IMPLEMENTING EVALUATIONS

LEARNING AND GROWING THROUGH EVALUATION MODULE 2

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DEPARTMENT OF HEALTH & HUMAN SERVICES · USA

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Implementing Evaluations
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Chapter 1

Transitioning from Planning to Implementation

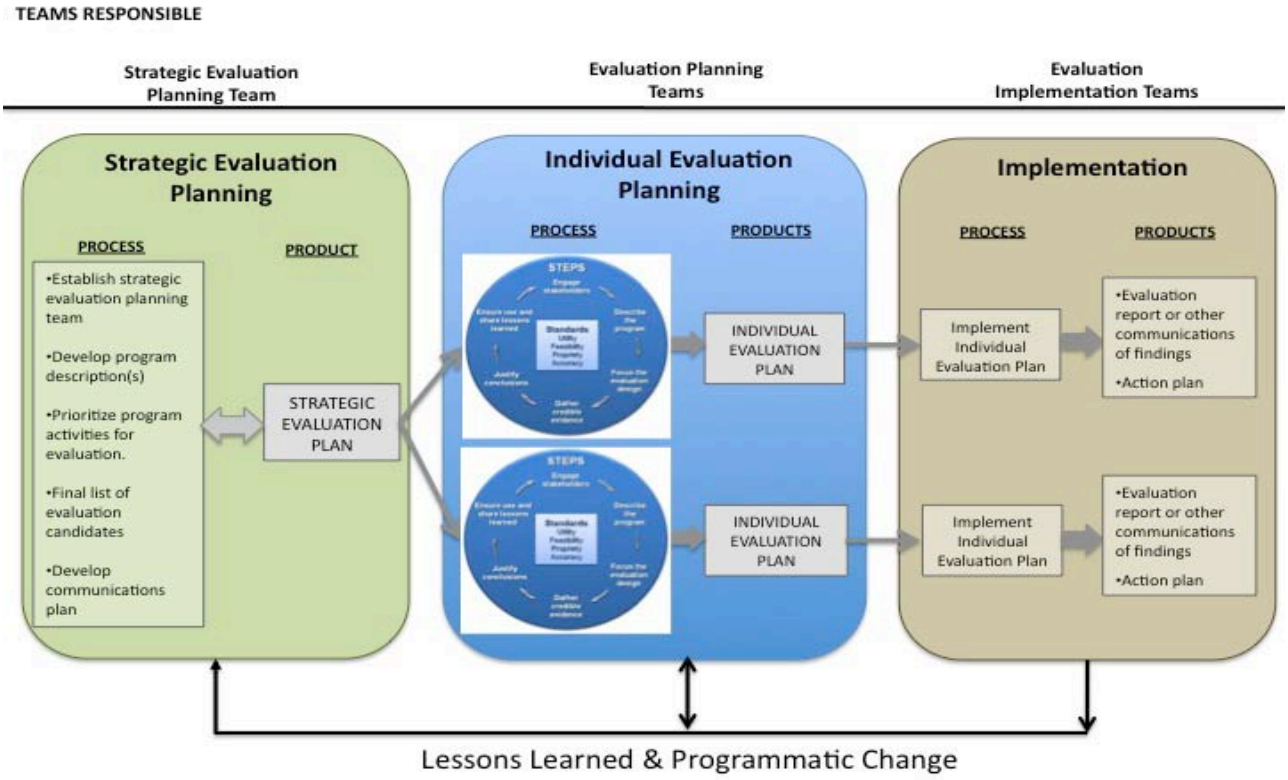
After reading Chapter 1, users should be able to:

- Identify methods for using information from evaluation planning to inform evaluation implementation and vice versa
- Describe the differences between various planning and implementation teams as well as potentially appropriate team members

Module 1 of *Learning and Growing through Evaluation*, focused on the importance of evaluation planning—both at a macro-level (strategic evaluation planning) and a micro-level (individual evaluation planning). The natural next step is to implement what you and your team members have strived so hard to plan. In this chapter we discuss how the planning processes and products connect to implementation. As we move into implementation, it may be helpful to think about evaluation practice itself as a continuous learning cycle—what we learn from the dialogue we have with stakeholders throughout the planning process can help us to improve our implementation of an evaluation and the lessons we learn from implementing these plans can help us to refine existing and future evaluation plans at both the macro- and micro-levels. **Figure 1.1** provides a pictorial description of the connections between planning and implementation. This figure represents the big picture—in the following sections we will provide some additional details to help you think through where other, perhaps less obvious, connections may emerge or might be facilitated.

In Module 1 of *Learning and Growing through Evaluation*, we describe two phases of evaluation planning: (1) Strategic evaluation planning and (2) Individual evaluation planning. Each phase engages different stakeholders to participate in distinct planning activities with the intention of developing specific end products. Both of these phases are briefly recapped below and summarized at the end of this chapter in **Table 1.1**.

Figure 1.1 Connections between planning phases and implementation



Where We Started—Strategic Evaluation Planning

Strategic evaluation planning is quite similar, conceptually, to the type of strategic planning one might engage in for a public health program—it just focuses on evaluation. The purpose of the strategic evaluation planning process is to collaboratively work with stakeholders of the state asthma program to systematically identify those aspects of the program that are high priority to evaluate during the lifecycle of your cooperative agreement. As seen in Figure 1.1, the product of this first phase is a **STRATEGIC EVALUATION PLAN** that briefly outlines a portfolio of evaluations you propose to conduct over an extended period of time (i.e., the lifecycle of your CDC cooperative agreement). Your strategic evaluation plan helps ensure that your proposed evaluations are conducted in an appropriate sequence, on a reasonable timeline, and within existing resource/budget constraints. A well-developed strategic evaluation plan helps make sure that all three of the major components of your program receive attention, while also permitting evaluation of emerging issues as they arise. This is a living document that you will likely need to modify over time based upon the changes that occur during the natural course of your program and what you learn from subsequent evaluation planning and implementation efforts.

As seen at the top of **Figure 1.1**, the team responsible for strategic evaluation planning is appropriately entitled the **STRATEGIC EVALUATION PLANNING TEAM**. Individuals on this team

are familiar with the overarching purpose of the state asthma program and the breadth of activities that are used to achieve these ends. In Module 1 of *Learning and Growing through Evaluation*, we suggested that state asthma programs consider including the asthma program coordinator, the asthma program evaluator, the asthma program epidemiologist, and one or two key opinion leaders on the statewide partnership on this team. This was to be a small team, led or co-led by the state asthma program evaluator.

Where We Left Off—Individual Evaluation Planning

The next step on the way to implementing the priority evaluations briefly outlined in the strategic evaluation plan is to describe, in greater detail, the purpose and plans for carrying out each evaluation. To do this, we suggested using each step outlined in the *CDC Framework for Program Evaluation in Public Health* to produce an **INDIVIDUAL EVALUATION PLAN** for each priority evaluation proposed (see blue box in Figure 1.1). As written, each individual evaluation plan becomes a comprehensive roadmap for everyone working on that evaluation to help achieve agreement on key evaluation questions, methodologies to be employed, data collection instruments to be used, procedures to be followed, analyses to be performed, and reporting or dissemination formats. A detailed budget and timeline are critical components of an individual evaluation plan.

Since the individual evaluation plans are much more focused and specific than the strategic evaluation plan, it was suggested that state asthma programs engage specific planning teams for the purpose of developing each individual evaluation plan. These teams, **EVALUATION PLANNING TEAMS**, were to consist of stakeholders who have an interest in or who are affected by the specific programmatic aspect being evaluated. With this in mind, it was possible that these teams could have some overlap with the strategic evaluation planning team. However, by and large, the individual evaluation planning team members would be selected anew to reflect the specific program knowledge, skills, and experience necessary to design a particular evaluation.

Now, you might ask about the relationship between the strategic evaluation planning team and each of the evaluation planning teams. From Figure 1.1, you can see that the product of the strategic evaluation planning team feeds directly into the evaluation planning team's process. However, this does not need to be the only way that these teams relate to each other. For example, while drafting the individual evaluation plan, the team might solicit feedback from the strategic evaluation planning team members to see if their ideas and plans are in alignment. Alternatively, the evaluation planning team might furnish a draft of the individual evaluation plan to the members of the strategic evaluation planning team for comments. Finding creative ways to hold communications between members of the evaluation planning teams and the members of the strategic evaluation planning team is likely to provide valuable insights for

updating strategic evaluation plans in the future as well as for developing and finalizing the individual evaluation plans.

Where We're Going – Evaluation Implementation

It may be helpful to view the individual evaluation plan as a "bridge" between planning and implementation. An effective evaluation planning process results in a product that describes the major components of implementation—how to collect data; what analyses to perform; when, with whom, and how to communicate the progress and findings from the evaluation; and what the evaluation budget and timeline include. Since the evaluation plan is essentially an "implementation plan," it is important for the evaluation planning teams to think ahead toward implementation when creating and finalizing individual evaluation plans. Once an individual evaluation plan has been finalized, it can then be implemented.

Implementing an evaluation involves convening a team of carefully selected people who have the combined knowledge and skills to carry out the procedures that are described in the individual evaluation plan. The **EVALUATION IMPLEMENTATION TEAM** includes individuals with direct responsibility for implementing the evaluation—obtaining access to existing data, overseeing new data collection, analyzing the data, synthesizing the findings, and preparing the evaluation report or other dissemination materials. In some situations, these will be the same people who served on the evaluation planning team; however, they may represent only a subset of the evaluation planning team or be a different set of people entirely. In addition to being responsible for carrying out the evaluation articulated in the plan, the evaluation implementation team is responsible for documenting any changes made from what was proposed in the evaluation plan and gathering lessons learned to improve future evaluations.

We can see from Figure 1.1 how the strategic evaluation planning process and individual evaluation planning process both contribute to the implementation of a specific evaluation. There are also many ways in which the process of implementing an individual evaluation plan can inform future efforts undertaken in both planning phases. For example, the communications plan in the individual evaluation plan may include the strategic evaluation planning team as a stakeholder for the evaluation. The strategic evaluation planning team may be made aware of the progress of the implementation of this individual evaluation plan via monthly email correspondence and at regularly scheduled meetings. As a result, the evaluation implementation team provides information to the strategic evaluation planning team on a regular basis—letting them know the progress made to date, but also the lessons they are learning about the implementation process itself. Sharing this type of information increases the likelihood that the strategic evaluation planning team will have the information it needs to update the strategic evaluation plan if necessary—perhaps resulting in fewer evaluations or emphasizing certain methodologies over others based upon feasibility.

Table 1.1 Summary and comparison of evaluation planning and implementation phases

	Strategic Evaluation Planning	Individual Evaluation Planning	Implementation
Title of Team	Strategic evaluation planning team	Evaluation planning team	Evaluation implementation team
Description of team members	Interested in and knowledgeable about the breadth of the state asthma program	Have a stake in the specific aspect of the asthma program for which the plan is being developed	Have the combined knowledge and skills to carry out the procedures described in the individual evaluation plan
General process	Collaborative and systematic process for describing the whole state asthma program and prioritizing programmatic aspects for evaluation	Collaborative and engaged process through which a range of stakeholder values and perspectives are captured to develop an evaluation	Team-process through which the outlined procedures are carried out, as well as the changes and lessons learned documented in the field setting.
Intended products	• Strategic evaluation plan	• Individual evaluation plan	• Evaluation report or other mode of disseminating the evaluation findings • Action plan

Next Steps

The focus of Module 2 is *learning* how to improve your state asthma program by *growing* your capacity to plan and carry out effective evaluations for the major components of your program. In the remainder of this module we offer guidance to help you develop and implement your evaluation plans, regardless of their focus. Chapter 2 suggests strategies that can be considered during evaluation planning to greatly facilitate the transition to implementation, while also helping to ensure that the evaluation itself proceeds smoothly. Following chapter 2 are a series of appendices that present additional details and resources likely to be helpful as you move into implementation.

Notes:

Chapter 2
Implementing Evaluations – Strategies for Success

After reading Chapter 2, users should be able to:

- Incorporate strategies for effectively implementing evaluations into individual evaluation plans
- Implement an individual evaluation plan in a manner that conforms to professional evaluation standards
- Convert evaluation findings into action

The CDC Framework is a way of **linking evaluation to action** by designing a sound and feasible evaluation that meets your program's information needs, then implementing it in a careful and ethical way that produces credible results, and finally disseminating the evaluation findings and promoting their use. Once the findings have been translated to action, evaluation can again be helpful in revisiting your STRATEGIC EVALUATION PLAN and/or assessing implementation of any program changes made as part of a cycle of ongoing program improvement. In this chapter we present a number of implementation strategies that have been shown to strengthen the link between evaluation and action.

The nine **evaluation implementation strategies** presented here represent important steps you can take during evaluation *planning* that will help you *implement* your plans more smoothly. Reading through this chapter during the evaluation planning process will remind you of things you will want to incorporate into your INDIVIDUAL EVALUATION PLANS as you think ahead toward implementation. We hope that this chapter will also serve as a useful reference to you as you implement your evaluation plans.

In addition to discussing these helpful implementation strategies, we also provide a checklist (see Table 2.3 below) that you can use to keep track of your own progress in preparing for implementation. For a copy of this checklist in a format that can be modified to fit your own program's unique situation, please contact your EVALUATION TECHNICAL ADVISOR (ETA).

A number of appendices are included in this module to provide further information on some of the topics discussed.

- Appendix A provides chapter notes for all the words or concepts in blue bold marked with the leaf icon in chapters 1 and 2.
- Appendix B contains a glossary for all terms marked by green bold text in small caps
- Appendix C contains a comprehensive listing of challenges you may face in conducting your evaluations, summarizing steps you can take during planning and implementation to address those challenges—a kind of "trouble-shooting guide" for evaluations.

- Appendix D introduces the topic of "evaluation anxiety" and ways to minimize it.
- Appendix E discusses some common EVALUATION DESIGN options available for your evaluations.
- Appendix F provides assistance with budgeting for evaluation.
- Appendix G offers some useful tools and practices for managing an evaluation.
- Appendix H offers some useful tips for gathering credible evidence.
- Appendix I presents guidance on training data collection staff.
- Appendix J contains guidance on communicating evaluation findings.
- Appendix K contains an ACTION PLAN template to help you and your STAKEHOLDERS put evaluation recommendations to good use.

Strategies to Promote Effective Evaluation Implementation

Each evaluation is a complex undertaking that requires the cooperation and coordination of multiple people and other resources. By managing the evaluation carefully, by paying attention to the EVALUATION STANDARDS (UTILITY, FEASIBILITY, PROPRIETY, and ACCURACY), and by closely following the steps in the CDC Framework, you can facilitate a more smoothly run evaluation. Key strategies developed by practitioners to minimize potential challenges and promote effective evaluation implementation include:

- ***Strategy 1.*** Work with stakeholders throughout the evaluation lifecycle—from design through action planning and implementation—in order to help focus on questions of interest to them and to incorporate their perspectives
- ***Strategy 2.*** Develop a process for managing the tasks, resources, and activities necessary for the evaluation
- ***Strategy 3.*** PILOT TEST your DATA COLLECTION INSTRUMENTS and procedures
- ***Strategy 4.*** Train data collection staff
- ***Strategy 5.*** Monitor evaluation progress, budget, timeline, and scope and communicate frequently and effectively with the EVALUATION IMPLEMENTATION TEAM and key stakeholders
- ***Strategy 6.*** Disseminate results to evaluation stakeholders in an accessible manner, considering INTERIM REPORTING where appropriate
- ***Strategy 7.*** Develop an action plan to implement evaluation recommendations that includes clear roles, responsibilities, timeline, and budget
- ***Strategy 8.*** Document lessons learned throughout the evaluation for use in future evaluations
- ***Strategy 9.*** Link findings from the evaluation back to the strategic evaluation plan in case there are implications for revision of the plan

In the pages that follow, we highlight what is involved in each of these general strategies, which aspects of evaluation they can help you address, and what benefits you can expect from each strategy. Luckily, the majority of these strategies are simply part of good project management, something most public health practitioners do on a daily basis.

Strategy 1—Working with Stakeholders

Many of the causes of misunderstandings about evaluation and of barriers to productive use of evaluation findings can be avoided or minimized when program stakeholders are included in key discussions at various points throughout the lifecycle of an evaluation. Including those who are important to your program in conversations about the program, the evaluation itself, and what you hope to learn from it can make them feel included and less anxious about the results (see Appendix D on Evaluation Anxiety). Their involvement can also offer you fresh perspectives on what the evaluation can potentially accomplish and ways to make the evaluation process run more smoothly.

Some stakeholders you may want to consider involving in your evaluation (or with whom you will want to communicate about it in other ways) include, but are not limited to: immediate front-line managers of the asthma program, state asthma partners, partners who are involved in designing or implementing asthma **INTERVENTIONS**, funders, and individuals in the community who participate in or are the intended beneficiaries of state asthma program efforts. **Table 2.1** presents a variety of ways to work with stakeholders throughout your evaluation. Note that to engage stakeholders effectively, you will first need to gauge their level of knowledge and experience regarding evaluation. It may also be necessary to provide them with an overview of **PROGRAM EVALUATION** basics.

Table 2.1 Ways to Work with Stakeholders

Category	Detail (if appropriate to your case)
Upfront Discussions with Stakeholders about…	• Plans for the evaluation (yours and theirs)
	• Program priorities (yours and theirs)
	• Information needs and EVALUATION QUESTIONS to explore (yours and theirs)
	• When information is needed
	• What evidence would be considered credible
	• How the data to be collected will answer the evaluation questions
	• How findings can be used
	• Community member perspectives to consider
	• Privacy, CONFIDENTIALITY, and CULTURAL SENSITIVITY
	• Limitations of evaluation
	• What to do if findings suggest immediate need for program modifications
	• A proactive approach to public relations, referred to as **issues management**, if the evaluation may reflect negatively on program or community
Frequent Communication throughout the Evaluation with Stakeholders about…	• Results from pilot tests
	• Implementation progress
	• Early findings
	• Successes achieved
	• Challenges encountered
	• Other topics
Post-evaluation Discussions with Stakeholders about…	• Turning findings into conclusions
	• Celebrating strengths
	• Developing recommendations grounded in findings
	• Developing strategies for disseminating results
	• Lessons learned
	• Limitations of the evaluation
	• Implications of the current evaluation for changes needed in the strategic evaluation plan
	• Designing an action plan with clear information on recommended strategies, roles and responsibilities, timeline, and budget

Perhaps you are wondering how you will manage the involvement of so many people in your evaluation: program director, program staff, partners, evaluator(s), EVALUATION PLANNING TEAM members, evaluation implementation team members, and other program stakeholders. Who will play what role(s)? Who is in charge of which aspects of the evaluation? Who has decision-making authority over which aspects of the evaluation? As you explore working with your stakeholders, it is important to recognize that you have a range of options for how you structure these relationships and that there is no "correct" or "incorrect" structure. The first step

is to consider upfront what you want the roles, responsibilities, and lines of authority for those involved in your evaluation to look like. Here the evaluation literature can help you. For example, King and Stevahn (2002) have put considerable thought into the various roles an evaluator can play in relation to other evaluation stakeholders, within the organization sponsoring the evaluation, and in terms of managing interpersonal conflict.[1] Appendix C offers more information about these evaluator roles. Are there aspects of these frameworks that describe your program needs? The second step is to clarify roles and responsibilities for everyone involved in order to avoid misunderstandings. This can be done through creating a Roles and Responsibilities Table such as that shown in Appendix G, which lays out in detail who is responsible for what.

As discussed further under Strategy 5, open and ongoing communication among evaluation stakeholders is paramount in conducting a successful evaluation. Appendix G provides suggestions on ways to keep team members and other stakeholders informed as to the progress of the evaluation. Devising fair and minimally burdensome ways to obtain feedback is another important aspect of communication. For example, depending on the size of your state and the dispersion of your stakeholders, you may need to come up with creative ways for participants to provide input remotely, whether they are formally serving on a planning team or whether their expertise is being sought for other reasons. Meeting by teleconference rather than in-person or allowing stakeholders to provide input electronically are some ways to ease the burden of participation. Webinar software, should you or one of your partners have access to it, allows remote participants to view graphics and other documents online during tele-discussions. Some software of this type permit collaborative editing of documents, whereby all participants can view edits on screen as they are being made.

Once you have drafted the final version of your individual evaluation plan, you will want to revisit the composition of your evaluation planning team to see if you wish to constitute it differently as you move toward implementation of the evaluation. The design may have evolved in unexpected directions during planning. Or new individuals or organizations may have joined your partnership with a stake in the proposed evaluation. Should additional stakeholders review your draft plan? Should some of them join the evaluation implementation team that will carry the evaluation forward—those able to facilitate as well as those able to obstruct its progress? Addressing concerns these individuals raise will help ensure the plan is feasible and that the evaluation receives the support it needs.

[1] King JA and Stevahn L. (2002). Three frameworks for considering the evaluator role. In: Ryan KE and Schwandt TA, eds. *Exploring Evaluator Role and Identity.* Charlotte, NC: Information Age Publishing.

Benefits of working with stakeholders:

- Encourages positive community response to evaluation.
- Builds "political will" to support evaluation.
- Develops support among program leadership for the program and/or for the evaluation.
- Facilitates appropriate timing of evaluation in relation to information needs.
- Leads to development of relevant evaluation questions, which in turn supports use.
- Promotes findings that are credible, are used, and are understood and accepted by stakeholders.

Strategy 2—Developing a Process for Managing the Evaluation

Running an evaluation is much like running any other project. The things you "worry about" may be a little different for an evaluation than for other kinds of projects, but the good management practices that help you elsewhere in your professional life will also work well for you with an evaluation. Good management includes thinking ahead about what is most important, which activities precede which other activities, who will do what, what agreements and clearances are needed, when important **PRODUCTS** are due, how far your budget will stretch, and how to make the budget stretch further. You will also want to monitor progress and communicate frequently and efficiently with others on the evaluation implementation team throughout the evaluation (see Strategy 5).

As part of your evaluation planning process, think ahead to implementation. For example, if your own staff resources are lacking, either in terms of skill level or time available, you may want to reach out to partners and contractors to fill that gap. You may also need to develop Memoranda of Agreement or contracts to engage this external support in a timely fashion. If required by your agency or one of the partners engaged in your program, clearances for the protection of **HUMAN SUBJECTS** such as those that may be needed for an **INSTITUTIONAL REVIEW BOARD (IRB)**[2] and **HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT (HIPAA)** compliance can

[2] While IRB review is often associated with research projects (for which the FOA prohibits using CDC funds), many IRBs have an expedited or exempt process to review evaluation projects. These types of reviews may determine whether the project is program evaluation (not research) and that the procedures and methods proposed are ethically sound. For more information on the differences between research and evaluation please see "Distinguishing Public Health Research and Public Health Nonresearch" (http://www.cdc.gov/od/science/integrity/docs/cdc-policy-distinguishing-public-health-research-nonresearch.pdf) or discuss with your ETA. For additional guidelines from the NIH Office of Human Subjects Research, reference the attached link to Title 45, part 46. http://ohsr.od.nih.gov/guidelines/45cfr46.html

begin as soon as your methodology has been finalized and your instruments, ADVANCE LETTERS, and other forms required by these entities have been developed.

Finally, you need to anticipate things that could cause problems down the road—such as the potential evaluation challenges presented in Appendix C. Having identified potential challenges, you then need to put in place as many safeguards as possible to prevent them from happening, with contingency plans in mind should things not go as planned.

This type of planning should be undertaken with evaluation implementation team members, program stakeholders, and individuals experienced in evaluation in the areas outlined in **Table 2.2** below. Depending on your own level of familiarity with evaluation logistics, you may or may not feel the need for outside help in working through this process. In either case, it is important to consider how you will document the decisions made as part of this process so that you or others can refer back to them at a later date. How you do this is up to you and your evaluation implementation team. You may find it helpful to integrate information on managing evaluation logistics into the individual evaluation plan, perhaps as an appendix. Or you may want to produce a separate document containing this information. The tools in Appendix G have been provided to help you with this process, though you are not required to use them; they are there to use or not as you see fit.

