and type)?
- What are the minimum staff qualifications (degree, experience)?
- What methods are used to select the best candidates (philosophy, skills)?
- Is there a recommended practitioner-to-client ratio?
- Is there a recommended supervisor-to-practitioner ratio?

Notes:
Quality Assurance Mechanisms

- What are the core components that define the essence of the intervention?
- How are supervisors prepared to provide effective support for practitioners?
- What is the supervision protocol for providing effective support for practitioners?
- What practical instruments are available to assess adherence and competence of the practitioner's use of the intervention's core components?
- What tests have been done to ensure the validity and reliability of the fidelity instruments?

Notes:

Training and Technical Assistance

- Is training required before a site can implement this intervention?
- Who conducts the training, and where is it conducted?
- Can staff at implementation sites be certified to conduct the training?
- Who is typically trained (practitioners, staff selection interviewers, staff trainers, staff supervisors/coaches, agency administrators)?
- What is the duration of the training (hours, days)?
- Is retraining required/available?
- What on-site assistance is provided by the developer, if any?
- How long does it usually take for a new implementation site to become a high-fidelity user of the intervention?

Notes:

Costs

- How much does it cost to secure the services of the developer? What is included in that cost?
- If the intervention costs more than my budget allows, is there a way to implement only part of the intervention?
- Do costs include salaried positions? In-kind costs? Special equipment?

Notes: