Post-Game Analysis: Evaluating Your Program/Event

What Is Program Evaluation?

In sports, it has been said, "It's not just about winning; or losing; it's about how you play the game." In program evaluation, it's about that and more. Evaluation often is defined as the examination of the value, merit, or worth of a program. A public health program, such as Tobacco-Free Sports (TFS), may be broadly defined as any set of organized activities supported by a set of resources to achieve a specific and intended result,[11, 12] thus, almost any organized public health action toward tobacco control can be seen as able to benefit from program evaluation.

The evaluator may use both qualitative information and quantitative measures to obtain findings for rational decisionmaking about program implementation and whether program goals and objectives have been accomplished. The decisions can be used to help clarify program plans, to enhance communication between partners and stakeholders, and to provide feedback needed for program effectiveness. Program evaluation is a systematic way to improve and account for program actions involving methods that are useful, feasible, ethical, and accurate. In basic terms, does the program do what it was supposed to do? Evaluation helps to answer that question.

Keep in mind that program evaluation is influenced by real-world constraints. Evaluation should be practical and feasible and must be conducted within the confines of resources and time, and contextual factors (e.g., culture, politics, school programs) should be considered. Evaluation should serve a purpose, be conducted in an ethical manner, and produce accurate findings.

How Should Evaluation Begin?

Before you start your tobacco-free sports program, set up a plan to see how your program is operating and what effects it is producing. A logic model for evaluation can help you do this (discussed with examples on page 51). With a logic model, you can strengthen your program and increase its effectiveness and impact over time.

What you discover through evaluation can help you influence the people who allocate funds and set policies. These findings also show elected officials, policy makers, and others who are interested in your program's success that you are accountable.

To help you plan your evaluation, review and use the six steps recommended in the CDC's Framework for Program Evaluation in Public Health.[13]

The six steps to evaluation are:

1. Engage stakeholders—those involved, those affected, and the primary intended users.
2. Describe the program—the need, expected effects, activities, resources, stage, context, and logic model.
3. Focus the evaluation design—the purpose, users, uses, questions, methods, and agreements.
4. Gather credible evidence—the outcome indicators, sources, quality, quantity, and logistics.
5. Justify conclusions—the standards (utility, feasibility, propriety, and accuracy), analysis and synthesis, interpretation, judgment, and recommendations.
6. Ensure that evaluation findings are used, and share lessons learned—the design, preparation, feedback, follow-up, and dissemination.

In addition, the CDC offers technical assistance to state health departments and provides a wealth of information to help you conduct evaluation. For more information, go to www.cdc.gov/eval.

When Should Evaluation be Conducted?

Evaluate before and during (formative eval-uation) the program and after the program (short-term, intermediate, and long-term outcome evaluation). Before a tobacco-free sports program is planned, you can conduct a needs assessment to determine the gaps in community services related to tobacco control and youth, and these needs can be used to shape the program. The results of the needs assessment might determine that a tobacco-free sports program might be an effective tool to reduce tobacco use among youth.

How Is Evaluation Done?

In sports, coaches informally conduct formative evaluation on a regular basis, to monitor and judge the performance of the team and individual athletes while the performance is still modifiable. Informa-tion is collected, which can take the form of quantitative (objective measurements) or qualitative (subjective) data, to help a coach make rational decisions for determining needed changes. For example, during prac-tice or during a game, a coach may consider a player's batting average or pitching speed, a sprinter's run time and the distance, the ac-curacy of a golfer's swing, or the game score. A coach also may use qualitative measures to assess performance, including a gymnast's

stance or position, a punter's kick style, or a batter's swing, to determine if modifications are needed. The coach may then discuss and demonstrate the change with the ath-lete. Formative evaluation is useful because it allows the coach and player to identify and address problems and make revisions before or during the game, and it increases the likelihood that the team will succeed.

Similarly, in public health programs, formative evaluation allows for continuous evaluation of the program, from conception to planning to development to implementa-tion. It helps stakeholders make rational decisions for changes that will improve the program's performance while it is still modifiable.

The formative evaluation of a TFS program may use process data collection techniques, such as the number of requests for materials, the number of participants who attend or participate in oral screenings, the number of calls for TFS information during a month, the number of TFS-related stories that appear in the local media, focus group testing of messages directed to youth, expert feedback from external and internal reviewers on program materials, and the evaluation of the effectiveness of instructors' presentations to youth.

Formative evaluation can determine whether proposed messages are likely to reach, to be understood by, and to be accepted by the people you are trying to serve; show the strengths and weaknesses of written materials; determine how people in the target population receive information (e.g., which newspapers they read or radio stations they listen to, whom the target

population respects as a spokesperson); and provide details that program developers may have overlooked about materials, strategies, or mechanisms for distributing information. For example, sharing lessons learned from the evaluation of TFS programs helps others to plan, develop, and revise their programs. Formative evaluation strengthens the potential for a positive outcome.