Benefits of good evaluation management practice:

- Maintains clarity among team members about roles and responsibilities
- Identifies and secures resources to complete the evaluation
- Keeps evaluation on track in terms of timeline, budget, or scope
- Provides a sound plan for managing incoming data
- Enables team to follow clear procedures for working with contractors/consultants and partners

Table 2.2 Evaluation Management Strategies

Category	What to Look For
Logistics	• Staff have skills required for evaluation tasks and are aware of their roles and responsibilities
	• Staff are available to work on evaluation activities or alternatives have been considered
	• Estimates of likely cost of evaluation in the individual evaluation plans are complete and feasible
	• Efficiencies possible across evaluations have been identified[3]
	• Other sources of financial or staff support for evaluation (e.g., partner organizations, local universities, grant funding) have been identified
	• Actions to expand staff resources—such as contracting externally, training existing staff in needed skills, "borrowing" partner staff, interns from local colleges and universities—have been established
	• Agreements are developed and executed that may be needed to contract out a portion of the work (e.g., specific data collection activities, data analysis, development/distribution of reports), to access data sources, to facilitate meetings with partners (schools, workplaces, etc.)
	• Clearances/permissions that may be needed (such as Institutional Review Board clearance, data-sharing agreements, permission to access schools or medical facilities) are in place
Data Collection	• Appropriate data storage, data system capacity, data cleaning, data preparation procedures are established and communicated
	• Procedures for protection of data are in place (considering such safeguards as frequent data backups, use of more than one audio recorder for interviews and focus groups)
	• Safeguards for respondent confidentiality and privacy have been developed
	• Those collecting or compiling data have been trained in the procedures
	• MONITORING systems are in place to assess progress and increase adherence to procedures for data protection, assurance of privacy and confidentiality
	• Cultural sensitivity of instruments has been tested
	• RESPONDENT BURDEN has been minimized (e.g., length of instrument considered, data collection strategies designed to be optimally appealing and minimally burdensome)
	• Ways to maximize respondent participation are in place
	• Existing data useful for the evaluation have been identified and permission to access those data has been obtained
Data Analysis	• Procedures for how incoming data will be analyzed to answer the evaluation questions are in place
	• Table shells showing analyses to be conducted are developed

Strategy 3—Pilot Testing

You should plan to pilot test your data collection instruments and procedures. This is one good way to preempt some of the implementation challenges you might otherwise face. This is important whether you are conducting a survey, carrying out interviews and focus groups, or

[3] Module 1, Chapter 2, Step E presents examples of some possible cross-evaluation efficiencies (see Table 2.6).

abstracting data from **ARCHIVAL SOURCES**. During the pilot test you will be looking at such issues as clarity of instructions, appropriateness and feasibility of the questions, sequence and flow of questions, and feasibility of the data collection procedures. Use lessons learned during the pilot test to modify your instruments and/or your training materials for data collectors. See Appendix I for additional information on training data collectors.

Benefits of pilot testing:

- Generates effective data collection instruments that collect required information and that can work with the analysis plan as designed.
- Clarifies procedures for all data collection, whether carried out by your staff or by contractors/consultants and other data collection partners.
- Improves the quality and accuracy of data collected.

Strategy 4—Training Data Collection Staff

Even if you are working with experienced individuals, training those who will be involved in data collection on the specific instruments and procedures you will use in *this* evaluation is another good way to avoid difficulties during the data collection phase. Training will help ensure that all staff with data collection responsibilities are familiar with the instruments and abstraction forms, advance letters, and other forms that are part of your individual evaluation plan, as well as the procedures that will be followed and the safeguards that will be employed in implementing the plan. It will also promote consistency in data collection procedures across data collectors, thereby increasing **RELIABILITY** of the data.

Training should be required whether data collection is being done by your own staff, by partner staff, or by contractors/consultants. Sessions should cover not only the logistics of the work, but also the ethical aspects, such as issues in human subjects protection, maintenance of confidentiality, and observance of cultural sensitivity. Appendix I presents guidelines to help you develop and deliver training to data collection staff.

Benefits of training data collection staff:

- Promotes a consistent message about the study to outside audiences
- Maintains consistency in data collection procedures
- Prevents loss of data and corruption of data integrity
- Guards against ethical breaches
- Improves quality and accuracy of data collected

Strategy 5—Monitoring Progress and Promoting Ongoing Communication

As mentioned earlier, an evaluation like any other project needs to be carefully managed. This includes not only thinking ahead during planning about what needs to be accomplished, who will do what, and what time and budget constraints exist (per Strategy 2). It also includes monitoring progress and maintaining open lines of communication among members of the evaluation implementation team as the evaluation proceeds.

Tools such as those in the Evaluation Management Toolkit in Appendix G are useful strategies for project tracking and ongoing communication. These tools are equally helpful in managing an evaluation with lots of "moving parts." You are not required to use these tools. However, you may find them helpful in identifying emerging issues that require your attention and in making sure you stay on track in terms of timeline and budget. The tools are designed to help you track progress overall and against your established budget and timeline, identify performance issues by your staff or your contractor, identify implementation issues such as data access and data collection, and monitor the quality of your evaluation. Information to help you budget for your evaluation is included in Appendix F.

Benefits of tracking and ongoing communication:

- Maintains clarity among team members over roles and responsibilities
- Keeps evaluation on track in terms of timeline, budget, and scope
- Promotes effective communications with your stakeholders and maintains their engagement

Strategy 6—Interim Reporting and Dissemination of Final Results

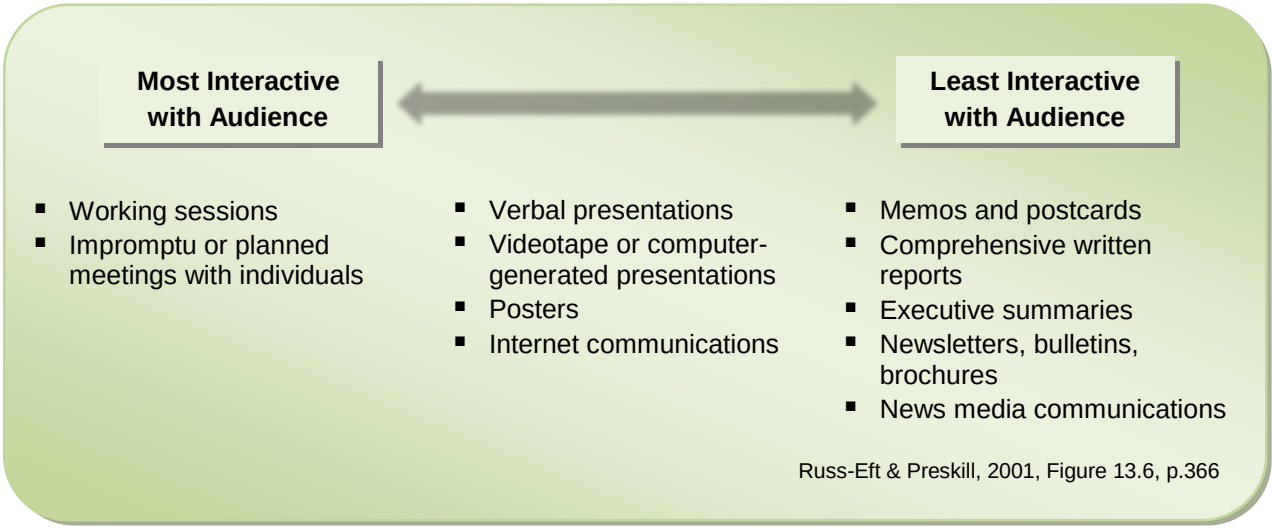
Interim reporting. Where appropriate, sharing interim findings not only helps maintain stakeholder interest in the evaluation but also increases the likelihood that stakeholders have the information they need in a timely manner. If you decide to share findings midway through the evaluation, be sure to couch the interim findings in terms of caveats that the data are only preliminary at this point. Furthermore:

- Only share what information you are comfortable sharing at any given point in time.
- Focus on information you feel it is important for stakeholders to begin thinking about.
- Consider presenting the information as "food for thought" based on what you are seeing thus far.

Disseminating final results. Dissemination of final results to stakeholders should be a process tailored to the information needs of your different stakeholders. While final reports are a common way to share findings, it is important to consider whether a large, formal final report is

the most appropriate way to disseminate findings to the specific stakeholders with whom you are working. By "appropriate way" we mean a tailoring of both message and format to the information needs of a given **AUDIENCE**. That is, considering the best way(s) to make the information you plan to share accessible to that particular audience. For example, some stakeholders may strongly desire a final report—they may even need it for documentation or accountability purposes. However, keep in mind that for other stakeholders a final report may include more information than they need or want. In **Figure 2.1** we present a list of some alternative means to disseminate evaluation findings. Depending on the composition of your stakeholder groups, you may want to experiment with one or more of these alternative approaches. Additional guidance for presenting results is provided in Appendix J.

Figure 2.1 Communication: Format



Remember to set aside resources in your budget to support communication activities—something that is easy to forget to do. The communications portion of your budget can be based on the communication ideas put forward in your strategic and individual evaluation plans. Depending on the communication venue(s) you choose, costs for communication activities might include such things as staff time for materials development and attendance at stakeholders meetings, meeting space, refreshments, printing costs, website maintenance. Also remember to check with your funders about which of these costs are allowable under your grant(s). Communication may be something your partners can help with in various ways, but if tight resources limit you, then focus on the primary evaluation stakeholders.

Benefits of interim and final reporting:

- Facilitates appropriate timing of evaluation in relation to information needs
- Facilitates the comprehension and use of findings
- Helps ensure, through interim reporting, that there are few or no "surprises" in final reporting

Strategy 7—Developing an Action Plan

Another important step in linking evaluation to action involves developing an action plan containing strategies for implementing evaluation recommendations. The action plan should, at a minimum, contain the following items:

- Rationale for recommended strategies
- Clear roles and responsibilities for implementing the elements of the action plan
- Timeline
- Sources of funding for program or intervention modifications, if needed

Define roles for stakeholders and community members in the action planning and the action implementation processes. For example, you can convene a "working session" that combines a briefing on findings for stakeholders with joint planning on next steps and development of an action plan. Involving a variety of stakeholders in the action planning process will help facilitate stakeholder and decision maker buy-in and thereby facilitate implementation of any recommendations that make sense for your program. Appendix K contains an Action Plan template you can adapt to the needs of your own program.

Benefits of action planning:

- Facilitates the comprehension and use of findings
- Engages stakeholders in program improvement
- Promotes accountability for use of findings

Strategy 8—Documenting Lessons Learned

History repeats itself—because we weren't listening the first time. That's as true for evaluation as it is anywhere else. Yet by documenting lessons learned from one evaluation for use in future evaluations you can begin building a historical record of knowledge about evaluation to pass on to future "generations" in your program. Consider adopting the habit of closing your evaluation implementation team meetings by asking attendees: What have we learned? What can we do better next time? Document these discussions in your meeting minutes for later reference. In this way, you are encouraging your team members to reflect on their evaluation practice, and this will lead to **EVALUATION CAPACITY BUILDING**.

As your various evaluations proceed and as you "learn by doing," make sure you and your team members pause occasionally to reflect on what you have learned and document those things you want to remember to make your next evaluation go more smoothly. In some cases, you may learn

things you would like to share more broadly, for example, through presentations at a grantee meeting, a professional conference, or even in a peer-reviewed article.

Benefits of documenting lessons learned:

- Avoids repeating past mistakes
- Builds evaluation capacity among you and your stakeholders
- Transfers knowledge to those that come after you
- Creates an archive of good evaluation practices over time

Strategy 9—Linking Back to the Strategic Evaluation Plan

Linking your evaluation findings back to your strategic evaluation plan is a critical final strategy in ensuring evaluation use and promoting ongoing program improvement. It is not uncommon that an evaluation report raises more questions than it answers. This is actually a good thing. In a sense, each evaluation you conduct helps you set the agenda for future evaluations. Findings from an evaluation may suggest, for example, that the aspect of the program you evaluated was functioning well, but that another aspect you touched on only tangentially is functioning less well and should be looked into more closely. Or findings may demonstrate that one aspect of the program is not working well, yet not really explain *why* that is so or *how* the problem could be remedied. The why and how of what isn't working may then become grist for the mill of a new evaluation. Further, findings regarding issues encountered with the logistics of the evaluation itself may suggest that alternative approaches need to be tried in upcoming evaluations.

This is not to say that you need to completely revamp your strategic evaluation plan every time you complete another individual evaluation. Rather we propose that new information gleaned from each successive evaluation be viewed within the context of your long-range evaluation plans to see if any mid-course corrections are warranted.

While it is possible that recently compiled findings may occasionally imply that a planned evaluation should be scrapped and replaced with one of greater urgency, it is far more likely that your revised approach will involve only minor modifications to one or more proposed evaluations. Findings may also help you generate ideas for an evaluation "wish list" pending the next evaluation cycle—or the sudden availability of additional evaluation funds. What you want is for evaluation continually to inform not only your immediate program improvement efforts but also your longer range strategies for evaluations. That's why linking evaluation findings back to the strategic plan is so critical.

Checklist to Assess Your Preparation for Successful Implementation

As a last check, before you call an individual evaluation plan "final" and begin to implement your evaluation, use the checklist in **Table 2.3** to see if you have covered all the steps that will help lead to successful implementation. (Remember to contact your ETA for a MS Word version of this checklist.)

Spending some quality time with your individual evaluation plan will pay off in the long run as you move forward to implementation. With a solid individual evaluation plan in hand, you will be in the best possible position to implement an evaluation that meets the standards of utility, feasibility, propriety, and accuracy. And by following the strategies described above that relate to stakeholder engagement and sharing results—"Working with Stakeholders," "Monitoring Progress and Promoting Ongoing Communication," "Interim Reporting and Dissemination of Final Results," "Developing an Action Plan," "and "Linking Back to the Strategic Plan"—you will be better able to translate your evaluation findings into shared action by you and your stakeholders.

Table 2.3 Checklist for Successful Implementation of an Individual Evaluation Plan

	Yes	No
Do we have an **evaluation planning team** composed of individuals with the knowledge, skills, and experience relevant to planning this evaluation?		
Do we have an **evaluation implementation team** of individuals who will take responsibility for implementing the evaluation, providing access to data, overseeing data collection, analyzing the data, and preparing the evaluation report?		
Have we identified our key **stakeholders** for this evaluation? Managers of asthma program? Asthma partners? Intervention partners? Funders? Community members or beneficiaries of the program services? Additional stakeholders who could facilitate or obstruct the evaluation given the final form it has taken? Other?		
Have we thought about how to work with our **stakeholders**? (Table 2.1) Pre-evaluation? During the evaluation? Post-evaluation? To develop the Action Plan (Appendix K)? To manage public relations? To minimize evaluation anxiety (Appendix D)?		
Will the **evaluation design and data collection methods** result in…(Appendices E and H) Methodology that is feasible given resource and practical constraints? Data that are credible and useful to stakeholders? Data that are accurate? Data that will help answer the evaluation questions in a timely manner?		

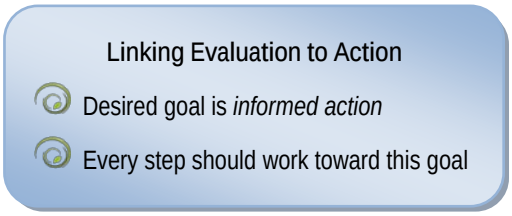
Are we prepared **logistically**? (Table 2.2) Do we have plans for … Staffing? Budget (Appendix F)? Funding? Data sharing and other types of contracts/agreements? Human subjects (IRB), HIPAA, and organizational clearances/ permissions?		
Are we prepared for **data collection**? (Table 2.2) Have we addressed … Finalization and approval of data collection instruments? Propriety of the evaluation, including protection of human subjects? Cultural sensitivity, clarity, and user-friendliness of instruments? Respondent burden? Methods to obtain high response rates or complete data? Data handling, processing, storage? Data confidentiality, security?		
Did we **pilot-test** our instruments and procedures?		
Did we **train** the data collection staff? (Appendix I)		
Will the **data analyses** answer our evaluation questions? Have we specified the … Analyses to answer each evaluation question? Table shells that show how the results will be presented?		
Do we have **tools** in place (Appendix G) to track evaluation implementation and to promote communication within the evaluation implementation team? For example, do we have a … Timeline? Budget? Roles and responsibilities table? Project description? Project status form?		
Have we planned for **sharing** interim results (if appropriate) and for disseminating the final results? (Appendix J; Figure 2.1 for format alternatives)		

Notes:

Appendix A
Chapter Notes

Chapter 2. Implementing Evaluations – Strategies for Success

Linking Evaluation to Action



When we think of evaluation questions, we typically think of variations on the central themes, "How does our program work?" and "What can we do to make our program work better?" Understanding programs and making them work better is a major focus of program evaluation in general. CDC's Air Pollution and Respiratory Health Branch (APRHB) stresses the importance of *using* the information generated through evaluations of state asthma programs to better understand and enhance these programs—thereby "learning and growing" through evaluation. In this view, evaluation isn't "over" until informed action has been taken based on the evaluation findings. Therefore, when we speak of *linking evaluation to action*, we intend to emphasize the following: (1) informed action is a desired goal of evaluation, and (2) every step taken in planning and implementing an evaluation should help ensure this goal.

The steps in the *CDC Framework for Evaluating Public Health Programs* (*MMWR*, 1999) emphasize this link between evaluation and informed action by explicitly supporting a **UTILIZATION-FOCUSED** view of evaluation (Patton, 2008). The six Framework steps will guide you in designing a sound and feasible evaluation that meets your program's information needs (Steps 1–3), so you can implement it in a careful and ethical way that produces accurate and credible results (Step 4), and interpret and disseminate the evaluation findings to encourage their use (Steps 5–6). The steps of the framework are intentionally presented in a circle, illustrating how evaluation findings should be used to inform program improvement efforts as well as future evaluations. Thus, our final evaluation implementation strategy (see below) suggests not only developing a plan of action after each evaluation (Strategy 7), but also revisiting your strategic evaluation plan in light of the findings from each new evaluation you conduct (Strategy 9).

Evaluation Implementation Strategies

In the chapters of Module 1, we concentrated on planning for evaluation at both the forest level (strategic evaluation planning) and the tree level (planning for an individual evaluation). In this chapter, we are beginning to think about evaluation implementation. We have distilled the combined experience of a number of evaluation practitioners into nine evaluation implementation strategies (see box) that we believe will help support your evaluation success and that of the other state asthma grantees.

Although these are *implementation* strategies, we still talk about *planning* in this chapter. By doing so, we are asking that you "plan for implementation" by incorporating these nine strategies into the document(s) to guide your team in conducting a particular evaluation.

Nine Evaluation Strategies

- Working with stakeholders throughout the evaluation lifecycle
- Developing a process for managing the evaluation
- Pilot testing data collection instruments and procedures
- Training data collection staff
- Monitoring evaluation progress and communicating with the evaluation implementation team
- Making the best use of interim and final reporting
- Developing an action plan
- Documenting lessons learned
- Linking findings from the evaluation back to the strategic evaluation plan

Why is it important to plan for implementation? Take a look at some of the strategies—working with stakeholders, for example. What if you are about to begin data collection when you learn that several layers of approval are needed before your data collectors can enter schools to conduct focus groups with students who have asthma? You are then faced with several weeks of delay while the approvals are obtained. Having a knowledgeable representative from the school system on your evaluation planning team might have alerted you to obtain these approvals earlier—resulting in a more realistic timeline for implementing this evaluation.

An ounce of prevention is worth a pound of cure! With this in mind, we recommend you give some thought to each of the nine implementation strategies listed here. The appendices for Module 2, Chapter 1 provide rich detail, along with tips and tools, on a number of these strategies. In addition to considering these strategies, we also recommend that you document implementation decisions that are made during the course of your evaluation. These decisions should be written down and housed in a location where the evaluation implementation team members can readily access them throughout the course of the evaluation.

Although it may seem counterintuitive, your implementation strategies should be included among your evaluation planning documents. This might be in the form of your individual evaluation plan or it might be a supplemental document that accompanies your individual evaluation plan (perhaps as an appendix). The more thought you give to implementation in advance, the more procedures and safeguards you can put into place from the outset.

Issues Management

In the event you find yourself needing to address a potentially challenging issue with stakeholders brought upon by negative evaluation findings, you might find *issues management* useful. *Issues management* "is one tool that helps organizations to identify trends, select courses of action, and guide external communication with a variety of publics" (Taylor, Vasquez, and Doorley, 2003). Issues management arises out of the field of public relations and has most often been used by business and industry to "manage" relations with the public. However, the techniques of issues management can be used by almost any group that needs to communicate with external audiences. There are five main steps advocated in an issues management approach (1) identification of issues, (2) prioritization of issues, (3) response strategy, (4) implementation of the strategy, and (5) evaluation.

- ***Identification of issues*** begins with three essential steps: (1) tracking trends in the economic, social, political, technological, or other areas to see what issues may arise; (2) comparing those trends against your organizational goals; and (3) identifying any issues that may arise in completing your goals.
- ***Prioritization of issues*** or "issue analysis" helps you think through how the issues you identify may impact your organization. This prioritization can be based on past experience, stakeholder opinion, or the potential severity of consequences of an issue.
- ***Response strategy*** involves developing a plan for how you will respond to change the impact the issue has on your organization. Your strategy may differ based on the issue and the audiences (or "publics") affected. For example, you may need to change how you operate, improve how or what you communicate to change the potentially negative perceptions held by the audiences or stakeholders, and/or change policies to lessen the impact of the issue in the future.
- ***Implementing your strategy*** may involve work with many different stakeholders. Think strategically and broadly about whom you may need to include in order to implement your strategy and how you will gain the buy-in of the individual(s) or organization(s). Stakeholders considered may include leadership of your own organization, your partners, funders, community members, and the media, among others.
- Finally, in ***evaluating your strategy*** you should examine the impact produced by implementing your issues management strategy. Were you able to address or lessen the impact of the issue? What could you have done differently? Did your strategy work or do you need to change your approach for the future?

Issues management techniques are not needed often in asthma work. However, these techniques may be useful if your evaluation findings negatively impact some stakeholder group or other constituency. For example, your evaluation of a home environment intervention may find that certain housing or environmental standards are not being complied with in one or more housing developments. Although you may want to work with housing authorities to remediate these issues, your issue identification might indicate that some residents are resistant to the required changes for fear that renovations will be disruptive or will raise rents. By sharing the residents' concerns with the landlord, they can communicate more effectively with residents about the cost implications (if any) and timetable for changes or they can conduct renovations when apartments are empty. These communications go a long way toward reducing resistance and allowing you to implement your action plan without conflict.

Additional information on issues management can be found from the Issues Management Council (http://www.issuemanagement.org/). This website is geared toward a business/industry audience but goes through some of the basics of this approach.

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Notes:

Appendix B
Glossary

Note: Numbers in square brackets [#] refer to sources from which a given definition has been drawn or adapted, as listed at the end of the Glossary. Words highlighted in **GREEN, BOLD, SMALL CAPS** indicate cross-references to other terms included in the Glossary.

Action Plan — The steps to be taken to complete an objective or implement a recommendation. An action plan outlines specific tasks, resource requirements, responsible parties, and a timeline for completion. [Adapted from 12]

Activities — The actual events or actions that take place as a part of the program. [14]

Advance Letters — Letters or other materials sent out in advance of a survey or similar data collection effort to inform potential participants about the purpose of the survey, its sponsor(s), and their rights as human subjects, as well as the protection afforded them.

Archival Sources — A place or collection containing records, documents, or other materials of historical interest to a program. [Adapted from 2]

Audience — The individuals (such as your **STAKEHOLDERS** and other evaluation users) with whom you want to communicate the results of an evaluation. [8]

Accuracy — One of the program evaluation standards developed by the Joint Committee on Standards for Educational Evaluation. The extent to which an evaluation is truthful or valid in what it says about a program, project, or material. See also **FEASIBILITY**, **PROPRIETY**, and **UTILITY**. [15]

Comparison Group — A group not exposed to a program or treatment. Sometimes referred to as a **CONTROL GROUP**, comparison group is a term used more frequently in **QUASI-EXPERIMENTAL DESIGNS** (than in **EXPERIMENTAL DESIGNS**). [15]

Confidentiality — In research confidentiality involves not revealing the identity of research subjects, or factors which may lead to the identification of individual research subjects. [Adapted from 15]

Control Group	A group whose characteristics are similar to those of a program's participants but who do not receive the program services, products, or activities being evaluated. Participants are randomly assigned to either the experimental group (those receiving program services) or the control group. A control group is used to assess the effect of program activities on participants who are receiving the services, products, or activities being evaluated. The same information is collected for people in the control group and those in the experimental group. See also **RANDOM ASSIGNMENT**. [15]
Cultural Sensitivity	Understanding and appreciation displayed by a culturally competent individual toward cultural differences and similarities within, among, and between groups. [Adapted from 15]
Data Collection Instrument	A form or set of forms used to collect information for an evaluation. Forms may include interview instruments, intake forms, case logs, and attendance records. They may be developed specifically for an evaluation or modified from existing instruments. [15]
Deliverables	Any unique and verifiable product, result, or capability to perform a service that must be produced to complete a process, phase, or project. [2]
Evaluation Capacity Building	The design and implementation of teaching and learning strategies to help individuals, groups, and organizations learn about what constitutes effective, useful, and professional evaluation practice. [7]
Evaluation Design	The kinds of information, sampling methods, and comparison base that are used (or proposed) to address the specified **EVALUATION QUESTIONS**. Evaluation designs may also address information sources, information collection methods, the timing and frequency of information collection, and information analysis plans. Evaluation designs fall into one of three broad categories: **EXPERIMENTAL DESIGN**, **QUASI-EXPERIMENTAL DESIGN**, and **NON-EXPERIMENTAL DESIGN**. [Adapted from 16]
Evaluation Planning Team	As used in this guide, this term refers to a small group of evaluation **STAKEHOLDERS** convened by a state asthma program to develop and regularly update the **STRATEGIC EVALUATION PLAN**.

