Evaluating Health Promotion Programs: An Introductory Overview

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What is evaluation?

What images does evaluation evoke? What if you had to describe evaluation using your five senses? What would it look like, smell like, sound like, feel like, and taste like? Why does it excite some people, frighten others, feel tiresome and burdensome to many, or reassure yet others? What are we meant to be doing when we engage in evaluation?

Evaluation is something we do informally every day in our personal lives. We decide if that new yellow dress is worth $100. We consider whether or not our children's job of cleaning the bathroom sink is good enough. We decide if we want to work with a certain organization based on the quality of their work and how easy or difficult it will be to share ideas. We decide that next year we will put orange flowers in the corner of the garden because we learned this year that the blue faded into the background.

Webster's definition says that to evaluate is "to determine or fix the value" of something; or it is "to determine the significance or worth of – usually by careful appraisal and study". Green and Kreuter [7] refer to dictionary definitions that speak of evaluation in terms of "carefully examining" and "judging the worth." They take it a step further and suggest that evaluation is "the comparison of an object of interest against a standard of acceptability." The standard of acceptability is usually expressed in the program's outcome objectives. Arlene Fink [6] refers to evaluation as a "diligent investigation of a program's characteristics and merits." Rossi and Freeman [15] refer to evaluation as "the systematic application of social research procedures in assessing the conceptualization and design, implementation, and utility of social intervention programs."

Evaluation is not accountability reports, record keeping or program monitoring. Evaluation may involve all these but is more comprehensive. Evaluation is not just something extra that takes away resources from program implementation. Evaluation is an integral and ongoing aspect of program planning and program implementation. In fact, the best antidote to evaluation anxiety is good planning that specifies clear objectives and strategies from the very beginning of a program.

Why Do We Evaluate?

The purposes of evaluation are varied. Essentially, evaluation is a learning activity. We want to know if we achieved the results that we hoped for and if those results contributed to long-term desired changes. We also often want to know if we accomplished other positive outcomes, even if they were different than what we expected. We want to know if we really conducted the activities that we planned as well as the strengths (or weaknesses) of our programs. We want to know how we succeeded or why we fell short. We want to know

what we could do differently to improve and what we can repeat because it contributed to success. We want to identify areas to emphasize in staff development as well as other program management areas. We want to know if we can justify the program and its expenditure of resources.

The Hippocratic oath that physicians take includes the phrase “and this above all, do no harm.” Evaluation is designed to help ensure that valuable resources are not being misused on programs and efforts that do harm. And, even if we do not document harm deriving from a specific program and if we continue to use resources in programs that are ineffective, we inadvertently do harm because those resources are no longer available to do programs that could do good.

Evaluation can help us assess our weaknesses; it can help us clarify what needs to be changed or strengthened. Remember, as Joseph Telfair [16] reminds us, “if you don’t measure results, you can’t tell success from failure; if you can’t recognize failure, you can’t correct it; if you can’t see success, you can’t learn from it.” Or as an African proverb puts it, “the only way forward is to take one step back.”

The case of teen pregnancy prevention programs is instructive. Susan Philliber [12] writes, “How could we have worked so hard on teen pregnancy prevention and yet know so little about how to solve this problem? We have lots of good ideas, “best bets,” and promising programs but little unassailable data on what effects they have.” She goes on to write, “One of the reasons for this is our failure to document the results or even the content of most programs. Satisfied with good intentions or a few stories about program successes, many efforts are continuously funded without any strong evidence that shows they work.”

In the best of worlds, we conduct evaluation not to satisfy administrators, funding agencies, boards of directors, or professional peers. We conduct evaluation to satisfy ourselves.

Who Conducts Evaluation?

A project evaluator(s) AND OTHERS!

Every program and every program evaluation have multiple stakeholders. Stakeholders are those people who are interested, involved and/or invested in your project in some way. Because you will be trying to satisfy these different stakeholders, their “presence” will visibly or invisibly help shape the evaluation. They essentially are part of those conducting the evaluation.

Depending on evaluation philosophy, the continuum can range from a single, outside evaluator who works minimally with project staff to an evaluation team composed of both inside and outside evaluators as well as many program stakeholders. Program staff, advisory groups, collaborating organizations, funders, and others may be asked to help with the evaluation design. Program staff will be asked to keep records. Program staff may be asked to help identify and recruit interviewees or focus group members. You and/or your staff may be respondents. You may be asked to identify community members who can be trained to help with data collection. Program staff, advisory council members and program participants may be involved in data analysis.