Outcome evaluation is used to assess short-term, intermediate, and long-term effects of the program. Short-term outcomes describe the immediate effects of your program. They might include children's increased awareness of the dangers of using tobacco or changes in their attitudes about tobacco use. Intermediate outcomes describe changes that occur after your program has had a chance to affect behaviors, norms, or policies. They might include changes in children's behaviors, social norms, or the surrounding environment. Long-term outcomes take years to achieve. They might include reductions in tobacco-related illnesses and deaths. Outcome evaluation provides documentation to determine what was right and wrong with the program; the effectiveness of the communication messages, instructional program, materials, and instructors; and which intervention activities are effective in producing changes (i.e., have the goals and objectives of the program have been attained?).

In sports, a coach, team owner, or school reviews the team's win-loss record at the end of the game, tournament, or season. Similarly, at the end of the fiscal year, the sum of the qualitative and quantitative data is analyzed and evaluated to determine whether the tobacco-free sports program has been effective in reaching its goals. In sports, if the results are positive, the team owner, school, or university, may use the results to justify continuing the program, renew the coach's contract, or maintain the same group of players. If the evaluation shows a program as ineffective, then further program activity may not be necessary. If a program coordinator can offer appropriate contextual reasons why the program was ineffective and suggests ways to modify it to be more effective, the program may be continued and could receive further funding.

Common data collection strategies include questionnaires and surveys, self-report inventories; structured interviews, open-ended interviews, and role-play; scenarios; story telling; simulations; direct observation; and document review. Data collection strategies vary and depend on the logic model, evaluation plan, and evaluation questions to be answered.

Why Use a Logic Model for Evaluation?

Simply stated, does the program do what it was supposed to do? The logic model helps answer this question. It describes how a program works either for an existing program or for a potential or proposed program. The logic model makes the underlying assumptions explicit and reveals the inner workings of the program. There are several reasons why a logic model can help your evaluation: (1) It is an explicit blueprint for the evaluation. It improves the evaluation by guiding the efforts to mea-
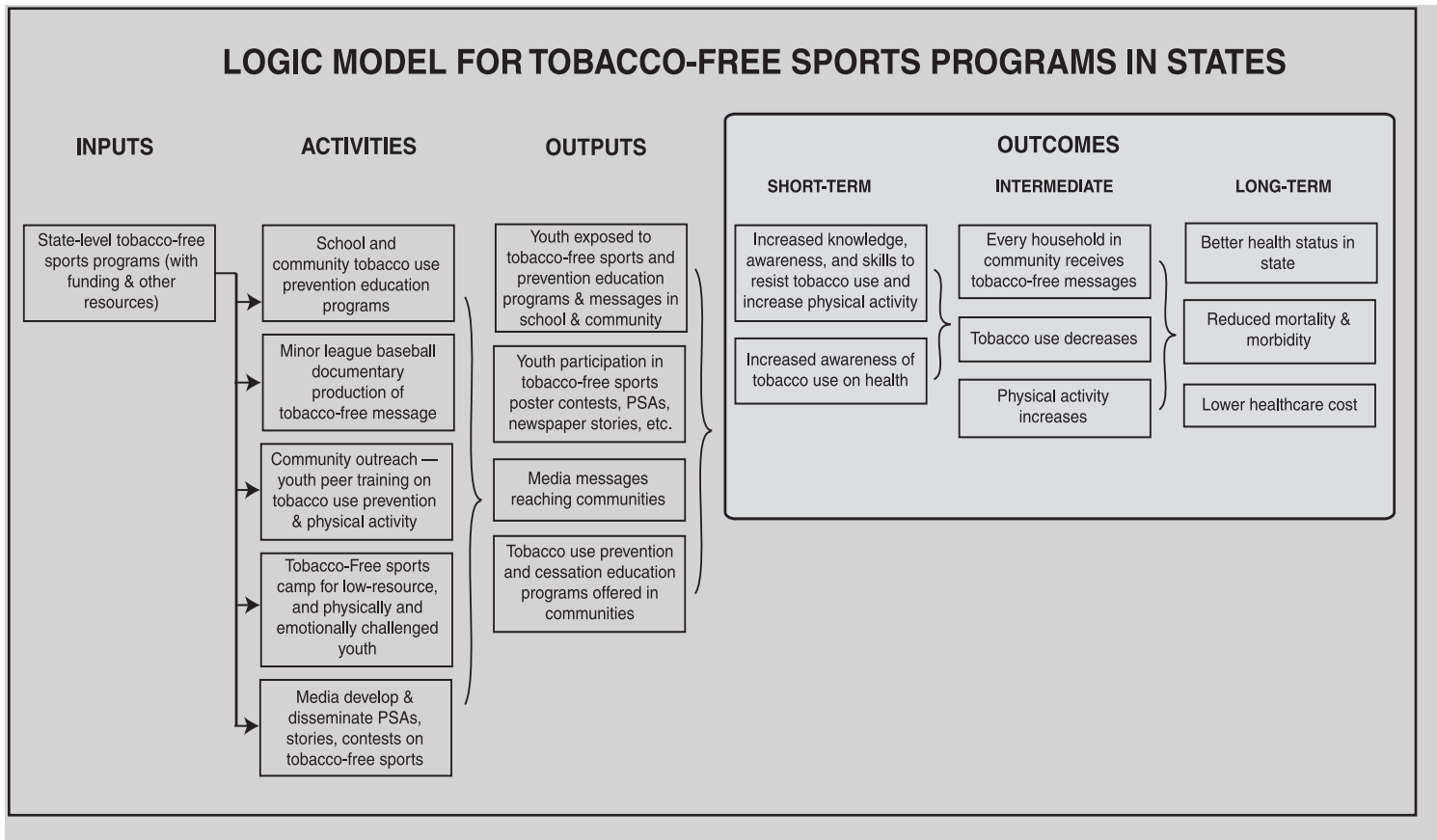
sure and document progress at each step in the model, to reach the final goal, and to increase the potential for success; (2) It eliminates gaps or logical problems with the program and clearly identifies the consequences or outcomes of the program; (3) It helps build community support and allows the public to clearly know what is expected of the program effort (when programs are clear, the community knows what to expect, and collaborating partners know how they can contribute to the effort); and (4) It helps involved individuals be accountable because it identifies clearly what is expected. The logic model lets others know what the program is supposed to accomplish and gives indications of how you will measure that accomplishment. The vocabulary of evaluation terms used with the logic model are alternate terms and definitions evolve and are used. For example, the terms "impact" and "outcome" refer to the consequences or after-effects of programs.