Evaluation Implementation Team	As used in this guide, this term refers to a small group of evaluation STAKEHOLDERS convened by a state asthma program to implement or supervise implementation of an INDIVIDUAL EVALUATION PLAN. This group may include external evaluation contractors.
Evaluation Question	A question related to a program's OUTCOMES, OUTPUTS, INDICATORS, or other definition of success. The goal of an evaluation effort is to answer one or more EVALUATION QUESTION(S). [12]
Evaluation Standards	Developed by the Joint Committee on Standards for Educational Evaluation, evaluation standards are criteria upon which the quality of program evaluations can be judged [see ACCURACY, FEASIBILITY, PROPRIETY, and UTILITY]
Evaluation Technical Advisor	APRHB staff or contractor assigned responsibility for providing evaluation technical assistance, training, and resource documents with an aim of building evaluation capacity in state asthma programs as cited in CDC-RFA-EH09-901, April 8, 2009.
Experimental Design	Designs that try to ensure the initial equivalence of one or more CONTROL GROUPS to a treatment group by administratively creating the groups through RANDOM ASSIGNMENT, thereby ensuring their mathematical equivalence. Examples of experimental or randomized designs are randomized block designs, Latin square designs, fractional designs, and the Solomon four-group. [14]
Feasibility	One of the program evaluation standards developed by the Joint Committee on Standards for Educational Evaluation. The feasibility standards are intended to ensure that an evaluation will be realistic, prudent, diplomatic, and frugal. See also ACCURACY, PROPRIETY, and UTILITY. [14]

Health Insurance Portability and Accountability Act (HIPAA)	The Health Insurance Portability and Accountability Act of 1996 (HIPAA) consists of two Titles. Title I protects health insurance coverage for workers and their families when they change or lose their jobs. Title II requires the Department of Health and Human Services (HHS) to establish national standards for electronic health care transactions and addresses the security and privacy of health information. HIPAA was first proposed with the simple objective to ensure health insurance coverage after leaving a job. In addition to these portability provisions, however, Congress added an Administrative Simplification section, with the goal of saving money in mind. The Administrative Simplification section was requested and supported by the health care industry because it standardized electronic transactions and required standard record formats, code sets, and identifiers. Following this standardization effort, Congress recognized the need to enhance the security and privacy of individually identifiable health information in all forms. In 1999, Congress directed the Department of Health and Human Services to develop privacy and security requirements in accordance with HIPAA's Title II. Online at: www.cdc.gov/privacyrule/privacy-HIPAAfact. [6]
Human Subjects	Individuals whose physiologic or behavioral characteristics and responses are the object of study in a research project. Under the federal regulations, human subjects are defined as: living individual(s) about whom an investigator conducting research obtains: (1) data through intervention or interaction with the individual; or (2) identifiable private information. [From http://www.hhs.gov/ohrp/irb/irb_glossary.htm]
In Kind	Payment made in the form of goods and services rather than cash. [5]
Indicator	A specific, observable, and measurable characteristic or change that shows the progress a program is making toward achieving a specified **OUTCOME**. [14]
Individual Evaluation Plan	As used in this guide, a written document describing the overall approach or design that will be used to guide an evaluation. It includes what will be done, how it will be done, who will do it, when it will be done, why the evaluation is being conducted, and how the findings will likely be used. May also be called an evaluation protocol. [15]

Institutional Review Board (IRB)	A specially constituted review body established or designated by an entity to protect the welfare of human subjects recruited to participate in biomedical or behavioral research. [From http://www.hhs.gov/ohrp/irb/irb_glossary.htm]
Interim Reporting	Periodic reporting to sponsors and other stakeholders regarding the progress of an evaluation to keep them informed during the period prior to issuance of the final evaluation report.
Intervention	The part of a strategy, incorporating method and technique, that actually reaches a person or population. [Evaluation Framework, Div Heart Disease and Stroke.]
Non-experimental Design	An **EVALUATION DESIGN** in which participant information is gathered before and after the program intervention or only afterwards. A **CONTROL GROUP** or **COMPARISON GROUP** is not used. Therefore, this design does not allow you to determine whether the program or other factors are responsible for producing a given change. [8]
Outcomes	The results of program operations or activities; the effects triggered by the program (for example, increased knowledge or skills, changed attitudes, reduced asthma morbidity and mortality). [14]
Outputs	The direct products of program **ACTIVITIES**; immediate measures of what the program did. [14]
Pilot Test	A pretest or trial run of a program, evaluation instrument, or sampling procedure for the purpose of correcting any problems before it is implemented or used on a larger scale. [15]
Political Will	Society's desire and commitment to support or modify old programs or to develop new programs. It may be viewed as the process of generating resources to carry out policies and programs. [From Richmond JB and Kotelchuck M. Political influences: Rethinking national health policy. In: Mcquire C, Foley R, Gorr A, and Richards R, eds. *Handbook of Health Professions Education.* San Francisco, CA: Jossey-Bass Publishers, 1993.]
Program Evaluation	The systematic collection of information about the **ACTIVITIES**, characteristics, and **OUTCOMES** of programs to make judgments about the program, improve program effectiveness, and/or inform decisions about future program development. [14]

Propriety	One of the program evaluation standards developed by the Joint Committee on Standards for Educational Evaluation. The extent to which the evaluation has been conducted in a manner that evidences uncompromising adherence to the highest principles and ideals (including professional ethics, civil law, moral code, and contractual agreements). See also **ACCURACY**, **FEASIBILITY**, and **UTILITY**. [14]
Quasi-experimental Design	Study structures that use **COMPARISON GROUPS** to draw causal inferences but do not use randomization to create the treatment and **CONTROL GROUPS**. The treatment group is usually given. The control group is selected to match the treatment group as closely as possible so that inferences on the incremental impacts of the program can be made. [14]
Random Assignment	The assignment of individuals in the pool of all potential participants to either the experimental (treatment) group or the **CONTROL GROUP** in such a manner that their assignment to a group is determined entirely by chance. [17]
Reliability	The extent to which a measurement, when repeatedly applied to a given situation consistently produces the same results if the situation does not change between the applications. Reliability can refer to the stability of the measurement over time or to the consistency of the measurement from place to place. [14]
Stakeholders	People or organizations that are invested in the program (*program stakeholders*) or that are interested in the results of the evaluation or what will be done with results of the evaluation (*evaluation stakeholders*). [14]
Strategic Evaluation Plan	As used in this guide, this term refers to a written document describing the rationale, general content, scope, and sequence of the evaluations to be conducted over time.
Utility	One of the program evaluation standards developed by the Joint Committee on Standards for Educational Evaluation. The extent to which an evaluation produces and disseminates reports that inform relevant audiences and have beneficial impact on their work. See also **ACCURACY**, **FEASIBILITY**, and **PROPRIETY**. [14]

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Notes:

Appendix C
Meeting Evaluation Challenges

Good planning and strategies such as those discussed in the main text of this chapter can help you anticipate and minimize potential evaluation challenges. Yet no matter how well you plan, challenges can and will occur. By promptly identifying and actively confronting evaluation challenges, you can help each of your evaluations meet the evaluation standards of utility, feasibility, propriety, and accuracy.

The series of tables in this appendix provides practical suggestions for meeting evaluation challenges you might encounter. The challenges are organized by type as follows: evaluation context (Section C.1), evaluation logistics (Section C.2), data collection (Section C.3), data analysis (Section C.4), and dissemination of evaluation findings (Section C.5). For each potential challenge, we suggest actions you can take upfront, during planning, to meet these challenges proactively. We also suggest actions you can take during implementation to minimize the effects of any challenges that arise despite your best planning.

C.1 Evaluation Context

No program—and no evaluation—occurs in a vacuum. Asthma programs, and hence asthma program evaluations, exist within an organizational hierarchy and are embedded within a community that can influence their conduct and their ultimate success. Asthma interventions occur in multiple settings (e.g. homes, schools, workplaces, hospital emergency rooms, clinics), and therefore, evaluations of interventions may require access to these places to collect critical data. To gain this access, you will need to identify and cultivate "champions" for your evaluation in your organization and in the community at large. These champions can also encourage key program stakeholders to consider and eventually act upon evaluation findings.

This type of "political will" in support of evaluation is extremely valuable and should be thoughtfully and actively fostered. Think upfront about where reliance on your organization, its leadership, and your community will be most critical and incorporate ways to facilitate that interaction into your evaluation plan. **Table C.1** offers steps you can take to address challenges relating to evaluation context.

Table C.1 Meeting Challenges in Evaluation Context

Evaluation Challenge	Meeting Challenges during Planning	Meeting Challenges during Implementation	Relevant Standard(s)
Negative community response to evaluation	• Discuss information needs and evaluation plans with stakeholders • Include one or more stakeholders from the community, including program beneficiaries, on evaluation team, if appropriate	• Discuss evaluation findings with stakeholders and explore implications for program and community • Include stakeholders in developing an action plan to implement evaluation findings • Use an issues management approach to public relations if findings may reflect negatively on the community (See Appendix A)	Utility Propriety
Lack of "political will" to support evaluation	• Discuss information needs with stakeholders and incorporate their needs into evaluation design	• Discuss evaluation successes, findings, and implications for program with stakeholders and organizational leadership post-evaluation • Consistently send messages about the importance of evaluation	Utility Feasibility
Changes in program priorities	• Discuss program priorities with stakeholders and incorporate into design	• When priorities shift, frankly discuss whether the evaluation should continue as planned or whether modifications need to be made • If evaluation continues to completion, discuss implications for program priorities with stakeholders after completion	Utility Feasibility
Lack of support from program leadership	• At the start of strategic evaluation planning, Include frontline program leadership in stakeholder discussions about the evaluation	• Keep leaders informed about the evaluation through progress reports and solicit their input • Consider alternate methods of dissemination that may be more useful to busy leaders • Should leadership change, inform new leaders about the evaluation and its progress and solicit their input • Include leaders in briefings on evaluation results and implications for program improvement	Utility Feasibility

C.2 Evaluation Logistics

An evaluation needs to be managed like any other project. Those working on the evaluation need to know who is doing what, when, how, and why. They also need clear guidelines about how many hours and other resources can and should be spent on individual work assignments. Evaluation progress should be carefully monitored through a variety of means, and contingency plans should be developed if evaluation components, such as the timeline, budget, and/or scope, lose their trajectory. Good project management processes and tools such as the ones presented in Appendix G will support those managing the evaluation in reaching a successful conclusion. These good management practices and tools should be built into your individual evaluation plan. **Table C.2** offers steps you can take to address logistical challenges in evaluation.

Table C.2 Meeting Challenges in Evaluation Logistics

Evaluation Challenge	Meeting Challenges during Planning	Meeting Challenges during Implementation	Relevant Standard(s)
Difficulty communicating with evaluation staff, evaluation team members, and stakeholders	• Develop a communication plan about whom you will need to communicate with at various stages of the evaluation and the best modes of communication for each audience type	• Consult regularly with the communication plan to help make sure you are on track • Develop ways to obtain regular feedback from various audience types to help make sure they feel communication is adequate	Utility Feasibility Propriety Accuracy
Confusion among team members about roles and responsibilities	• Plan around staff skills and availability, including looking across evaluations during strategic planning • Clearly document team member roles and responsibilities in individual evaluation plan	• Hold regular meetings with evaluation team during implementation to discuss progress and to address emerging issues	Feasibility Accuracy

Evaluation Challenge	Meeting Challenges during Planning	Meeting Challenges during Implementation	Relevant Standard(s)
Insufficient financial resources to complete evaluation	• Have resource estimates developed by individuals experienced in evaluation • Consider efficiencies across evaluations during strategic evaluation planning phase • Identify additional resources for evaluation • Consider delays in evaluation schedule to accommodate funding cycle • Allow for some "wiggle room" in your budget in case surprises occur	• Regularly monitor evaluation budget during implementation • Consider reduction in scope and other cost-saving measures if budget monitoring indicates a need to economize. • Document effectiveness of cost-saving measures • Keep track of resources spent to help generate more realistic estimates in future evaluations	Feasibility
Inadequate staff resources to complete evaluation	• Plan around staff skills and availability, including looking across evaluations during strategic evaluation planning • Consider alternatives during strategic evaluation planning if staffing falls short of requirements, such as contracting externally, training existing staff in needed skills, "borrowing" partner staff, interns from local colleges and universities	• Implement previously developed contingency plans to deal with staff shortages	Feasibility
Evaluation off track in terms of timeline, budget, or scope	• Plan at several levels: strategic planning for the big picture, individual planning for each specific evaluation	• Monitor timeline, budget, and scope • Hold regular meetings with evaluation team to discuss progress and emerging issues • Respond quickly to emerging issues; include team members in devising solutions • Revise timeline, budget, and scope as feasible, considering any fixed deadlines • Document effectiveness of procedures used to address emerging issues	Feasibility

C.3 Data Collection

There are many aspects of data collection activities to consider, both while planning for and implementing an evaluation. And this is true whether you are collecting new data through surveys, interviews, or focus groups; whether you are systematically reviewing archival data (such as medical records); or whether you are compiling and analyzing surveillance data and other types of data from existing sources. Any of these types of data collection activities requires that you have a clear plan (or protocol) for how the work will proceed and as many safeguards as necessary to ensure consistency, accuracy, and reliability of your findings.

Some important safeguards include documenting procedures to be used, pilot testing procedures and instruments, training individuals involved in data collection/compilation, and carefully cleaning the data in preparation for analysis. In addition, you will want to ensure procedures are in place to monitor the quality and consistency of incoming data. Protecting the rights of any program participants involved in the evaluation is another critical consideration that must be planned for upfront and managed carefully during implementation. Table C.3 offers steps you can take to address data collection challenges.

Table C.3 Meeting Challenges in Data Collection

Evaluation Challenge	Meeting Challenges during Planning	Meeting Challenges during Implementation	Relevant Standard(s)
Ineffective data collection instruments or data collection strategies	• Consider utilizing or modifying existing instruments that have already been tested • Where new instruments are needed, include stakeholders and individuals experienced in evaluation in the design of effective, culturally sensitive instruments • Consider meeting with members of respondent population to inform instrument development • Pilot test instruments before launch of full data collection and revise instruments as needed • Use multiple methods, where possible, to triangulate findings and in case any one method or instrument does not work well	• Train all data collection staff (even those with extensive experience) on written evaluation protocol containing the specifics of data collection for this evaluation • Regularly monitor data collection activities to ensure all is proceeding smoothly and to detect any emerging problems • If problems surface – particularly early in data collection – consider modifying that particular instrument or data collection strategy	Feasibility Accuracy

Evaluation Challenge	Meeting Challenges during Planning	Meeting Challenges during Implementation	Relevant Standard(s)
Lack of access to needed data	• Identify potential data sources and determine the availability and accessibility of any existing data required for the evaluation • Develop memoranda of understanding and data-sharing agreements for access to required data prior to launch	• Discuss with evaluation team and stakeholders how to work around failures or divisions in data-sharing agreements • If necessary, revise evaluation scope to accommodate lack of access and tap alternative data sources • Be alert for biases introduced from partners' points of view about data being collected or partners' relationships with respondents from whom data are being collected.	Feasibility Accuracy
Difficulties recruiting participants	• Include stakeholders and individuals experienced in evaluation in planning to maximize respondent participation in the evaluation • Solicit support from community members and explain to them the importance of the program and the importance of evaluation for improving the program • In designing instruments and recruitment materials, consider respondent burden and the costs and benefits to respondents in participating	• Train data collectors in effective recruitment techniques • Solicit support from community members in identifying and gaining the cooperation from eligible respondents • Budget permitting, consider offering incentives (non-monetary only) to participants • Identify and minimize barriers to recruitment or participation in the evaluation (e.g., reduce length of instrument, change data collection strategies to be more appealing or less burdensome)	Feasibility Propriety Accuracy
Difficulties working with contractors	• Plan for which evaluation tasks will need to be contracted out and identify funds available for this work • Develop detailed agreements that clearly outline contractors' roles, responsibilities, products, timeline, and budget; include requirements and funds for regular meetings and progress reports •	• Train contractor staff to be involved in data collection on the written evaluation protocol containing the specifics of data collection for this evaluation • Monitor contractor timeline, budget, and performance through regular meetings and/or written progress reports • Have a "back up" list of contractors to call in the event services cannot be rendered	Feasibility Accuracy

Evaluation Challenge	Meeting Challenges during Planning	Meeting Challenges during Implementation	Relevant Standard(s)
Difficulties working with data collection partners (often volunteers)	• Same as for "contractors" above but with less formality as these are collaborative rather than business relationships	• Pilot test instruments and procedures and incorporate lessons learned from pilot test into data collectors' training manual • Train partner staff to be involved in data collection on the written evaluation protocol containing the specifics of data collection for this evaluation • Monitor data collection to ensure quality • Monitor partners' performance through regular meetings and/or written progress reports	Feasibility Accuracy
Difficulties managing volume of incoming data	• Plan how incoming data will be managed, considering issues such as data storage, data system capacity, data cleaning, and preparation of data for analysis; also consider safeguards for respondent confidentiality and privacy • Document data management approach in individual evaluation plan	• Develop data management systems • Test/review data collection systems • Clearly assign responsibilities for data cleaning and data entry	Feasibility Accuracy
Ethical breaches	• Include stakeholders in planning for privacy, confidentiality, and cultural sensitivity • Document in individual evaluation plan and IRB package (if applicable) safe-guards to protect privacy and confidentiality	• Train staff who will be involved in data collection and analysis • Rigorously monitor data collection process • If severe breaches occur notify IRB immediately	Propriety

Evaluation Challenge	Meeting Challenges during Planning	Meeting Challenges during Implementation	Relevant Standard(s)
Loss of data or corruption of data integrity	• Plan how data will be collected and protected, considering issues such as frequent data backups, use of more than one audio recorder for interviews and focus groups, and safeguards for respondent confidentiality and privacy • Ensure up-to-date protection of computer systems to guard against corruption and loss of electronic files	• Train all staff who will be involved in data collection (even those with extensive experience) on the specifics of data collection for this evaluation • Monitor data collection activities to ensure all is proceeding smoothly and to detect any emerging problems • Set up procedures and encourage data collection staff to use them to report issues.	Accuracy

C.4 Data Analysis

Nothing is more frustrating than approaching the conclusion of an evaluation only to discover that the data collected are not analyzable or do not meet the needs of program staff and stakeholders. With so many precious human and monetary resources invested in an evaluation, planning ahead for data analysis and use—and documenting those in the individual evaluation plan—is critical. To the extent that such plans are developed in consultation with program leadership and stakeholders, the likelihood that evaluation findings will meet their information needs increases. Table C.4 offers steps you can take to address data analysis challenges.

Table C.4 Meeting Challenges in Data Analysis

Evaluation Challenge	Meeting Challenges during Planning	Meeting Challenges during Implementation	Relevant Standard(s)
Data collected are not useful	• Discuss with stakeholders their information needs and priorities • Incorporate stakeholder information needs and priorities into individual evaluation plan • Identify what type of data potential end users view as credible evidence (e.g., qualitative, quantitative, mixed • Identify a study design that will provide credible evidence for end users (e.g., pre-post, pre-post with control) • Specify how data analyses will help answer the evaluation questions • Draft table shells to show how data will be used to answer evaluation questions • Pilot test instruments and revise as necessary to promote useful data collection	• If feasible, revise data collection strategies or instruments or clarify instructions to enhance data quality • Work with stakeholders to address evaluation findings in an action plan with clear roles, responsibilities, timeline, and budget • Discuss evaluation findings and implications for program with stakeholders post-evaluation • Conduct preliminary analysis of pilot data to check for usefulness of data and feasibility of analysis plan; revise data collection and analysis plans as necessary (including possible revisions to the sampling plan)	Utility

Evaluation Challenge	Meeting Challenges during Planning	Meeting Challenges during Implementation	Relevant Standard(s)
Uncertainty about how to analyze the data	• Include stakeholders and individuals experienced in evaluation and in data analysis in planning how incoming data will be analyzed • Cross check analysis plans with evaluation data collection instruments to ensure data are collected in an appropriate manner for intended analyses • Document data analysis approach in individual evaluation plan (possibly including blank table shells) • Ensure availability of individuals (either staff or contractors) with the requisite skills and experience to implement the analysis plan	• Consult with analysts on staff or in partner organizations • If data cannot or will not be analyzed, consider dropping the data elements from data collection instruments • Do not report data with small cell sizes that might result in inadvertent disclosure of confidential information (e.g., when small numbers of cases further broken down by demographic factors could lead to identification of individuals). In these situations, it may be advisable to note the reason for not reporting on certain analyses.	Feasibility Accuracy Propriety
Preliminary findings indicate need for program modifications	• Discuss with stakeholders how to handle the situation if preliminary findings suggest need for program modification • Consider preparing for a "mock" findings session in which possible results scenarios are presented	• Discuss preliminary findings with stakeholders to decide whether program should be modified immediately or after evaluation concludes • If program is modified, consider with evaluation team and stakeholders any implications for evaluation	Utility

C.5 Dissemination of Evaluation Findings

We conduct evaluations in order to put the information collected to good use in the service of improving our programs and providing accountability to funders and other decision makers. Yet evaluation findings that are not believable or come too late to meet a particular information need are unlikely to be able to inform programmatic decision-making. Fortunately, there are things that can be done to help ensure use, both during planning for and implementing an evaluation. Table C.5 offers steps you can take to address evaluation challenges relating to dissemination of findings.

Table C.5 Meeting Challenges in Dissemination of Evaluation Findings

Evaluation Challenge	Meeting Challenges during Planning	Meeting Challenges during Implementation	Relevant Standard(s)
Late timing of evaluation in relation to information needs	• Discuss with stakeholders when information is needed	• Monitor evaluation timeline to ensure it stays on track • If appropriate, disseminate interim findings prior to completion of evaluation, along with caveats that information is not final	Utility
Findings not used	• Hold upfront discussion with program stakeholders about information needs and how findings can be used • Incorporate of stakeholder information needs into evaluation design • Develop plans for dissemination of findings (including interim findings as they become available)	• Ensure that findings are communicated to decision-makers in useful formats at strategic times; share interim findings if appropriate • Hold post-evaluation discussion with program stakeholders about evaluation findings and implications for program • Document proposed strategies to address evaluation findings in an action plan with clear roles, responsibilities, timeline, and budget	Utility
Findings not credible	• Discuss with program stakeholders and decision makers any design and data collection preferences they may have • Incorporate stakeholder and evaluation practitioner perspectives into evaluation design and development of data collection strategies • Document design and data collection strategies in individual evaluation plan	• Post-evaluation, discuss findings and potential programmatic implications with stakeholders • Document proposed strategies to address evaluation findings in an action plan with clear roles, responsibilities, timeline, and budget	Utility Accuracy
Findings from one evaluation have implications for later evaluations in the strategic evaluation plan	• During strategic planning for evaluation, be aware of potential relationships and interdependencies between the various evaluations proposed	• As part of post-evaluation discussions, address whether any of the evaluation findings affect future planned evaluations (such as which evaluations to conduct or how to conduct them or how much of the resources have been expended) • If necessary, revise the strategic evaluation plan accordingly	Utility Feasibility

Evaluation Challenge	Meeting Challenges during Planning	Meeting Challenges during Implementation	Relevant Standard(s)
Findings not welcomed by some stakeholders	• Discuss upfront with stakeholders their information needs and plans for evaluation • Discuss upfront with stakeholders how to handle a situation where findings do not show the program in a positive light or if findings suggest the need for program modification • Consider alternative modes of dissemination that may be more useful and accessible to stakeholders than the traditional final evaluation report	• Communicate with stakeholders throughout the evaluation to avoid surprises at the end • Post-evaluation, discuss evaluation findings with stakeholders and explore implications for program and community, emphasizing positive, constructive action that can be taken • Document proposed strategies to address evaluation findings in an action plan with clear roles, responsibilities, timeline, and budget; include roles for stakeholders in action planning	Utility Feasibility

Notes:

Appendix D
Evaluation Anxiety

Evaluation anxiety--feeling anxious about an evaluation and its potential impacts--is quite common. It can affect the staff and other stakeholders of a program being evaluated, *as well as* the evaluators, and its effects can be detrimental to the quality of the evaluation. In this appendix, we provide you with some practical suggestions to minimize evaluation anxiety.

D.1 Anxiety among Evaluation Stakeholders

Most people experience anxiety when they believe that their behavior or achievements are being evaluated and are afraid that the results will reflect poorly on them. If you are aware of and take steps to address this perception at the outset of your evaluation, you can minimize the chance that stakeholder anxiety will lead to obstruction of an evaluation or render its findings useless. Helping stakeholders understand the clear distinction between personnel evaluation and program evaluation is an important first step.