Keeping in mind the range of participants in an evaluation, there is still generally one or two people who are responsible for coordinating the evaluation and are termed the project evaluators.

Make every possible effort to identify and involve a trained evaluator in your program at the earliest stages of program development. When you are looking for someone to help you with evaluation, you will want to seek out the involvement and/or advice of your state Extension evaluation specialist. You may need to search further if your state specialist is already involved in multiple evaluation projects, if your state specialist does not have a familiarity with health promotion program development and implementation, or if he/she does not have a sufficient theoretical grounding in the particular health area you are working in. If your state does not have an evaluation specialist, do not assume that anyone who has done academic research in your program area will make a good evaluator. Evaluators use the same methods available to researchers, but evaluators have more experience working in a “real-world” context with shorter time frames, program pressures, and a program-planning framework.

When choosing an evaluator, either as an employee or as an outside consultant, be sure your evaluator:

- ❖ writes clearly and succinctly; ask for sample reports previously prepared by the evaluator.

- ❖ demonstrates good communication and group facilitation skills. You may need to negotiate the evaluation plan/design, and you want to be sure that your evaluator can explain clearly why he/she thinks certain elements are essential. Alternatively, you want to be sure he/she will be open to discussion and adaptation.

- ❖ understands the community and can approach people with humility and respect. If the evaluator will be doing fieldwork him/herself and interacting with program participants or the community, it is especially important that

he/she is sensitive to diversity and is not carrying attitudes that "blame the victim."

- ❖ has a schedule that is not overbooked and that can be consistent with your timeframes.

- ❖ makes clear who will be doing various tasks. As mentioned above, evaluation is a team endeavor. At a minimum, you and staff working on a health promotion project will be asked to keep records and collect some data. Participants and other stakeholders will be asked to provide information. Therefore, identify at an early stage in the evaluation what tasks will fall to the evaluator and what will fall to you and your program staff.

- ❖ is clear about costs, including overhead costs. Costs will include the evaluator's services as well as costs for data collection, data entry, data analysis, supplies, copying, telephone/fax/e-mail, postage, travel, and overhead/indirect costs. You can negotiate lower costs if you know, for instance, that a senior evaluator will be delegating several tasks to graduate students, interns or junior staff. Or you might be able to identify ways in which your program can contribute in-kind.

- ❖ discusses data ownership with you; it can be a thorny issue, so that is something important to discuss early on. Do you want your evaluator discussing program data with the media without your input or control?

For Whom Do We Conduct Evaluation?

Hampton's material in the University of Kansas' web-based Community Tool Box [8] suggests there are three groups of people for whom we conduct evaluation: community groups, grantmakers/funders, and university-based researchers.

In the community group he includes staff and/or volunteers who implement the program (agents of change) and the people who participate in the program or whom the program aims to change (targets of change). Using an ecological framework, this would expand Hampton's community group to include several layers. For example, you would include friends and family of program participants. Another important community component is the community infrastructure (e.g., if you were doing a violence prevention program, your police department or department of human resources would be potential stakeholders). Formal leaders, local politicians or business leaders who make public decisions and effect public policy making, are an important part of the community. Informal leaders, people who influence others in their choices and decisions, are sometimes more critical than formal leaders.

Grantmakers and funders want to know whether or not their money is being "well-spent." Did the program really reach the people it said it would? How many? Were they satisfied with the program? Did the program produce the results the funders were looking for? Potential grantmakers will want information about your programs, so your current evaluation can help gather data that will be helpful in the future. Funders also include, for many health promotion programs, government agencies and legislators. In this case, those who vote are also stakeholders. For instance, the abstinence only federal funds are a result of an active constituency of voters, and they have a great bearing on the current evaluations of those programs as well as a bearing on what potential programs might be funded. Remember that there are multiple "political" realities in evaluation, not least of which is the political arena of local, state and national politics. Evaluation results are not the only inputs into program funding decisions. The funder's current fiscal health, staffing patterns and priorities can all effect continuation or initiation of project funding.

University-based researchers may be involved in your project development, implementation or evaluation. They will have an interest in how your program results contribute to the current body of research in your specific health area. Can your program promoting the early detection of breast cancer through local coalitions and/or volunteer led workshops really document an increase in mammography utilization among an underserved target audience? Do you have enough process evaluation data to be able to say with confidence what particular elements of your program are most probably associated with your success?

