WISEWOMAN Evaluation Toolkit Organization and Contents

Evaluation Toolkit: Introduction

The introduction provides an overview of the WISEWOMAN Evaluation Toolkit, the CDC Framework for Program Evaluation in Public Health, and an introduction to evaluation for WISEWOMAN grantees. It also includes some tips for getting started with evaluation.

The toolkit is organized into four sections that logically group the steps of the CDC framework. Each section includes a table of contents for easy review and reference.

1: Evaluation Planning

Section 1 aligns with Steps 1–3 of the CDC Framework for Program Evaluation in Public Health.

EVALUATION STEPS	KEY CONCEPTS	TOOLS AND TEMPLATES
STEP 1: Engage Stakeholders	 Evaluation stakeholders are individuals and organizations with a stake or vested interest in the evaluation findings Engaging stakeholders can help ensure evaluation use A stakeholder engagement plan can help you ensure that the stakeholders are appropriately engaged throughout the evaluation 	Evaluation stakeholder engagement plan template
STEP 2: Describe the Program	 A comprehensive program description is composed of a program logic model and a project narrative A logic model specifically tailored to your program and agreed upon by program and evaluation stakeholders will aid in focusing the evaluation 	Example WISEWOMAN- specific program logic model template
STEP 3: Focus the Evaluation Design	 Evaluation questions and needs for information will differ based on the stage of program development Process evaluation enables you to describe and assess your program's activities and to link your progress to outcomes Outcome evaluation allows you to document health and behavioral outcomes The specific methods used should be driven by your evaluation questions and take into account the availability of existing data and the budget for evaluation An evaluation methods matrix can help organize the planning and implementation processes 	 Prioritizing Evaluation Questions template Evaluation methods matrix template Indicator mapping template

2: Evaluation Implementation

Section 2 aligns with Step 4 of the CDC Framework for Program Evaluation in Public Health.

EVALUATION STEPS	KEY CONCEPTS	TOOLS AND TEMPLATES
STEP 4: Gather Credible Evidence	 A data collection protocol can help ensure consistency and fidelity in data collection activities A data collection protocol should specify who is responsible for collecting the data, timing of data collection, procedures for collecting and managing the data, procedures for submitting data, and data security measures Any new data collection efforts should be based on your program's needs, resources, and also take into consideration the burden on participants and program staff 	 Data collection plan template Quantitative data codebook template Qualitative data codebook template Evaluation budget worksheet

3: Analysis and Reporting

Section 3 aligns with Steps 5–6 of the CDC Framework for Program Evaluation in Public Health.

EVALUATION STEPS	KEY CONCEPTS	TOOLS AND TEMPLATES
STEP 5: Justify Conclusions	 Stakeholder engagement is key at this step Analytical approaches should be driven by the specific evaluation questions, the type of data collected, and the audience for the evaluation findings Results should be interpreted with the goals of your program in mind, the social/political context of the program, and the needs of the stakeholders 	 Quantitative data analysis plan template— basic approach Quantitative data analysis plan template— advance approach Qualitative data analysis plan template
STEP 6: Ensure Use and Share Lessons Learned	 It is not enough to develop a report; consider multiple communication channels for disseminating findings to promote use 	Dissemination plan template

The conclusion presented at the end of Step 6 provides a brief review of key points.

EVALUATION STEPS	KEY CONCEPTS	TOOLS AND TEMPLATES
	Review of the ways to use evaluation	
Conclusion	Review of key evaluation activities	
	CDC Evaluation Framework	
	 Use of evaluation findings to inform ongoing evaluation work as well as program implementation efforts 	

4: WISEWOMAN Evaluation Toolkit Resource Guide

Section 4 is a resource guide that includes selected evaluation resources that may be helpful to you during the planning, implementation, and reporting stages of evaluation. The resource guide also provides a glossary of key terms and a list of references cited.

Acknowledgments

This evaluation toolkit was developed by the Centers for Disease Control and Prevention's Division for Heart Disease and Stroke Prevention (DHDSP) and ICF International. The toolkit and accompanying templates are intended to offer guidance and facilitate capacity building on a wide range of evaluation topics. While the toolkit has been designed for a primary audience of staff from WISEWOMAN programs, the concepts and templates included in this toolkit are applicable to a wide audience of individuals involved in program planning and evaluation. We encourage users to adapt the tools and resources in this toolkit to meet their programs' evaluation needs.

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Well-integrated Screening and Evaluation for Women Across the Nation

Evaluation Toolkit

Introduction



Introduction

This evaluation toolkit was developed to provide guidance, tools, and resources to Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) programs to conduct effective and meaningful program evaluation activities. The idea of doing an evaluation can be intimidating, but it does not have to be. Some might see evaluation as a program requirement that you just "have to get done." However, program evaluation provides a number of benefits to program staff.

Specifically, program evaluation allows you to accomplish the following:

- Measure progress toward your program's specific goals.
- Identify opportunities for improvement.
- Demonstrate the effectiveness of your program to stakeholders.

Although it may not be feasible to conduct a rigorous evaluation of your entire WISEWOMAN program, we emphasize the evaluation of specific program activities or components and focus on evaluations that can measure program contribution rather than attribution (causality).

This evaluation toolkit has been developed with the assumption that WISEWOMAN programs have varied experience with program evaluation and a range of resources allocated to program evaluation. Depending on the evaluation capacity of your program staff, some sections of this evaluation toolkit may be more useful than others.

While key principles of program evaluation and examples provided in the evaluation toolkit are specific to WISEWOMAN programs, the information might also prove valuable to other State and Tribal health

department programs, especially chronic disease programs. Given that the information included in the toolkit is not exhaustive with respect to evaluation, additional information on various evaluation topics can be found by reviewing the resources provided in Section 4.

Key Features of the WISEWOMAN Evaluation Toolkit

- Focuses on planning, implementation, data analysis, and reporting.
- Tailored to WISEWOMAN programs.
- Based on the Centers for Disease Control and Prevention (CDC) Framework for Program Evaluation in Public Health.
- Provides tools for evaluation planning and implementation.
- Promotes use of existing data.

Overview of the WISEWOMAN Evaluation Toolkit

The WISEWOMAN Program Evaluation Toolkit is based on the CDC Framework for Program Evaluation in Public Health (CDC Evaluation Framework). The CDC Evaluation Framework is a guide to effectively evaluate public health programs and use the findings for program improvement and decision making. The CDC Evaluation Framework provides four key standards for good evaluation and six evaluation steps (illustrated in Exhibits 1 and 2, respectively).

Exhibit 1. CDC Standards for Good Evaluation²

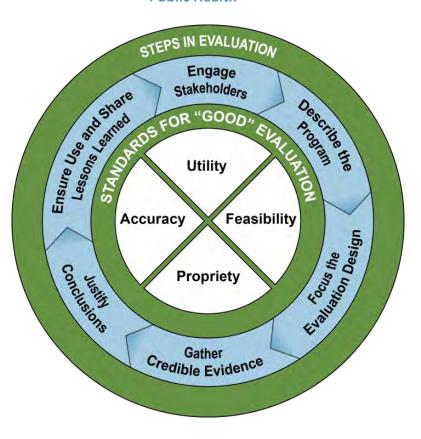
- Utility: Serve information needs of intended users
- Feasibility: Be realistic, prudent, diplomatic, and frugal
- Propriety: Behave legally, ethically, and with due regard for the welfare of those involved and those affected by the evaluation
- Accuracy: Evaluation is comprehensive and grounded in the data

While the framework is described in terms of steps, the actions are not always linear.³ You may find that in evaluating your program, you may need to revisit a step. Depending on your current evaluation work and your program's evaluation capacity, some sections of this toolkit may be more relevant to you initially than others. However, ultimately all programs should be able to use each of the six steps to conduct a more complete evaluation of program activities.

This evaluation toolkit will assist you with implementing each of the following steps of the CDC Evaluation Framework.¹

- Step 1: Engage Stakeholders.
 Include individuals and organizations in the evaluation process that have a specific interest (or stake) in the program.
- Step 2: Describe the Program.
 Describe the program by defining the problem, formulating program goals and objectives, and developing a logic model to show how the program is supposed to work.
- Step 3: Focus the Evaluation
 Design. Define the purpose of
 your evaluation, develop SMART
 objectives and evaluation
 questions, and identify methods
 to address your evaluation
 questions.
- Step 4: Gather Credible
 Evidence. Collect data to address
 your evaluations.
- Step 5: Justify Conclusions.
 Analyze data and interpret your findings.
- Step 6: Ensure Use and Share Lessons Learned. Share and use your evaluation results.

Exhibit 2. CDC Framework for Evaluation in Public Health¹



SMART Objectives⁴

SMART objectives are those that are specific, measureable, achievable, relevant, and time-bound, and they lead to evaluation questions that assess key features of your program.

Getting Started

As you begin developing a plan for evaluating your WISEWOMAN program, two key questions may be on the top of your mind:

- How do I budget for this?
- Who should be involved in conducting the evaluation?

Budget Considerations

As a grantee, you have submitted a budget for your WISEWOMAN program. Evaluation is considered an administrative cost, as it is not a direct client service. For more information on WISEWOMAN program budgets, please contact your CDC Project Officer. In this context, we focus on evaluation budget specifically and not the overall program budget. As you begin planning for an evaluation, you should take into consideration the approximate budget that you can allocate specifically for evaluation activities. A budget is necessary to ensure that the evaluation is fully funded and can deliver upon its promises. You should consider the roles and responsibilities of those involved in the evaluation, which services might be provided in-kind, and which activities will incur costs. Some key questions to consider include the following⁴:

- Will you hire a consultant to conduct some or all of the evaluation activities, hire new internal staff, or use the time of current staff?
- Are there existing data sources, or will you need to create new ones? Will you need resources to purchase existing data or form data use agreements?
- Can you use preexisting data collection instruments, or will you need to pay for new instruments to be developed (or tailored)? Will you need to pay to use preexisting data collection instruments?
- Will recorders and other technology services or devices need to be purchased?
- Is there sufficient funding for printing and photocopying of materials (e.g., surveys)?
- Are printing and copying services available onsite, or will these services need to be provided by an outside vendor?

In the evaluation tools and templates provided in Section 2, we include an evaluation budget worksheet. Your evaluation budget will be refined in greater detail during Step 3, as you identify the specific methods for your evaluation and consider the feasibility of implementing specific evaluation activities.

A small budget should not be considered a deterrent to conducting an evaluation. Throughout this toolkit we provide tips to help even those with a shoestring budget implement evaluation activities, such as maximizing the use of existing data sources or making minor adjustments

to existing activities to allow for evaluation data collection with minimal costs. In the Resource Guide in Section 4, you will also find references and links to other resources on conducting evaluation on a shoestring budget.

Working With Staff or a Consultant to Conduct Evaluation

Good evaluation requires a combination of skills that are rarely found in a single person, so you will most likely need to put together an evaluation team. An evaluation team should include internal program staff, external stakeholders, and possibly consultants or contractors with specific evaluation or technical expertise. An initial step in the formation of a team is to decide who will be responsible for planning and implementing evaluation activities.

Finding an Evaluation Consultant

If you are interested in finding an evaluation consultant and you are not sure where to look, consider the following resources:

- American Evaluation
 Association's Find an Evaluator
 Tool:
 www.eval.org/p/cm/ld/fid=108
- Centers for research and evaluation at local colleges and universities.

We recommend selecting one program staff person to serve as the evaluation lead to coordinate program evaluation efforts. This person should be responsible for coordinating all evaluation activities, including planning, implementation, and reporting. ⁶ The lead evaluator should also be responsible for engaging stakeholders and others involved in conducting the evaluation.

You may have staff within your program with experience and availability to help with your evaluation activities. If this is not the case, the lead evaluator may choose to seek the services of an evaluation consultant to support their activities. A benefit of working with an external consultant is that he or she can provide a high level of evaluation expertise from an objective perspective. A few important factors to consider when selecting a consultant are his or her level of professional training and experience and ability to meet

your needs. ⁶ It is also important to work with a consultant whose approach, background, and experience align closely with your program's evaluation needs and goals.

Finding the Right Evaluation Lead

Whether you determine that you have the need and resources for an evaluation consultant or you have staff within your program who will support your evaluation activities, consider some of the following qualifications as you choose your evaluation team members⁶:

- Experience in the type of evaluation needed
- Comfortable with qualitative and quantitative data sources and analysis
- Skilled in working with a wide variety of stakeholders, including representatives of target populations
- Able to develop innovative approaches to evaluation while considering the realities affecting a program (e.g., a small budget)

- Incorporates evaluation into all program activities
- Understands both the potential benefits and risks of evaluation
- Educates program personnel about designing and conducting the evaluation
- Provides staff the full findings (i.e., will not gloss over or fail to report certain findings for any reason)
- Possess strong coordination and organization skills
- Explains material clearly and patiently
- Respects all levels of personnel
- Communicates well with key personnel
- Exhibits cultural competency skills
- Delivers reports and protocols on time

Perhaps the most important characteristic to take into consideration when selecting an evaluator is that they use a client-centered approach to conducting evaluation. By this, we mean that your evaluator should play the role of a consultant who listens to your needs, offers expert guidance, and then works with you to identify appropriate solutions. You and other evaluation stakeholders, as primary users of the evaluation findings, should be engaged at each step of the evaluation. The evaluator should explain his or her work in a clear and accessible manner so that you can be an informed consumer of the evaluation.

CDC Technical Assistance

Additional evaluation expertise sometimes can be found in programs within the health department, through external partners (e.g., universities, organizations, companies), from peer programs in other states and localities, and through technical assistance offered by the CDC.

WISEWOMAN grantees are encouraged to contact their CDC Project Officer for technical assistance on evaluation activities. CDC Project Officers and Evaluation Specialists are available to provide feedback on evaluation-related activities, such as work plans and evaluation plans.



Well-integrated Screening and Evaluation for Women Across the Nation

Evaluation Toolkit

Section 1: Evaluation Planning



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Step 1. Engage Stakeholders



RECAP:

At this point, we have introduced key concepts related to your program evaluation:

- Reasons for conducting evaluation
- Key features of this evaluation toolkit
- Evaluation standards
- Centers for Disease Control and Prevention (CDC) Evaluation Framework
- Budget resources
- Identifying staff to lead your evaluation efforts

During this step, you will accomplish the following:

- Identify key stakeholders.
- Create a foundation for communication with stakeholders.
- Set initial expectations for how each stakeholder will be involved during the evaluation.

We advise all WISEWOMAN programs to engage a group of stakeholders in evaluation. Stakeholders are people or organizations who have an investment (or "stake") in the evaluation process or the findings from the evaluation. 5,7,8,9

Members of an evaluation stakeholder group include the primary users of the evaluation results. They generally act as a consultative group throughout the entire planning process, as well as the implementation of the evaluation.⁵

In evaluation, engaging stakeholders is consistent with utilization-focused and participatory evaluation approaches. For more information on these evaluation models, please see the Resource Guide (Section 4 of the WISEWOMAN Evaluation Toolkit).