Some Sources of Program Staff & Stakeholder Anxiety:

- Lack of experience
- Negative past experiences
- Fear of negative consequences

Several prominent evaluators have analyzed the phenomenon of evaluation anxiety and offer a number of practical strategies to recognize and deal with it. According to Donaldson, Gooler, and Scriven (2002), anxiety among staff and stakeholders of a program being evaluated may be caused by such factors as lack of experience with program evaluation, negative past experiences with program evaluation, and fear of negative consequences of evaluation. When present in excess, this type of anxiety may display itself in terms of conflict with the evaluator; avoidance of or refusal to work with the evaluator; stalling, protesting, or failing to use evaluation results; hiding weaknesses; and displays of anger at negative findings. At its worst, excessive evaluation anxiety can result in difficulty gaining access to required information, lack of cooperation by critical stakeholders, false reporting, challenges to the validity of evaluation results, lack of program improvement, decrease in performance and productivity in general, and dissatisfaction with program evaluation.

Donaldson et al. (p. 265) offer the following strategies for addressing excessive evaluation anxiety:

- Expect and accept: Be prepared for some evaluation anxiety and accept that you will have to account for and respond to it throughout the evaluation.
- Work through hangovers from bad evaluation experiences.
- Make sure the anxiety isn't legitimate opposition to bad evaluation.

- Determine the program "psychologic" (i.e., how the success or failure of the program being evaluated will affect stakeholders personally).
- Discuss purposes of the evaluation.
- Discuss the professional standards for program evaluation.
- Discuss why honesty with the evaluator is not disloyalty to the group.
- Discuss the risk/benefit ratio of cooperation for individuals.
- Provide balanced continuous improvement feedback.
- Allow stakeholders to discuss and affect the evaluation.
- Be prepared to wear your psychotherapy hat (i.e., in terms of trying to understand how stakeholders connected to the evaluation think and feel throughout the process).
- Engage in role clarification on an ongoing basis (i.e., at a given moment are you functioning as a critic, a co-author, a trainer?).
- Be a role model (i.e., allow stakeholders to evaluate the evaluation and accept criticism gracefully).
- Distinguish the blame game from the program evaluation game.
- Facilitate learning communities/organizations (i.e., stakeholder receptivity to evaluation as a means to enhance learning).
- Push for culture change (i.e., toward a view of evaluation as routine and valuable).
- Use multiple strategies.

One particularly challenging area may be anxiety associated with communicating negative evaluation findings. To address this type of challenge, Torres, Preskill, and Piontek (2005) suggest these additional strategies:

- Hold regular debriefing sessions with program leadership throughout the evaluation to ensure that evaluation results are known early and are not "sprung on" participants at the end.
- Conduct "mock sessions" early in the evaluation to discuss "what if" scenarios, should negative results be obtained.
- Ensure fair and balanced reporting of both positive and negative findings.
- Promote the use of evaluation findings as "learning opportunities" for program improvement.
- Engage stakeholders in evaluation decision-making and communicate throughout the evaluation.
- Keep stakeholder perspectives in mind and directly address anxiety issues.

If you are interested in further detail about how to recognize and cope with stakeholder evaluation anxiety, we refer you to Donaldson et al. (2002). If you are a member of the American Evaluation Association (AEA), this article is available to you online at www.eval.org and can be accessed using your membership ID and password.

D.2 Anxiety among Evaluators

Some Sources of Evaluator Anxiety:

- Relationship of evaluator to organization
- Competing priorities or roles
- Competing demands of different stakeholders
- Workload stress
- Personal conflicts
- Time/budget/logistical constraints

Up to now, we have focused on anxiety among evaluation stakeholders. However, we recognize that the *evaluator* can also experience anxiety when planning for and conducting an evaluation. This may arise from a number of sources, including: the relationship of the evaluator with an organization; competing priorities or roles; competing demands of different stakeholders; workload stress; personal conflicts; and time/budget/logistical constraints.

You can address or minimize many of these issues by applying some of the strategies listed above and in Chapter 1 of this module. You may find that as evaluation becomes routine and its value has been demonstrated, competing demands may lessen. In the following section, we elaborate on some additional techniques that may be helpful in minimizing evaluator anxiety.

Evaluators who are aware of their role going into the evaluation and how it may change in relation to stakeholder needs may be better able to recognize potential sources of anxiety and address those stressors throughout the evaluation process. Three models presented by King and Stevahn (2002) describe the types of roles played by evaluators. They are summarized below.

- ***Interactive Evaluation Practice Continuum*.** This model describes the role of the evaluator in relation to other evaluation participants by emphasizing the extent to which evaluation stakeholders "are involved in evaluation decision-making and implementation" (p. 7). King and Stevahn lay out a continuum from "traditional evaluation" (where the evaluator takes primary responsibility for the evaluation design and conduct with input from stakeholders), to "participatory evaluation" (where there is joint responsibility for the evaluation), to "action-research" evaluation (where evaluation stakeholders direct the evaluation, with the evaluator serving as a consultant or coach). Being clear about the relative involvement of the evaluator and other stakeholders in evaluation decision-making and implementation can clarify expectations for all parties, although these roles may shift during the evaluation.
- ***Evaluation Capacity Building (ECB) Framework.*** This framework describes the relationship between the evaluator and the organization sponsoring the evaluation,

specifically with respect to the "evaluator's commitment to building within the organization the continuing capacity to conduct evaluation studies" (p. 7). This continuum places the evaluator in a range of roles from primarily providing evaluation findings, to actively promoting evaluation participants' capacity to evaluate, or even to explicitly acting as an organizational change agent to promote organizational development. The authors suggest that being explicit about the extent to which the evaluator will be engaged in building evaluation capacity in the organization will help to clarify relationships and expectations and reduce conflict related to the evaluator's role.

- ***Dual Concerns Model*.** This model provides a framework for examining interpersonal conflict. Two "concerns" are arrayed on a matrix that looks at the value placed on maintaining interpersonal relationships (from low to high) versus the value placed on achieving goals (from low to high). Each cell in the resulting schema suggests a "strategy" for minimizing or addressing conflict. In this framework, the strategies that emphasize equal attention to both relationships and goals are seen as most beneficial for evaluation. These strategies are labeled "compromising" (medium, medium) and "cooperative problem solving" (high, high). Other strategies known as "withdrawing" (low, low), "smoothing" (high, low), and "forcing" (low, high) are seen as unproductive strategies for dealing with conflict in an evaluation. Conflict is an inevitable part of evaluation practice. Recognizing and acknowledging the emphasis on relationships and goal attainment, as well as the strategies being used to resolve conflict by all participants, can move the group towards a more productive resolution of conflict. This resolution can sustain relationships while maintaining focus on evaluation goals.

Several evaluators suggest specific strategies that can help address the concerns raised above about evaluator anxiety and the role of the evaluator. In her 2001 presidential address to AEA, Laura Leviton, offers the following suggestions to address role-based anxiety. She suggests:

- Looking for mentoring relationships with other evaluators who may have more experience.
- Becoming more engaged with the "community" of evaluators (e.g., joining the AEA EVALTALK listserv or joining a local AEA affiliate).
- Working to strengthen individual evaluator strengths and weaknesses in methodological areas but *also* in "people skills" and "organizational expertise" and/or partnering with others who have these skill sets.

Additional suggestions for state asthma programs include:

- Obtaining assistance from the state asthma program director to manage conflicting demands among stakeholders.
- Clarifying and being explicit about the evaluator role in relation to that of other program staff and other evaluation stakeholders.

- Sharing challenges and brainstorming solutions with other state asthma program evaluators.
- Talking with your Evaluation Technical Advisor about your concerns

References

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Notes:

Appendix E
Common Evaluation Designs

Once your evaluation planning team has identified the specific questions your evaluation should address, the next step is to decide how to answer those questions. This decision-making process has two main steps: (1) deciding on the evaluation's overarching design, and (2) deciding how to collect the data. In this appendix, we cover the first step while Appendix H provides information about the second. Our goal is to present a general introduction to evaluation design, whet your appetite for further information, and direct you to resources that will supply the level of detail required to construct a sound evaluation design.

E.1 General Description of Evaluation Designs

3 Categories of Evaluation Designs:

- Randomized/true experiments
- Quasi-experiments
- Non-experiments

Evaluators often join the profession through a back door. Many people engaged in evaluation might describe themselves as an "accidental evaluator" or a "Monday morning evaluator"— that is, they have been asked to engage in evaluation work, but their training and professional experiences lie elsewhere. As a result, the evaluation designs in use today have often come to us through a variety of disciplines, such as psychology, sociology, anthropology, epidemiology, and health services research. While having so many designs to choose from can seem overwhelming, the diversity of designs offers us opportunities to be creative in seeking answers to our evaluation questions.

Given the various origins of evaluation designs, there are many possible ways to categorize them. Here we adopt a categorization scheme proposed by Trochim (2006) for classifying a closely related set of designs—social research method designs.[4] (His online Research Methods Knowledge Base is a useful resource: http://www.socialresearchmethods.net/kb/intval.php.) Under this framework, evaluation designs fall into one of three categories: (1) randomized or true experiments, (2) quasi-experiments, or (3) non-experiments. Descriptions of these categories follow, along with examples of specific design types that fall within each category.

Randomized or true experiments

Experimental designs are characterized by random assignment of participants into groups. In evaluation, this type of design is often referred to as a *randomized controlled trial*. The most basic design of this type consists of random assignment of participants to a group that receives an

[4] Research and evaluation share many of the same methods, and so merely using a particular method does not indicate that a project is necessarily research, which is not permitted in the cooperative agreement. For more information on CDC's distinction between research and evaluation, talk with your Evaluation Technical Advisor.

intervention (*intervention group)* and a second group that does not (*control group*). However, there are many ways a randomized or true experiment can be designed that move beyond this basic structure—according to Shadish, Cook, and Campbell (2002), "The variations are limited only by the researcher's imagination" (p. 259). For example, these designs can be "spiced up" in a number of ways, depending upon the evaluation questions at hand.

- ***The number of groups.*** Participants can be randomized to more than two groups. For example, a control condition (which receives the standard intervention) could be compared to multiple intervention groups, each with a slightly different "take" on the intervention being evaluated (e.g., two groups might both receive a training intervention, but one would receive a longer training [nine sessions over three weeks] than the other [six sessions over three weeks]).
- ***The number of time points when data are collected***. Data can be collected at many different times during a randomized controlled trial. For example, data might be collected at a time after the intervention has occurred (i.e., post-only), before and after the intervention occurs (i.e., pre-post), or at multiple time points before and after the intervention has taken place.
- ***The number of "factors" that vary (factorial design).*** In the basic design, only one factor is intentionally "varied" between the intervention and the control group, namely the administration of the intervention itself. However, you could also vary another "factor" of interest—such as the administration of a pre-test. For example, let's assume two groups receive the intervention and two do not. Further, for one intervention and one control group, data will be collected through a pre- and a post-test rather than only a post-test. This allows you to see whether administering a pre-test is related to a change in the outcome of interest (i.e., Solomon Four Group design).

Shadish et al. (2002) discuss in detail additional variations on the randomized/true experiment and the pros and cons associated with each in *Experimental and Quasi-experimental Designs for Generalized Causal Inference*.

Quasi-experiments

Quasi-experimental designs are characterized by the use of one or both of the following: (1) the collection of the *same* data at multiple points in time, or (2) the use of a comparison group. Quasi-experimental designs differ from the experimental design in that they do not include random assignment of participants to conditions. Many designs fall under this heading, including but not limited to pre-post tests without a comparison group, a nonequivalent comparison group design with a pre-post test or post-test only, interrupted time series, and regression discontinuity. Additional details regarding some of the designs under this heading are provided in **Table E.2**. Similar to the randomized experiment, many variations on the basic quasi-experimental design are possible. For example, the interrupted time-series design includes collection of the same data at many time points for a single group prior to and after the intervention. However, your

evaluation planning team may decide it is appropriate to collect these same data on a second group that does not receive the intervention, perhaps a group similar to the first on many factors that have the potential to influence change in the outcome of interest (e.g., age, socioeconomic status, grade level). How you choose to select this comparison group or "match" on selected factors can also vary—for example, you can decide to perform one-to-one matching using demographic data at the participant level or match on broader factors at the group level (e.g., zip code to zip code, city to city). Shadish, Cook, and Campbell (2002) discuss other ways an interrupted time-series design can be structured, including: measuring additional outcomes; introducing, removing, and reintroducing the intervention to the same group over time; and introducing and removing a treatment to two similar groups at different time points (i.e., "switching replications").

For further detail about quasi-experimental design options and their variants, see *Experimental and Quasi-experimental Designs for Generalized Causal Inference* by Shadish et al. (2002).

Non-experiments

Similar to designs under the quasi-experimental heading, non-experimental designs do not involve random assignment. Referred to as "observational" or "descriptive," the designs in this category include (1) data collection at a single time point (i.e., one-shot designs), or (2) collection of data over time, although the same indicator is not collected over time as would be the case with an interrupted time-series or pre-post quasi-experiment (i.e., repeated measure). Many evaluation designs are considered "non-experimental" because they do not comfortably fit under the previous two definitions.

Some examples of non-experimental evaluation designs include post-test only, cross-sectional analysis, retrospective pre-tests, case studies (single or multiple), ethnography, and phenomenology. Unlike "randomized/true experiment" or "quasi-experiment" type designs, the designs under the "non-experimental" heading are most frequently considered in evaluations that do not attempt to answer questions of a causal nature. While this is not *always* the case, it is how they have been viewed historically within the evaluation field. Some evaluation scholars assert that carefully constructed non-experimental designs (e.g., case study) can indeed provide valuable information to answer causal questions (see Campbell, 1978; Yin, 2009). Whether used to answer causal or non-causal evaluation questions, non-experimental designs are among the most common designs and offer a wide variety of options. Further details on some of the designs in this category are provided in **Table E.2**.

Table E.1 Summary of evaluation design features

	Randomized/true experiment	Quasi experiment	Non Experimental
Random assignment	Yes	No	No
Comparison/control group	Yes	Possibly	No
Repeated measures	Possibly	Possibly	No

Additional options

Some designs do not necessarily fit neatly under any of the three categories mentioned above, yet build upon their foundations. We include *economic evaluations* and *mixed-method evaluations* under this heading.

Economic evaluations. Because many evaluation questions center on the topic of "cost," economic evaluation is often a useful approach.[5] The following describe two characteristics of true, "full-scale" economic evaluations (Drummond, 2005):

- There is an "alternative" examined to the intervention that is the primary focus of the evaluation. In other words, you are examining a "choice"—is Option A (e.g., intervention of interest) better than Option B (e.g., the status quo)?
- The comparison that is made between the intervention of primary interest and the potential alternatives considers both the *costs* and the *consequences* of the options. When it comes to evaluating interventions, consequences are typically considered to be the outcomes (short-, intermediate-, or long-term) believed to be associated with the intervention.

Full-scale economic evaluations include *cost-effectiveness analysis* (CEA), *cost-benefit analysis* (CBA), and *cost-utility analysis* (CUA). These three types of evaluations differ in terms of the metric used to quantify the "consequence" (i.e., outcome) of interest in the evaluation. For example, cost-benefit analysis examines outcomes in monetary units. In contrast, cost-effectiveness analysis examines outcomes in non-monetary units, such as hospitalizations or symptom-free days (see Table E.2).

According to Drummond, "partial" economic evaluations solely consider cost, without attending to outcomes. For instance, an evaluator together with stakeholders may decide that they wish to only explore the costs associated with one specific program or intervention. However, they may decide that the evaluation will examine the costs for more than one alternative intervention, referred to as a "cost analysis" (Drummond 2005). They could also choose to examine both costs and outcomes, but only for a single intervention (i.e., no comparison made to an alternative intervention)—this design is known as a "cost-outcome description".

[5] Drummond et al. (2005) also refers to economic evaluations as *efficiency* evaluations.

Mixed methods. Earlier we mentioned that evaluation designs have been "borrowed" from a number of different disciplines. Mixed-method evaluations blend various designs and data collection strategies. In these evaluations, "the investigator collects and analyzes and integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or program of inquiry. A key concept in this definition is integration …" (Tashakkori and Teddlie, 2009).

Mixed-methods approaches to evaluation are still fairly new and so different authors' descriptions of the various approaches vary widely. Some focus on why and how you would use a mixture of qualitative and quantitative *data* within an evaluation (Greene, 2007), while others present options such as mixing at the level of the *design* itself (Tashakkori & Teddlie, 2009; Creswell, 2009). An example of this "mixing" would be nesting a case study within a randomized controlled trial to better understand whether a given medical treatment improved particular health outcomes as well as to understand the treatment experience from the patients' perspectives (Creswell, 2009, p. 215). In the brief overview of mixed-method designs below, we discuss the approaches that are most likely to apply to state asthma program evaluations—those at the data collection level.

One important consideration in selecting a mixed-method evaluation is articulating why a mixture of methods would make sense for a given evaluation. Although it is important to consider the rationale when selecting any evaluation design, it is particularly important when choosing whether to use a mixed-methods design. Mixing methods may require more time and effort than other approaches, so it is important to think through whether the approach is appropriate to address the evaluation questions. Additionally, evaluators often collect different types of data (e.g., qualitative and quantitative) without stepping back to consider how these data will be used *together*. Understanding the potential purposes behind integrating these different types of data in a specific evaluation may bring to light ways to strengthen an evaluation.

Greene's discussion of the reasons for employing a mixed-method design may help you to identify creative ways to use different types, and because many state asthma programs have indicated that they are likely to use this approach, we cover it in some detail. Greene (2007) identifies the following considerations.

- ***Triangulation.*** Triangulating data—collecting data about a construct in multiple ways—can increase the validity associated with measuring a specific construct (e.g., attitude toward asthma self-management). Many of the constructs we collect data on for asthma programs (i.e., attitude, beliefs) can only be measured indirectly. As a result, each measure has some sort of associated error—in other words, we do not get a perfect picture of the concept we are measuring. How far "off the mark" we are can be considered a form of error. As a result, collecting data about this construct using multiple methods or from multiple sources can be helpful—such as using both closed-ended

questions on a survey and open-ended questions in an interview. Since these data collection methods likely have "erred" in different ways, combining information from both sources can give us a more complete or accurate measure of the construct. When examining data for the purpose of triangulation, evaluators often are looking for how the findings converge.

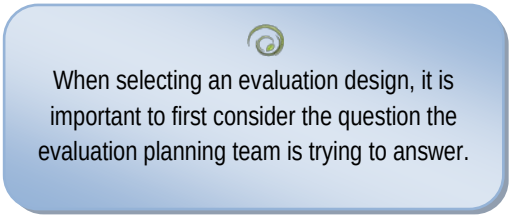
- ***Complementarity***. The purpose of mixed-method evaluations that have a "complementarity" design is to "elaborate, enhance, deepen, and broaden the overall interpretations and inferences from the study" (Greene, 2007, p. 101). As a result, different perspectives are sought on a problem of interest, like in an evaluation examining healthier lunchtime food options in a school cafeteria (Greene, 2007). In this example the evaluator chooses to collect data by observing the food choices that students make in the cafeteria and then decides to gather additional data from students about these food choices through interviews. The interviews reveal the extent to which peers influence what a student chooses to eat in the cafeteria. Here we see that the topic of interest for both data collection efforts is the choice made in selecting from the available lunch options, however different aspects of this topic are examined (i.e., the choice and a potential influence).
- ***Development***. When development is the purpose for a mixed-method evaluation, one data collection method informs another. For example, imagine your program conducts an intervention designed to improve physician communication with patients. To answer the evaluation question, "To what extent do physicians in this intervention demonstrate improvements in patient communications," your evaluation team collects survey data from a random sample of patients who visit the participating physicians before and after the intervention. Ten percent of patients who demonstrate the largest and smallest change in quality ratings between the pre and post measures are then selected for telephone interviews to learn more about the interactions with their physicians. In this case, the findings from the pre-post surveys provide the sample for follow-up interviews.
- ***Initiation***. When mixing methods for the purpose of initiation, we are looking for *differences* that emerge with respect to a problem of interest. Once differences are uncovered, further exploration is often warranted to help understand why these differences exist. For example, a state asthma program partner may implement a series of trainings for school nurses to enhance their ability to work with students on their asthma self-management behaviors. The training evaluation includes the collection of data from a subset of attendees through semi-structured interviews and a self-assessment "exit" survey that is completed by the instructors at the end of the course. Evaluation findings indicate that the attendees' comments about the courses are much more favorable than the instructors'. Furthermore, these differences do not appear to occur specifically within a given training site. Such a finding creates a paradox of sorts—why do such extreme differences exist between the instructors and students? This might encourage the

evaluator to dig deeper to better understand the discrepancy.

- ***Expansion***. When using a mixture of methods for the purpose of expansion, an evaluation team often strives to answer questions about various aspects of the program being evaluated—to get an "expanded" understanding. A classic example is the use of quantitative methods to explore the extent to which program outcomes occurred paired with qualitative methods to better understand the process of implementing the program (Greene, 2007, p. 103). In this case the evaluation team is essentially answering different evaluation questions about a specific program through the use of different methodologies. In the example of a hypothetical healthier eating program for children: "…the evaluator could assess student knowledge gains with a standardized pre-post test of nutrition knowledge, possible changes in lunchroom norms via a modest ethnographic inquiry component, and parental awareness of the program through a random selection of families for phone interviews" (Greene, 2007, p. 104). In this example, we can see that the evaluator is seeking a rich understanding of the program itself—and seeks this understanding by collecting data about multiple topics that concern this program (i.e., nutrition knowledge, norms, and parental awareness) rather than focusing on one specific topic (e.g., food choices made by students).

Beyond "purpose," other considerations regarding mixed method designs include the weight given to each method used in a mixed-method evaluation, the timing or sequencing of the various data collection methods, as well as how the evaluator chooses to connect the various methods throughout the course of the evaluation (Greene, 2007).

E.2 When to Use Which Design



With all of the designs just covered (not to mention their potential variants), you might be wondering how to go about choosing the most appropriate design(s). Unfortunately, there is no "cookbook" to help us decide which design options to use for a given evaluation. However, two general principles can be very helpful in trying to make your decisions:

1. Always begin this decision-making process with the evaluation questions.
2. Refer to the evaluation standards for guidance.

Although it is often tempting to select a design based solely on familiarity or feasibility, it is important to *first consider the evaluation questions your evaluation planning team is trying to answer*. The questions often suggest a specific design option.

For example, suppose your evaluation planning team discovers, during the logic modeling process, that the state asthma program is implementing a self-management program very similar

to one offered by a collaborative of program partners. Given the similarity between the intended outcomes of these interventions, the evaluation stakeholders would like to know if they would be better off focusing their efforts on improving and expanding one of the interventions, and if so, which one. With this set of questions about the costs and outcomes of two interventions that aim to influence the same outcomes, a cost-benefit or cost-effectiveness analysis would likely be most useful.

Your evaluation questions, however, will not always suggest one specific design. Rather, in these instances, multiple designs will be plausible. When you find yourself in this situation, referring to the standards for program evaluation—utility, feasibility, propriety, and accuracy—may help you sort through your options.

Consider that the strategic evaluation planning team in your state has decided that a high priority is evaluating an intervention designed to increase asthma self-management knowledge and skills among persons who have been diagnosed with asthma at a local federally qualified health center (FQHC). A question of interest to the evaluation planning team is, "To what extent did our asthma management training lead to improvements in asthma self-management knowledge among those who completed the training?"

Since this question asks about causation, a number of potential design options are available, including a randomized/true experiment; various quasi-experimental approaches; mixed methods; and, some might even argue, a case study design. Each of these designs has strengths and weaknesses related to the standards for program evaluation, depending upon the context in which the intervention is being conducted. Consider the following examples:

- The primary end users of this evaluation are very familiar with randomized/true experiments and view the results of such evaluations to be highly credible. Where randomization is not possible, these stakeholders may acknowledge that an evaluation design using comparison groups would still be useful for their purposes. Yet they would be uncomfortable making decisions in the absence of some sort of reasonable comparison. *This is an example of examining the design with respect to the utility standard.*
- Mixed-method and case study designs would include the collection of data through multiple avenues. This would likely make these designs more time intensive than the other options being considered. Stakeholders debate whether the expanded scope of these types of evaluation is worth the greater investment of time and resources. *This is an example of examining design with respect to the feasibility standard.*
- Some of the evaluation stakeholders may raise concerns about randomly assigning individuals to a control group that receives the standard treatment when there is a convincing argument that the intervention leads to improved self-management knowledge

and skills that may translate into improvements in health outcomes. These stakeholders might argue that all patients who receive services from the FQHC should receive the intervention. An option that would address this concern is providing the control group with the intervention at a later time. The planning team decides that other design options are preferable because they allow for individuals to determine on their own whether they should enroll in the intervention. *This is an example of examining design with respect to the propriety standard.*

- In our last example, the evaluation planning team would like to know whether an intervention is causing a particular outcome. This requires an assessment of the "internal validity" associated with each design option. Internal validity refers to the certainty with which we can state that an action (e.g., intervention) results in a change in a specific outcome (e.g., knowledge gain). There are many known threats to internal validity[6], some of which are better dealt with by using specific evaluation designs (Trochim, 2006). For example, one of the reasons your stakeholder group may find the randomized/true experiment to be more credible and useful for their purposes is that, when implemented well, the design itself combats threats to internal validity. Yet discussions may reveal that certain design options also produce levels of internal validity sufficient for the needs of primary stakeholders. *This is an example of examining design with respect to the accuracy standard.*

As is illustrated by this hypothetical exploration of evaluation design options, numerous considerations go into selecting an evaluation design. The decision requires carefully balancing multiple ideas, perspectives, and criteria. We encourage you to be creative and flexible in selecting the design that is most appropriate to the information, and other important needs you identify while planning for the evaluation.