How Do We Classify Different Types of Evaluation?

Evaluability assessment refers to the preliminary process of determining if a program is ready to be evaluated or capable of being evaluated. Is there even a likelihood that the program will go into operation within the projected timeframe for the evaluation? Are there strong political forces that will limit the evaluator's freedom to operate ethically? Does community assessment even support the need for this particular program and thereby justify the commitment of evaluation resources? If this project proposes to rely heavily on collaboration, what is the history and nature of past collaboration efforts, and is there evidence to support the probability of being able to implement a collaboration-based intervention? Evaluability assessment is generally associated with the planning and earliest implementation stages of a program.

Sample evaluability assessment questions might be:

- ❖ Should this program be developed at all?
- ❖ Will staff be hired in time for the program to develop and implement an intervention?
- ❖ Are program staff willing to work with the evaluator to develop a logic model?

Process evaluation examines program activities/outputs and documents program recipients/participants. It looks at the consistency between proposed program strategies and actual activities, intended audiences and actual program participants. It takes a detailed look at project implementation and examines issues that arise as the program is put into practice.

When findings from process evaluation are used to provide feedback to program planners, staff and funders along the way with the intent of improving program implementation, we refer to it as formative evaluation.

A sample process evaluation question could be, “was the process of showing a videotape and answering viewer questions implemented in the health department waiting room according to the recommended procedure?” Another critical process evaluation question must always be, “is the program reaching its target audience?”

Analogous sample formative evaluation questions might be:

- What were the challenges of following the recommended procedures when showing the videotape and answering questions in the health department waiting room?
- Are there obvious adaptations to recommend?
- Who needs to be involved or consulted in deciding how to proceed with this educational method?
- What factors are contributing to an ongoing process of successfully reaching the target audience?

Outcome evaluation aims to answer two questions: 1)were there any changes among those served and 2) did the program cause those changes? We need to be able to clearly identify and document the presence of changes/outcomes among a sufficient number of program participants to attest to the success of a program. We must also be able to show that the changes did not occur because of other reasons besides our program. Quantitatively, we do that through statistical tests of significance and a variety of evaluation designs. Qualitatively, we do that through a process of collecting overwhelming evidence similar to the process used in a court case. Outcome evaluation focuses on the proximal outcomes (i.e., those outcomes that we think we can change that research and/or theory says are linked to the desired impacts). If we want to reduce cardiovascular disease, then we know we can do that by changing certain behaviors such as eating and physical activity habits. Determining if we increased physical activity would be an outcome; determining if we reduced cardiovascular disease would be an impact.

Impact evaluation strives to document that our program achieved the desired impact and that it was, indeed, our program’s ability to successfully achieve desired outcomes that contributed substantially to the impact.

Pirie [13] cautions us that, “Outcome questions are often the first questions posed to the evaluator, but they should be the last ones to be answered. Only if the program seems to be operating in a satisfactory manner can the answers to outcome questions be meaningful.”

Philliber [12] reminds us that there are some strategies that, by themselves, do not answer outcome questions. Program participant testimonials about how satisfied they are with the program or how much they like the staff do not mean that the program is having its desired impact. Expensive program inputs and heavy staff workloads do not mean that those inputs are having the intended result. Identifying program participants who have had particular or remarkable success does not mean that the program is the reason for their success, nor does it mean that the program was successful with a sufficient number of participants to be worthwhile.

Cost effectiveness/cost benefit evaluation

With the current emphasis on accountability many funders want to know the relative value of a program’s outcomes compared to the investment of resources. Cost effectiveness analysis relates the cost of a specific alternative to specific measures of program objectives. The costs of different strategies for achieving similar outcomes can be compared. Cost benefit evaluation looks more broadly and attempts to make some assessment of the service program by determining if overall welfare or benefits to a broad constituency of people have increased as a result of the program. Both these techniques require the involvement of an economist or an evaluator with a strong background in economics. They are costly to conduct and are filled with many challenges such as determining the dollar value of benefits, determining indirect costs, or accounting for intangible costs and benefits.

How Do the Different Types of Evaluation Relate to the Components of a Program/Intervention Model (e.g., Derived from the PRECEDE-PROCEED Model)?