Working with a diverse group of stakeholders will help you ensure that various perspectives are considered as you

- Develop and prioritize evaluation questions.
- Plan evaluation methods.
- Select credible data sources.
- Interpret evaluation data and results.
- Use results for program improvement.

Evaluation stakeholders also can help you conduct evaluation activities and leverage resources across multiple groups for your evaluation activities. This may also help you use your evaluation budget more efficiently. As you assemble a group of stakeholders for your evaluation, consider the roles that the stakeholders or their organizations might play in an evaluation.

The following are examples of roles that stakeholders may play in conducting an evaluation⁵:

- Pretest data collection instruments.
- Facilitate data collection.
- Implement evaluation activities.
- Disseminate evaluation findings and ensure that findings are used.

Identifying Evaluation Stakeholders

As you think about individuals or organizations to involve in your evaluation stakeholder group, you might consider engaging individuals or groups who are interested in the evaluation or who would use the evaluation findings (either directly or indirectly). There is a notion that in the context of public health programs, "everyone is your stakeholder." While this may be true, it is important to note that stakeholders may have diverse and—at times—competing interests. A single evaluation cannot address all of the interests raised by stakeholder groups; therefore, we recommend that you identify 8 to 10 individuals to represent the stakeholders who have the greatest stake or vested interest in the evaluation. ^{5,7} It is critical that you prioritize your stakeholders and document your process for prioritizing stakeholders in the evaluation plan.

Why Involve Stakeholders in Evaluation?^{5,10}

Stakeholder engagement in evaluation helps

- reduce distrust and fear of evaluation,
- increase awareness of the evaluation,
- increase commitment (or "buy in") to the evaluation,
- increase support for evaluation efforts,
- increase likelihood that evaluation findings will be used,
- enhance the credibility of your evaluation findings.

In general, there are four types of evaluation stakeholders, as described in Exhibit 1 below.

Exhibit 1. Types of Evaluation Stakeholders^{5,10}

Type of Stakeholder	Description	WISEWOMAN Program Example
Implementers	Program staff and others directly involved in the delivery and operations of the program	 Clinical service providers Evidenced-based lifestyle program staff members Minimum data elements (MDEs) data staff or contractors
Decision makers	Those in a position to do or decide something about the program	 CDC Project Officers State/tribal chronic disease program directors Program manager
Participants	Individuals who are served by the program, their families, or the general public	WISEWOMAN clients/patients
Partners	Those who support or are actively invested in the program	 State epidemiologists Diabetes prevention and control programs, diabetes prevention programs (evidenced-based lifestyle programs) American Heart Association State tobacco control programs

Developing an Evaluation Stakeholder Engagement Plan

Make sure that both program staff and the evaluation stakeholder group understand the role of the stakeholder group in this evaluation. An evaluation stakeholder engagement plan, such as the one presented in Exhibit 2, can help you document and track stakeholder engagement throughout the evaluation. To get started, list each stakeholder's name and affiliation, along with how and when the stakeholder should be engaged in the evaluation. We recommend setting clear expectations regarding the involvement of each stakeholder, given whether it is important for a given stakeholder to participate frequently or at a few strategic points during the evaluation. Setting these

Take Time for Stakeholder Engagement⁵

As you meaningfully engage your evaluation stakeholder group, allow time for resolving conflict and coming to a shared understanding about the evaluation. This time is worth the effort for a truly participatory and empowering evaluation.

expectations will depend on your understanding of your stakeholders' levels of interest, expertise, and availability.

You can also use the stakeholder engagement plan to document each stakeholder's areas of interest in the evaluation, evaluation role, anticipated level of involvement in the evaluation, preferred mode of communication, and timing for when the stakeholder would best be engaged. If there are specific deadlines for information, such as a pending deadline for midterm or annual reports, it is important to note those as well.

Your stakeholder engagement plan should be considered a "living document" that will need to be revisited and revised accordingly. Explicitly documenting and sharing your stakeholder engagement plan can help you avoid or manage conflict. This also will allow stakeholders to step up or step back as needed given their availability and need for involvement at different points during your evaluation.

Exhibit 2. Example Evaluation Stakeholder Engagement Plan

Evaluation Stakeholder	Level of Participation	Evaluation Interest	Role in the Evaluation	Mode of Communication	Timing of Communication	Comment
Suzy Q., Breast and Cervical Cancer Program (BCCP) director	Medium	Evaluation questions and results related to outreach, recruitment components	Review and provide input on evaluation plan and report; BCCP staff will participate in data collection efforts in outreach and recruitment	Email update, in- person participation at the planning and findings review meeting	Monthly	It will be especially important to involve Suzy Q. in meetings when we discuss evaluation methods and the findings specific to outreach and recruitment, as this will likely have implications for collaboration with the BCCP
John S., Tobacco Control Program coordinator	High	Methods and outcomes related to referrals for WISEWOMAN participants	Program agrees to create an indicator in their data set for WISEWOMAN participants and will share program data on WISEWOMAN participants for the evaluation; program staff will be participants for partnership evaluation component	In-person at evaluation project meetings	Twice monthly	
Jane D., RN, MSN, representative from WISEWOMAN clinical providers advisory group	High	Methods and outcomes related to referring participants	Will work with counterparts to help coordinate data delivery for WISEWOMAN participant behavioral and readiness to change assessments	Conference call for evaluation project meetings	Twice monthly	Will be on maternity leave September— December; during this time, Barbara M., RN, will serve in her role
Julia R., CDC Project Officer	High	Overall quality and compliance with CDC requirements	Will review and approve evaluation plan and final report	Regular updates during conference calls, reports to CDC	Monthly, annual, and interim progress reports	Will involve CDC Evaluation Specialist on a quarterly basis or more often as needed

Step 2. Describe the Program



RECAP:

At this point in the evaluation, you have accomplished the following:

- Identified and engaged a group of evaluation stakeholders
- Created a foundation for communication with stakeholders
- Set initial expectations for how each stakeholder will be involved during the evaluation

During this step, you will accomplish the following:

- Develop a logic model of the program.
- Create your program narrative.

Your program description should present a shared understanding of the program. Most program descriptions include a program logic model and a narrative description of the key components of the program. During the funding opportunity announcement (FOA) application process for WISEWOMAN, you prepared a project narrative. For your program evaluation, you will want to update the project narrative to reflect any recent changes in your program. You will also want to make sure that the evaluation stakeholder group has a shared understanding and agrees to the program description before launching into evaluation activities.⁵

Program Logic Model

We recommend that you begin describing your program by developing a program logic model. A program logic model visually illustrates the linkages between a program's activities and its intended outcomes. 5,6 Logic models also help in guiding evaluation activities and interpreting the findings. Once you have a logic model that your stakeholders understand and agree to, refining your project narrative should come relatively easily.

You may remember reviewing the national WISEWOMAN program logic model in the FOA. ¹¹ Using that logic model as a starting point, and in an effort to assist with your evaluation planning, we have developed an example WISEWOMAN-specific program logic model template (see Section 1 tools and templates). Please note that the example logic model should not be interpreted as overriding the four domains program structure.

Basic Components of a Good Logic Model^{5,7}

- Displayed on one page
- Visually engaging
- Audience specific
- Appropriate level of detail
- Clear program activities
- Clearly-stated outcomes
- Presents a logical flow from program inputs, activities, outputs outcomes, and impact
- Reflects the context in which the program operates

The logic model template builds on the national WISEWOMAN program logic model by capturing the program-specific activities that occur routinely. You may wish to consult this logic model as a template and develop a logic model of your own. Alternatively, you may tailor the logic model template provided in this toolkit to reflect your program's specific activities and expected outcomes. The logic model template we have provided was designed to reflect key activities you will be involved with during the cooperative agreement. The logic model template also incorporates key inputs, activities, outputs, and outcomes from the logic model example CDC included in the WISEWOMAN FOA.¹¹

Your program logic model may be visually represented in a number of ways, such as a flow chart or table. While the format used to develop your program-specific logic model may vary, it is important that you understand the key components of a logic model so that your program logic model presents an accurate reflection of the program. Exhibit 3 presents a description of key components that are generally used in a logic model. The most important aspect of a logic model is that it is useful to you and your stakeholders in understanding and describing your program.

Exhibit 3. Key Components of a Program Logic Model^{5,7}

Component	Description
1. Inputs	Program inputs are resources that are invested into the program (e.g., funding sources, partners, staff, and program materials).
2. Activities	Activities are the specific events or actions undertaken by program staff or partners to produce desired outcomes (i.e., what you do).
3. Outputs	Outputs are the direct and tangible results or products of program activities—often things that can be counted. These are often represented by documentation of progress on implementing program activities (e.g., program materials developed, partnerships formed, number of providers trained, women screened).
4. Outcomes	Outcomes are the desired results of the program or what you expect to achieve. Program outcomes may be observed at an organization, system, or participant level. It is critical to define SMART (specific, measurable, achievable, relevant, and timebound) objectives for each of the outcomes your program and evaluation stakeholders agree upon.
i. Short-term outcomes	Short-term outcomes are the immediate effects of your program activities. In general, we define short-term outcomes as those outcomes expected to occur within a relatively short timeframe following the intervention. Short-term outcomes should logically lead to intermediate and long-term outcomes.
	For example, you might expect to see a change in a participant's knowledge or readiness to make a behavior change before she tries the State tobacco quit line and subsequently experiences a reduced risk for cardiovascular disease.
ii. Intermediate outcomes	Intermediate outcomes are effects of the program that take more time for a change to be observed. Logically, you would expect your intermediate outcomes to take place sometime after you observe changes in short-term outcomes—the specific timeframe will be dependent on the nature of your intervention (e.g., duration and number of intervention points) and the specific intermediate outcomes to be assessed. Typically, you will find changes in behaviors among the intermediate outcomes of a program.
	For example, only after you observe changes in a participant's readiness for tobacco cessation might you expect to see her try the State tobacco quit line.
iii. Long-term outcomes	Long-term outcomes reflect more distal effects of a program that can take months or years to accomplish—again depending on the nature of your intervention and specific long-term outcomes to be assessed. These changes likely would be observed after you observe changes in short-term and intermediate outcomes.
	In our example with tobacco cessation, you might expect to see sustained tobacco cessation among the long-term outcomes.
5. Impact	Distinguished from outcomes, an impact is the ultimate effector public health (or population-level) impact—you hope to see from the program. Generally, it takes many years before you may expect to see population-level impacts of chronic disease prevention and control programs. 12,13
	Examples of impacts of the WISEWOMAN program might include decreased morbidity and mortality due to cardiovascular disease.
6. Contextual factors	Contextual factors are characteristics of the political, social, economic, and physical environment surrounding your program that may interact with or influence program participants. For example, contextual factors might be similar initiatives being implemented by other agencies, changes in health care or public health policies, and social norms and values held by program participants.

Project Narrative

A narrative program description is essential for focusing the evaluation design and selecting the appropriate methods. Often programs move to begin evaluation activities before they even have a grasp of or agreement on what the program is designed to achieve or what the evaluation should deliver. Even if a project narrative was included in your funding application, it is a good practice to revisit this description with your evaluation stakeholder group to ensure a shared understanding of the program and that the program is still being implemented as intended.

Your project narrative should include descriptions of the following^{3,5}:

- An issue statement or statement of need to identify the health issue addressed by the program
- **SMART objectives** that establish the overall direction and focus of your program and establish parameters for the expected outcomes of your program
- Inputs or program resources available to implement program activities
- Program activities that must take place to achieve expected outcomes
- **Stage of development** of the program to reflect program maturity (planning, initial implementation, or program maintenance)
- The environmental context (i.e., political, social, physical, and economic) within which a program is implemented

Step 3. Focus the Evaluation



RECAP:

At this point in the evaluation you have accomplished the following:

- Identified and engaged a group of evaluation stakeholders
- Created a foundation for communication with stakeholders
- Set initial expectations for how each stakeholder will be involved during the evaluation
- Established a shared understanding of the program

During this step, you will accomplish the following:

- Work with your evaluation stakeholders to define the purpose of your evaluation and develop process and outcome evaluation questions.
- Establish priority focal areas for your evaluation.
- Determine the most appropriate methods and data sources to address your evaluation questions.
- Outline your preliminary data analysis plan.
- Compile a comprehensive evaluation plan.

Define the Evaluation Purpose(s)

Your evaluation purpose may be stated in many ways, but evaluation purposes generally fall into three categories⁵:

- Accountability—rendering judgments about the program or its components.
- Program development—facilitating improvements to the program
- Transferability—generating knowledge about the program or strategies used in the program that can be applied in other settings or programs.

Identify and Prioritize Evaluation Questions

Evaluation questions specify what you expect to learn from your evaluation activities. In the evaluation of public health programs, evaluation questions generally address the following, as illustrated in Exhibit 4 below:

- Planning and implementation of program activities (e.g., reach of the program, quantity and quality of program activities, barriers and facilitators to program implementation)
- Achieving program objectives
- Impact of the program on participants
- Impact of the program on systems

Exhibit 4. Types of Evaluation Questions and WISEWOMAN-Specific Examples

Type of Evaluation Question	WISEWOMAN-Specific Examples
Planning and implementation of program activities	 What are best practices used by providers to incorporate WISEWOMAN protocols into practice workflows?
	What are best practices employed by providers to maximize the reach of the program to eligible participants?
Achieving program objectives	To what extent has the program achieved its screening goals?
	 To what extent is the risk-reduction counseling component being implemented with fidelity among providers?
	 To what extent does participation in the evidence-based lifestyle program contribute to participant adherence to disease management plans (among participants with hypertension)?
Impact of the program on participants	 To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, nutrition, sodium intake, and tobacco cessation?
Impact of the program on systems	 How have WISEWOMAN program activities with providers contributed to changes in provider protocols for providing services for all women?

It is important that you engage your group of evaluation stakeholders and solicit their input on evaluation questions at this stage. Evaluation questions should not be selected solely based on special interests of stakeholders, but rather on how the information generated from the evaluation will be used by the program and the stakeholders. As you work with your stakeholders, establish the intention to use the information that the evaluation produces from the very beginning of your evaluation planning effort. By engaging your stakeholders in this process, you will promote transparency in the evaluation process. This will, in turn, help facilitate stakeholder buy-in, promote stakeholder acceptance of evaluation findings, and inspire continued support for the program. A brainstorming or evaluation planning session with your evaluation stakeholders can help facilitate this and can help you establish as a group what the evaluation can and cannot deliver.

Generally, evaluation questions should align with the program objectives and logic model. Your program goals, as articulated in your program description, should serve as a basis for identifying

specific evaluation questions.⁷ While your evaluation questions are not necessarily limited to those that directly address the program objectives, logic model, goals, and purpose of your evaluation efforts, these factors should be considered first and foremost when developing evaluation questions.