E.3 Some Helpful Resources

There are many good resources that discuss the various design options briefly explained in this appendix. Below are some references you may find useful as you continue to plan and implement various evaluation designs.

Experimental and Quasi-Experimental Designs

Shadish, WR, Cook TD, and Campbell DT. (2002). *Experimental and Quasi-experimental Designs for Generalized Causal Inference*. Boston, MA: Houghton Mifflin Co.

[6] A thorough explanation of numerous threats to internal validity is provided by Trochim (2006) through the online Research Methods Knowledge Base (http://www.socialresearchmethods.net/kb/intval.php)

Economic Evaluation

Drummond MF, Sculpher MJ, Torrance GW, O'Brien BJ, and Stoddart GL. (2005). *Methods for the Economic Evaluation of Health Care Programmes.* 3rd edition. New York, NY: Oxford University Press.

Haddix AC, Teutsch SM, and Corso PS. (2005) *Prevention Effectiveness: A Guide to Decision Analysis and Economic Evaluation.* 2nd edition. New York, NY: Oxford University Press.

Gold MR, Siegel JE, Russell LB, and Weinstein MC. (1996). *Cost-Effectiveness in Health and Medicine.* New York, NY: Oxford University Press.

An online resource that provides helpful information, but should not be used to supplant the more extensive discussion provided in the texts above, can be found at:
http://www.cdc.gov/owcd/eet/Preface/Preface.html

Mixed Methods

Creswell JW and Plano Clark VL. (2007). *Designing and Conducting Mixed Methods Research.* Thousand Oaks, CA: Sage Publications.

Greene JC. (2007). *Mixed Methods in Social Inquiry.* San Francisco, CA: Jossey-Bass.

Tashakkori A and Teddlie C, eds. (2003). *Handbook of Mixed Methods in Social and Behavioral Research.* Thousand Oaks, CA: Sage Publications.

Teddlie C and Tashakkori A. (2009). *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences*. Thousand Oaks, CA: SAGE Publications.

Other Aspects of Design

Creswell JW. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* Thousand Oaks, CA: Sage Publications, Inc.

Creswell JW. (2006). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches.* Thousand Oaks, CA: Sage Publications, Inc.

Patton MQ. (2001). *Qualitative Research and Evaluation Methods.* Thousand Oaks, CA: Sage Publications, Inc.

Notes:

Appendix F
Budgeting for Evaluation

Conducting an evaluation requires careful allocation of resources, including time and money. This appendix provides information that will help you anticipate and plan for the resources you will need.

F.1 How to Budget for Evaluation

Developing accurate budgets for evaluation takes both planning and expertise. How *do* you come up with an appropriate estimate, especially if you have little direct experience? Though other methods exist, two approaches to budget estimation you may want to consider are the *historical* and *roundtable* methods. For both approaches you will need to think through the justification for the estimate, the assumptions you make, and the known requirements of the current evaluation. Both methods are described below.

Historical budgeting method

If you have information on actual expenditures from prior evaluations, this is often the best place to start. Think carefully about the assumptions and requirements of these prior evaluations compared with the current requirements. Where do you need to make adjustments? Are you now conducting data collection over four months rather than six months? Do you have more or fewer staff than in the past? Do you have more or fewer respondents? As a rule of thumb you may want to develop a "per unit" price from prior efforts (e.g., if you conducted five focus groups in a prior effort, how much did it cost to recruit, conduct, analyze, and report on each group?). However, keep in mind that you may experience increased efficiency "per unit" when you conduct the same activity more than once. This means that you may tend to overestimate costs if you simply multiply by the number of additional "units." The more evaluations you conduct over time, the more historical budget data you will have to work with and the more accurate your estimates will become.

Roundtable budgeting method

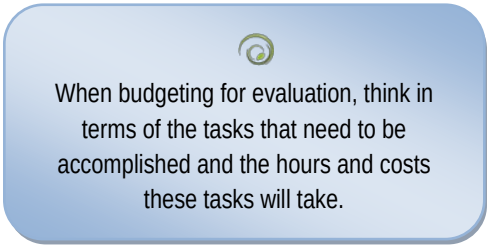
If you do not have historical data available as a guide for estimating the costs of your new evaluation or if prior evaluations were too different from current efforts, you can use "expert" opinions to help you develop your budget. Bring together three to four experienced staff or partners with knowledge of the level of effort required. For example, you may want to bring in a staff member who has experience working with your target population to help you estimate how much time will be needed for recruitment. Or you may want to engage your asthma epidemiologist to help you think about the analysis requirements. As you work with these

experts, carefully document and describe the elements of your evaluation that will affect the costs (e.g., How many units? How long will each last? Who will be involved? What experience level is needed? How many and what types of supplies, equipment, and materials will be required? Are there any fixed costs? What are the variable costs?). Work as a group to come up with your best estimates of staff time and additional resources needed for each component of the evaluation. As before, consider efficiencies in your evaluation processes as you add "units" to ensure you are not overestimating your resource needs.

It may be advantageous to combine these two approaches to come up with a more accurate estimate. A roundtable group can usually provide a better estimate when it is based on historical data. Historical estimates can benefit from the input of several experienced staff to assess where and how to make adjustments based on the requirements of the current evaluation.

Whichever approach you choose, the most important step in preparing an accurate estimate is to ensure that you are matching your estimated costs to current evaluation requirements or plans. If you find that your estimated costs are more than you currently have available to support the evaluation, you will need to scale back the evaluation plans to fit the available resources or identify additional resources to conduct the evaluation as planned. For multi-year evaluations, comparing your estimated costs against your actual expenditures each year can also help ensure that you are still on track to complete your evaluation.

F.2 Types of Costs to Consider in Budgeting for Evaluation



The largest cost in conducting an evaluation is generally staff time. As you estimate the level of effort required to complete an evaluation, consider each of the CDC Framework steps. Often we tend to focus on the time it will take to collect data but underestimate the time it takes to plan the evaluation (especially when working with larger stakeholder groups), pilot test data collection instruments, clean and prepare the data, analyze the data, and communicate the results. By carefully thinking through each step, you are more likely to generate a realistic cost estimate. Initially, it may help to think in terms of the tasks that need to be accomplished and the hours they will take. Then translate the hours into dollars, also assessing the level of expertise required for each specific task.

Monitoring evaluation progress is another aspect of evaluation often missed during budget planning. Remember to allot staff and contractor time for regular team meetings and the preparation of progress reports.

In addition to staff time, there are a number of additional costs you may incur. We list some categories of costs frequently encountered below. You can use Table F.1 (appended at the end of this section) to record these costs.

- ***Consultants/contractors*.** Consultants or contractors used to extend staff capacity or to provide special skills or experience.
- ***Communications*.** Postage or telephone charges.
- ***Travel*.** Long distance or local travel for evaluation staff to conduct the evaluation or present the evaluation results.
- ***Printing and duplication*.** Preparation of documents, data collection materials, reports, and other printed materials.
- ***Materials*.** Purchased data collection instruments, library services, or datasets.
- ***Supplies*.** Office supplies or software that must be purchased or leased for the evaluation.
- ***Specialized equipment*.** Equipment needed to conduct the evaluation or data collection (e.g., laptop computers).
- ***Purchased services*.** Services purchased from outside vendors with a "fixed" per unit price (e.g., transcription or translation). These types of service relationships typically do not require a consultant type of arrangement.
- ***Incentives*.** Small monetary or nonmonetary items provided to participants to encourage participation in the evaluation. (Note: Check with your project officer regarding incentives as certain restrictions on use of CDC funds apply to these types of costs.)
- ***Institutional Review Board review (if necessary).*** If Institutional Review Board (IRB) review applies to your evaluation, check with your particular IRB to find out their fee structure.
- ***Training (if necessary).*** Training associated with building staff capacity (e.g., analysis training, data collection training, software training) or to provide specific training instructions for this evaluation.
- ***Dissemination (e.g., conferences)*.** Costs associated with meeting or conference registration or for local facilities if you plan to convene a stakeholder session.
- ***Other*.** Any other costs necessary for conducting the evaluation.
- ***Overhead costs and fees*.** Any overhead fees or costs associated with staff time or other resource usage.

Not all of these types of costs apply to every evaluation. You should tailor the template at the end of this section (Table F.1) to fit your evaluation. If you are using different sources of funds for the evaluation, you will also want to consult cost restrictions or budgeting requirements associated with each source.

If you hire an external evaluator for part or all of an evaluation, be sure to request an itemized work plan and budget that details labor hours/costs and other expenses using similar categories. Having these documents will avoid later misunderstandings about what was and was not included in the consultant/contractor's scope of work and budget.

Also, you may obtain in-kind contributions to help you with an evaluation, whether in the form of staff time (e.g., secretarial support) or material support (e.g., space, incentives, telephone, copying). In-kind contributions should be carefully recorded at each stage in the evaluation. This will help you document the actual costs of the evaluation and will serve to illustrate the support and buy-in you have obtained for doing the evaluation. It will also ensure that you do not overlook people or organizations when acknowledging contributions.

Lastly, systematically keep track of your time and expenditures as you go along. By recording staff labor, expenditures, and in-kind contributions on every evaluation that you conduct, your ability to accurately estimate an evaluation budget will improve with time as you feed these data back into future estimation processes. The record you keep will also help you answer to your funders, managers, and other stakeholders about how program resources were used.

You can find additional information to guide your budget planning in *A Checklist for Developing and Evaluating Evaluation Budgets*, which is available online from the Evaluations Checklist Project at www.wmich.edu/evalctr/checklists/. The checklist includes other considerations such as required budget formats and detailed breakdowns that may be required by an agency or funder. Another good source is Chapter 5, Step 3, of the *W.K. Kellogg Foundation Evaluation Handbook* available at: http://www.wkkf.org/knowledge-center/resources/2010/W-K-Kellogg-Foundation-Evaluation-Handbook.aspx.

Table F.1 Evaluation Budget Template

Resource	Year 1 ($)	Year 2 ($)	Year 3 ($)	Year 4 ($)
Evaluation staff salary and benefits				
Consultants/contractors				
Communications (e.g., postage, telephone)				
Travel				
Printing and duplication				
Materials				
Supplies				
Purchased services (e.g., transcription)				
Specialized equipment				
Incentives				
IRB Review (if necessary)				
Training (if necessary)				
Dissemination (e.g., conferences)				
Other				
Overhead costs and fees				
Total				

* Adapted from Worthen BR, Sanders JR, and Fitzpatrick JL.(1997). *Program Evaluation: Alternative Approaches and Practical Guidelines.* 2nd edition. White Plains: NY: Longman Inc.

Notes:

Appendix G
Evaluation Management Toolkit

Basic project management principles, concepts, and tools that you may have used on other projects are also useful in managing evaluations. Effective project management requires applying a set of techniques and principles in a disciplined way while simultaneously being ready to adapt your plans as unanticipated issues arise. Good management practices will help you make sure your evaluation is on track, and if you encounter problems, will help your respond quickly. In this appendix, we provide a few simple management tools to help you implement your evaluation successfully.

- Evaluation overview statement
- Evaluation roles and responsibilities
- Evaluation timeline
- Periodic evaluation reports

The tools we include in this appendix are meant to be illustrative but are by no means the only tools that may be useful for managing your evaluation. You may have similar tools you typically use that will work well for your evaluations. Or you may choose to modify one or more of these tools to fit your needs. Whatever management tools you choose to use, we recommend that you include them as appendices or integrate them into the body of your individual evaluation plan so that you and your stakeholders have a common understanding of how you will manage the evaluation as you begin to implement it.

Remember, if you have or develop other tools that you find helpful and would like to share them with other state asthma programs, please contact your ETA.

G.1. Evaluation Overview Statement

An evaluation overview statement may be one of the most important pieces of text you write about your evaluation. It provides a concise but comprehensive summary of your evaluation and what you hope to gain by conducting it. In a few short sentences it should convey the main purpose of the evaluation, what is being evaluated, the major activities to be undertaken, and the proposed uses of the evaluation results. The evaluation overview statement should be consistent with the evaluation purpose you described in your individual evaluation plan. However, we recommend that you provide additional detail in the statement that will make it suitable for broader communication with stakeholders who may never read your evaluation plan. **Template G.1** provides an example overview statement.

Potential ways you could use your evaluation overview statement include:

- In materials used to recruit participants for the evaluation
- Communication with funders
- Communication with partners, such as in newsletters
- Communication with decision-makers (e.g., briefings or “elevator speeches”)
- Communication with the general public (e.g., on websites or press releases)

Developing the evaluation overview statement is a valuable planning exercise to ensure that all stakeholders agree about your evaluation goals. The statement should be crafted with input from your evaluation planning and implementation teams and should be widely used by team members and other partners when discussing the evaluation. This ensures the messages that are disseminated to various audiences about the evaluation are accurate and consistent. Remember that it may be necessary to tailor the statement to a given audience in terms of reading level, level of detail, and/or level of technical content.

The format of the evaluation overview statement can vary, but basic elements include:

- Name of the evaluation
- Name of the element or aspect of the asthma program being evaluated
- Time period of the evaluation
- Overall goal of the evaluation
- Identified uses for the evaluation results
- Evaluation design and major data collection activities
- Intended audience(s) for project
- Any special considerations for how data will be collected or analyzed (e.g., issues related to evaluation standards)

Template G.1 Sample Evaluation Overview Statement

Evaluation of Asthma Self-Management Training

Component: Interventions
Program Sponsor: [State] Asthma Program and [Implementation partner XX Health System]
Evaluation Funding: XXX

The purpose of this one-year evaluation is to determine whether participants' asthma self-management knowledge and skills increase as a result of asthma self-management training. Adults who obtain emergency department asthma care at a large urban hospital in [city] will be referred to the training program. Trained asthma educators will deliver the training in a small-group classroom setting. Trainings will be periodically monitored to ensure a standard curriculum and consistency across asthma educators. We anticipate training 810 adults in this program over a six-month period from March 20xx to August 20xx.

Data will be collected through self-administered questionnaires, which will be collected prior to and after the training. The questionnaire will ask about participant demographics, asthma self-management knowledge, asthma self-management skills, and intentions for changing behavior. Questionnaires will only have an ID number to protect patient privacy, and the hospital will not have access to survey results of individual patients. The analysis will focus on changes in knowledge, skills, and behavioral intention from pre- to post-training. We will also look at subgroups by race/ethnicity, age, and gender to understand whether the training was more beneficial for certain groups than others. The results will be used to determine whether to continue this training in the future, and if so, who should enroll.

G.2. Creating a Roles and Responsibilities Table

A "roles and responsibilities table" is a useful tool to help ensure that all aspects of the evaluation are assigned to a particular individual or individuals, to reduce confusion about roles, and to gain agreement from all those involved in the evaluation as to who will do what. Remember to update your roles and responsibilities table as new staff, consultants, or partners join or leave the project. This helps ensure that no activity falls through the cracks as your personnel change over time. You should also link roles and responsibilities to your evaluation timeline (see next section) to ensure that evaluation team members assigned to activities are available at the appropriate times.

Table G.5 in Module 1 is an example of a roles and responsibilities table for use in an individual evaluation plan. The templates we provide below build on that table, adding a column for specific tasks and linking those to specific task names.

As shown in **Template G.2**, each staff, consultant, or partner with responsibilities for carrying out some aspect of the evaluation should be listed. This list should include those involved at any stage of the evaluation, including those only involved in planning activities or in dissemination of findings. The second column lists the individual's role in the evaluation—this may or may not

be the same as their job title or other asthma program role. The *Responsibilities* column should be a brief but comprehensive bulleted list of what each team member will do throughout the evaluation period. Be sure to include responsibilities related to coordination or oversight as well as direct involvement in evaluation tasks.

The *Tasks* column allows you to explicitly list the major evaluation activities you believe the individual will be involved in (see **Template G.3** for an example of specific tasks). Some team members may be involved in all tasks, while others may only be involved in one or two. The more complicated the evaluation you are undertaking, the more useful you may find it to track responsibilities by tasks.

Template G.2 Roles and Responsibilities Table

Name	Role in Evaluation	Responsibilities	Tasks
Staff 1	Evaluation Leader	• Work with stakeholder group to design evaluation, gain appropriate permissions, and develop instruments • Obtain IRB clearance from hospital IRB • Train data collectors on evaluation protocol • Monitor trainings on quarterly basis throughout the implementation • Oversee analysis • Write up evaluation interim and final results • Conduct briefings on findings with stakeholders • Work with stakeholder group on action plan for use of results	1-8
Staff 2	Data Analyst	• Compile statistics on attendance and response rates throughout data collection • Enter data from training forms • Check data quality • Conduct main analyses • Analyze subgroup data • Write up results	6, 7
Partner 1 Staff 1 and 2	Asthma Educator & Data Collector	• Attend data collector training • Conduct asthma self-management trainings • Conduct pre- and post-data collection	4,5
Staff 3 Partner 1 Partner 2 Partner 3	Evaluation Planning Team	• Participate in evaluation planning and design • Help develop data collection instrument • Receive interim reports and provide feedback as necessary on evaluation progress • Provide feedback on evaluation findings • Participate in action planning for program improvement	1, 2, 7, 8

Template G.3 Task Table

Task	Task Title
Task 1	Planning and Evaluation Design
Task 2	Data Collection Questionnaire Development
Task 3	Obtaining Necessary Clearances
Task 4	Data Collector Training
Task 5	Data Collection and Monitoring
Task 6	Data Management and Analysis
Task 7	Communicating Findings/Reporting Results
Task 8	Action Plans for Improvement of Training

G.3 Timelines

A timeline is a critical management tool that allows you to plan when evaluation activities should occur and to track whether activities are going as planned or if they are behind schedule. We recommend that you examine your timeline in relation to known resource constraints – whether financial or staffing – as well as the timeline for other concurrent evaluations or program activities you may be conducting. Will you have the right staff available when you need them?

An evaluation timeline should be a living document. The sequence and timing of many activities are dependent on prior actions (e.g., you cannot analyze your results before your data are collected). This means you may need to make adjustments along the way to keep your evaluation moving forward.

Below we present several different timeline templates that may suit your needs. The templates provided here are intended for use for an individual evaluation but can also be modified to support your strategic evaluation plan by displaying parallel efforts across multiple individual evaluations.

Basic Yearly Progress Timeline

A sample of a Basic Yearly Progress Timeline can be seen in **Template G.4**. This template can be used to list major evaluation activities (Column 2) and when they are expected to occur (Column 1). Use the third column to note the data source or target audience for planned data collection or communication activities (this represents the "how" for each activity you have planned). The next column indicates which team members are involved in the activity. This column should match information included in the Roles and Responsibilities Table. Use the last column to track progress toward accomplishing your planned activities (e.g., completed, delayed, etc.). You can also add notes about actions that may be needed to support moving the activity forward. Additional rows can be added if your evaluation spans multiple years.

Template G.4 Timeline: Basic Yearly Progress

Timeline Year 1 (20XX 20XX)				
Month (When)	**Evaluation Activity (What)**	**Data Source(s)/ Audience (How)**	**Person(s) Responsible (Who)**	**Status/Notes**
Ongoing	Monthly progress reporting	To Program leadership	Evaluation Lead	
January	Evaluation planning and instrument development	Self-administered questionnaire	Evaluation Lead Evaluation Planning team	
February	Obtain clearance from hospital IRB	IRB forms	Evaluation Lead	
	Train data collectors on protocol	Training materials	Evaluation Lead	
March-August	Conduct asthma self-management (ASM) training	With referred adult participants	Asthma Educators	
	Conduct data collection/monitoring	Self-administered questionnaire/ adults with asthma	Asthma Educators/ Lead	
	Conduct data management	Self-administered questionnaire	Data Analyst	
September	Data cleaning	Data quality assurance	Data Analyst	
October	Analysis and interpretation		Data Analyst Evaluation Lead	
November	Develop evaluation reports and briefings		Evaluation Lead Data Analyst	
	Provide feedback on results		Evaluation Planning Team	
December	Develop action plan for use of results		Evaluation Lead Evaluation Planning Team	

Milestone Table

Another option to consider is a milestone table that simply lists key products or events and the dates by which they should be completed. In preparing this table, shown in **Template G.5.**, think about the entire evaluation process from planning through data collection and analysis to the dissemination of findings and subsequent action planning. These may include fixed dates (such as a scheduled partnership meeting or training where you plan to collect data) or more dependent dates (e.g., two weeks after approval of new funding). Include the dates when products are due or when key evaluation dissemination and communication activities are planned (such as a community meeting where you plan to discuss evaluation findings). Keeping the table up to date will allow you to track progress in meeting milestones as well as keep track of any schedule changes or deviations from the schedule.

Template G.5 Timeline: Evaluation Milestone Table

Date	Description	Status
10th day of every month	Monthly progress report	
2/5/20xx	Submit completed hospital IRB material (including questionnaire)	
2/28/20xx	Obtain hospital IRB clearance	
2/15/20xx	Data collector training	
3/1/20xx-8/31/20xx	Conduct ASM training	Once dates are scheduled add to table
Monthly from 3/1/20xx-8/31/20xx	Monitor one training session per month	Once dates are scheduled add to table
November 10, 2010	Conduct briefing with Evaluation Planning Team	
November 30, 20xx	Submit final evaluation report to stakeholders	
December 15, 20xx	Complete action plan for use of evaluation results	Add in dates for implementation of action plan

Gantt Chart

A Gantt chart is a valuable way to display the overall project timeline and activities. There are many ways to construct a Gantt chart, but the basic structure calls for lists of activities and the duration of each activity. Start and stop dates and other milestones are indicated with larger dots or different colors. More complex Gantt charts can convey dependencies between activities (e.g., an activity that cannot start until after another is completed) or relative estimates of labor hours or other resources across activities.

A key consideration in constructing a Gantt chart is the level of resolution you need. During periods in which many activities will be ongoing simultaneously, it may be helpful to set up the chart by days or weeks. For a longer term view, months or quarters may be sufficient. Templates for constructing Gantt charts are available online (http://office.microsoft.com/en-us/templates/results.aspx?qu=gantt+chart&av=TPL000), and they can also be created in commercially available software products (e.g., MS Project, MS Excel). In Template G.6 the link between Task 3 and Task 5 indicates a dependency between those tasks in that data collection cannot occur without IRB clearance. The dots in Task 5 indicate that monitoring of training will occur periodically on a monthly basis.

Template G.6 Timeline: Gantt Chart

			YEAR 1 Timeline (20XX)											
Activity	**Start**	**Stop**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
1. Planning and evaluation design	1/1/20xx	1/31/20xx												
2. Data collection development	1/1/20xx	1/31/20xx												
3. Obtaining clearances	2/5/20xx	2/28/20xx												
4. Data collector training														
5. Data collection and monitoring	3/1/20xx	8/31/20xx			•	•	•	•	•	•				
6. Data mgmt and analysis	9/1/20xx	10/31/20xx												
7. Communicate findings/Report results	11/1/20xx	11/30/20xx												
8. Action planning	12/1/2010	12/31/20xx												

Shared Calendar

A final suggestion is to create a shared calendar for your evaluation. This calendar can be used by all members of the evaluation planning and implementation teams to focus on key dates for the evaluation. A calendar such as the one shown in **Template G.7** can be kept on paper, but increasingly, electronic calendars are useful to keep all team members up to date. Online calendars can also be created and shared with team members and can be accessed from any location (e.g., Google calendars).

Template G.7 Calendar

[APRIL]													
Sunday		**Monday**		**Tuesday**		**Wednesday**		**Thursday**		**Friday**		**Saturday**	
										1		2	
										Team Meeting 10 am			
3		4		5		6		7		8		9	
		Training 6pm						Training 10am					
10		11		12		13		14		15		16	
Training 12noon						Training 7pm [Monitoring]							
17		18		19		20		21		22		23	
24		25		26		27		28		29		30	
										Team Meeting 10am			

G.4 Periodic Evaluation Reports

Keeping a systematic record of your evaluation on a periodic basis can help ensure that key stakeholders have access to the information they need to play an active role in your evaluation. Periodic evaluation reports also help you maintain a history of your evaluation while it is in progress rather than trying to reconstruct events once the evaluation is complete. These reports can vary in format and audience, depending on project requirements and needs. Periodic evaluation reports are distinct from the required reporting associated with your CDC cooperative agreement, which focuses on your program as a whole. Two types of reports that you may want to consider include evaluation progress reports (see **Template G.8**) and evaluation status reports (see **Template G.9**).