In the PRECEDE model, the aim is start by thinking about the desired impacts and work backwards - reasoning through the outcomes, intermediate outcomes, individual and community processes of change, outputs and program activities, and institutional arrangements that make a hypothesized explanatory chain/link of factors. When planning and organizing the evaluation, the chain is reversed. Usually the evaluability assessment is conducted first, and it examines the institutional arrangements, preliminary strategic planning, and early efforts at implementation. Documenting the resources and activities actually committed to program implementation is the job of process evaluation. Examining implementation and its success in achieving the most preliminary objectives, such as engagement of the target audience, participation by clients in the minimum number of program activities, etc. is the role of process

and formative evaluation. Documenting progress toward and/or achievement of intermediate objectives is the role of outcome evaluation, and documenting longer term goal accomplishment is the job of impact evaluation.

Program Models Assist Evaluation

What is a Program Model?

Program models are sometimes referred to as logic models or program theories of change. A logic model is a graphic that helps us visually see the program's theory of change. It helps us understand why we choose to put certain activities into our program rather than others. It shows us that we expect activity X to have effect Y that will help achieve the long-term objective of our program. Developing a logic model should be one of the first steps in an evaluation. In fact, it should be a product of the program planning process that both program staff and evaluators can rely on to guide their work. It is an example of how program evaluation is integrally linked to program planning and implementation and cannot be effectively "tagged on" to the end of a project.

Essentially a program model is a road map. Few of us go off on vacation without a clear destination or a pretty clear sense of how we would reach our destination. Generally speaking, we hope that is also true of the health education and health promotion programs we choose to work on. In many instances if we familiarize ourselves with research and program evaluation data from other similar projects, we can develop our program plan (map) to follow a route that has been previously well-tried. Other times when we develop programs or approaches, we have a clear idea of what we want to see changed at the end of the project, but there is not adequate prior research or experience to follow. In those instances we choose to undertake a certain set of activities or to hire someone with a certain background because we have a set of implicit assumptions about what it will take to make the changes we want. But if we do not clearly articulate those assumptions, we may not be able to "test" their appropriateness, and later we may not be able to effectively say why our program had positive or negative outcomes. Those Europeans who explored areas of North America where Europeans had not been previously were similar to health educators who are the first to develop new programs. They do not have a knowledge base on which to build their plan, so they might have to venture into new territory and create a map along the way for others to follow later. In these instances, evaluation is even more critical because we want to be able to leave a map for others of where to go and where not to go or to be able to tell others that specific paths led to unexpected, but valued outcomes. Almost always we have a rationale for doing the things we do.

The challenge for an evaluator at times is to help program staff articulate what they see as the rationale for their choices.

Who Develops Program Models?
Many different people can create a logic model. “Experts” familiar with the research can develop the program model in a top-down fashion. Program staff can develop the model based on their own experience and rationale. “Experts” and program staff can jointly develop a model that reflects academic theory, research findings and intuitive direction based on experience and direct interaction around the issue. Program participants and/or potential program participants can develop a program model they believe would address the health issue under consideration based on their perception of the issue. How many times did those early European explorers of North America benefit from the advice and conversation of those native people who were already familiar with the terrain?

Steps in Developing a Program/Logic Model:

1. **Decide what should be in the program model and the scope of the model.** At a minimum the basic program model should depict your planned activities, your inputs (strategies for getting your organization ready to implement your activities), the short-term results you expect, and the longer-term outcomes you hope to achieve – including all those pertaining to children, youth, families and/or communities. The model can depict in a broad fashion the overall components of your program, or it can focus in more precisely on a particular aspect of your program. Think of it as a camera that has a wide-angle and a telephoto lens.

   Start at a basic level and identify your model’s core components and their relationships. What we notice is inputs, activities, short-term outcomes and long term outcomes. Appendix 3 outlines a sample of a basic logic model for a breast cancer education program.

   Then think through in a more detailed and precise way the logic, practical considerations, and the in-between steps involved in your project. You will now add to your model outputs, intermediate outcomes, impacts, and contextual factors. Appendix 4 is a more detailed logic model for the same breast cancer education program.

2. **Draft the logic model.** Once you have determined the scope and components of the logic model to represent your program and the evaluation you are undertaking, actually draft the logic model. Put it in graphic form, group or separate the components with boxes, and attach arrows to show the relationships and patterns between the components.