Once you have developed evaluation questions that align with your program objectives and considered how you will use the findings, you should work with your evaluation stakeholders to refine your questions. Consider your evaluation priorities from the following perspectives, as further described in the subsequent sections:

- Stage of program development
- Process and outcome evaluation
- Short-term versus long-term evaluation activities
- Feasibility and resources

The scope of your evaluation will depend on program priorities, stakeholder priorities, available resources (including financial resources), staff and consultant availability, and the amount of time available for implementing the evaluation.⁵

Keep Good Records

Once you have completed an evaluation and reflected on the findings, you may find that members of your evaluation stakeholder group or other program stakeholders may question why some evaluation questions that they were interested in are not reflected in the evaluation findings. It is important to document why certain evaluation questions were prioritized at this stage, so that you have that information on hand should questions arise at the end of the evaluation.

Stage of Program Development

As you work with your stakeholders to identify evaluation questions, it is important that you consider your program from a developmental perspective. As mentioned in Step 2, programs generally move through the developmental stages of planning, implementation, and maintenance.⁵

Iterative Nature of Evaluation

As you work with your evaluation stakeholder group to focus the evaluation design, you may find that you need to revisit some of the activities in Steps 1 and 2. If that happens, just understand that it is a natural occurrence in developing and implementing an evaluation. Do not perceive it as a setback.

Programs often cycle through these stages several times or core components of the program may be at different stages. For example, your clinical services may be up and running while your evidence-based lifestyle program may just be getting started or undergoing programmatic redesign. It is important that you discuss these dynamics with your stakeholders as you think about evaluation questions from a developmental perspective. Your evaluation questions may vary, depending on your program's maturity as illustrated in Exhibit 5 below.

Exhibit 5. Example WISEWOMAN Evaluation Questions by Stage of Program Development

Planning	Implementation	Maintenance		
 What are the needs of the women eligible for WISEWOMAN? What strategies will help us reach our priority population? Which evidence-based lifestyle program will work best for our WISEWOMAN participants? 	 Are the components of the program being implemented as intended (with fidelity)? To what extent is the risk-reduction counseling component being implemented with fidelity among providers? Does participation in the evidence-based lifestyle program contribute to participant adherence to disease management plans (among participants with hypertension)? 	 To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation? To what extent have our program activities with providers contributed to changes in provider protocols for providing services for all women? 		

Process and Outcome Evaluation

As presented in Exhibit 6, evaluations generally fall into four categories:

- Formative evaluation
- Process evaluation
- Outcome evaluation
- Impact evaluation

Exhibit 6. Four Common Types of Evaluation

Type of Evaluation	Description
Formative evaluation	 Formative evaluation is usually conducted in the planning stages of a new program (or when a program is being revised) to help ensure that the program is feasible to implement, appropriate for the priority audience(s), and acceptable to program stakeholders (including program participants). Formative evaluation activities include needs assessments, pilot studies, concept testing, and message or materials testing (e.g., in WISEWOMAN, this could include testing a risk-reduction counseling protocol and materials).
Process evaluation	 Process evaluation is used to determine whether a program is being implemented as intended. 5,10,14 Process evaluation focuses on the left side of the program logic model,
	 along with program inputs, activities, and outputs. 5,10,14 Process evaluation is used to establish the plausible links between your program activities and program outcomes. By demonstrating with process evaluation that the program was implemented as intended, you can set the stage for your expected outcomes as part of outcome evaluation (e.g., in WISEWOMAN, process evaluation could include assessing whether evidence-based lifestyle interventions are implemented as designed).
Outcome evaluation	 Outcome evaluation focuses on the short-term, intermediate, and sometimes long-term outcomes of the program (i.e., the right side of the program logic model).⁵ Outcome evaluation is used to determine the effectiveness of the program on your expected outcomes (o.g., in MASE)/MAN, outcomes
	program on your expected outcomes (e.g., in WISEWOMAN, outcome evaluation could involve assessing whether WISEWOMAN program participation was associated with change in physical activity behavior).
Impact evaluation	 Impact evaluation refers to assessment of the program in achieving its ultimate goals toward making a public health (or population-level) impact (e.g., in WISEWOMAN, this might refer to an assessment of the program's contribution to reduced morbidity and mortality due to cardiovascular disease or the economic impact of the program).^{12,13}

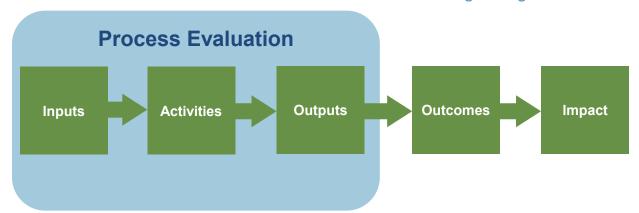
The purpose(s) of your evaluation often leads directly into the type of evaluation needed. The specific type of evaluation can help drive priorities in developing evaluation questions and evaluation methods. In this evaluation toolkit, we will focus on process evaluation and outcome evaluation, because these are the most common types of evaluation that you will likely conduct with your WISEWOMAN program.

The subsequent sections describe process and outcome evaluation in greater detail. We recommend that your evaluation plan include both process and outcome evaluation, because process evaluation can yield descriptive information about the program that serves as a foundation for accurately interpreting outcome evaluation findings.⁵

Process Evaluation

Process evaluation is generally conducted once program implementation is underway.^{7,14} As previously noted, process evaluation is used to establish whether the program is being implemented as intended. It focuses on evaluating elements of the left side of your program logic model, as illustrated in Exhibit 7 below.^{5,10}

Exhibit 7. Connection Between Process Evaluation and the Program Logic Model⁵



Process evaluation can help you report information on your program activities and use this information to improve program implementation.^{7,10} In general, it allows you to address questions related to who, what, when, how much, and where.¹⁰ The text box below presents some examples of process evaluation questions for a WISEWOMAN program.

Examples of Process Evaluation Questions

- How did program staff collaborate with providers and community-based organizations to maximize the reach of the WISEWOMAN program among priority audiences?
- What are best practices employed by providers to maximize the reach of the program to eligible participants?
- To what extent is the risk-reduction counseling component being implemented with fidelity among providers?
- How many women received WISEWOMAN screenings compared to women targeted?
- How many women started the evidence-based lifestyle program? How many women completed it?
- What are facilitators and barriers of implementing the evidence-based lifestyle program?
- What was our error rate for the MDE submissions this program year?

Outcome Evaluation

Outcome evaluation allows you to address the question, "Did we achieve the outcomes that we expected to achieve?" In public health, outcome evaluation allows you to document health-related and behavioral outcomes and identify linkages between exposure to the program and quantifiable outcomes. 5,7 The text box below presents some examples of outcome evaluation questions for a WISEWOMAN program.

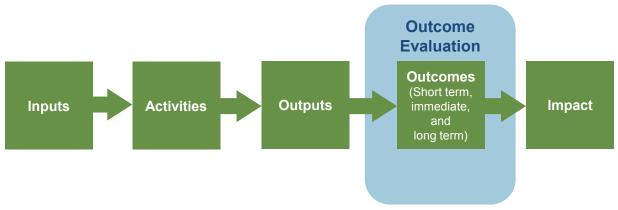
Examples of Outcome Evaluation Questions

- To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?
- To what extent does participation in the evidence-based lifestyle program contribute to participant adherence to disease management plans (among participants with hypertension)?
- How have our program activities with providers contributed to changes in provider protocols for providing services for all women?

Outcome evaluation is usually completed after a program is fairly well established—notice that we use the term "completed" and not "started." Planning for outcome evaluation should begin in the planning stages of a program. You may find that in order to fully address your outcome evaluation questions, you may need to collect some formative evaluation data before you begin implementing the program. As previously mentioned, outcome evaluation allows you to determine the effectiveness of the program on your expected outcomes. In other words, outcome evaluation focuses on the "right side" of a program logic model, as illustrated in Exhibit 8.

To determine the effectiveness of the program on specific outcomes, you also may need to collect baseline data—data collected before participants start the program. Collecting baseline data will allow you to make meaningful comparisons from before participation to time points after the program has been delivered entirely or following any of several possible intermediate time points during the full course of program delivery.⁵

Exhibit 8. Connection Between Outcome Evaluation and the Program Logic Model⁵



Prioritizing Short-Term Versus Long-Term Evaluation Activities

You and your evaluation stakeholder group may be concerned with how much you may be able to accomplish with your evaluation in a given year. Keep in mind that WISEWOMAN is on a 4-year cycle. An advantage of this is that you do not have to accomplish all aspects of your evaluation right away. You might consider your evaluation in the context of short-term versus long-term priorities. Therefore, as you work with your stakeholders to prioritize questions, you may decide that you want to address — or it's more appropriate to address — some parts of your evaluation in the short term and others later in the 4-year cycle. Nevertheless, it is important to plan to address both short- and long-term priorities during the 4-year program cycle.

Feasibility and Resources

As you discuss priority evaluation questions with your evaluation stakeholders, you will need to address the feasibility of implementing evaluation activities. Inevitably the question of costs (including fiscal resources, materials, and human resources) will arise. The following text box highlights questions that you should consider when assessing your evaluation priorities.

Considerations When Assessing the Feasibility of Addressing Evaluation Questions^{2,4,5,8}

- When do you need the evaluation results? How frequently will you need to collect data and review the results?
- Who will conduct the evaluation? What skills and levels of staff do you need in order to carry out the evaluation? Do you have program staff members who can help implement the evaluation? Can any of your stakeholders help implement the evaluation (e.g., data collection, analysis)? Do you need the assistance of a consultant to address the evaluation guestions?
- Will you need to train any program staff, partners, or providers to facilitate data collection?
- Do you already collect data that can help you address your evaluation questions?
- Do you have structures in place (e.g., intake processes, standard reporting) that can be "tweaked" to allow you to collect data for use in the evaluation?
- Is another group already addressing a similar evaluation question? Can you maximize resources by collaborating with them?
- How much of a burden will this evaluation be on your program stakeholders? Will it interfere with standard processes?

Including your evaluation stakeholder group in prioritizing evaluation questions may yield unforeseen benefits. For example, you may find that certain stakeholders will advocate for providing you with additional resources to help address key questions. In some instances, stakeholders may even contribute to the evaluation, allowing you to address higher-priority evaluation questions. However, at times you simply may not have the resources necessary to fund the evaluation activities for questions you would like to answer most. Discussing these constraints with your evaluation stakeholder group can help facilitate a shared understanding of what can and cannot be delivered by the evaluation.

Reminder

If you need guidance or technical assistance as you consider the feasibility of addressing your evaluation question, remember that your CDC Project Officer and Evaluation Specialist can help you consider your options.

Prioritizing Evaluation Questions

Ultimately, the goal in identifying and prioritizing evaluation questions is to work with your evaluation stakeholders to focus the evaluation efforts on feasible and useful evaluation questions that reflect your program's goals, stage of development, and selected purposes for the evaluation. The following text box highlights key questions to address with your evaluation stakeholders to help prioritize your evaluation questions. You will notice that the questions align with the four standards of the CDC Evaluation Framework.

Key Questions to Address When Prioritizing Evaluation Questions⁶

- How will the answers to the evaluation questions be used? (Utility standard)
- Will your program be able to make changes in the areas you are examining? (Utility standard)
- Which evaluation questions are feasible to answer? (Feasibility standard)
- o Which questions does your team have the time, skills, and resource to investigate?
- Which evaluation questions can you answer using an existing data source?
- Can the data needed to answer the evaluation question be collected in accordance with key guidelines (e.g., maintaining patient confidentiality)? (Propriety standard)
- Are data available to answer the evaluation question with the level of accuracy that is needed to provide a credible answer to the evaluation question? (Accuracy standard)

Exhibit 9 illustrates how you might organize the discussion with your evaluation stakeholder group in an evaluation planning meeting to prioritize your evaluation. Your evaluation stakeholders may help:

- Organize the discussion by programmatic activities of interest.
- Identify how the information will be used (accountability, program improvement...).
- Determine at what stage of program development is certain information needed.
- Establish priorities while considering feasibility.

As you select final evaluation questions, you will need to balance which questions might be most useful to your program, while also meeting some of your stakeholders' information needs.⁵

You may find that as you work through prioritizing questions with your evaluation stakeholders, they will begin to take ownership, which should solidify their interest in the evaluation. Involving stakeholders in focusing your evaluation also may increase the likelihood that they will secure evaluation resources, provide access to data, help to collect data, help to interpret the findings, and disseminate findings.^{3,8}

Exhibit 9. Prioritizing Evaluation Questions Example*

Topic	Purpose/Use (Relevant Program Stage)	Type of Question	Feasibility	Timing	Evaluation Question	Priority
Risk-reduction counseling	Program improvement—To determine whether and how the risk-reduction counseling protocols might be modified (Implementation)	Process— Planning and implementation of program activities	 Can use MDEs, but will need to collect some data from participants and providers Still in planning stages and working through some issues to get the lifestyle program up and running Can our program epidemiologist help with this? 	Years 2	How has risk-reduction counseling influenced client participation in the evidence-based lifestyle program?	Low
Risk-reduction counseling	Achieving program objectives— To determine whether providers need additional training or technical assistance on this component of the program (Planning, implementation)	Process— Achieving program objectives	Can address this using the quality assurance site visit reports	Year 1	To what extent is the risk-reduction counseling component being implemented with fidelity among providers?	High
Recruitment/enrollment processes	Program improvement—To guide training and technical assistance to providers to promote successful recruitment/enrollment procedures (Implementation)	Process— Planning and implementation of program activities	Will require us to collect new data from providers	Years 3–4	What best practices are used by providers to maximize the reach of the program to eligible participants?	Low

^{*} The examples presented here are for illustrative purposes only. The content is meant to represent a range of issues that programs may discuss and does not represent the opinion of the WISEWOMAN program or CDC.

Exhibit 9. Prioritizing Evaluation Questions Example (Continued)

Topic	Purpose/Use (Relevant Program Stage)	Type of Question	Feasibility	Timing	Evaluation Question	Priority
Evidence- based lifestyle program	Accountability—To determine whether the ABC lifestyle program is effective and whether we will continue the program in the next FOA (Maintenance)	Outcome— Impact of the program on participants	 Still in planning stages Will wait until component is fully operational in Year 2 Will need to determine type of data collected by ABC program and whether ABC program would help us collect additional information if we create an instrument to supplement what they already collect 	Years 2–4	To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	High
Evidence- based lifestyle program	Accountability—to determine whether the ABC lifestyle program is effective and whether we will continue the program in the next FOA (Maintenance)	Outcome— Impact of the program on participants	 Will require data on self-management plans established by providers Providers report a lot of challenges with abstracting this data from their electronic medical record (EMR) systems. For most providers, this is reported in the provider notes fields. Only 2 of 30 providers have been able to work this out. 	Years 2–4	To what extent does participation in the evidence-based lifestyle program contribute to participant adherence to disease management plans (among participants with hypertension)?	Low/ medium

Exhibit 9. Prioritizing Evaluation Questions Example (Continued)

Topic	Purpose/Use (Relevant Program Stage)	Type of Question	Feasibility	Timing	Evaluation Question	Priority
Screening	Transferability—To contribute to the implementation science literature regarding implementation of evidence-based practice and present at an All-Program Call (Maintenance)	Process— Impact of the program on systems	 Will necessitate collection of new data Need baseline data on current workflows While this is may be a costly endeavor, Suzy Q. feels that this is an important question in which to invest. She suggested that this is going to be a priority for CDC next year. 	Years 1–4	What best practices are used by providers to incorporate WISEWOMAN protocols into practice workflows?	High
Screening	Accountability—To determine whether the program has an effect on provider systems (Maintenance)	Outcome— Impact of the program on systems	While this is an important question, we are not exactly sure how to go about evaluating this—need to connect with our Project Officer and Evaluation Specialist before moving forward	Year 4	How have our program activities contributed to changes in provider protocols for offering services for all women?	Medium

Identifying Appropriate Evaluation Methods

Once you have prioritized your evaluation questions, the next step in the planning process is to determine appropriate evaluation methods—in other words, what you will do to get the information you need to address your evaluation questions. Determining appropriate methods includes defining indicators, data sources, and data collection techniques and types of data that will be collected.