Evaluation Progress Report

An evaluation progress report is a record of progress and accomplishments during a specific time period. These reports can be prepared monthly or quarterly throughout the evaluation period and represent a valuable record for you in developing more detailed annual reports to funders (e.g., continuation applications) or other stakeholders. They can also be a good way to get new staff or partners up to speed on progress. These reports can either use a narrative format or rely on bullet points but are generally no more than 1 to 3 pages in length. Evaluation progress reports usually include the following types of information:

- Header information, including name of evaluation and person reporting
- Time period for report
- Accomplishments during time period
- Problems and proposed or enacted solutions during time period
- Personnel changes
- Progress in meeting planned schedule or deviations from schedule
- Planned activities for next reporting period
- Financial reporting for staff and other expenditures incurred during time period and percent of budget expended (You can include varying amounts of detail depending on audience needs and reporting requirements.)

You may also want to include additional items during certain periods of the evaluation such as:

- Lists of evaluation partners or your evaluation planning team members during planning.
- Response rates for data collection activities during the data collection period.
- Planned or actual requests for information received during the evaluation and any response.

- Planned or actual communication activities related to evaluation findings.
- Evaluation successes or lessons learned regarding evaluation.
- Other items that you want to record in a systematic way.

You should also require evaluation progress reports from your consultants and partners if they are engaged in autonomous activities. Be sure to build reporting requirements into any contracts or Memoranda of Understanding that you issue. If the progress of others is going to affect that of the evaluation as a whole, your Evaluation Manager needs to be aware of any problems or potential delays that others encounter.

Template G.8. Sample Evaluation Progress Report

Evaluation Progress Report
Time Period: [month, year]
Evaluation Title: Evaluation of Asthma Self Management
Prepared by: Evaluation Lead

Progress and Accomplishments for [Current Reporting Period]

- Program conducted 8 trainings with 150 trainees
- Evaluation Lead monitored 1 training
- Data Analyst began entering data from completed questionnaire

Problems and Solutions

- Trainees for this month are 70% female. To have greater male participation, ensure that males are being appropriately referred to program; consider asking men who refuse the referral about their barriers to participation; strengthen recruitment materials for men; consider other times or dates for future trainings that may be more acceptable for men or male-only sessions.

Personnel Changes

- None; consider adding male trainer

Schedule Progress

- Trainings were well attended this month; evening trainings were most popular. Informal feedback suggests more weekend trainings are needed.

Planned Activities for [Next Reporting Period]

- Conduct additional trainings
- Monitor one (randomly selected) training
- Continue data entry of new questionnaires

Financial Report

- Hours incurred in month: XX
- Cumulative hours: XX
- Costs incurred in month: XX
- Cumulative costs: XX

Evaluation Status Report

An evaluation status report is similar to an evaluation progress report but has a primary focus tracking where you are in relation to where you planned to be. Putting your evaluation progress in context allows you to record your accomplishments. It also allows you to focus on deviations from your plan so that you can proactively address them.

In our example, to determine your status during data collection, you would need to keep track of the number of people who were referred to the program, the number who were actually trained, and the number of participants who completed the questionnaire each month. This will tell you how well you are doing toward your goal of collecting information from 810 trainees. If you expect to conduct analyses by subgroup, you may also need to set subgroup participation expectations to ensure an adequate number to conduct the analysis. You can set these targets based on a number of sources depending on your needs, such as demographics of your area, population served by the institution where the intervention is being conducted, the literature, or prior experience.

This type of evaluation status reporting can also help you identify adjustments to strengthen the intervention and evaluation as it progresses. For example, you may find you need to enhance recruitment procedures, retrain data collectors, or change the logistics of training to help ensure that trainees do not leave before filling out the post-survey. You may want to combine elements of the two reports depending on your own needs.

Template G.9 Sample Evaluation Status Report

Evaluation Status Report

Time Period: [month, year]
Evaluation Title: Evaluation of Asthma Self Management
Prepared by: Evaluation Lead

Current vs. Expected Status for [Current Reporting Period]

- Program conducted 8 trainings with 150 trainees
- Evaluation Lead monitored 1 training

Trainee Demographics	Expected Participants per month (%)	Actual Participants for reporting month (%)
Gender		
Male	67 (50)	45 (30)
Female	68(50)	105 (70)
Race/Ethnicity		
White	86 (65)	95 (63)
African-American	21 (15)	23 (15)
Hispanic	21 (15)	26 (17)
Other	7 (5)	6 (4)
Age		
18-35	67 (50)	70 (47)
35-50	34 (25)	35 (23)
50+	34 (25)	45 (30)
Total	**135**	**150**

Deviations from Expected Progress

The number of trainees that were trained in the month exceeded expected targets. However, female trainees represented 70% rather than 50% of the expected number of trainees. Targets for trainees by race/ethnicity and age were met.

Proposed Solutions to Address Deviations

To increase male participation, ensure that males are being appropriately referred to the program; consider asking men who refuse the referral about their barriers to participation; strengthen recruitment materials for men; consider other times or dates for future trainings that may be more acceptable for men.

Expected Status for [Next Reporting Period]

Target recruitment for next month remains constant.

Financial Report Actual vs. Expected

	Expected Budget	Actual Budget
Hours incurred in month		
Cumulative hours		
Costs incurred in month		
Cumulative costs		

Notes:

Appendix H

Gathering Credible Evidence

Once you have identified evaluation questions and decided on the most appropriate evaluation design (step 3 of CDC's evaluation framework), the next task is to find the information that will answer those questions (step 4). Though you might expect this step to be called the "data collection" step, it is not. In step 4, evaluators "gather credible evidence".

In emphasizing the need for "credible" evidence, the framework reminds evaluators to cast a wide net, considering the types of evidence various stakeholders will find convincing or relevant. Given the variety of people who may be invested in the results of an evaluation, it is likely that there will be a range of perspectives on what counts as credible. For example, stakeholders with scientific backgrounds will likely expect the data to meet the standards of their disciplines. Program advocates will expect data to be sufficiently reflective of community perceptions and values. People of differing cultural and educational backgrounds will bring a multiplicity of assumptions, expectations, and levels of knowledge about the methods and strategies for determining evidence.

As the evaluator, it will be your role to work with stakeholders to come to an agreement on what constitutes credible evidence and how it should be obtained. **Table H.1** shows a range of data collection methods and lists some advantages and disadvantages of each.

H.1 Deciding on data collection methods

Because the "perfect" data collection method is rare, you will have to carefully weigh your choice of methods. In some situations you will be able to compensate for the disadvantages of one data collection method by selecting multiple methods. This process of selecting multiple methods and data sources to answer a question is sometimes referred to as *mixed methods evaluation*. The National Science Foundation recommends mixed methods evaluation, noting that it strengthens reliability and validity, improves instrumentation, and sharpens understanding of findings. Appendix E provides an overview of the mixed methods approach.

When choosing your data collection methods, you may find it helpful to consider the options against the standards for program evaluation—utility, feasibility, propriety, and accuracy. A scenario was provided in Appendix E in which a strategic evaluation planning team prioritized the evaluation of an asthma self-management intervention that increased knowledge and skills among individuals with asthma at local federally qualified health centers (FQHCs). The planning team would like to know, "To what extent did our training lead to improvements in asthma self-management knowledge among participants who completed the training?" In addition to selecting an evaluation design, the evaluation planning team must consider what data should be collected to describe "asthma self-management knowledge." The following paragraphs provide examples of a hypothetical evaluation planning team's discussions about

how proposed data collection methods should be judged against each program evaluation standard:

- The evaluation planning team notes that the data collected must be truly useful to the evaluation stakeholders. Information that would be interesting to know but would not influence decisions about the program should not be collected. In consulting with the stakeholders, they learn that the most important consideration in the usefulness of this data is timeliness—the primary evaluation stakeholders express a desire to have access to information within the next two years to decide whether this program should be continued. *This is an example of examining the data collection methods with respect to the utility standard*.
- As part of the evaluation planning team's brainstorming around potential data collection methods, numerous possibilities arise. For example, one team member suggests that the health care practitioner could collect data about asthma self-management knowledge during each visit with a patient diagnosed with asthma (whether enrolled in the intervention or not). One concern among members on the team is whether health care providers will remember to collect this additional patient data given their busy schedules. An evaluation planning team member familiar with the FQHC's current data collection processes suggests working with the information technology department to create a new data entry screen that appears when a patient diagnosed with asthma is seen in the clinic. This data entry screen would seamlessly integrate with the FQHC's existing database and patient record screens. Busy health care providers will be prompted to ask a short set of questions about their patient's (or their caregiver's) asthma self-management knowledge and could enter the data immediately. *This is an example of examining the data collection methods with respect to the feasibility standard*.
- While developing the individual evaluation plan, the evaluation planning team realizes that they need to decide how data will be transferred from the FQHC clinics to the health department. In discussions with representatives, many concerns arise about protecting the privacy of asthma patients' health records. To address these concerns, some members of the planning team attend in-person meetings with FQHC staff to better understand the level of data sharing possible under the Health Insurance Portability and Accountability Act (HIPAA). *This is an example of examining the data collection methods with respect to the propriety standard*.
- Discussions among evaluation planning team members raise the issue of how to collect data that contributes to valid and reliable indicators of asthma self-management. One member suggests that they use a quick survey about self-management practices that patients (or their caregivers) complete while in the FQHC waiting room. Some members of the team are concerned about the varying literacy levels among patients who obtain services from participating FQHCs. Patients receiving care from certain FQHCs likely will be unable to read the surveys whereas patients at FQHCs serving more literate

populations will be able to understand the forms better. Such differences will likely lead to higher data quality for some clinics than others if they use a written form. Ultimately, the team decides that the data will be collected from patients during the course of the medical visit. *This is an example of examining the data collection methods with respect to the accuracy standard.*

Table H.1 Data Collection Methods

Method	What is it?[7]	Some Advantages	Some Disadvantages
Surveys & Questionnaires	"A questionnaire is a set of questions for gathering information from individuals. You can administer questionnaires by mail, telephone, using face-to-face interviews, as handouts, or electronically (i.e., by e-mail or through Web-based questionnaires)."	• Reasonably inexpensive to administer • Multiple options for distribution: mail, phone, in person, email, internet • Respondent privacy can be protected- allows for gathering sensitive data • Accommodates different types of questions- open ended, closed ended • Can feasibly administer to many people across large geographic area	• Time consuming to develop, pilot, and conduct follow-ups • Low response rates & non-response • Sampling frame sometimes difficult to identify • Might not get careful feedback • Impersonal • Level of detail provided is limited and may be insufficient for informing subsequent efforts • Overused
Interviews	"An interview is a method of asking quantitative or qualitative questions orally of key participants. Quantitative questions are closed ended, and have specific answers to choose among that can be categorized and numerically analyzed. Qualitative questions are openended, that is, the respondent provides a response in his or her own words. Interviews conducted for program evaluation are typically qualitative but may also include some quantitative questions."	• In-depth information obtained • Option to clarify questions is available • Accessible to low-literacy populations • Able to develop rapport & potential trust with participants	• Often resource intensive to conduct and analyze • Potential for interviewer bias • Some respondents find intrusive • Trained interviewer needed • Scheduling

[7] These definitions were extracted verbatim from the Division of Adolescent & School Health Evaluation Briefs.

Method	What is it?	Some Advantages	Some Disadvantages
Focus Groups	"A focus group is a group interview of approximately six to twelve people who share similar characteristics or common interests. A facilitator guides the group based on a predetermined set of topics. The facilitator creates an environment that encourages participants to share their perceptions and points of view. Focus groups are a qualitative data collection method, meaning that the data is descriptive and cannot be measured numerically."	• Data obtained can have good depth and breadth • Building upon ideas from other participants can enhance number and content of comments provided by participants • Quick way to obtain common impressions across multiple individuals	• Analysis is resource intensive • Potential for facilitator bias and group influence on one another • Possible for a few individuals to capitalize on time • Requires skilled facilitator • Group composition should be selected carefully to ensure comfort in responding (e.g., managers & staff) • Scheduling
Observations	"Observation is a way of gathering data by watching behavior, events, or noting physical characteristics in their natural setting. Observations can be overt (everyone knows they are being observed) or covert (no one knows they are being observed and the observer is concealed). The benefit of covert observation is that people are more likely to behave naturally if they do not know they are being observed. However, you will typically need to conduct overt observations because of ethical problems related to concealing your observation."	• Direct observation rather than self-report • Recall bias is not present • Obtain real-time information • Obtain information about the context	• Resource intensive regarding time for observing as well as establishing inter-rater reliability • Potential for observer bias • Individuals may behave differently due to presence of observer • Requires trained observers
Document Reviews	"Document review is a way of collecting data by reviewing existing documents. The documents may be internal to a program or organization (such as records of what components of an asthma management program were implemented in schools) or may be external (such as records of emergency room visits by students served by an asthma management program). Documents may be hard copy or electronic and may include reports, program logs, performance ratings, funding proposals, meeting minutes, newsletters, and marketing materials."	• Unobtrusive • Fairly inexpensive • Helpful for understanding history • Often readily accessible	• Quality of information may be unclear, difficult to assess, or incomplete • Potentially time consuming • Reasons for originally collecting data may not align with current needs

H.2 Sampling Considerations

It is not always possible to collect data from everyone or feature of interest for your evaluation—for example, every asthma patient in a clinic. In this case, you may choose to collect data from a sample of your study's population or activities. Although sampling is frequently mentioned in the context of collecting data through surveys or questionnaires, it is equally applicable to other forms of data collection—such as record reviews, observations, interviews, and even focus groups. Essentially, sampling is a way of determining the number of units (e.g., people, records, events) from which you will collect data as part of your evaluation.

There are two main types of sampling: (1) probability sampling and (2) purposive sampling. Probability sampling relies on randomly selecting units from a larger listing of units that you would like the sample to represent. The general idea of probability sampling is to randomly select units from this list (or within specific, non-overlapping subgroups that exist within this list) so that each unit has an equal and non-zero probability of being selected (Crano & Brewer, 2000). In purposive sampling, there is typically no formal "list" from which units are selected, and if there is, the units are not sampled with the intention that each unit has an equal probability of selection. In the case of purposive sampling, there are other reasons for selecting the units that will be part of the sample (discussed below).

Probability Sampling

There are multiple ways to obtain a probability sample. When selecting a sample using the rules of probability, you must first have a list from which to choose a sample. Ultimately, the idea is to create a listing that has a reasonable scope and is inclusive of all units you want to learn something about. This "list" is also known as your "sampling frame." Sometimes, it is difficult to obtain a complete listing of every unit in the population of interest for the sampling frame. There are a variety of ways to deal with this issue, for example, cluster sampling. See the list of resources at the end of this appendix for more detailed information about sampling (i.e., Trochim, 2006).

Trochim (2006) provides a thorough description of many types of probability sampling strategies. We describe a few of these below, highlighting the types of sampling that we believe you are most likely to come across (if at all) in the context of your state asthma program evaluation work.

Simple Random Sample. This is the most basic form of probability sampling. Each unit included in the sampling frame has an equal likelihood of being selected. Fairly simple methods can be used to obtain this type of sample—essentially all you need is your list of units to sample from as well as a way to randomly sample from it.

Let's say that you are interested in better understanding the content of formal interactions that have taken place with state asthma program partners over the past five years. You have held many meetings during this time with various partners, and as is the policy of the program, you have taken detailed notes of these interactions. Therefore, the evaluation planning team decides that abstracting data from these meeting notes in a systematic manner (document review) will provide helpful information for understanding the content of these partner discussions over the years. In discussing this approach further, the team realizes that abstracting data from all of these notes would be very labor intensive and likely unnecessary for the purpose at hand. As a result, they decide to take a simple random sample of these documents.

To get the simple random sample, the team first compiles a listing of all existing documents, numbering each document on the list (e.g., 1 to 150). They believe that sampling one third of these documents will lend sufficient information—so, assuming they have 150 documents they will select 50. Using a random number table or generator, the team obtains a number between 1 and 150. Then, looking at the list of documents, they select the one with the matching number; that is the first document to be included in the sample. This procedure is then repeated (another random number is generated, and a document is selected from the list with that number as the second document for the sample, and so on) to obtain each of the additional 49 documents for the sample. Random number tables are often found in the appendices of statistics textbooks or online (sites such as http://www.random.org/integers/). However, most statistical and data analysis software (SAS, SPSS, Excel) come with the ability to generate random numbers).

One thing you should be aware of when using this technique is that it is possible to obtain a sample that is not representative of the population—for example, as a result of the "random" process used here you may find that 90% of the records you obtain in your sample are from specific types of meetings (e.g., brief teleconferences) even though these types of meetings do not comprise 90% of the sampling frame. One approach to use to reduce this type of anomaly is to draw a larger sample.

Systematic Random Sample. Systematic random sampling is often used instead of simple random sampling. It is also called an "N^{th} name selection technique". Selecting a systematic random sample is a fairly straight-forward process with four steps: (1) creating an unordered list of the sampling frame, (2) deciding how many units you wish to select from this list (sample size), (3) calculating your "Nth number" by dividing the number of your entire sampling frame by the desired sample size, and (4) selecting one random number. Starting with your random number (say, from a random number table), you will select every "Nth" number. An example is provided below.

It is very important that the list of units in the sampling frame is arranged in a manner unrelated to what you are studying. For example, a sampling frame consisting of individuals might be

arranged in alphabetical order by last name. This is perfectly fine as long as your evaluation is not examining variables that may be influenced by family characteristics. Sometimes it is difficult to tell if your list is ordered in a manner that is related to your evaluation questions, so it is important to take time to consider whether any hidden order exists in the list from which you are drawing a systematic random sample.

Suppose you are conducting an evaluation that is designed to assess the usefulness of your burden report to a particular audience. Your evaluation planning team has compiled a long list of individuals to whom the report has been disseminated in the past and others whom you think may have a use for surveillance findings but have not been specifically included on the distribution list to date. To obtain very detailed information about how the report's usefulness can be improved, the evaluation planning team has decided to conduct telephone interviews. Interviewing everyone on this list is not feasible—but you don't want to use a less labor-intensive form of data collection (e.g., online survey) since it will not provide the type of data your stakeholders feel is needed to take action. Therefore, you decide to take a sample.

To select this sample, you examine the list to see whether it is ordered in a way that relates to your evaluation questions. In the current list, the first 50 individuals listed have received a mailing in the past, and the last 100 are individuals who have not. In this case, the list contains an order that may be meaningful to your evaluation questions—individuals to whom the report has been mailed to in the past may share similar thoughts regarding the usefulness of the information presented since reports may have been tailored to address their needs. You decide listing individuals in alphabetical order by last name will not result in an ordering that relates to your evaluation questions. After alphabetizing the list, your evaluation planning team decides that collecting data from 30 individuals is feasible and still provides the necessary information for the next report addressing the needs of the 150 individuals within the sampling frame (i.e., the population to which you desire to generalize findings).

To obtain the "Nth record", you divide the entire sampling frame (150) by the number of records you want (25). Thus, you will select every "6th" record…but where to start? This is where "probability" comes into play. To decide where to start selecting individuals to interview you can use a random number generator and request a number from 1 to 6—say the random number you get is "2". You look at the list of potential interviewees, select the person listed second on the list and put them in your sample. From there, you select every sixth person. Repeat this procedure until you end up with 30 individuals to interview.

Stratified Random Sampling. This type of probability sampling is often used when evaluators want information about specific subgroups within a population. The basic idea of stratified random sampling is to select the sample in a way that will allow the evaluator to say something about the overall sample *and* about specific sub-groups within the sample. In this method, the sampling frame is broken down into non-overlapping categories known as "strata", and a random

sample is taken from each of these strata. There are two ways to go about sampling from these strata—proportionately or disproportionately.

- *Proportionate stratified random sampling* occurs when an identical proportion of units is sampled from each stratum (e.g., 1/10). This sampling strategy ensures that the same percentage of units from each stratum is represented in the sample as in the population. In other words, say the sample population consists of 35% White, 50% Black, and 15% Other. The resulting sample with same proportion from each stratum will result in an overall sample with 35% White, 50% Black, and 15% Other. **Table H.2** provides an example.

Table H.2 Example of proportionate stratified random sampling

	Strata (Race)		
	White	Black	Other
Population (N= 2,000)	700	1000	300
% total population	35	50	15
Sampling fraction (proportionate)	20%	20%	20%
Total sample (N = 400)	140	200	60
% of total sample	35	50	15

- *Disproportionate stratified random sampling* occurs when different proportions are used to sample units from each stratum. Say you wanted to learn something about each of the subpopulations represented by a stratum. Sometimes, the number of individuals or units in the sample for one stratum will be insufficient to answer the questions of interest if a proportionate sample is drawn. For example, having 60 individuals within the "other" race category may be insufficient to learn about qualities associated with this group. As a result, you might choose to "oversample" individuals from the "other" category—say 40% so as to obtain 120 individuals in the sample for this stratum. Now, you can obtain a more precise estimate of the variables of interest within the "other" stratum and can also still obtain information for the overall sample (i.e., across all strata combined) by weighting the responses (Crano & Brewer, 2000; Trochim, 2006).

Sample size considerations when using probability sampling methods. The purpose underlying the use of probability sampling techniques is to gather data from a sample that is representative of the larger population from which the sample came. As such, the statistics calculated from this sample may be a bit "off" from the values you would have obtained if you were able to collect data from the entire population. The amount you are "off" as a result of sampling (known as standard error) gets smaller as you get a larger and larger sample—since you are getting closer to the number of units that comprise the full population of interest (Trochim, 2006). When you are using quantitative data, you need to account for the standard error when calculating and reporting

descriptive statistics (i.e., frequencies, percentages) and inferential statistics (e.g., t-tests; F-test from ANOVA; odds ratio's from logistic regression, etc.). The precision of estimates of population parameters (e.g., mean) and the power to detect differences that actually exist within or between the populations through the use of inferential statistics are, in part, dependent upon the size of your sample[8].

In some of the examples we used above, the data collected is qualitative in nature (i.e., interviews in the example provided for systematic random sampling). In these instances, you would not calculate a "standard error". However, the intention is still to obtain answers that are representative of the larger population of interest—and so we used a probabilistic sampling strategy. When reporting your findings, it would be appropriate to acknowledge that the degree to which findings from qualitative data analysis represent the larger population depends upon the number of individuals selected for interviews and the variability of perspectives in the larger population.

How the size of a sample affects estimates and inferential statistics calculated on quantitative data is covered in most introductory statistics textbooks. Should you need to calculate the power or sample size (given a certain level of power needed) for an evaluation you are working on, we suggest using G*Power. This software is available for free on the web and can be used for many power calculations. Additionally, you may find it very helpful to consult with a statistician or epidemiologist in your state health department or on your state coalition/partnership if questions about sample size arise.

Purposive Sampling

Not all sample selection is based on the principles of probability. Samples that are probabilistic in nature are very helpful when we are interested in using statistical tests to draw "statistical inferences" to a population of interest (one that is so large or difficult to access that it would be infeasible to solicit answers from everyone in the population). Probabilistic sampling is used, for example, in large population-based surveys that use samples—such as in the Behavioral Risk Factor Surveillance System (BRFSS). The prevalence estimates we obtain for current or lifetime asthma from the BRFSS are based on a sample of a state population. But, because of how this sample is taken, estimates to the state current or lifetime prevalence can be obtained.

It is not always appropriate to take a probabilistic sample, rather, sometimes it is more appropriate to conduct "purposeful sampling" (also called "purposeful"). Michael Patton (2002) offers a helpful comment regarding this type of sampling, "The logic and power of purposeful sampling lie in selecting *information–rich cases* for studying in depth. Information-rich cases are

[8] The standard deviation of the characteristic of interest within the population is also a factor that affects the standard error. The larger the standard deviation, the larger the standard error.

those from which one can learn a great deal about issues of central importance to the purpose of the inquiry, thus the term *purposeful* sampling" (p. 230). There are many different types of purposeful sampling strategies that can be used—Patton, for example, describes 15 types[9] in his book *Qualitative Research & Evaluation Methods.* Below, we have selected a few of the purposeful sampling strategies from Patton (2002) and share some hypothetical examples from asthma programs to explicate their potential usefulness. The most important thing about purposeful sampling is to be very clear about the *purpose* or intention of a sample; once you have that, the most appropriate sampling strategy often becomes clear.

Extreme/deviant case sampling. The purpose of this type of sampling is to learn something about very special cases, or "outliers". For example, perhaps an anticipated outcome of one of the interventions in your state is a stronger relationship between school nurses, primary care providers, and the local pharmacies within a specific school district. One particular school district has progressed very well in establishing strong connections within this network, whereas other localities have struggled. For your evaluation, the planning team decides that it would be helpful to learn about the characteristics that enabled such incredible progress in the successful district. Thus you conduct an intensive case study focusing on the factors that facilitated success in this particular area. You and the evaluation stakeholders plan to use the findings from this evaluation to inform how future districts are selected for inclusion in this type of intervention as well as the type of guidance the state asthma program will provide these districts as "tips" for facilitating success.