For some, these terms are synonymous and interchangeable. Others make subtle distinctions in the use of these terms. Often there is a time dimension between impacts and outcomes, with outcomes usually referring to more immediate consequences and impact to the longer-term consequences:

- Inputs—the resources invested in the program such as dollars or days.
- Activities—actions and activities that create the outputs.
- Outputs—results of an organization's activities, including programs, products, curricula, etc.
- Outcomes—changes that occur relatively soon after a program starts, sometime after a program has started, or longer-term changes that are a result of the program.

The sample logic model on page 53 describes the inputs, activities, outputs, and outcomes for Tobacco-Free Sports Programs in states.

LOGIC MODEL FOR TOBACCO-FREE SPORTS PROGRAMS IN STATES

INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES		
			SHORT-TERM	INTERMEDIATE	LONG-TERM
State-level tobacco-free sports programs (with funding & other resources)	School and community tobacco use prevention education programs	Youth exposed to tobacco-free sports and prevention education programs & messages in school & community	Increased knowledge, awareness, and skills to resist tobacco use and increase physical activity	Every household in community receives tobacco-free messages	Better health status in state
	Minor league baseball documentary production of tobacco-free message	Youth participation in tobacco-free sports poster contests, PSAs, newspaper stories, etc.	Increased awareness of tobacco use on health	Tobacco use decreases	Reduced mortality & morbidity
	Community outreach — youth peer training on tobacco use prevention & physical activity	Media messages reaching communities		Physical activity increases	Lower healthcare cost
	Tobacco-Free sports camp for low-resource, and physically and emotionally challenged youth	Tobacco use prevention and cessation education programs offered in communities			
	Media develop & disseminate PSAs, stories, contests on tobacco-free sports				

What Decisions Can Be Made from Evaluation?

Three basic decisions can be made: (1) replicate the program exactly as it was originally developed and implemented; (2) remedy the program based upon the evaluation (at this point the program may be adapted or modified while the program is still modifiable); or (3) eliminate the program (the program is not replicated as designed).

What makes program evaluation different from the sort of informal assessment that any smart and dedicated coach is doing all the time? Mainly, it is that evaluation is conducted according to a set of guidelines (protocols) that are systematic, consistent, and comprehensive to assure the accuracy of the results.

STEPS IN EVALUATION

STANDARDS FOR "GOOD" EVALUATION

Engage Stakeholders

Describe the Program

Focus the Evaluation Design

Gather Credible Evidence

Justify Conclusions

Ensure Use and Share Lessons Learned

Utility

Feasibility

Propriety

Accuracy