Sometimes there is a tendency to select methods with which you or your evaluation stakeholders are familiar and comfortable and then force the evaluation to fit that method. However, it is important for you to select the most appropriate methods based on your evaluation questions.

Here are some points to consider as you identify your evaluation methods⁵:

Reminder

It may be helpful for you to revisit some of the earlier steps in the CDC Evaluation Framework as you identify your evaluation methods and consider what may or may not be feasible.

Remember, if you need assistance as you consider your options, feel free to contact your CDC Project Officer or Evaluation Specialist.

- Remember the purpose of your evaluation, your program's logic model, and the stage
 of the development of the program.
- Track decisions back to your evaluation questions. The tools and templates provided in this evaluation toolkit will help you do this.
- Consider the data that your program is already collecting. You may find that you already
 have sufficient data, or that with a few minor changes to your existing data collection
 activities you can capture sufficient data to address some of your evaluation questions.
- Think about what your stakeholders consider as credible evidence. We recommend that you obtain input and feedback from your evaluation stakeholders to clarify this.
- Consider your budget. While using existing data may be less expensive than collecting new data, it may also require some effort to abstract or transform the existing data.

XYZ WISEWOMAN Program

In this and subsequent sections of the toolkit, we will refer to an example case study of a fictitious WISEWOMAN program, XYZ, to illustrate key points, decisions, challenges, and potential solutions.

Evaluation Methods Matrix

An evaluation methods matrix, which may be referred to as an evaluation grid or evaluation framework, is a systematic way of organizing and presenting your evaluation methods. Exhibit 10 illustrates an evaluation methods matrix for sample high-priority evaluation questions selected by a fictitious WISEWOMAN program, XYZ, that will serve as a case study example throughout the toolkit. In each of the subsequent sections, we will walk you through examples of how this program identified the appropriate evaluation methods to address their evaluation questions.

Exhibit 10. Example Evaluation Methods Matrix

Evaluation Questions	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
	(i.e., Which measures will answer your evaluation question?)	(i.e., From whom/ where will you get the data?)	(i.e., What data collection techniques and design will you use?)	(i.e., When, over what period of time, and how often will you collect data?)	(i.e., What type of analysis will help you address your evaluation question?)
What best practices are used by providers to incorporate WISEWOMAN protocols into practice workflows?					
To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?					

Indicators

We recommend that you begin the process of defining your evaluation methods by developing indicators for each of your priority evaluation questions. An indicator is a specific, observable, and measurable marker of change or accomplishment. You might think of indicators as specifying the way in which you will operationalize or answer your evaluation questions. You may need to identify more than one indicator for a given evaluation question, depending on the nature of the question and what you hope to answer with it.

Your indicators should provide a clear description of what you want to measure. An indicator should be something that is observed (e.g., a change in behavior), heard or reported (e.g., shared by program participants), or read (e.g., program records). This is somewhat similar to

how you might identify SMARTⁱ objectives for your program.⁴ Your program logic model will be especially valuable to you as you identify indicators for your evaluation. Also, make sure that your selection of evaluation indicators is guided by the evaluation questions as discussed in the following checklist.

Checklist for Defining Indicators¹⁰

- ✓ Engage your evaluation stakeholder group in developing and selecting your evaluation indicators.
- ✓ Consult your evaluation questions and use your logic model as a template for developing indicators. The templates provided in this toolkit will help facilitate this.
- ✓ For process evaluation questions, indicators should be related to outputs on your logic model.
- ✓ For outcome evaluation questions, indicators should be related to the short-term outcomes of the logic model. Depending on your program's development, your indicators may relate to the intermediate and long-term outcomes in your logic model.
- ✓ As appropriate, consider the WISEWOMAN performance measures when identifying indicators for process evaluation questions.
- ✓ Make sure that your indicators are specific, observable, and measurable.
- ✓ Identify indicators that are time-specific to define the time parameters for your evaluation (e.g., as of the end of Program Year 1 or between the first lifestyle program session and 1 month after the final lifestyle program session).
- ✓ Make sure that the selected indicators
 - provide useful information,
 - are feasible to measure,
 - provide sufficient information to allow you to address your evaluation questions.

¹ SMART objectives are specific, measureable, achievable, relevant, and time-bound, and they lead to evaluation questions that assess key features of your program.

As illustrated in Exhibit 11 below, we recommend mapping your process evaluation questions to the appropriate outputs on your logic model. Mapping the questions will help in drafting the process indicators and in selecting indicators. Depending on your process evaluation question(s), you may want to consider the WISEWOMAN performance measures as indicators.

Exhibit 11. Example Indicator Mapping Exercise, Process Evaluation

Process Evaluation Question	Output (from program logic model)	Indicator
What best practices are used by providers to incorporate WISEWOMAN protocols into practice workflows?	 Number and percentage of eligible women screened Number and percentage of women screened who receive risk reduction counseling Number and percentage of women diagnosed with hypertension or cardiometabolic conditions who are referred to and receive follow-up clinical care Number and percentage of women with one or more risk factors referred to evidence-based lifestyle programs Number and percentage of women with one or more risk factors referred to appropriate community-based resources 	 Procedures and practices used by the top-performing clinical sites as identified by their performance on the following: Number and percentage of eligible women screened Number and percentage of women screened who receive risk-reduction counseling Number and percentage of women diagnosed with hypertension or cardiometabolic conditions who are referred to and receive follow-up clinical care Number and percentage of women with one or more risk factors referred to evidence-based lifestyle programs Number and percentage of women with one or more risk factors referred to appropriate community-based resources

As illustrated in Exhibit 12 below, we recommend mapping your outcome evaluation questions to the appropriate outcomes on your logic model. Depending on your stage of program development, the nature of the intended outcome, and the timing of your evaluation activities, short-term, intermediate, and—in some cases—long-term outcomes may be applicable.

Exhibit 12. Example Indicator Mapping Exercise, Outcome Evaluation

Outcome Evaluation Question	Outcomes (from program logic model)	Indicators
To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	 Increased participant self-efficacy, readiness to change, and behavioral intent concerning healthy eating, physical activity, and tobacco cessation (short-term outcome) Increased desirable health behaviors (intermediate outcome) 	 Change in self-efficacy, readiness to change, and intent to engage in 30 minutes of moderate physical activity daily between baseline (i.e., prelifestyle program participation), upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to reduce consumption of fast foods between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to quit using tobacco between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in number of minutes per week spent in moderate physical activity between baseline and 6 months after completing the lifestyle program Change in the number of fast food meals consumed per week between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program

It is important that you continue to solicit feedback from members of your evaluation stakeholder group as you finalize your evaluation indicators. This will help you keep your stakeholders engaged and maintain stakeholder buy-in for your evaluation findings. ¹⁰ This can be accomplished by convening your stakeholders to discuss the indicators as a group or sending

documents to your stakeholders for review and feedback. Your stakeholders can help you determine whether the evaluation indicators

- Provide useful information.
- Are feasible to measure.
- Provide sufficient information to address the evaluation questions.

Below is a case study of our example WISEWOMAN program's experience with seeking feedback from stakeholders on evaluation indicators. The experience highlights the importance of stakeholder engagement in this step.

Case Study: Stakeholder Engagement and Indicator Selection

Betty S., the program manager for the XYZ WISEWOMAN program, has been working with an evaluation consultant on the program evaluation plan. After coming up with a list of indicators for each of the priority evaluation questions, they decided to send a table outlining their evaluation questions, related components of the logic model, and indicators to the evaluation stakeholder group for review. In an email reply, Jane D., RN, MSN, a representative from the clinical providers' advisory group, pointed out that the following indicator may not yield useful information for improving program performance:

- Description of procedures and practices employed by the top-performing clinical sites based on the following measures:
 - Number and percentage of eligible women screened
 - Number and percentage of women screened who received risk-reduction counseling
 - Number and percentage of women diagnosed with hypertension or cardiometabolic conditions who were referred to and received follow-up clinical care
 - Number and percentage of women with one or more risk factors referred to evidencebased lifestyle programs
 - Number and percentage of women with one or more risk factors referred to appropriate community-based resources

Betty coordinated with her evaluation consultant to set up a 30-minute call with Jane D. to get some clarification on her comment. During the conversation, Jane expressed concern that sites not among the top performers may already be using similar practices and procedures. It might be frustrating to them that they are not really learning anything new. She also asked for clarification on what "top performing" really means and what timeframe would be used to assess performance. Betty, Jane, and the evaluation consultant worked together to draft a new indicator for this question:

- Description of unique procedures and practices employed by the top 10% of clinical sites compared to the lowest 10% of clinical sites based on the following measures at the end of Program Year 2:
 - Number and percentage of eligible women screened
 - Number and percentage of women screened who received risk-reduction counseling

Case Study: Stakeholder Engagement and Indicator Selection (Continued)

- Number and percentage of women diagnosed with hypertension or cardiometabolic conditions who were referred to and received follow-up clinical care
- Number and percentage of women with one or more risk factors referred to evidencebased lifestyle programs
- Number and percentage of women with one or more risk factors referred to appropriate community-based resources

The evaluation consultant agreed to revise the table per this feedback, as well as some relatively minor feedback from other stakeholders. Betty then sent the revised table out to her evaluation stakeholders for their records.

Example

In your evaluation methods matrix, you should now have the information needed to complete the first two columns, as illustrated in Exhibit 13.

Exhibit 13. Example Evaluation Methods Matrix—Indicators

Evaluation Questions	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
Process Evaluation					
What are best practices used by providers to incorporate WISEWOMAN protocols into practice workflows?	 Description of unique procedures and practices employed by the top 10% of clinical sites compared to the bottom 10% of clinical sites based on the following measures at the end of Program Year 2: Number and percentage of eligible women screened Number and percentage of women screened who receive risk-reduction counseling Number and percentage of women diagnosed with hypertension or cardiometabolic conditions who were referred to and received follow-up clinical care Number and percentage of women with one or more risk factors referred to evidence-based lifestyle programs Number and percentage of women with one or more risk factors referred to appropriate community-based resources 				

Exhibit 13. Example Evaluation Methods Matrix—Indicators (Continued)

Evaluation Questions	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
Outcome Evaluation					
To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	 Change in self-efficacy, readiness to change, and intent to engage in 30 minutes of moderate physical activity daily between baseline (i.e., prelifestyle program participation), upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to reduce consumption of fast foods between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to quit using tobacco between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in number of minutes per week spent in moderate physical activity between baseline and 6 months after completing the lifestyle program Change in the number of fast food meals consumed per week between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program 				

Identifying Data Sources

By now you have completed the first two columns of the evaluation methods matrix. The next step is to identify data sources from which you can gather information related to your indicators and that address your evaluation questions (e.g., persons, documents, observations, administrative databases).⁴

Just as you may have identified more than one indicator for a given evaluation question, you may identify more than a single data source for a given evaluation question. In fact, you can enhance the credibility of your findings by using multiple data sources for a given question and comparing the data gathered from across the data sources. ^{5,6} You may have heard of this as "triangulating" data from different sources to support your evaluation findings. ⁶

Alternatively, there is sometimes a tendency to identify many data sources for your evaluation questions, perhaps when multiple evaluation questions can be addressed using just a few data sources or even a single comprehensive data

Key Questions to Address When Identifying Data Sources¹⁰

- What information do you need?
- What data do you already collect?
- Which indicators will require you to collect new data?
- When do you need the data?
- Do you have access or can you obtain access to the data source?
- Do members of your evaluation stakeholder group view the data sources as credible?
- How will you use the data gathered from the data source?

important that you keep in mind how you will use the data gathered in the evaluation. To that end, it is important that you strategically select data sources that will answer your evaluation questions most effectively and efficiently. 4,5

All data sources have advantages and disadvantages, given how data will be collected, managed, and analyzed. 5,6,10 Therefore, it is important to consider your data sources carefully and keep in mind the key questions you are trying to address. 5,10 It is beyond the scope of this toolkit to discuss the different intricacies and complexities of using different data sources:

source. In part, determining the number of data sources will be a practical matter. You will want to use your evaluation funds efficiently by getting more "bang for your buck" from a set of

carefully selected data sources. As you identify data sources—both new and existing—it is

Existing Data Sources

We encourage you to first look to data sources that are already available for you. For example, MDEs are a primary data source available to WISEWOMAN programs. You may also have access to provider claim submissions to determine the types of services provided, participant intake/information forms, and participant behavior/readiness to change assessments. For some questions, you might even consider surveillance data (e.g., Behavioral Risk Factor Surveillance Survey data); however, if you use surveillance data, it is important to keep in mind that these data are not specific to the WISEWOMAN program, and are not collected for specific program evaluation efforts.

Potential Existing Data Sources for WISEWOMAN Programs

- MDEs
- Provider claim submissions
- Participant intake/information forms
- Participant behavior/readiness to change assessments
- Program documents
- Surveillance data

Existing data sources also include program documents and administrative records, including the following:

- Training records
- · Quality control site visit reports
- Staff records
- Policies and procedure documents

Remember, even data that are not contained in a formal database may be useful for your evaluation. Consider, for example, that as part of the intake process, participants fill out a brief behavior/readiness to change assessment that is then used to provide risk-reduction counseling. In this example, data collected from the brief behavior/readiness to change assessments may not have been entered into a database, but these data may be a useful source to help you answer certain evaluation questions.

New Data Sources

You will likely need new data sources to fully address your evaluation questions, as highlighted in the case study below. New data collection can have a significant impact on your evaluation budget. It will be important to balance the need to collect data from multiple data sources with the need to collect new data. Potential new data sources for WISEWOMAN programs might include the following:

- Program participants
- Program staff
- Providers

- Partners
- Lifestyle program staff
- New administrative forms

Case Study: Stakeholder Engagement and Data Sources

The XYZ WISEWOMAN Program evaluation stakeholder group had originally planned to use existing quality control site visit reports to address the following evaluation question. The team drafted their indicator for this question and began to identify data sources. However, Doug P., the quality control coordinator for the WISEWOMAN and Breast and Cervical Cancer Programs (BCCPs), expressed that he does not think the quality control site visit reports will provide sufficient detail to adequately describe the unique procedures and practices that clinical sites used to incorporate WISEWOMAN protocols.