Typical case sampling*:* This type of sampling is very different from extreme/deviant case sampling. In typical case sampling the purpose is to learn something about the experience of the "normal" or "average" instance. Sometimes we just want to know more about the regular instance that is encountered in a program, and in these cases, sampling one or more "typical" cases is likely to be appropriate.

For example, imagine that one of your state asthma program partners (a health maintenance organization) has been conducting asthma self-management workshops for adults who have been diagnosed with asthma over the past five years. The workshop includes the administration of asthma-management knowledge tests to all participants two weeks prior to the workshop, on the last day of the workshop, and three months after the workshop. Clear patterns emerge in the pre-post-post data from these workshops; most individuals fall into the category where there is limited knowledge prior to the workshop (less than 50% of answers correct), a medium size knowledge gain at the end of the workshop (about a 25-30% increase in correct answers), and a substantial drop-off in knowledge following the workshop—typically not back to the pre-

[9] The 15 types of purposeful sampling covered by Patton (2002) include: Extreme/deviant case, intensity, maximum variation, homogeneous, typical case, critical case, snowball/chain, criterion, theory-based, confirming and disconfirming cases, stratified purposeful, opportunistic/emergent, purposeful random sampling, politically important cases, convenience (pp. 243-244).

workshop score but approximately 10% higher than the original. The outcome evaluation has stimulated more questions about what is confusing about asthma self-management for attendees and where they experience problems in performing appropriate asthma-self management behaviors after the workshop. To answer these questions the evaluation planning team thinks it is important to acquire detailed information through qualitative data collection methods with individuals who fall within the "typical" profile. Therefore, they invite all individuals who had this profile over the past year to attend one of multiple focus groups.

When using this type of sampling, it is important to remember that we are not looking for a "representative sample" that will be used to generalize to all "typical cases"—if we were, a probability-based sampling strategy would likely be more appropriate. Rather, as Patton (2002) reminds us, "the purpose of a qualitative profile of one or more typical cases is to describe and illustrate what is typical to those unfamiliar with the setting—not to make generalized statements about the experiences of all participants. The sample is illustrative not definitive" (p. 236).

Snowball/chain sampling. Snowball sampling is a strategy often used when the desired sample characteristic is rare or difficult to find, such as may occur when working with groups disproportionately affected by asthma. It may be difficult or cost prohibitive to locate respondents in these situations. Snowball sampling relies on referrals from a set of knowledgeable, initial subjects to identify additional subjects who meet the inclusion criteria. As described by Patton (2002), "The process begins by asking well-situated people: 'Who knows a lot about _____? Whom should I talk to?' By asking a group of participants who else to talk with, the snowball gets bigger as you accumulate new information-rich cases" (p. 237). You may choose to collect data from each case that is included in the snowball sample, or select from among those whose names are mentioned by referrals.

Snowball sampling could be used in many ways within evaluations of state asthma programs. Imagine that your state asthma program developed, in collaboration with your partners, an asthma self-management workshop specifically designed to reach a small, inaccessible population in your state that appears to have a high prevalence of asthma. Although your intervention team marketed the workshop on radio stations, through flyers strategically located throughout the communities where this hard-to-reach group lives and works, and via word of mouth, attendance at the first set of workshops was very low. The state asthma program staff and partners want to know why attendance was so low. Is it because members of this group did not encounter the marketing materials? Was there something else about the workshop that was not appealing or that made it difficult or undesirable to attend? Since this is a difficult community to reach, you begin with the individuals who attended the workshop and ask them for referrals to others in their community who may have had an interest in attending the workshop but did not.

Convenience Sampling. Convenience sampling is exactly what it sounds like. Individuals who participate in a survey, interview, or other data collection strategy are selected based on who it is

most convenient to gather responses from at any given time. For example, say one of your program staff is planning on attending an upcoming public health conference that is well respected within your state. Your strategic evaluation plan includes an evaluation of your state asthma burden report. One of the evaluation questions included in the individual evaluation plan is to learn more about the reach of your dissemination strategy. For example, to what extent has the intended audience received a copy of the most recent burden report? Your team decides that resources are scarce for this evaluation and a general "guesstimate" of the population reached will meet your information needs. To obtain this "guesstimate", you decide to you have a few of your staff members stand at the entry to the opening plenary of a popular public health conference in your state and ask people as they walk in if they have ever seen "this document" (as they hold up last year's burden report). They tally the responses of "yes" and "no" and calculate the percentage of individuals who said "yes" to get a general guesstimate of the reach.

Although convenience sampling is often discussed as a potential useful methodology, similar to Patton (2002), we do not recommend this type of sampling strategy. Such a strategy tends to weigh too heavily upon the feasibility standard at potentially high costs to the accuracy and utility standards. Patton sums up our concerns about this specific sampling strategy well,

> "While convenience and cost are real considerations, they should be the last factors to be taken into account after strategically deliberating on how to get the most information of greatest utility from the limited number of cases to be sampled. Purposeful, strategic sampling can yield crucial information about critical cases. Convenience sampling is neither purposeful nor strategic" (p. 242).

Sample size considerations when using purposeful sampling methods. Concerns regarding sample size are very different when using purposeful sampling as compared to probability sampling. As noted earlier, purposeful sampling does *not* strive to obtain a representative sample of a larger population of interest. Therefore, the typical concerns that we experience when talking about obtaining precise estimates of a population value (e.g., mean) from a sample simply do not apply here. But, isn't sample size still relevant? The short answer is yes. Patton (2002) explains the considerations behind sample size when it comes to purposeful sampling: "Sample size depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources" (p. 244). When calculating sample size for a purposive sample, we encourage you to consider the appropriate balance between the breadth and depth of the type of data you will obtain through using a purposive sample of a given size and the extent to which the resulting information will be *useful for taking actions* based on the evaluation findings.

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Notes:

Appendix I
Training and Supervising Data Collectors

In order to collect high-quality data that meet the standards of utility, accuracy, and propriety, it is important that data collectors be trained and supervised. Training can be formal or informal depending on planned activities and the experience level of the data collectors, but all training should aim to ensure (1) that standards and procedures will be applied consistently and (2) that data collectors and their supervisors understand how the data will be used in the evaluation, how planned activities will be carried out, their respective roles and responsibilities, and how to handle events that may arise.

Even if your evaluation plan calls for using existing data, or data that would be collected as part of the intervention or other program activity, it is good to review your plans together so that data collectors and supervisors share the same understanding of the purpose of data collection, the data collection procedures, the division of labor, and any special data collection circumstances.

I.1 Identifying Who Needs to Be Trained

You can use a table like the one shown below to help you think systematically about who should receive training. **Table I.1** was completed using an example that involves an asthma education training intervention. Notice that we not only list the people who may be directly collecting data for the evaluation, but also those who supervise data collection or whose participation is necessary to gain "access" to the data—in this case those who would be referring participants to your intervention. Thinking broadly at this step will help you avoid difficulties later. The training needs of each of these groups may not be the same. By systematically thinking through the roles and training needs of each group, you can tailor your training to meet their needs.

Table I.1 Data Collector Involvement and Training Needs for an Asthma Education Training Intervention

Data Collector/ Stakeholder/ Other	Data Collection Type	Role in Data Collection	Training Needs
Asthma Educators	Pre- and post-intervention survey of asthma education program participants and attendance logs	• Maintain attendance log of all asthma education participants • Administer data collection questionnaire • Collect questionnaire • Keep questionnaires secure until collected by Evaluation Lead	• Data collection procedures • Attendance log procedures • Data collection logistics • Informed consent • Data handling and confidentiality
Evaluation Lead	Pre-and post-intervention survey of asthma education program participants and attendance logs	• Monitor randomly selected education sessions to assess consistency and quality of delivery • Collect questionnaires and attendance logs from asthma educators	• Data monitoring procedures • Data handling and confidentiality
Clinic Staff	Pre- and post-intervention survey of asthma education program participants	• Provide referrals to asthma education sessions	• Understand recruitment procedures • Recruitment logistics to reduce burden

I.2 Selecting Your Training Method

Training can take many forms from informal to formal and from simple to complex. Your choice of methods will depend on your audience(s), the training needs you have identified, your training resources, and your personal style. Some training methods you might consider include:

- ***Written instructions.*** In some cases simple instructions on a data collection form may be sufficient.
- ***Verbal instructions***. For simple data collection activities, verbal instructions may be sufficient (e.g., place completed forms in the box at the door before you leave); however, we suggest pairing these with written instructions whenever possible.
- ***Meetings.*** It may be necessary to hold meetings with partners, stakeholders, or decision-makers to ensure access to the data you need for the evaluation.

- ***Memoranda of Understanding (MOU) or data-sharing agreements*.** Depending on institutional needs, it may be necessary to set out formal agreements for how data can be accessed. In such agreements, it is important to work out who will have access to data, under what circumstances, and when it will be available. It is also important to agree on the formats in which data will be made available and to be aware of any restrictions on the use of data. The contents of any agreements should be incorporated into your training activities.
- ***Train-the-trainer*.** In some cases you may have data being collected by people who are also conducting an intervention (e.g., teachers conducting training with youth). In this situation you may want to embed your evaluation data collection training into the larger training on the intervention itself.
- ***Formal data collector training*.** For more complex data collection activities specific to the evaluation, and/or in cases where multiple data collectors are involved, we recommend that you hold a formal data collector training. If your situation calls for a more formal data collector training, using a variety of adult learning strategies and techniques will help you convey the important concepts (see **Formal Training Techniques Table** appended to the end of this chapter). We anticipate that formal training will not be needed for most state asthma program evaluations. However, it is useful to know about these types of techniques, which can include both instructional approaches (e.g., didactic approaches, case examples or narratives, brainstorming, etc.) to convey knowledge and hands-on approaches (e.g., modeling, role-playing, small group and peer support, practice sessions, or "on-the-ground" training, etc.) to teach skills.

Regardless of the approach you select, try to engage participants in active and interactive learning by asking and answering questions, being enthusiastic, and providing immediate positive *and* constructive feedback (e.g., "I liked how you did X. Next time I'd like to see you do Y as well."). Feel free to combine different types of techniques. Formal trainings can range from a few hours to several days in length, depending on the complexity of your evaluation data collection approach. Typically more hands-on approaches take more time than presenting the information in lecture format. Be aware of how much time you will need and try not to rush through the material.

If your evaluation design involves conducting data collection at different points in time, you may need to conduct training before each data collection period. If you will use the same data collectors during each time period, your training can serve more as a review of concepts. If you experience staff turnover or need to recruit one or more new data collectors during the data collection period, think about how you will train them.

I.3 Defining Your Training Topics

Although your training will be customized to meet the needs of your evaluation, most training sessions will include the following:

- Background material about the data being collected that clarifies the type of data being collected, from whom, and for what purpose
- Instructions for data collection and data management, including roles and responsibilities
- Other topics, as needed, such as staff safety, team building, and special considerations in working with the intended audience

Background Material

Providing information about the purpose of the evaluation and how the data will be used will make data collectors feel more confident; motivate them to obtain high-quality data; help them make better decisions regarding the data collection; help them trouble shoot, answer respondent questions, and respond to unusual situations; and contribute to a more professional attitude. A broader understanding of the evaluation will help data collectors appreciate how the evaluation standards informed the evaluation design and their role in maintaining those standards during implementation. Background material should include basic information about what kind of data will be collected, from whom, and for what purpose. It should also include information about who is sponsoring the evaluation and who will use the data to generate evaluation findings. An evaluation overview statement (see Appendix G Management Toolkit) can be developed and used for this purpose. For more formal data collector trainings, you should consider compiling a data collection handbook that includes the protocols, instruments, instructions, contact numbers, and other supplementary materials that were developed for the evaluation. Data collectors can use this handbook as a reference after the training is completed.

Data Collection Instructions

Data collection instructions should cover every aspect of data collection, from identifying or locating appropriate respondents or records to processing the collected data. The need for clear instructions holds whether you have hired data collectors or will be using volunteers, such as teachers or parents, to record information in logs. These instructions should be detailed written instructions that leave no room for misinterpretation. In addition, all data collectors need to know their own specific roles and responsibilities as well as to whom they report and whom they should call with questions. In some cases, data collectors will be working in teams and may need instruction on how to divide the work efficiently. Supervisors also need to be clear about their roles and responsibilities. **Table I.2** provides additional details on training topics related to data collection and management.

Table I.2 Common Data Collection Training Topics

Topic	Description
Data collection logistics	Training of data collectors should cover the logistics of the data collection: what, when, where, how, and from whom. Be sure to stress the importance of adhering to scheduling requirements that impact the quality of the evaluation, such as the timing of pre- and post-test data collection.
Identifying appropriate respondents/ records	For some types of evaluation it is important to obtain data from only those respondents or records that meet the evaluation requirements. If data collectors understand the importance of adhering to the data collection protocol, they will be less likely to substitute respondents or records inappropriately, thus preserving the quality of the data.
Recruiting participants	Data collectors should be given detailed and explicit information about how to recruit participants or gain access to data. For instance, for survey data collection, high response rates are important. Interviewers or those administering questionnaires should be taught how to encourage a respondent to participate, while at the same time protecting respondents' rights to refuse to participate.
Gaining access to data	Field workers who are abstracting records will need to learn what to say in order to gain admittance and request records. Despite having obtained the necessary organizational agreements or required clearances, data collectors may have to deal with gatekeepers or new staff who may be unaware of these agreements or who may find it burdensome to retrieve records or share offices.
Introducing the study and obtaining consent/access	Data collectors should know how to provide informed consent to participants and how to gather and maintain the data collected according to ethical considerations and professional evaluation standards. Whenever possible, evaluation materials should include written scripts for how an evaluation should be introduced to participants or stakeholders as well as procedures for obtaining consent to participate in the evaluation.
Collecting unbiased data	Data need to be collected in a consistent and unbiased fashion in order to allow meaningful comparison and interpretation. Ensuring this type of consistency and neutrality in data collection should be a key consideration in training. For complex data collection instruments, it is good practice to develop a "Question-by-Question" (QxQ) manual that provides information about the intent of each question or item (e.g., "when we ask about asthma medications we mean only prescription medication and not over-the-counter or herbal remedies"). If interviews are planned, interviewers should be trained to read the questions as written and in the specified order, use a neutral tone of voice, and avoid interjecting comments or opinions. Focus group moderators need to make sure they do not ask leading questions and that they adequately guide the discussion to keep one person from dominating. For records abstraction, training should focus on which records are to be reviewed and precisely what information from the records is to be obtained. References containing further information on various types of data collection are provided in Appendix G of Module 1.

Recording responses	Accurate recording of data is critical. Data collectors should have opportunities to practice recording and reporting data as part of the training. Encourage data collectors to make notes about any ambiguous responses. This will help data analysts better interpret the data later. You may want to measure the degree to which different data collectors record or code the same data in the same way. To compute intercoder agreement, see http://astro.temple.edu/~lombard/reliability/
Knowing when to terminate an interview	Sometimes interviewers should terminate or reschedule the interview. For example, if the respondent cannot focus or is experiencing difficulty comprehending or communicating, perhaps due to being emotionally upset, tired, or some other reason, then it is better to terminate or reschedule.
Data handling and security	Data collection procedures and training should address what to do with data once they are collected, how to protect the confidentiality and security of the data, who is allowed access, and what to do if any breach in security or confidentiality does occur. Data collectors need to learn these procedures and why data confidentiality and security are important.
Data collection supervision and monitoring	Regardless of who is collecting the data, it is important that there be a plan for supervision and monitoring to help ensure that data are being collected appropriately and that any issues can be resolved as they arise. Depending on the complexity of the data collection activity, supervisory responsibilities might be limited to training and quality checks, but might also include a range of additional roles such as hiring data collectors, validating samples, supervising data entry, monitoring data collection, and coordinating with data analysts.
Routine methods for gathering feedback from data collectors	Most importantly, ensure that you have a method for routinely gathering feedback from data collectors about any problems they have encountered or field observations they have that may necessitate reviewing data collection procedures or instruments. Further, devise means to share lessons learned among all data collectors and their supervisors while data collection is in progress. Keeping communication channels open, identifying emerging issues as soon as they arise, sharing critical information among all data collectors, and working together with them to develop effective solutions are among the best ways to safeguard the accuracy, propriety, and utility of any data collected.

Other Training Topics

Topics that are not necessary for most data collection activities but that may be relevant to your situation are listed in **Table I.3**.

Table I.3 Other Training Topics

Topic	Description
Data collector safety and security considerations	Depending upon the location and timing of field work, safety and security considerations may be an important component in the training of data collectors. Training of field workers (e.g., home interventions) should include information on being alert, dealing with potential hazards (e.g., dogs, threatening situations), and using their best judgment. Equipping field workers with cell phones and pairing them to work together in a "buddy" system may be advisable in some circumstances. Training should emphasize that field worker safety and security is paramount and that they should avoid any situation in which they do not feel safe and call a supervisor for further instructions.
Working as a team	If you have multiple data collectors or individuals working on the data collection in different roles, it can be valuable to bring these individuals together formally or informally to explicitly discuss how to work together and how their roles complement one another. For example, it is often helpful for data analysts to attend data collector training in order to understand what types of data they may be receiving, as well as providing their perspective on what data they need to conduct a high-quality analysis. Roles and responsibilities as well as handling of data should also be explicitly discussed (e.g., To whom can a data collector give or transmit data? What should happen if that person is not available?).
Special considerations in working with the target audience	Your evaluation may involve data collection strategies from one or more target audiences. Ensure that data collectors understand any special considerations necessary for dealing with various types of audiences. Such issues may affect the protocol itself or the types of permissions that are needed (for example, needing parental consent for evaluation data collection with children). They may also affect who is appropriate to include as a data collector (for example, is it beneficial to try to match data collectors to participants by gender, language, age)? In other cases, data collectors should be made aware of any special considerations that may affect their perceptions or reception by the target audience. For example, are there any cultural or religious customs or beliefs of which data collectors should be aware? Do participants have any disabilities that need to be accommodated? Would particular times be more or less beneficial? For professional audiences, what are the norms for professional conduct? You may be able to anticipate some of these issues because of prior work with target audience members. In other cases, data collectors' feedback can be used to revise data collection instructions to reflect these considerations.
Conducting data collection in a language other than English	This is a special case of working with the target audience (see above). Hire data collectors who are native speakers with similar dialect and culture, or train native speakers on local idioms and culture. If you use a translator, be sure the translator understands his/her role (e.g., lead focus group but not participate).

I.4 Tips for Successful Data Collection Training

We have provided a number of ideas for how to train data collectors and the types of training topics that should be covered. We have also mentioned the need to supervise data collection activities in order to help ensure that data are collected in a timely manner and according to

protocol. In this section we offer a few tips to keep in mind as you develop your data collection procedures and your training approach. Although we anticipate that formal training will not be needed for most state asthma program evaluations, we conclude with a list of formal training techniques (Table I.4) that are most appropriate for use in large-scale data collection efforts.

- ***Always conduct some type of data collection training.*** Data collection training (either formal or informal) is needed for all data collection activities in your evaluation. You cannot assume that procedures will be intuitive or obvious to those conducting the data collection. Even with simple data collection procedures, it is better to be explicit to avoid later misunderstandings that can result in data that are not useful.
- ***Experienced data collectors need training, too.*** Each data collection effort is different, and even experienced data collectors will benefit from the opportunity to think through the specific procedures for this evaluation and having time to practice.
- ***Use high-quality trainers.*** In multi-person data collection teams, Bamberger et al. (2006) recommend that, when resources are scarce, you should recruit the best supervisors and trainers possible, even if this means recruiting less experienced data collectors. They point out that poor supervision and/or training can impede performance of even good data collectors, whereas good supervision and training can improve performance of both poor and good data collectors.[10]
- ***Ensure respondent comfort.*** It is important that respondents feel comfortable with data collectors. In some cases, this may mean that you need to select your data collectors to be of similar racial, ethnic, linguistic, or geographic background to respondents.
- ***Build data collection training into your evaluation schedule.*** Don't underestimate the time it may take to be ready for data collection.
- ***Think broadly about training needs.*** Even if you are using a secondary data source, think about the procedures you will need to access the data, abstract the elements you need, and use it for your purposes. Make sure these procedures are explicit and well-documented.
- ***Emphasize to data collectors the importance of reporting problems and observations as they arise.*** Data collectors are the members of the evaluation team closest to the evaluation implementation. Their observations can be invaluable.
- ***Ensure appropriate documentation.*** The training topics we have introduced are important even if you (or your evaluator) are the only ones collecting data. You may not need a formal training, but it is still important to think through all aspects of your data collection activities and have procedures in place to deal with anticipated as well as unanticipated issues. Being thorough and preparing written instructions both help to ensure that your data collection approach is well documented and that others can step in

[10] Bamberger M, Rugh J, and Mabry L. (2006). *Real World Evaluation: Working Under Budget, Time, Data, and Political Constraints.* Thousand Oaks, CA: Sage Publications.

to take over should it become necessary. The documentation also becomes a historical record of how you conducted your evaluation in case others wish to review your methods and/or undertake something similar.

- ***Monitor the data collection.*** Ongoing monitoring will tell you whether data collection is proceeding as planned and will allow you to intervene or provide additional training or guidance as needed. Situations that may indicate a need for additional training include changes in the protocol, unplanned deviations from the protocol, implementation problems, or complaints about the performance of data collectors.

While the content and format of data collector trainings will vary depending on the type of data collection conducted, some elements of these types of trainings are standard. You can use the following checklist to see if you have included appropriate elements in your data collector training.

Have you…

- ✓ Provided background information to data collectors to ensure they understand the broader program and evaluation and can accurately answer questions about the evaluation?
- ✓ Ensured that data collectors have contact information if they or participants have additional questions?
- ✓ Included clear WRITTEN instructions (whenever possible) on how to conduct data collection?
- ✓ Reviewed EACH item to be collected and provided information on the intent behind collecting that item?
- ✓ Been explicit about expectations for data collectors regarding use of professional evaluation standards?
- ✓ Made sure that data collectors understand “chain of custody” for what to do with data that are collected, who can have access, and how to safeguard data and respondent information?
- ✓ Included discussion of schedule and logistics for data collection, including plans for ongoing communication with data collectors throughout the evaluation?
- ✓ Reviewed any special considerations in interacting with the intended audience?
- ✓ Communicated explicitly about what data collectors should do in case of data collection challenges?
- ✓ Provided opportunities for “hands-on” skill-building activities (e.g., role playing, practice sessions) if appropriate?

Table I.4 Formal Training Techniques

Topic	Description
Instructional Approaches	
Didactic approaches	Didactic approaches ensure that important content is conveyed to trainees and that key concepts and content are presented in a structured way. Areas that lend themselves to a didactic approach include an overview of the evaluation, understanding of evaluation standards, and a review of data collection instruments.
Case examples or narratives	Stories are a natural way of conveying information. Using short case examples or narratives may help trainees to work through various possible scenarios that may occur during data collection. Participants typically read or listen to a case example and then answer questions about how the situation was handled, what could be done differently, or how they might react in the same situation. Potential uses for this type of learning include ethical dilemmas, dealing with data collection challenges, and safety and security issues.
Brainstorming	The trainer may solicit ideas from the trainees to help them think about new approaches as well as allowing them to contribute ideas to enhance the data collection process itself. For example, participants can be encouraged to think as a group about how to deal with different types of respondent personalities or creative ways to deal with data collection challenges. For this type of training, develop your own list of topics ahead of time with approaches you think would be useful. Use these as prompts if the topics do not emerge from the group discussion. It is a good idea to document the data collection instructions developed by the group so that everyone is on "the same page" in terms of the final group decisions.
Hands-on Approaches	
Modeling	Modeling techniques involve having a trainer model how a data collection situation should be handled and then allowing the trainees to practice the approach. This type of technique can be used, for example, in teaching your data collectors how to fill out data collection forms or abstract a "test" record.
Role-playing	Role-playing techniques simulate the actual data collection situation. Data collectors practice new skills and receive feedback in a safe and constructive setting. Training topics that can benefit from role-playing include obtaining informed consent, introducing the evaluation, recruiting participants, and answering tough questions.
Small groups and peer support	If you have a large group of data collectors or anticipate that participants will work as teams of data collectors, it may be valuable to divide participants into pairs or small groups. They can use the time to work through data collection logistics and decide how they will work together as a team. Small groups can also be used for role-playing or other hands-on activities to ensure that all participants have the opportunity to practice their skills and gain feedback from other participants.
Practice sessions	As a pilot test of your data collection method(s), conduct practice sessions that are as realistic as possible. In general, such a practice would not be conducted with actual respondents, but rather with people who closely resemble respondents (e.g., individuals who participated in an intervention prior to the evaluation data collection start; individuals of similar age or other demographic characteristics to those you are trying to recruit) or using fake or mock records. This type of approach allows the data collector to practice all aspects of the data collection protocol. Typically a debriefing session would be held with data collectors to review any problems with the protocol itself as well as any areas where they may need additional assistance.