3. **Use the logic model as a framework for your evaluation planning.** Develop indicators that will give an accurate reflection of what is happening in your program and the results you want to achieve. Let the model guide you in the development of your evaluation plan (see next section).

4. **Go back periodically and see how well the model reflects your current program.** Has your program changed? Does the model need adapting? Is the program not meeting the expectations laid out in the model? Can you identify current challenges with the program, and then can you expand that component of the logic model to facilitate a better analysis of the challenges? As a result of your formative evaluation, do you want to expand some particular part of the logic model? For instance, we can focus in more carefully on the volunteer recruitment aspect of the model. Appendix 5 depicts such a detailed section of the logic-model.

Why are Program Models Recommended?

Philliber [12] suggests four reasons: 1) it makes the interventions and outcomes very clear; 2) it protects your program from inappropriate or excessive expectations; 3) it enables you to define measurable results; and 4) it checks the logic of your assumptions.

What kind of clarity are we referring to? Again Philliber provides us with an example. She asks us what do we mean when we say “we are going to develop youth to their fullest potential,” or alternatively, what kind of a program are we describing when we say, “we are going to provide quality care for all our patients?” We are compelled to be more specific when we develop a program model. We are also challenged to test our assumptions and to increase our realism.

We see in front of us a program model that says we expect a series of four one hour educational workshops to significantly reduce youth violence in a specific neighborhood. In this neighborhood 90 percent of residents are living below the poverty line, 40 percent of young men spend some time in prison, and 30 percent of income earned is derived from the sale of illegal drugs. Looking at the arrows on the model, the arrows between the workshops and the reduction of violence, we suddenly realize that those arrows are not realistic. Are there any other programmatic components? Are we working on our project as one part of a larger community-based/neighborhood-based collaborative initiative? If not, the path represented by the arrows, between our program and violence reduction is not very realistic. Alternatively, we realize the limitations of a program model that proposes to reduce breast cancer mortality in an underserved community with very limited access to care by encouraging women to get annual mammograms. Is there any part of the model that also encourages the community to develop strategies to provide affordable or no-cost mammograms?

Instead, a program/logic model would encourage us to stipulate more clearly our objectives. If we use the breast cancer education model, we might instead stipulate an activity objective such as:

> By August 30th 2000, all hospitals in county X will have agreed to each offer 10 free mammograms between October and December 2000.

Then our short-term objective might be that 20 limited-income women in county X will receive a baseline mammogram before Dec. 30, 2000. Our longer-term outcome might then be that all those women detected with breast cancer will receive ongoing free treatment. In reviewing the logic model, we are likely to realize that we have no strategies or activities that are likely to contribute to the assurance for free mammograms. Our logic model needs amplification, as does our program plan. Or, maybe we realize that our program has no ability to increase the activities we plan. Instead, we revise our expectations about what we can accomplish. We have then, protected ourselves from unreasonable expectations.

In summary, the overarching rationale for logic/program models is to assist us in clarifying the program's theory. That theory can be based on research, but it can also be based on our own program experience and knowledge of our community and/or the clients we work with. Rennekamp [14] suggests that when program theory is ignored, "program staff have limited understanding of how their work translates into meaningful outcomes. Consequently, evaluation becomes a mystery, work has limited meaning, [and] program staff lacks the ability to explain the significance of their work. Therefore, program models can be an invaluable asset to the program planners and the evaluators as they keep staff focused and motivated...two critical elements in successful health promotion programs!"

Developing an Evaluation Plan

An evaluation plan is an important guide through the several steps of evaluation. The first step is to identify the key evaluation questions you want to ask. These will develop as you take some time to think about what it is that you, your community, the participants, your staff, funding partners, or other stakeholders really want to know. The plan will help you not waste time gathering information you do not need or will not be able to adequately analyze. A well thought-out logic model will provide you with a solid foundation for prioritizing the questions you want to ask.

A plan will enable you to better identify who can answer your questions and provide the information you are seeking. It will assist you in identifying the most appropriate indicators or benchmarks. It will help you identify the best possible methods and approaches for gathering what you need. Because the plan will include a timeline, you will also have to give adequate attention to

issues of administering and implementing the data collection process. A good plan will include a time frame, staffing plan and resource allocation for data analysis. Without this you could end up with lots of data and no capacity for analyzing it for maximum benefit. Finally, a good plan will also encourage you to think about reporting – right from the beginning. This will bring you right back around to the first step of identifying questions and stakeholders who want information.

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