Evaluation Question: What are best practices used by providers to incorporate WISEWOMAN protocols into practice workflows?

Indicator: Description of unique procedures and practices employed by the top 10% of clinical sites compared to the bottom 10% of clinical sites based on the following measures at the end of Program Year 2:

- Number and percentage of eligible women screened
- Number and percentage of women screened who received risk-reduction counseling
- Number and percentage of women diagnosed with hypertension or cardiometabolic conditions who were referred to and received follow-up clinical care
- Number and percentage of women with one or more risk factors referred to evidencebased lifestyle programs
- Number and percentage of women with one or more risk factors referred to appropriate community-based resources

After discussing this issue, the group agreed that they would also need to collect data from clinical service providers to fully address the question.

Example

In your evaluation methods matrix, you should now have the information needed to complete the first three columns as illustrated in Exhibit 14 below.

Exhibit 14. Example Evaluation Methods Matrix—Data Sources

Evaluation Question	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
Process Evaluation					
What are best practices used by providers to incorporate WISEWOMAN protocols into practice workflows?	 Description of unique procedures and practices employed by the top 10% of clinical sites compared to the bottom 10% of clinical sites based on the following measures at the end of Program Year 2: Number and percentage of eligible women screened Number and percentage of women screened who received risk-reduction counseling Number and percentage of women diagnosed with hypertension or cardiometabolic conditions who were referred to and received follow-up clinical care Number and percentage of women with one or more risk factors referred to evidence-based lifestyle programs Number and percentage of women with one or more risk factors referred to appropriate community-based resources 	 Clinical service providers Quality control site visit reports 			

Exhibit 14. Example Evaluation Methods Matrix—Data Sources (Continued)

Evaluation Question	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
Outcome Evaluation To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	 Change in self-efficacy, readiness to change, and intent to engage in 30 minutes of moderate physical activity daily between baseline (i.e., prelifestyle program participation), upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to reduce consumption of fast foods between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to quit using tobacco between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in number of minutes per week spent in moderate physical activity between baseline and 6 months after completing the lifestyle program Change in the number of fast food meals consumed per week between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program 	 Program participants who have completed at least one lifestyle program session Participant behavior/ readiness to change assessments 			

Data Collection Methods

Now that you have selected data sources for your evaluation questions, it is time to identify the methods that you will use to collect data from your data sources. The specific methods are driven by each of your evaluation questions. ^{5,10} Not all methods fit all evaluation questions. ⁵

You also will want to consider the timing, duration, and frequency of your data collection activities. ¹⁰ Addressing some evaluation questions will necessitate collecting data at

Reminder

Be sure to seek recommendations from your evaluation stakeholders, CDC Project Officer, and CDC Evaluation Specialist. They may have ideas for methods that you have not considered yet.

multiple time points (e.g., prior to the start of participation and at a selected follow-up point). To address certain evaluation questions, it may be helpful to collect data after each of a series of intervention points (e.g., lifestyle program sessions).¹

As discussed in greater detail in the subsequent sections, there are two general types of data collection methods: quantitative methods and qualitative methods. You may also use multiple methods to provide a comprehensive answer to a single evaluation question, also known as mixed methods. We recommend using multiple quantitative and qualitative methods in your evaluation.

Questions to Address When Selecting Methods to Collect Data^{4,10}

- Which methods will allow you to obtain the information that you need? That is, which methods
 will help you gather information from your selected data sources that directly address your
 evaluation indicators, and subsequently your evaluation questions?
- Which methods are most appropriate for use with the data sources that you have identified?
- Which methods are most feasible for you to implement, given your available resources (money, personnel, skill level, etc.)?
- Which methods are considered credible by your evaluation stakeholders?

Quantitative Methods

Quantitative methods are used to gather numerical data to make calculations and draw conclusions. In general, quantitative methods are used to answer the following types of evaluation questions:

- How much?
- How many?

Qualitative Methods

Qualitative methods are used to gather data in the form of notes, verbal responses, transcripts, and written responses.⁴ These methods generally allow you to capture thoughts, feelings, and perspectives.⁴ In general, qualitative methods are used to answer questions that call for rich, descriptive information, such as the following:

- Why?
- How?

Example

In your evaluation methods matrix, you should now have the information needed to complete the first five columns, as illustrated in Exhibit 15 below.

Examples of Quantitative Methods

- Surveys
- Biometric tests
- Quantifiable observations
- Secondary analysis of existing quantitative data
- Administrative forms

Examples of Qualitative Methods

- Interviews
- Focus groups
- Observation notes/diaries
- Secondary analysis of existing qualitative data
- Qualitative questions in surveys
- Testimonials or success stories

Exhibit 15. Example Evaluation Methods Matrix—Methods

Evaluation Question	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
Process Evaluation What best	a Depariation of unique precedures and	• Clinical comica	a Intervious with	Conduct	
What best practices are used by providers to incorporate WISEWOMAN protocols into practice workflows?	 Description of unique procedures and practices employed by the top 10% of clinical sites compared to the bottom 10% of clinical sites based on the following measures at the end of Program Year 2: Number and percentage of eligible women screened Number and percentage of women screened who received risk-reduction counseling Number and percentage of women diagnosed with hypertension or cardiometabolic conditions who were referred to and received follow-up clinical care Number and percentage of women with one or more risk factors referred to evidence-based lifestyle programs Number and percentage of women with one or more risk factors referred to appropriate community-based resources 	 Clinical service providers Quality control site visit reports 	 Interviews with clinical service providers Secondary analysis of existing qualitative data 	Conduct interviews with clinical service providers at a single time point during the first quarter of Program Year 3	

Exhibit 15. Example Evaluation Methods Matrix—Methods (Continued)

Evaluation Question	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
Outcome Evaluation					
To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	 Change in self-efficacy, readiness to change, and intent to engage in 30 minutes of moderate physical activity daily between baseline (i.e., pre-lifestyle program participation), upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to reduce consumption of fast foods between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to quit using tobacco between baseline, upon completing the lifestyle program Change in number of minutes per week spent in moderate physical activity between baseline and 6 months after completing the lifestyle program Change in the number of fast food meals consumed per week between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program 	 Program participants who have completed at least one lifestyle program session Participant behavior/ readiness to change assessments 	 Follow-up telephone surveys with program participants Secondary analysis of existing quantitative data 	Conduct telephone surveys with program participants on an ongoing basis during Program Years 2–4 Contact participants within 3 weeks of completing the lifestyle program Contact participants 6 months after completing the lifestyle program program	

Preliminary Analysis Plans

As you define your evaluation methods, it is important to think about your plans for analyzing the data. Although your analysis plans might be considered preliminary during Step 3, it is important that you begin thinking about the types of analyses that you will conduct now, as this will help you refine your methods and set up your data collection efforts later. You will finalize your analysis plans for the evaluation and conduct the analyses during Step 4.

The types of analyses that you propose at this stage will probably be general in nature. The type of analyses should be driven by the evaluation questions and the methods that you intend to use.

- Consider the number of participants from whom you will collect data—that is, the size
 of your expected sample that will be included in your evaluation. It will be important to
 consider whether your expected sample size will be sufficient to use specific methods
 for data analysis.
- Gauge the types of conclusions you may be able to draw from your data analyses
 results if you have a small sample size. Consider whether you may be able to make
 broader assumptions to a larger group of WISEWOMAN participants (or other larger
 group) if you have a small sample size.

You may want to consult your CDC Project Officer or Evaluation Specialist if you have specific questions about the types of data analysis methods that may be appropriate for your expected sample size.

It is beyond the scope of this toolkit to provide a detailed description of different types of quantitative and qualitative data analysis methods and the intricacies associated with each type. However, in Exhibit 16 we describe the common quantitative and qualitative analyses that WISEWOMAN programs may execute in evaluating your program. In addition, Step 5 describes data analysis procedures in greater detail.

Exhibit 16. Common Quantitative and Qualitative Analyses

Evaluation Methods	Common Analyses
Quantitative	The specific quantitative procedures that you will use in evaluation will vary according your evaluation questions and indicators, as well as the specifics of your measures. In general, your quantitative analysis procedures may involve the use of descriptive and/or inferential statistics: • Descriptive Statistics. Descriptive statistics include frequency counts, rates, percentages, measures of central tendency (means, medians, and modes), and measures of dispersion (range, standard deviation).
	• Inferential Statistics. Inferential statistics will be used to test for relationships between variables or compare groups with the notion of drawing conclusions from a sample to a population. These include correlational procedures (e.g., Spearman, Pearson, biserial, chisquare, analysis of variance [ANOVA], <i>t</i> tests, and regression).
Qualitative	Thematic analysis is commonly used to analyze qualitative data in program evaluation. This involves systematically organizing and reviewing your data to identify and summarize major themes (similarities and patterns) in the data. 15,17

Example

You should now have all of the information needed to complete the evaluation methods matrix, as illustrated in Exhibit 17 on the following pages. Please note that Exhibit 17 includes two additional evaluation questions to provide additional examples of how to complete the matrix for different kinds of process and outcome evaluation questions.

Exhibit 17. Example Evaluation Methods Matrix—Complete

Evaluation Questions	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
Process Evaluation	tion				
To what extent is the risk-reduction counseling component being implemented with fidelity among providers?	 Number and percentage of women screened who received each of the core components of the risk-reduction counseling sessions both in written format and verbally Screening results Interpretation of the screening results Recommendations in accordance with national clinical care guidelines 	Program participantsClinical service providers	Survey of participantsAdministrative forms	 Conduct survey of participants on an ongoing (rolling) basis during Program Years 2–4 Contact participants by phone within 2 weeks of risk-reduction counseling 	Descriptive statisticsThematic analysis
What are best practices used by providers to incorporate WISEWOMAN protocols into practice workflows?	 Description of unique procedures and practices employed by the top 10% of clinical sites compared to the bottom 10% of clinical sites based on the following measures at the end of Program Year 2: Number and percentage of eligible women screened Number and percentage of women screened who received risk-reduction counseling Number and percentage of women diagnosed with hypertension or cardiometabolic conditions who were referred to and received follow-up clinical care 	 Clinical service providers Quality control site visit reports 	 Secondary analysis of existing qualitative data Interviews with clinical service providers 	 Conduct interviews with clinical service providers during the first quarter of Program Year 3 Conduct one interview with each selected provider 	Thematic analysis comparing top 10% sites to bottom 10%

Exhibit 17. Example Evaluation Methods Matrix—Complete (Continued)

Evaluation Questions	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
Outcome Evaluati	 Number and percentage of women with one or more risk factors referred to evidence-based lifestyle programs Number and percentage of women with one or more risk factors referred to appropriate community-based resources 				
To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	 Change in self-efficacy, readiness to change, and intent to engage in 30 minutes of moderate physical activity daily between baseline (i.e., pre-lifestyle program participation), upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to reduce consumption of fast foods between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to quit using tobacco between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in number of minutes per week spent in moderate physical activity between baseline and 6 months after completing the lifestyle program 	 Program participants who have completed at least one lifestyle program session Participant behavior/ readiness to change assessments 	 Secondary analysis of existing quantitative data Follow-up telephone surveys with program participants 	 Conduct telephone surveys with program participants on an ongoing (rolling) basis during Program Years 2–4 Contact participants within 3 weeks of completing the lifestyle program Contact participants within 3 the lifestyle program Contact participants 6 months after completing the lifestyle program 	Inferential statistics

Exhibit 17. Example Evaluation Methods Matrix—Complete (Continued)

Evaluation Questions	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
	 Change in the number of fast food meals consumed per week between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program 				
Have our program activities contributed to changes in provider protocols for providing services for all women?	 Change in the proportion of all women aged 40–64 (regardless of payment source) who receive blood pressure screening between 1 year prior to site initiating WISEWOMAN clinical services and the end of Program Year 3, compared to non-WISEWOMAN sites Change in proportion of women aged 40–64 (regardless of payment source) who report being satisfied with the quality of care provided between 1 year prior to site initiating WISEWOMAN clinical services and the end of Program Year 3, compared to non-WISEWOMAN sites Change in the proportion of women aged 40–64 (regardless of payment source) who report obtaining tailored recommendations to community-based resources from their provider between 1 year prior to site initiating clinical services and the end of Program Year 3, compared to non-WISEWOMAN sites 	 Data abstracted for select clinical sites Providers 	 Secondary analysis of existing qualitative data Interviews with providers 	 Conduct interviews with clinical service providers during the first quarter of Program Year 4 Conduct 1 interview with each selected provider 	Thematic analysis comparing data preprogram implementation to end of Program Year 3

Dissemination Plan

A dissemination plan describes who you will share your evaluation findings with, how you will share the findings, and when you will share your evaluation findings. You may be wondering why we are discussing the dissemination plan this early in the evaluation process. It is important to think about your intended audience for the evaluation findings and select dissemination formats, channels, and timeframes that will be most effective in reaching them, as described below. You might consider reaching out to members of your intended audiences to obtain their input on how they would like to receive information from the evaluation. 3,4

- Audience: Who are you intending to reach? It is important that you specify all of the
 audiences that you intend to reach who may benefit from the evaluation findings.
 During Step 1, you created a list of evaluation stakeholders. This list may be a useful
 starting point for developing your dissemination plan. Members of your evaluation
 stakeholder group may also have suggestions for audiences that may benefit from the
 evaluation findings.
- Use: How do you anticipate your audience using the information? Not all findings resulting from your evaluation will be relevant to all of your program stakeholders. How you anticipate the stakeholders using the information should drive what information you share and how you disseminate the information. It is most efficient and effective to only collect the data that you will actually use for the evaluation.
- Format/Methods: It is important that you consider the formats and methods that your audience prefers and views as credible sources in order to maximize reach and promote using the evaluation findings. Consider who will deliver the evaluation findings. Remember that people have different information-seeking and learning styles, so plan to use multiple dissemination methods. You may also need to use multiple methods to reach a given audience.

Methods might include the following:

- Comprehensive summary report
- Short or executive summary
- Peer-reviewed journal article
- Press release
- PowerPoint presentation
- Presentation talking points
- Storyboards or posters

- **Timeframe:** When do you plan to disseminate the findings? As you think about the timeframe for disseminating your evaluation findings, consider the following questions:
 - When will the evaluation findings be available?
 - When are members of your intended audience mostly likely to pay attention to the evaluation findings?
 - When are members of your intended audience most likely to use the findings?
 - Are there key events to link to such as legislative sessions, or budget planning?
- Responsibility: Who will disseminate the evaluation findings to the intended audience?
 The "messenger" can be just as important as the message with regard to disseminating
 evaluation findings. The responsibility for disseminating the findings does not have to
 rest entirely on the shoulders of the program manager. Members of your evaluation
 stakeholder group should be involved in disseminating the findings.