Notes:

Appendix J
Effective Communication and Reporting

Throughout the phases of an evaluation, evaluators have the critical responsibility of providing effective communication about the evaluation planning, progress, and results. Effective and timely communication promotes understanding about the program's activities, resources, and outcomes and can engender important support for the program. It also demonstrates accountability, reminds people of the value of a program, and documents the progress of the evaluation so that learning from the program's experiences can occur along the way.

Chapters 2 and 3 of the first module in *Learning and Growing through Evaluation* provide guidance on planning a communication strategy as part of the overall evaluation planning process. This appendix provides guidance on developing a communication plan, identifying audiences, prioritizing messages, timing communications appropriately, matching communication channels and formats to audience needs, and using communications to build evaluation capacity.

J.1 Developing a communication plan

Thinking strategically about who needs what information prior to evaluation implementation can significantly increase its usefulness. Table 2.7 in the Module 1 of *Learning and Growing through Evaluation* shows an example of a communication matrix. It describes who the audiences are, the types of information they need, when they need it, and the appropriate format.

The types of information you share might include the purpose and details of the evaluation plan, progress updates, interim findings, and final report of findings. Throughout the process, remember that your audiences may not always be clear on what they hope to get out of an evaluation, so asking them to periodically reflect on what they will do with the information you give them will help everyone by increasing the utility of the information provided (Torres,1996).

The format for the communication may be anything from short communications, such as email messages, memos, newsletters, bulletins, oral presentations, executive summaries, to comprehensive final reports. Short communications are important tools for maintaining ongoing contact with stakeholders. Brief written communications can be used during all phases of the evaluation to quickly share information in a timely manner about the activities and progress of an evaluation. Memos or emails are sometimes the most efficient way to elicit feedback and discussion about ongoing activities; they may also be the most efficient mode for disseminating preliminary findings and recommendations to stakeholders.

Interim progress reports are typically short reports that provide select preliminary results from an ongoing evaluation. They are usually produced in anticipation of a more comprehensive report that will follow. An interim report can look much like a final report in its layout and content outline; it should be simple and presented in a style that maximizes stakeholders' understanding. Timely interim reports may be valuable in generating discussions that effect changes or

improvements in the program in time for the next phase of its implementation. Depending on the audience needs, these reports may be combined with the periodic evaluation reports discussed in Appendix G.

Final reports are traditionally the most common form of reporting findings from an evaluation. There are times when formal, comprehensive reports are appropriate and expected. In addition to thoroughly describing the program, its context, purpose, methods, and final reports serve accountability needs and are useful for program funders and policymakers. See the section on "Matching communication channels and formats to audience needs" for more detail on the layout and content of a final report.

J.2 Identifying your audiences

Most evaluations will have several audiences, such as:

- Program participants
- Evaluation sponsors or funders
- People who will make decisions about the program based on evaluation results
- Staff who plan or implement the program
- Advocates for or critiques of the program
- Others who are likely to be affected by the evaluation results

Often, the primary audiences are the program's staff, managers, or the evaluation's sponsors. In addition to the above list, you might also consider others who, while interested in the results of the evaluation, are often distant from the program, such as future program participants, the general public, or special interest groups. In general, strive to ensure that your audiences are demographically representing the entire population with which you want to communicate.

As the evaluation progresses you may discover additional groups who will be interested in or impacted by the evaluation findings. As you identify these new audiences, be sure to add them into your communication planning and implementation efforts.

When thinking about these different audiences, remember that they are likely to prefer different types of information and formats in which they receive the information. For this reason, you should carefully consider the messages and formats for each audience and describe these choices in your communication and reporting plan. Other sections of this appendix address each of these topics in greater detail.

J.3 Reporting findings: prioritizing messages to audience needs

Even simple program evaluations can generate far more information than most audiences are willing to endure, let alone find useful. Evaluators must sift through the results of the data analyses and tailor their communications to specific audiences. Limiting your communications to

the findings that are most relevant will enable your audience to invest their energy and limited time in actually *using* the information.

Different stakeholders will prioritize findings differently, so to do this sifting and tailoring effectively, it is important to have a clear understanding of the information needs of various audiences, as well as to know about their capacity to use evaluation findings. For example, a recommendation for new recruiting procedures might be best highlighted with staff and immediate supervisors, while a recommendation for policy change would be more appropriate for administrators.

Always consider the level of knowledge the audience has about what is being evaluated and the evaluation itself when tailoring the message. It is important to provide sufficient background and context *before* sharing findings since audience members often only know the activity, policy, or intervention that is being evaluated from their perspective. Providing the background and context will help to facilitate understanding and acceptance of the findings across multiple audiences.

Generally, the evaluation questions form a good organizing tool from which you can begin to aggregate and organize the information you plan to share. As part of Step 1, you have already identified stakeholder interests; the interpretation process (Step 5) is often an opportunity to actively engage stakeholders in identifying and prioritizing messages for the various audiences with whom you will be communicating. You can ask: Which findings will the audiences find most meaningful and useful? Why? What conclusions are being drawn? Which findings lend themselves to the development of recommendations? The answers to these questions can help you prioritize the “take home” messages you are developing.

Keep in mind that stakeholders may be reluctant to present negative findings and may suggest highlighting only positive ones. While this is understandable, it is important to remind stakeholders that, while positive findings assure the audience that the program is on the right track, negative findings are instructive and should be viewed as opportunities to improve the program. In other words, view the results with an eye to “how can we do better?” If necessary, you can refer to the propriety standard and note that, ethically, you are required to share complete evaluation findings.

Communicating positive and negative findings

Documenting the strengths of a program are a major function and value of evaluation. Communicating strengths helps in planning, sustaining, and growing a program and may also help address anxiety about evaluation.

An equally important use of evaluation is identifying areas that need improvement. These areas often reflect problems or weaknesses in a program which, when shared, may inspire a defensive, negative reaction. As is discussed in Appendix D, anticipating the possibility of negative

findings early in the evaluation process and actively communicating with stakeholders throughout data collection can help to prevent surprises at the end of the evaluation. This practice may also enable you to adjust your strategies to be sure you have sufficient information on program strengths and options for positive change. To this end, whenever possible, aim to develop messages that:

- identify what worked and other strengths that can be built upon in future efforts.
- share negative findings, emphasizing what has been learned and how it will influence the next course of action.
- provide specifics about problems and situations, as appropriate, without betraying confidentiality.
- avoid personalizing or critiquing individual performance.
- focus on things that can be changed.

When summarizing and prioritizing messages, set explicit goals for each message and audience. Think about the conclusions, how the evaluation findings can be used, and what recommendations should be made. Consider what action(s) the audience can take. For example, do the data suggest that it would benefit the audience to:

- increase knowledge and understanding of the initiative?
- provide or support an increase in resources for the initiative?
- change a program, policy, or practice?
- reorganize or revise the initiative to make it more responsive?
- overcome resistance to the initiative?
- develop or promote methods for making the initiative more effective or efficient?

Creating a *communication goal* will help you identify the information needs that should be included in the messages you are developing.

While there is no right or wrong number of key messages, conclusions, or recommendations that can come from an evaluation, adult learning theory tells us that most people can comfortably comprehend and absorb five to seven points or ideas at a time. In light of this, you may find it useful to group the evaluation messages into categories or themes so as not to overwhelm the audience. The evaluation questions may help to inform some thematic categories.

J.4 Timing your communications

For evaluation findings to be useful, they must be communicated in a timely manner. As mentioned earlier, sharing interim findings at strategic points keeps stakeholders abreast of the process and engaged in the evaluation. Interim findings may bring to light an implementation problem, such as the need to recruit a certain population that is currently being overlooked, allowing time to perhaps modify the recruitment approach. Other opportunities to use the

findings might emerge unexpectedly. For example, in the event an unanticipated funding announcement is released, your interim evaluation findings could be used to support the application. Maintaining and routinely updating communication messages can be helpful in capitalizing on such events.

The key is to think strategically and lay out plans for effectively communicating with your various audiences at appropriate intervals. Surprises at the end of the evaluation are never a good thing! You might find that the optimal time to communicate key or interim findings is during routine functions, such as at quarterly staff meetings or an annual retreat for policy makers. Remember that the more engaged you keep your audiences, the more ownership they feel of the process and, consequently, the more likely they will use the findings.

J.5. Matching communication channels and formats to audience needs

Just as findings and messages must be tailored to the needs of different audiences, the mechanisms to effectively communicate with audiences will also vary. When deciding the channels and formats for communicating evaluation information, you should consider a number of factors.

Selecting the best messenger

Identifying the appropriate messenger is as important as carefully considering the messages to convey. When considering who should deliver the message, you might look for an individual who is highly respected and trusted in the local context, who has been involved in the evaluation, and who would be willing to present the findings (e.g., well-respected physician, leader of an organization, an elder). For example, in certain cultural traditions, having an elder spokesperson report on the evaluation shows acceptance of the results from a trusted figure. Similarly, having a top official in an organization serve as the evaluation spokesperson can show that the results are of import and are to be taken seriously. Engaging a respected individual to report on the findings helps ensure that the information is viewed as credible. t may also help build evaluation capacity within the community, as discussion about the findings filters among community members and motivates people to act upon what they have learned and to pursue further learning.

Communications Tips

- Use language that is understandable to the audience.
- Avoid using abbreviations, jargon, or acronyms (unless defined).
- Ensure graphs, charts, and tables are clearly labeled.
- Use graphics and visuals to support points, but do not overuse them.
- Acknowledge the limitations of the evaluation.

In other instances, the neutral, objective voice of the evaluator will be optimal. If you present the findings in person, be mindful of how you present yourself—for example, dress professionally yet in a manner that is appropriate to the local context (e.g., don't wear a suit if the setting is in a

factory facility). Irrespective of who delivers the message, be sure the information delivered is accurate and complete, and that it includes an appropriate balance of information free of biases favoring a particular interest or position.

Delivering meaningful presentations

Good presentations give meaning and context to evaluation findings. You may need to remind yourself that your audience may know little about evaluation or about the process undertaken to produce the information being communicated—therefore, it is important to provide a clear description of the issues so the audience understands the context for the information they are receiving. View the presentation as an opportunity to build evaluation capacity and increase the savvy of the evaluation consumer.

Tips for Creating Tables

- Use a title that summarizes data presented and distinguishes this table from others.
- Limit the use of extra lines and borders.
- Keep decimal places to the minimum.
- Label header rows and columns clearly.
- Make patterns explicit by ordering data in a meaningful way (e.g., by rank order or alphabetically).
- Avoid showing tables with many empty cells.

Covering the following items when presenting evaluation findings will help to assure that sufficient information is provided to meet audience needs:

- Description of the program and aspects of it that are being evaluated
- Description of stakeholders
- Evaluation purpose and evaluation questions
- Methodology used
- Data sources
- Findings
- Strengths & limitations
- Conclusions
- Recommendations

The depth in which any of these topics are addressed should be tailored to the audience. For example, a presentation to the general public should include a brief, simple presentation of the methods whereas a presentation delivered to scientists or evaluation peers should include a more detailed discussion of the methodology used.

To meet the propriety standard, evaluators must share both the evaluation findings and the limitations of the evaluation with everyone who may be affected. This should be done while balancing the feasibility of this level of communication. It may be helpful to remind the audience that the vast majority of evaluations are bound by resource limitations, and that

evaluators aim for the optimal balance between the information needs and the available resources.

As previously mentioned, you should us a broad and tailored strategy for communicating evaluation messages to meet the diverse needs of the audiences. Scheduling an evening presentation and offering childcare may reduce logistical barriers and increase the reach to particular community members. In some situations, it may be necessary to translate communications or to tailor the messages so they are appropriate to the literacy level of the audience.

Below are recommendations regarding some of the formats commonly used for communicating findings in oral presentations:

- Keep text brief and to the point
- Arrange text into digestible bites
- Use short sentences or bullet points
- Use big text
- Use clear fonts that are readable at a distance and distinguish headings (sans-serif typeface are preferable)
- Use lower case text for better readability
- Incorporate graphs or charts to visually convey a message

When feasible, schedule time with stakeholders to discuss the evaluation findings. This interaction will build interest in and shared ownership of the evaluation. You can use this time as an opportunity to further clarify, tailor, and refine the messages based on feedback from stakeholders. To assure that your messages are communicated effectively, always use simple, clear, jargon-free language. Conclude by making specific recommendations that you expect your audience can implement.

In any evaluation, the analyzed data comprise the main content of what is communicated. The findings of an evaluation should include information about the data and an explanation of how the data were analyzed. The analysis results must sufficiently support each conclusion and recommendation. “Data dumps” generally have little meaning to most audiences, and therefore, have little merit in a presentation of evaluation findings. Creating messages that adequately convey the data and its meaning requires a great deal of thought and creativity. Quantitative data can often be visually summarized and simply conveyed through the use of charts, graphs, and tables.

Graphs and charts can present statistical and complex data concisely. Charts are most useful for depicting processes, elements, roles, or other parts of some larger entity. Graphs are particularly useful for presenting data and relationships. They can illustrate trends, distributions, and cycles.

Tables and figures can make information more understandable and are especially effective if you have limited space or time to present information. They will allow audiences to quickly absorb a large quantity of data while still conveying the key points of the evaluation findings. Visual representations of data can be illustrated in diagrams or visual forms of representation that reveal patterns, trends, and relationships that are otherwise not apparent in the text. Diagrams, maps, or illustrations are often effective for conveying ideas that are difficult to express in words. In general, graphics need to be clear, precise, and limited in number. The goal of the graphic is to present one, clear message. An interpretation or explanation of graphics should be included to ensure accurate understanding.

In cases where you have collected both quantitative and qualitative data, you can use the qualitative data to complement and illustrate critical points found in the quantitative data. Be careful not to present more qualitative data than is needed to support your conclusions, especially in the form of quotations. If you present a diagram using symbols, include a key that identifies or defines them. Evaluations that involve both qualitative and quantitative data should report a mix of results from each type of data.

Putting the results in writing

Evaluation Report. Developing a useful, comprehensive evaluation report requires an investment of time and resources, which limits the degree to which a report can be tailored to specific audiences. Usually, an evaluation report has more than one target population, so it is useful to organize a report to help specific audiences easily find the information most useful to them. This can be as simple as including headings such as “recommendations for school nurses” and “recommendations for school superintendents.”

Executive Summary. An executive summary is a vital section of any written report, given that many audiences will have limited time to invest in reading and reviewing a full-length report. The chief advantage of summaries is that they can be reproduced separately and disseminated as needed, often too busy decision makers. Executive summaries usually contain condensed versions of all the major sections of a full report, highlighting the essential messages accurately and concisely. As with the full-length written report and oral presentation, summaries should be tailored to address the needs of particular audiences, emphasizing different program elements and findings. You may choose to create multiple, tailored executive summaries to assure that messages are meaningful to each audience.

Newsletters, bulletins, or brochures. When you need to relay evaluation findings to a broad group of individuals in a form other than a lengthy report or oral presentation, consider using newsletters, bulletins, or brochures. These less formal media can promote communication between the evaluator and stakeholders and enable presentation of findings as they emerge and at the end of the evaluation (Torres et al., 1996).

You can use a dedicated newsletter to communicate key evaluation findings from an evaluation or include an article about evaluation activities as part of an existing internal or external

newsletter. Bulletins are similar to newsletters but are typically briefer and are dedicated to reporting periodically on a particular evaluation or project.

Brochures. Brochures are typically intended to generate interest in the evaluation findings. A brochure can be as simple as a printed sheet folded twice. If your evaluation findings are positive, a brochure might also take the shape of a more comprehensive 'marketing' folder with a variety of collateral pieces. In either case, it might include a brief description of the evaluation, an overview of the evaluation design, and the key findings and recommendations. This form of communication can be used to invite feedback and discussion on the evaluation or simply to inform readers of the evaluation's conclusions.

As with other forms of presenting information, determine the type of communication best suited for your purpose and audience by considering your audience's interest, the desired frequency of publication, budget, availability of desktop publishing software and associated skills and resources needed, and scope of the dissemination effort.

Posters. Posters and other visual displays of evaluation information can be designed for events such as conferences or meetings. Posters can also be advantageous because they can be displayed in a waiting room or other location, making the evaluation findings accessible to a wide range of audiences over time. They can also be used to promote interest and engagement in evaluation.

***Social media*.** Social Media tools such as Facebook, YouTube, and Twitter offer innovative ways to communicate evaluation information. These tools and other emerging communication technologies can increase the timely dissemination and potential impact of evaluation, leverage audience networks to facilitate information sharing, expand reach to include broader, more diverse audiences, and facilitate interactive communication, connection, and public engagement.

J.6 Communications that build evaluation capacity

Transforming the lessons learned from our evaluation experiences into opportunities to build evaluation capacity within an organization is one of the most important and more challenging aspects of evaluation practice. As part of their professional development, evaluators typically reflect on the evaluation process and make mental notes on what worked or what they would do differently next time. By bringing stakeholders into this process--actively engaging them in problem solving while implementing the evaluation--we can deepen their understanding of evaluation practice. Activities such as mock data review sessions and workshops on evaluation purposes, designs, methods, and other topics, along with remembering to work with stakeholders throughout the evaluation process are critical to helping ensure the use of evaluation findings through stakeholder buy-in.

Additionally, the evaluation plan itself can be a valuable tool for documenting the implementation of the evaluation. Many evaluators make notes within the plan to chronicle what was done, what was revised, and how decisions were made. The plan can be supplemented with

appendices tracking the use of evaluation findings and actions taken in response to the recommendations. These records are invaluable when planning subsequent evaluations and for showing the practical value of evaluation.

Success stories and lessons learned from evaluations can be written up and shared in journal publications, at conferences, or less formally through blogs and listservs. The CDC's asthma evaluation listserv and informal presentations on the quarterly asthma evaluation calls are convenient channels for communicating lessons learned with your peers.

When operating in a collaborative, supportive environment, evaluators can use their effective communication skills to play an important role within the larger context of organizational learning. By working with organizational leaders to develop and support evaluation capacity building activities, evaluators can encourage the institutionalization of evaluation in program operations. Organizational supports—such as making time available for skill building, allocating resources for evaluation, incentivizing learning, and creating expectations for openly discussing evaluation findings and their implications—demonstrate a commitment to building an evaluation culture.

J.7 Additional resources

General

Torres RT, Preskill H, Piontek ME. (1996). Evaluation Strategies for Communicating and Reporting: Enhancing Learning in Organizations, Sage Publications.

Brief 11: Preparing an Evaluation Report.
http://www.cdc.gov/healthyyouth/evaluation/pdf/brief11.pdf

Bruner Foundation, Using Evaluation Findings: Evaluation Reports:
http://brunerfoundation.org/ei/docs/EvaluativeThinking.bulletin.6.pdf

Lavinghouze, Price, CDC's Impact and value: telling your program's story:
http://www.cdc.gov/oralhealth/publications/library/pdf/success_story_workbook.pdf

Lengler, R and Eppler MJ. A periodic table of visualization methods:
http://www.visual-literacy.org/periodic_table/periodic_table.html

Lilley, S. 2002. How to Deliver Negative Evaluation Results Constructively:
http://www.chebucto.ns.ca/~lilleys/tips.html.

Miron, G. Evaluation Report Checklist, The Evaluation Center, September 2004.
http://www.wmich.edu/evalctr/checklists/evaluation-management/

Tableau Public[11]. http://www.tableausoftware.com/public

[11] Please note the following re: this software: "Tableau Public includes a free desktop product that you can download and use to publish interactive data visualizations to the web. The Tableau Public desktop saves work to the Tableau Public web servers – nothing is saved locally on your computer. All data saved to Tableau Public will

Western Michigan University's checklist for reporting to more technically oriented audiences: http://www.wmich.edu/evalctr/checklists/evaluation-management/

Workgroup for Community Health and Development. Communicating Information to Funders for Support and Accountability. (Part J, Section 4 of the Community Toolbox). http://ctb.ku.edu/en/tablecontents/section_1376.aspx

Creating graphs and charts

Minter, E and Michaud, M. (2003). Using Graphics to Report Evaluation Results.http://learningstore.uwex.edu/Assets/pdfs/G3658-13.pdf

Statistical Service Centre. Informative Presentation of Tables, Graphs and Statistics http://www.reading.ac.uk/ssc/publications/guides/toptgs.html

Zawitz, Marianne W., Data Presentation: A Guide To Good Graphics Washington Statistical Society Methodology Seminars. http://www.science.gmu.edu/~wss/methods/zawitzg.html

Zawitz, Marianne W., Data Presentation: A Guide To Good Tables. Bureau of Justice Statistics. http://www.scs.gmu.edu/~wss/methods/zawitzt.html

Presenting qualitative data

Chenail RJ.. Presenting Qualitative Data, *The Qualitative Report*, Volume 2, Number 3, December, 1995. (http://www.nova.edu/ssss/QR/QR2-3/presenting.html)

Presentation slides

Curtis C. Designing Effective PowerPoint Slides: http://www.bellaonline.com/articles/art31436.asp

Reynolds, G.10 Slide Design Tips. TechRepublic. September 2006 (http://articles.techrepublic.com.com/5100-10881-6117178.html)

Posters

Hess, G, Tosney, K., and Liegel, L. Effective Poster Presentation Design: http://www.ncsu.edu/project/posters/NewSite/

McIntyre, E. Research posters—the way to display January 2006. http://careers.bmj.com/careers/advice/view-article.html?id=1431

Using social media

CDC's Office of the Associate Director for Communication, The Health Communicator's Social Media Toolkit: http://www.cdc.gov/healthcommunication/ToolsTemplates/SocialMediaToolkit_BM.pdf

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be accessible by everyone on the internet, so be sure to work only with publically available (and appropriate) data." (http://www.tableausoftware.com/public/faq)

Notes:

Appendix K
Developing an Action Plan

To gain the maximum benefit from evaluation, it is imperative that the results of your efforts be put to use, whether to support program improvements or to guide other decision making. We know from experience that evaluation results are more likely to be put to use if you take the time to develop an action plan.

An *action plan* is an organized list of tasks that, based on the evaluation findings, should lead to program improvement. It differs from a to-do list in that all the tasks focus specifically on achievement of your program improvement objectives.

If you identify more than one program area ready for improvement based on a single evaluation, we recommend creating an action plan for each improvement objective. Your evaluation may also identify program components that should be eliminated or components that are working well and should be sustained. Action plans are appropriate to guide these follow-up activities as well.

An action plan should outline:

- Evaluation findings the action is designed to address
- Who is responsible for completing an action
- What resources are necessary for carrying out an action
- How the action plan will be monitored
- The timeline for completion of an action
- How actions should be monitored

Since some stakeholders will be charged with implementing changes based on your evaluation findings, you will need to work with the stakeholders involved in designing the evaluation to create the action plan. They are likely to have important insights about how to best respond to evaluation findings. Their involvement can help ensure that planned activities are both desirable and feasible, and they are more likely to participate in implementing changes if they have been involved in identifying actions to be taken.

We provide an example of an action plan in **Template K.1**. This format directly connects program improvement objectives to evaluation findings by including a brief summary of relevant evaluation findings, evidence upon which findings are based, and proposed changes to respond to these findings. The majority of the plan focuses on specific action(s) you and your stakeholders will take to achieve your objectives, as well as identifying a person responsible for each activity, resources they need to accomplish it, and a timeline for completion. The action plan template also includes an area listing the information you will use to monitor implementation of your action plan. Finally, the plan identifies the data you will use to determine whether the improvement you were seeking actually occurred.

Regularly reviewing the results of your action plan with your stakeholders will help you better utilize evaluation findings. If you have evidence that your program has improved, this marks an occasion for joint celebration. If more work needs to be done, your stakeholders can help focus your energies and support necessary changes.

Template K.1 Evaluation Results Action Plan

Program Component (e.g., surveillance, partnerships, interventions):

Evaluation Purpose:

Programmatic Change Sought:

Evaluation Result	*Describe the key evaluation result that necessitates action.*
Supporting Evidence	*Describe the evidence that supports action.*

Plan of Action to Achieve Change						**Monitor Change**		
Change needed	**Activities to implement change**	**Person responsible**	**Resources required**	**Due by**	**Indicators that change is implemented**	**Data sources**	**Indicators to monitor success of change**	**Data sources**
Describe key change(s) you want to achieve based on this finding.	*List activities that need to be carried out to make the change happen in the program.*	*List the person(s) who will assure each activity occurs.*	*List resources required for the activity.*	*Assign a due date by which the activity will be completed (the final date should be when the change will be in full effect).*	*Describe how you will know that the change is implemented as planned.*	*Describe what data you will need to have to know change is implemented.*	*Describe how you will know the change to program is working or not.*	*Describe the data you will need to measure success.*