You might also consider the services of communication and marketing professionals to help you disseminate the findings. As you determine who will assume the responsibility for disseminating evaluation findings, think about who the intended audience views as credible. Also, think about the messengers' preferred communication styles and their availability. For example, if one of your stakeholders has severe stage fright, you might want to delegate the responsibility for any oral presentations to someone who is more comfortable speaking to large groups.

Exhibit 18 below provides an example dissemination plan.

Exhibit 18. Example Dissemination Plan

Audience	Use	Format	Method/ Medium	Timeframe	Responsibility
Julia R., CDC Project Officer	Inform technical assistance provided to the program	Full summary report	Attachment to progress report	April	Betty S., program manager
Partners	Identify opportunities to collaborate and enhance participant experience	Executive summary	Email blast	April (3 months prior to the start of the new program year)	Program manager
Program staff	Identify areas for program improvement	 Executive summary with link to download full summary report Presentation talking points 	Email Briefing during a staff meeting	April (3 months prior to the start of the new program year)	Program manager
Providers	 Identify areas for program improvement Implement best practices 	PowerPoint presentation	 Webinar for existing providers New provider orientation 	July (at start of new program year) and orientation for new providers	 Jane D., clinical providers' advisory group (Webinar) Program manager (new provider orientation)
Participants	 Encourage continued program participation Promote program to friends and family 	Storyboards/ poster series	Posted in waiting rooms of clinical sites	Starting July, throughout program year	Marketing and communications liaison

Refining Your Evaluation Budget

In the Introduction of this evaluation toolkit, we recommended that you begin thinking about your evaluation budget. Now that you have had the opportunity to work with your evaluation stakeholders to focus your evaluation and data needs, it is time to complete your evaluation

budget to ensure that you can implement your evaluation

plan.5

You may find that some of your planned evaluation activities are beyond the scope of your budget. Should this occur, we recommend that you engage your evaluation stakeholders again to discuss these constraints. It is important that the group members:

Reminder

See the Section 2 Tools and Templates for an Excel worksheet that you can use to develop your evaluation budget.

- Consider revising the scope of the evaluation questions and indicators.
- Determine whether stakeholders would be able and willing to contribute resources (e.g., data, personnel, financial resources) to support evaluation activities related to evaluation questions in which they are most interested.
- Consider reserving some evaluation questions to address in another program year.

Developing a Comprehensive Evaluation Plan

Now that you have defined your evaluation methods and budget, it is time to compile all of the information that you have worked on thus far into a comprehensive evaluation plan. This can seem like a daunting task, but if you have followed the steps of this toolkit, you already have the information that you need to put together a comprehensive evaluation plan. In fact, your evaluation methods matrix can serve as the primary component of your comprehensive evaluation plan, as it systematically presents your evaluation questions, indicators, methods data sources, and preliminary analysis plan. You also may consider working with your Evaluation Specialist to obtain feedback on early drafts of

Key Components of a Comprehensive Evaluation Plan⁵

- Program description
- Evaluation goals and questions
- Evaluation methods
- Analysis and interpretation plan
- Dissemination plan

your evaluation plan. You will need to submit your completed evaluation plan to your CDC Project Officer for review and approval.

Exhibit 19 below outlines each of the components of a comprehensive evaluation plan. It also includes references to the tools and templates in the evaluation toolkit that you can use to draft your evaluation plan.

Exhibit 19. Evaluation Plan Outline⁵

Section	Content/Questions to Answer	Relevant Toolkit Tools and Templates
Title page/cover page	 Program name Date Title describing the basic focus of the evaluation Intended audience for the evaluation plan 	N/A
Program description	 Project narrative An issue statement or statement of need Program goals and objectives Inputs or program resources Program activities Expected outputs and outcomes Stage of development Description of the environmental context (political, social, physical, and economic) Program logic model 	Example WISEWOMAN- specific program logic model template
Evaluation purpose	 Acknowledge the members of the evaluation stakeholder group who are contributing the evaluation plan and implementation Evaluation purpose(s) Evaluation questions 	Prioritizing Evaluation Questions template
Methods	Statement of your overall approach to the evaluation methodsEvaluation methods matrix	Evaluation methods matrix template
Analysis plan	Overview of preliminary analysis plans (per evaluation methods matrix)	Evaluation methods matrix template
Dissemination plan	 Dissemination plan that outlines the following: Intended audience Use Format Method/medium Timeframe Responsibility 	Dissemination plan template
Evaluation budget	Total budget amount Itemized budget	Evaluation budget worksheet

Internal Review Boards

In addition to having your comprehensive evaluation plan reviewed and approved by your CDC Project Officer, it also is important to consider whether you will need to seek any additional approvals from internal stakeholders before starting your evaluation.

It will be important to determine whether an IRB review is needed and, if so, what steps are involved in this process. For example, you may need to submit your data collection instruments and protocol to an institutional review board (IRB) to ensure the protection of your participants. Refer to Section 2 for greater detail about considerations for working with an IRB.

Next: Evaluation Implementation

Now that you have a comprehensive evaluation plan, it is time to prepare to implement your evaluation plan and collect data. In the next section, Evaluation Implementation, you will find guidance to help you:

- Establish a data collection plan.
- Collect data.
- Manage your evaluation data.

Tools and Templates

Evaluation Stakeholder Engagement Plan Template

Tips for using the template:

List each stakeholder's name and affiliation along with how and when the stakeholder should be engaged in the evaluation. It is also recommended that you list the anticipated level of stakeholder participation (e.g., high, medium, low) to help you estimate the frequency and timing of communication. You can then document each stakeholder's areas of interest in the evaluation, role, preferred mode of communication, and timing of the engagement. The stakeholder engagement plan should be reviewed regularly and revised as needed. The template has been partially completed for a WISEWOMAN Program for illustrative purposes. Refer to Step 1 in the toolkit for more information.

Evaluation Stakeholder	Level of Participation	Evaluation Interest	Role in the Evaluation	Mode of Communication	Timing of Communication	Comments
Suzy Q., Breast and Cervical Cancer Program (BCCP) director	Medium	Evaluation questions and results related to outreach, recruitment components	Review and provide input on evaluation plan and report; BCCP staff will participate in data collection efforts around outreach and recruitment	Email update, in- person participation at the planning and findings review meeting	Monthly	It will be especially important to involve Suzy Q. in meetings when we discuss evaluation methods and the findings specific to outreach and recruitment as this will likely have implications for collaboration with the BCCP program

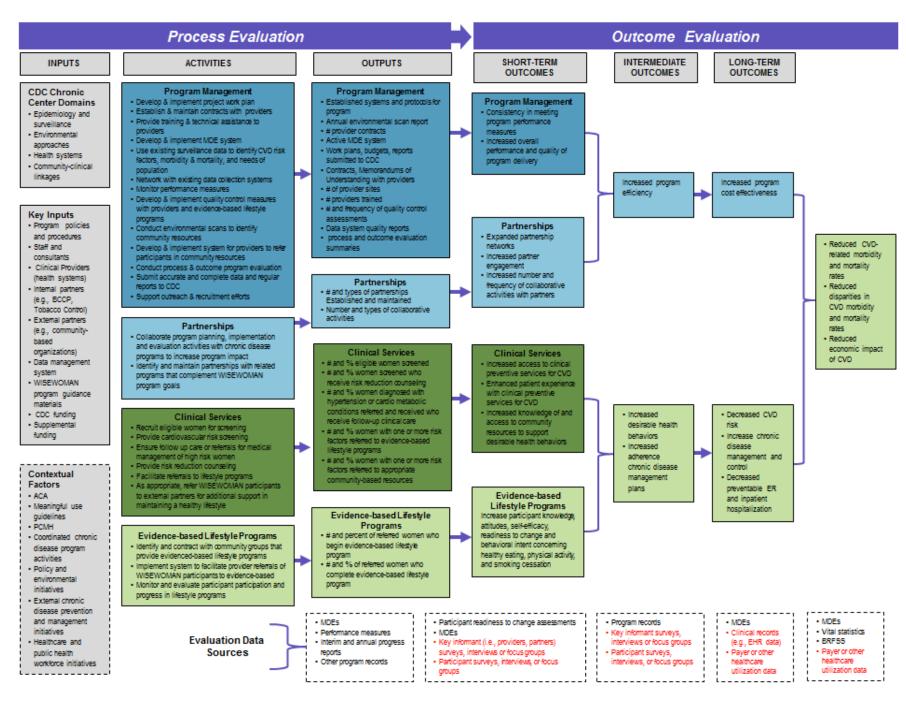
Example WISEWOMAN-Specific Program Logic Model Template

Tips for using the template:

This template presents a generic funded program-level logic model that has been included for illustrative purposes. The logic model template builds on the National WISEWOMAN program logic model by capturing the program-specific activities that occur routinely.

You may wish to consult this logic model to develop a logic model of your own or you may tailor it to reflect your program's specific activities and expected outcomes. While the process used to develop your program-specific logic model may vary, it is important that it includes the key components of a logic model and that it is an accurate visual representation of the program. Refer to Step 2 of the toolkit for more information on developing a logic model. Below is a list of acronyms to be used as a reference for the logic model template on the following page.

Acronyms				
ACA	Affordable Care Act (Patient Protection and Affordable Care Act)			
ВССР	Breast and cervical cancer program			
BRFSS	Behavioral Risk Factor Surveillance System			
CDC	Centers for Disease Control and Prevention			
CVD	Cardiovascular disease			
EHR	Electronic health record			
ER	Emergency room			
MDE	Minimum data elements			
РСМН	Patient-Centered Medical Home			



Evaluation Methods Matrix Template

Tips for using the template:

An evaluation methods matrix can be used to systematically organize and present the evaluation methods. It is recommended that you work from left to right when entering information in the matrix. Refer to Step 3 in the toolkit for more information about how to complete the matrix.

Evaluation Questions Process Evaluation	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
To what extent is the risk-reduction counseling component being implemented with fidelity among providers?	 Number and percentage of women screened who receive each of the core components of the risk reduction counseling sessions both in written format and verbally Screening results Interpretation of the screening results Recommendations in accordance with national clinical care guidelines 	 Program participants Clinical service providers 	 Survey with participants Administrative forms 	 Conduct survey of participants on an ongoing (rolling) basis during Program Years 2–4 Contacting participants by phone within 2 weeks of risk-reduction counseling 	 Descriptive statistics Thematic analysis

Evaluation Questions Outcome Evaluation	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
Does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	Change in self-efficacy, readiness to change, and intent to engage in 30 minutes of moderate physical activity daily between baseline (prelifestyle program participation), upon completing the lifestyle program, and 6 months after completing the lifestyle program	 Program participants who have completed at least one lifestyle program session Participant behavior/ readiness to change assessments 	 Secondary analysis of existing quantitative data Follow-up telephone surveys with program participants 	 Conduct telephone surveys with program participants on an ongoing (rolling) basis during Program Years 2–4 Contact participants within 3 weeks of completing the lifestyle program Contact participants within 3 the lifestyle program Contact participants 6 months after completing the lifestyle program 	Inferential statistics

Indicator Mapping Template

Tips for using template:

It is recommended that you map your process and outcome evaluation questions to the appropriate outputs on your logic model. Mapping the questions will help in drafting the process and outcome indicators and in selecting indicators. Depending on your evaluation question(s), you may want to consider the WISEWOMAN performance indicators. Refer to Step 3 in the toolkit for more information about how to complete the indicator mapping template.

Process Evaluation Questions	Output (from program logic model)	Indicator
What are best practices used by providers to incorporate WISEWOMAN protocols into practice workflows?	 Number and percentage of eligible women screened Number and percentage of women screened who receive risk reduction counseling Number and percentage of women diagnosed with hypertension or cardio metabolic conditions who are referred to and receive follow-up clinical care Number and percentage of women with one or more risk factors referred to evidence-based lifestyle programs Number and percentage of women with one or more risk factors referred to appropriate community-based resources 	 Procedures and practices used by the top performing clinical sites, shown by their performance relative to other clinical sites on the following: Number and percentage of eligible women screened Number and percentage of women screened who receive risk reduction counseling Number and percentage of women diagnosed with hypertension or cardio metabolic conditions who are referred to and receive follow-up clinical care Number and percentage of women with one or more risk factors referred to evidence-based lifestyle programs Number and percentage of women with one or more risk factors referred to appropriate community-based resources

Outcome Evaluation Questions	Output (from program logic model)	Indicator
Does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	 Increased participant self-efficacy, readiness to change, and behavioral intent concerning healthy eating, physical activity, and tobacco cessation (short-term outcome) Increased desirable health behaviors (intermediate outcome) 	 Change in self-efficacy, readiness to change, and intent to engage in 30 minutes of moderate physical activity daily between baseline (i.e., pre-lifestyle program participation), upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to reduce consumption of fast foods between baseline, upon completing the lifestyle program Change in self-efficacy, readiness to change, and intent to quit using tobacco between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program, and 6 months after completing the lifestyle program Change in number of minutes per week spent in moderate physical activity between baseline and 6 months after completing the lifestyle program Change in the number of fast food meals consumed per week between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program

Prioritizing Evaluation Questions Template

Tips for using the template:

The template below illustrates how you might organize the discussion that a WISEWOMAN program may have in focusing your evaluation. As you select final evaluation questions, you will need to balance which questions might be most useful to your program while also meeting some of your stakeholders' information needs. The template is partially completed for illustrative purposes only. Refer to Step 3 of the toolkit for more information.

Topic	Purpose/Use (Relevant Program Stage)	Type of Question	Feasibility	Timing	Evaluation Question	Priority
Evidence- based lifestyle program	Accountability—To determine whether the ABC lifestyle program is effective and whether we will continue the program in the next FOA (Maintenance)	Outcome— Impact of the program on participants	 Still in planning stages Will wait until component is fully operational in Year 2 Will need to determine type of data collected by ABC program and whether ABC program would help us collect additional information if we create an instrument to supplement what they collect already 	Years 2–4	Does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	High



Well-integrated Screening and Evaluation for Women Across the Nation

Evaluation Toolkit

Section 2: Evaluation Implementation



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Step 4. Gather Credible Evidence



RECAP:

At this point in the evaluation you have accomplished the following:

- Identified and engaged a group of evaluation stakeholders
- Created a foundation for communication with stakeholders
- Set initial expectations for how each stakeholder will be involved during the evaluation
- Developed a tailored logic model for your program
- Drafted a program narrative
- Defined the purpose of your evaluation and identified process and outcome evaluation questions
- Identified appropriate data collection methods and data sources
- Compiled a comprehensive evaluation plan

In this step, you will accomplish the following:

- Develop a data collection plan.
- Implement data collection and quality control procedures.

Gathering Credible Evidence5,10

Gathering credible evidence involves collecting data to answer your evaluation questions. The data should be valid, reliable, and credible and provide an overall picture of the program.

Data Collection Plan

A data collection plan or protocol is a tool that can help you organize data collection activities, engage stakeholders and staff involved in data collection, and help ensure consistency and fidelity in data collection activities. Your data collection plan should be developed with input from your evaluation stakeholders. As you develop your plan, consider opportunities to leverage existing data sources, the available budget, and resources available to support evaluation activities. Also take into consideration the potential data collection burden on staff, clinical providers, and partners.⁵

Your full data collection plan should specify the following:

- Who is responsible for collecting the data
- Timing of data collection
- Procedures for data collection
- Procedures for managing data
- Data security measures

Collaborating with evaluation stakeholders can help¹⁸

- increase communication,
- lessen the need for additional evaluation funding,
- reduce the burden on data collectors.
- identify areas for program improvement,
- improve processes

The subsequent sections describe in greater detail the factors that should be taken into consideration while developing your data collection plan. The example in Exhibit 1 illustrates how you might construct a data collection plan. In the tools and templates provided in Section 2, you will find an example data collection plan template that can be tailored for your evaluation needs.

Exhibit 1. Example Data Collection Plan

Data Source (existing/new)	Related Evaluation Questions	Data Collection Method/Description	Timing	Person(s) Responsible	Quality Assurance	Notes
Interviews with clinical service providers (new)	What best practices are used by providers to incorporate WISEWOMAN protocols into practice workflows? Have our program activities with providers contributed to changes in protocols for providing services for all women?	Evaluation consultant will conduct 30-minute telephone interviews with clinical site program coordinators using a semi-structured interview guide. Interviewers will take notes during the discussion and all interviews will be digitally recorded.	February 2014	Evaluation consultant team	Interviews will be audio recorded to allow the evaluation consultant to verify notes for analysis.	Designed in such a way to address both evaluation questions and thus eliminate the need to interview providers multiple times.
Pre-post Lifestyle Program participant surveys (existing)	Does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	Electronic pre-post survey data for WISEWOMAN participants in the XYZ Lifestyle Program for Program Year 2 will be submitted in a comma delimited file for secondary data analysis.	August 2015	Will W., Lifestyle Program Coordinator and Nora R., Program Epidemiologist	Nora R. will review data file for missing data and inconsistencies and consult with Will W. to clean the data.	The lifestyle program developed the instrument but they will provide the data for WISEWOMAN participants. Both the pretest and the posttest contain 20 close-ended items and two open-ended items.

Data collection requires careful planning and coordination. A variety of factors can influence the quality and credibility of data collected for addressing the evaluation questions. Consider these factors as you develop your data collection protocol¹⁰:

- Design of the data collection instruments
- Timeline for data collection
- Persons responsible for data collection
- Organizational requirements regarding data collection

Data Collection Instruments

Prior to data collection, work with your evaluation stakeholders to determine which data sources and data collection instruments are available that may help you gather the information you need to address your evaluation questions. Data for your evaluation activities may come from new or existing sources, and you may find existing data collection instruments that can be modified to help address your evaluation questions. Your data collection plan should include copies of any new or existing data collection sources or instruments that you intend to use.

There are advantages and disadvantages to using any data source or data collection instrument. ^{5,6,10} Although using existing data is often less expensive and more convenient, it may not capture all the detail needed to address your evaluation question. Keep in mind you may need multiple data sources to answer the evaluation questions. For example, you could collect data from WISEWOMAN participants using a brief baseline and follow-up survey, and then you could conduct short telephone interviews with a small sample of providers. Also, it often helps to increase the credibility of your evaluation findings by including data collected from more than one source. ⁴

Evaluation Stakeholder Group Discussion Items¹⁰

- Are there existing data sources or data collection instruments available from your partners or will new sources and instruments need to be developed?
- What are the advantages and disadvantages of each data source and data collection instrument (e.g., resources, time, sufficiency of information, alignment with evaluation questions)?
 - An advantage of using existing instruments is that they may have been tested and shown to collect valid and reliable data.
 - A disadvantage of using existing instruments is that you may need to modify them or add new items to address your evaluation questions.
- Are there staff members available internally or externally who have expertise developing data collection instruments?

Designing New Data Collection Instruments

The design of data collection instruments is a critical factor that can influence the quality of your data. ¹⁰ If you are designing new data collection instruments, be sure to build in sufficient time to pilot test the instrument(s). Also, consider seeking help from an evaluation expert with experience creating new instruments.

Below are some tips for designing new data collection instruments 10:

- Surveys or questionnaires are useful for gathering different kinds of information in a consistent fashion from many participants. Depending on how surveys or questionnaires are administered, they may take less time to collect data from many participants than other methods. Questions should be clear, concise, culturally appropriate, and easy for respondents to complete. If you are designing new surveys or questionnaires, we recommend consulting the Resource Guide in Section 4 for additional guidance. The type of questions used in a survey or questionnaire is key to soliciting relevant and unbiased responses.
 - Types of questions may include open-ended (e.g., comments) or closed-ended (e.g., yes/no, multiple choice, rating scale) responses.
 - Avoid:
 - Jargon—Use simple, direct language that is relevant to the respondents.
 - Assumptions—Do not assume respondents are familiar with specific details; add information or context if necessary.
 - Leading questions—Do not lead respondents to answer in a certain way based on the wording of the question.
 - Loaded questions—Do not use emotionally charged language or words that carry unintended connotations.
 - Double-barreled questions—Do not include two ideas in one survey question;
 split them up into two separate questions.
- Interview and focus group guides are useful for gathering in-depth information from participants or other stakeholders.
 - Interviews may necessitate a sizable investment of time for data collection, somewhat depending on whether participants are included individually or in groups.
 - Guides should be clear, easy to follow, and primarily include open-ended questions and probes. The guide should allow some flexibility for the interviewer to probe and ask follow-up questions that can add depth to the information collected.

- **Document review abstraction tools** are useful in gathering background information about the program. Developing an abstraction tool helps in gathering desired information (i.e., specific data elements) consistently from documents you identify. It is helpful to develop a checklist of materials that will be reviewed prior to analysis.
 - Be sure to follow all confidentiality policies and procedures when collecting documents for use in evaluation activities.
 - Documents for use in evaluation might include your program's^{4,19}
 - Policies and procedures documents
 - Work plans
 - Staff records
 - Budgets
 - Memoranda of understanding and contracts with partners
 - Training records
 - Quality assurance site visit reports

Pilot Testing

We recommend that you pilot test new data collection instruments and procedures prior to implementation to identify challenges and ensure that procedures are implemented properly. Pilot testing can help ensure that the data collection tools capture information intended and address your evaluation questions. You should pilot test the data collection instrument with a small selection of individuals who are representative of your target population, and under conditions similar to those you will use in gathering your data. Specifically, pilot testing can help answer the following questions¹⁰:

- How long does it take to complete the questionnaire?
- Do the guestions in the instrument flow well?
- Are there any challenges with administering specific instruments or in getting desired responses to specific questions?
- Do participants interpret questions and response options as you intended?
- Are the instrument questions reliable (i.e., they obtain similar responses when used repeatedly) and valid (i.e., measure what is intended)?
- Have any trends emerged in the responses that can be used to improve questions or responses?

Timing Data Collection

As you develop your data collection plan, you will need to determine when and how frequently data will be collected. ¹⁰ As you work with your evaluation stakeholders, consider the following questions when determining the timing of data collection ^{4,10}:

- When will you need to report your evaluation findings?
- When do the data need to be analyzed?
- When would data collection activities be least disruptive to those collecting data?
- What data collection resources will be available (e.g., staff availability, funding)?
- From how many participants will you collect data? Is the program mature enough to have reached this participation level?
- How long will it take to collect the data from the desired number of participants using each specified data collection activity (e.g., surveys, interviews)?
- How often will data be collected?

Determining Responsibility for Data Collection

Prior to data collection, you will need to determine who will collect data. The quality of your evaluation findings will depend on the quality of the data collected, so it is important to ensure rigor and consistency with data collection activities. Your decision of who collects the data will depend on staff availability and data collection skills. The skills needed are dependent on your evaluation questions, methods, and data sources. If your agency lacks staff with evaluation expertise, you may need to hire someone or seek assistance from an external agency. Another option is to train staff in order to develop their data collection skills.

If you are working with an evaluation consultant, the consultant or their team may facilitate data collection. If you are involving external staff in data collection, identify individuals who 10:

- Are organized, detail-oriented, familiar with your program, experienced in the specified data collection activities, dependable, and flexible.
- Have strong communication skills.
- Can work with individuals representing diverse backgrounds.

Protecting Evaluation Participants

Depending on your organization's policies and the nature of data collection activities, you may need to submit your data collection instruments and protocol to an institutional review board (IRB) to ensure the protection of your participants. Your data collection plan should incorporate

procedures to ensure data security and patient confidentiality throughout the data collection, management, analysis, and reporting process. ¹⁰

For example, you can help ensure patient confidentiality by removing any individually identifiable health information, known as protected health information, from the data collected. Protected health information, which includes demographic information, relates to a person's health condition or provision of health care. Protected health information consists of many common identifiers (e.g., name, address, birth date, Social Security number) when they are associated with health information. The de-identification process, which involves the removal of identifiers from health information, helps to protect patient confidentiality. ²⁵

Questions to Consider in Ensuring Confidentiality and Data Security^{6,10}

- Does your organization require data collection activities to be reviewed by an IRB?
 - o If so, how long does it typically take to get approval?
 - o Are there forms or templates you can use to develop your study protocol for IRB review?
 - Are there examples of IRB-approved study protocols you can review?
 - Is there a staff member available in your organization that can help develop your study protocol for IRB review?
- How will you ensure patient confidentiality? Will you need to de-identify any patient information?
- Are you working with partners or other organizations?
 - If so, do you need a data sharing agreement in order to access data from partner organizations? Can you publish the partners' data?
 - O Do you need a data sharing agreement to provide data to partners who may help you with data collection, management, and analysis?
- Will informed consent be required from participants before collecting data?
- Will contact information be obtained for follow-up data collection?
- How will you ensure data security and patient confidentiality?
- Where will the data be stored?
- Who will have access to the data?
- When will data be deleted or destroyed after they are no longer needed (e.g., shredding of hard-copy surveys after all data have been entered into an electronic database)?
- Have security and patient confidentiality policies and procedures been implemented for existing data sources?
- What security measures do you need for new data sources (e.g., locked file cabinets, password protected computer files)?

Budget and Resource Consideration

As you develop your data collection plan, it is important that you consider the availability of resources to conduct and manage data collection activities. ^{5,10} While it can be challenging to develop a realistic budget, it is best to think through budget implications with your team prior to implementation to avoid challenges later. Sometimes the scope of the evaluation needs to be reduced due to limited resources. As you develop your data collection plan, consider the following questions with your evaluation stakeholder group⁵:

- What is the available evaluation budget for data collection? Is the funding sufficient?
- What is the funding source for the evaluation? Are there are any in-kind, partner, or volunteer resources being contributed?
- What is the availability of staff to conduct data collection? Will you need to hire external staff to assist with data collection?
- How will you ensure that data collection activities remain within budget?
- If reductions are necessary, will the collection yield sufficient data to draw conclusions?

You will find an evaluation budget worksheet among the tools and templates following Section 2. You can use the worksheet to help you track and manage your budget during evaluation activities, including data collection.

Data Codebook

Your data collection plan should also include a preliminary data codebook. This codebook will serve as a foundation for

- Managing data collection.
- Entering data.
- Data analysis (described further in Step 5).

A codebook provides instructions on how data elements should be defined in a standardized way. In other words,

your codebook should specify how your data will be used in the evaluation and transformed to align with the evaluation indicators you identified in Step 3.¹⁰ For this reason, codebook development should be undertaken prior to data collection.

Quantitative data codes specify a name and description for each item, while qualitative codes are used to organize the data into themes. ¹⁰ Codes should align with the variables that you have identified for each evaluation question, as illustrated in Exhibits 2 and 3.

Exhibit 2. Example Quantitative Data Codebook Section

Variable Name	Variable Label	Туре	Values	Data Source	Comments
DOB	Participant data of birth	Numeric date	mm/dd/yyyy	Q1 participant info form	
Tobac	Participant tobacco use	Numeric	1 = never used tobacco 2 = former tobacco user 3 = current tobacco user	Q4 in behavior questionnaire	Values changed in 2012; for any data prior to 2012, recode as follows: 1 = 3, 2 = 2, and 3 = 1

Reminder

As you develop data collection instruments and consider your budget and resources, keep in mind that your CDC Project Officer can connect you with the CDC Evaluation Specialist for additional technical assistance.

Exhibit 3. Example Qualitative Data Codebook Section

Code	Description	Examples or Comments
CBR	Description of community-based resources used by WISEWOMAN participants	Example: I started swimming at the Y once or twice a week for one of their classes. The flyer about the class was in a resource packet that the nurse gave me when she came to talk to me about my tests, but the lady who leads the Healthy Living Workshops is the one who really encouraged me to try it.
Partner	Names of partners and description of their roles WISEWOMAN program	American Heart Association provides information for annual needs assessment.

The data codebook included in your data collection plan should be considered a working document. As you collect data, you may experience issues that require you to make revisions to your data collection plan (including your data codebook). This is to be expected, but we encourage you not to wait to develop the codebook until you have collected all of the data, as this structure will help you manage the quality of the data that you obtain. Remember to include any new codes into your data codebook that are created such as those that reflect new themes that may emerge from your qualitative data analysis.

Managing Data Collection

Your data collection plan should be considered a working document. Data must be monitored and managed regularly throughout the data collection process. It is important to revisit the data collection and evaluation plans with the evaluation stakeholders to reassess the usefulness of specific data collection instruments and the effectiveness of data collection procedures and policies. Revise them as needed.

When challenges arise, it is important to identify issues and resolve them as quickly as possible. Pilot testing the data collection instruments prior to implementation can help identify problems and provide an opportunity make revisions.¹⁰

Data Quality Assurance

High-quality data are critical for program improvement, reporting, and evaluation. ⁵ The data collected should provide a clear representation of the program's activities and should be accurate and reliable. ^{5,6}

Data accuracy (or measurement validity) means that the data measure what you intend them to measure.^{6,10} Data reliability means that the data provide consistent measurements over time.^{6,20}

To ensure the quality of your data, it is important to train your data collection staff. The level of training needed will

vary according to the complexity of your data collection methods and the experience of your data collectors. At minimum, a data collector training should include the following elements ¹⁰:

Ensuring data quality involves checking for the following²⁰:

- Accuracy
- Reliability
- Completeness
- Precision
- Timeliness
- Integrity

- An orientation to the evaluation that describes the purpose of the evaluation and explains how the findings will be used.
- Logistical details associated with data collection (e.g., location of data collection instruments, any informed consent statements or approvals that must be obtained, dates and times for data collection, instructions for operating audio recorders, procedures for handling and storing data).
- Detailed information on the data collection methods and techniques to be used. This
 should include a thorough review of data collection instruments to make sure that data
 collectors understand the questions to ask and how to record information objectively,
 consistently, and carefully.
- Opportunities to practice administering data collection instruments.

Next: Data Analysis and Reporting

In the next section, you will find guidance to help you:

- Prepare for data analysis of quantitative and qualitative data.
- Ensure use and sharing lessons learned.

Tools and Templates

Data Collection Plan Template

Tips for using the template:

A data collection plan is a tool that can help you organize data collection activities, engage stakeholders involved in data collection, and ensure consistency and fidelity in data collection activities. Your data collection plan should be developed with your stakeholders' input. The template has been partially completed for illustrative purposes and can be tailored for your evaluation needs. Refer to Step 4 in the toolkit for more information.

Data Source (existing/new)	Related Evaluation Questions	Data Collection Method/Description	Timing	Person(s) Responsible	Quality Assurance	Notes
Interviews with clinical service providers (new)	What best practices are used by providers to incorporate WISEWOMAN protocols into practice workflows? Have our program activities with providers contributed to changes in protocols for providing services for all women?	Evaluation consultant will conduct 30-minute telephone interviews with clinical site program coordinators using a semi-structured interview guide. Interviewers will take notes during the discussion and all interviews will be digitally recorded.	February 2014	Evaluation consultant team	Interviews will be audio recorded to allow the evaluation consultant to verify notes for analysis	Designed in such a way to address both evaluation questions and thus eliminate the need to interview providers multiple times.

Data Source (existing/new)	Related Evaluation Questions	Data Collection Method/Description	Timing	Person(s) Responsible	Quality Assurance	Notes
Pre-post Lifestyle Program participant surveys (existing)	Does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	Electronic pre-post survey data for WISEWOMAN participants in the XYZ Lifestyle Program for Program Year 2 will be submitted in a comma delimited file for secondary data analysis	August 2015	Will W., Lifestyle Program Coordinator and Nora R., Program Epidemiologist	Nora R. will review data file for missing data and inconsistencies and consult with Will W to clean the data file	The lifestyle program developed the instrument but they will provide the data for WISEWOMAN participants. Both the pretest and the posttest contain 20 close-ended items and 2 open-ended items.

Quantitative Data Codebook Template

Variable Name	Variable Label	Туре	Values	Data Source	Comments
DOB	Participant date of birth	Numeric date	mm/dd/yyyy	Q1 participant info form	

Qualitative Data Codebook Template

Tips for using the template:

The codebook should specify how your data will be used in the evaluation and should align with the evaluation indicators you identified in Step 3. It is recommended that codebook development occur prior to data collection. Codes should align with the variables that you have identified for each evaluation question as shown below.

Code	Description	Examples or Comments
CBR	Description of community based resources used by WISEWOMAN participants	Example: I started swimming at the Y once or twice a week for one of their classes. The flyer about the class was in a resource packet that the nurse gave me when she came to talk to me about my tests, but the lady who leads the Healthy Living Workshops is the one who really encouraged me to try it.
Partner	Names of partners and description of their roles WISEWOMAN program	American Heart Association -provides information for annual needs assessment

Evaluation Budget Worksheet

Income & Expense Projections	2013-2014
Income	
Income - General	\$10,000.00
Income - Grants	\$5,000.00
Sub Total Income	\$15,000.00
In-Kind Donations - Goods	\$500.00
In-Kind - Services	\$3,000.00
Total In Kind Donations	\$3,500.00
Total Income	\$18,500.00
Expense	
Consultant costs	\$8,000.00
Student worker	\$2,000.00
Total Salaries and Wages Expenses	\$10,000.00
Travel	\$1,000.00
Supplies and Materials	\$500.00
Postage	\$200.00
Printing and copying	\$250.00
Dues and Subscriptions	\$325.00
Office Supplies	\$200.00
Staff Training	\$1,200.00
7.410	00.075.00
Total Operations Expense	\$3,675.00
Total Expenses	\$17,350.00
Excess Funds	\$1,150.00



Well-integrated Screening and Evaluation for Women Across the Nation

Evaluation Toolkit

Section 3: Data Analysis and Reporting



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Step 5. Justify Conclusions



RECAP:

At this point in the evaluation, you have accomplished the following:

- Identified and engaged a group of evaluation stakeholders
- Created a foundation for communication with stakeholders
- Set initial expectations for stakeholder involvement during the evaluation
- Developed a tailored logic model for your program
- Drafted a program narrative
- Defined the purpose of your evaluation and identified process and outcome evaluation questions
- Identified appropriate data collection methods and data sources
- Compiled a comprehensive evaluation plan
- Implemented procedures for data collection and management

In this step, you will accomplish the following:

- Refine and specify the data analysis plan.
- Prepare data for analysis.
- Analyze your evaluation data.
- Work with your evaluation stakeholders to interpret the evaluation findings.
- Justify the conclusions you draw from your evaluation findings.

Prior to this step, you have developed some resources and had discussions with your evaluation stakeholders that will be useful now. In this section of the toolkit, you will find resources to help you execute this step of the evaluation.

Data Analysis

Data analysis involves organizing, tabulating, and examining the information you collected and presenting the results so they can be easily understood by your stakeholders. ¹⁰ The goal is to turn the data collected into meaningful, useful, and accessible information for action. ³

Helpful Resources

- Evaluation methods matrix (Step 3)
- Dissemination plan (Step 3)
- Quantitative codebook (Step 4)
- Qualitative codebook (Step 4)

As you developed your evaluation plan, you should have given some thought to developing an overarching preliminary analysis plan (Step 3). You may have had to modify your data collection procedures or cut back on some data collection activities due to budget challenges. This is not uncommon. Now that you have collected your evaluation data and managed it to facilitate data analysis, it is time to revisit the preliminary analysis plan to refine and further develop your evaluation plan.

As you review your preliminary analysis plans, consider the following steps¹⁰:

Reminder

Keep in mind that this evaluation toolkit is intended to serve as a general resource for Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) programs. If you have more specific questions, consult with your CDC Project Officer and Evaluation Specialist.

- Determine the type of data analysis you will conduct for each indicator to best answer your evaluation questions.
- Determine whether quantitative or qualitative data analysis needs to be conducted. See below for more information on quantitative versus qualitative data analysis.

Preparing for Data Analysis

It is important that you assign the person(s) responsible for data analysis as well as the timing of analysis to help ensure that you complete your evaluation efficiently and in a timely manner.

- Determine the timeframe in which each data analysis component will occur.
- Assign person(s) responsible for each component of data analysis (e.g., storage, retrieval, coding).

You may wish to note this in a separate work plan. You can also modify your evaluation methods matrix to incorporate this information, as shown in Exhibit 1.

Timing, **Timing** Duration, (month/ **Evaluation** Data and Person(s) **Indicators Methods** quarter) **Analyses** Question Sources Frequency Responsible for of Data **Analysis** Collection

Exhibit 1. Evaluation Plan Matrix (modified)

Prior to data analysis, you will need to organize your data for analysis. In Section 2 Step 4 we discussed developing quantitative and qualitative codebooks. Now is a good time to revisit those codebooks to modify them based on changes that may have occurred during pilot testing

or data collection. These codebooks will help you organize your data for analysis. It is important to build in sufficient time and resources to prepare the evaluation data for analysis, interpretation, feedback, and conclusions. ^{3,5} Consider the steps in Exhibit 2 to prepare your evaluation data for analysis. ¹⁰

Exhibit 2. Preparing Data for Analysis

Steps to Prepare Data	Quantitative Data	Qualitative Data
Transfer or transcribe the data.	For quantitative data, you may want to transfer the data to a new document (e.g., answer sheet) to make it easier to enter the information into a database.	For qualitative data, you will need to transcribe focus group discussions or field notes into a form that you can use (i.e., Microsoft Word).
2. Code the data, if necessary (see Step 4 for more information).	With quantitative data, you should code the information so it can be entered into a database. You may need to revise the codebook to increase the accuracy of coding.	With qualitative data, you will apply the codes you developed to the segments of text that align with your theme(s) of interest. You may need to revise the codebook to increase the accuracy of coding.
3. Use computer software to assist with data analysis.	 Quantitative data entry and analysis can be done using Microsoft Excel or Access (http://office.microsoft.com/en-us/support/getting-started-with-office-2013-FX102809998.aspx) SPSS (www-01.ibm.com/software/analytics/spss) SAS (www.sas.com/technologies/analytics/statistics) Stata (www.stata.com). 	Qualitative data can be organized using Microsoft Word, while data analysis can be conducted using • ATLAS.ti (www.atlasti.com/index.html) or • MAXQDA (www.maxqda.com) or • CDC EZ-Text (free) (www.cdc.gov/hiv/library/software/eztext/in dex.html).
4. Review the data for completeness and accuracy.	 You may need to "clean" your data to ensure it is complete and ready to be analyzed. Verify that the data file has the correct and expected number of participants. Check for any errors or inconsistent responses in the file. Regularly review the data to ensure data quality. Check for missing data and determine how it will be handled. 	 You may need to "clean" your data to ensure it is complete and ready to be analyzed. Assess whether the text is legible and recordings are legible. Assess the quality of open-ended interviews/focus groups/observations. Have a colleague review the information you have collected for accuracy. Regularly review the data to ensure data quality.
5. Review your data management system.	Be sure to review the analysis plan prior to implementation (consider having a colleague review it) to identify any potential problems.	Be sure to review the analysis plan prior to implementation (consider having a colleague review it) to identify any potential problems.

Example

For illustrative purposes, in Exhibit 3 we share a completed Evaluation Methods Matrix using example evaluation questions from Exhibit 4 from Step 3 in Section 1.

Exhibit 3. Example Evaluation Methods Matrix

Evaluation Questions	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
Process Evalua	tion				
To what extent is the risk-reduction counseling component being implemented with fidelity among providers?	Number and percentage of women screened who receive each of the core components of the risk-reduction counseling sessions both in written format and verbally Screening results Interpretation of the screening results Recommendations in accordance with national clinical care guidelines	Program participants Clinical service providers	 Survey of participants Administrative forms 	Conduct survey of participants on an ongoing (rolling) basis during Program Years 2–4 Contact participants by phone within 2 weeks of risk—reduction counseling	Descriptive statistics Thematic analysis

Exhibit 3. Example Evaluation Methods Matrix (Continued)

Evaluation Questions	Indicators	Data Sources	Methods	Timing, Duration, and Frequency of Data Collection	Analyses (Preliminary)
To what extent does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity, sodium intake, and tobacco cessation?	 Change in self-efficacy, readiness to change, and intent to engage in 30 minutes of moderate physical activity daily between baseline (pre-lifestyle program participation), upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to reduce consumption of fast foods between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in self-efficacy, readiness to change, and intent to quit using tobacco between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Change in number of minutes per week spent in moderate physical activity between baseline and 6 months after completing the lifestyle program Change in the number of fast food meals consumed per week between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program Change in tobacco use between baseline and 6 months after completing the lifestyle program 	Program participants who have completed at least one lifestyle program session Participant behavior/ readiness to change assessments	 Secondary analysis of existing quantitative data Follow-up telephone surveys with program participants 	 Conduct telephone surveys with program participants on an ongoing (rolling) basis during Program Years 2–4 Contact participants within 3 weeks of completing the lifestyle program Contact participants 6 months after completing the lifestyle program 	Inferential statistics

Case Study: Things Change

A number of things changed for the XYZ WISEWOMAN program since they developed their initial evaluation plan. Due to budget constraints, the XYZ WISEWOMAN program intended to conduct secondary analysis of quantitative data from data collection instruments already being used. These included the following:

- Participant readiness to change assessment (which were administered at baseline screening).
- Pretest and posttest surveys shared by the lifestyle program.

Betty S., Program Manager, negotiated with the program manager for the lifestyle program, Will W., to obtain data on the pretest and posttest surveys for WISEWOMAN participants. To do this, Will added an item to the form to allow the participant to note whether she was in the WISEWOMAN program as well as questions related to physical activity and diet. Unfortunately, the lifestyle program facilitator forgot that Will made this change, so she continued to use old copies of the pretest and posttest surveys. Fortunately, they did collect information related to self-efficacy in the participant behavior/readiness to change assessments. Unfortunately, these assessments do not include information on the number of minutes of moderate physical activity per week or fast food consumption.

Betty talked to the department epidemiologist, Nora R., about this issue. Nora shared that she could still run inferential statistics using the data from the telephone surveys and the participant behavior/ readiness to change assessments. However, they would need to look at the indicators differently. Betty revised the evaluation methods matrix based on the changes and her discussion with Nora. She then shared the modified matrix with her evaluation stakeholder group via email.

Evaluation Question Indicators To what extent does • Change in self-efficacy, readiness to change, and intent to participation in the engage in 30 minutes of moderate physical activity daily between evidence-based baseline (pre-lifestyle program participation), upon completing lifestyle program the lifestyle program, and 6 months after completing the lifestyle contribute to participant program outcomes related to • Change in self-efficacy, readiness to change, and intent to physical activity and reduce consumption of fast foods between baseline, upon sodium intake? completing the lifestyle program, and 6 months after completing the lifestyle program · Change in self-efficacy, readiness to change, and intent to quit using tobacco between baseline, upon completing the lifestyle program, and 6 months after completing the lifestyle program Number of minutes per week spent in moderate physical activity 6 months after completing the lifestyle program • Number of fast food meals consumed 6 months after completing the lifestyle program

Quantitative Data Analysis

In this evaluation toolkit, we focus on common quantitative analyses that WISEWOMAN programs may execute in evaluating their program. There are many different types of statistical procedures that you might consider. For more information on quantitative analysis methods, please consult the Resource Guide in Section 4.

Getting to the Specifics

For descriptive statistics, your indicators as defined in the evaluation methods matrix will provide sufficient detail for you to proceed with analysis. However, for questions that require inferential statistics, you will need to outline more specific details. As you think through specific statistical tests that you may consider, it is critical that you keep your evaluation questions and indicators at the forefront. You may find that you can look at your quantitative data in multiple ways, but it is important that you keep the specific objectives of your evaluation activities in mind. This will help ensure that upon completion of the study you will be able to address your evaluation questions and produce findings that you can use.

To inform your specific analysis plan, clarify the following for each evaluation question:

- Dependent variable.
- Independent variable.
- Covariates.

Key Terms

At this point, it will be helpful to consider a few additional terms that typically are used when conducting quantitative analysis:

- Dependent Variable. A variable that is often synonymous with an effect or outcome. Typically, evaluators are interested in observing changes in dependent variables and determining whether a treatment of program intervention may be associated with or have had an influence on the observed change. ^{15,21} For WISEWOMAN, a dependent variable could be the number of minutes of moderate physical exercise participants report at a follow-up point after completing a lifestyle program.
- Independent Variable. A variable that is believed to have an influence over another variable (or variables). An independent variable may be a treatment or program intervention.^{15,21} For WISEWOMAN, an independent variable could be participation in a lifestyle program.
 - In research and evaluation, independent variables often are thought to have caused an observed change in a dependent variable (see below); however, it is not possible to conclude that an independent variable caused a change in an observed dependent variable without a rigorous evaluation design that permits the evaluator to rule out other potential reasons for the observed change.²¹
 - Evaluators often are able to identify associations between independent variables and outcomes, and at times draw conclusions that highlight plausibility of potential causal influences.
- Covariate. A variable that may be related to the dependent variable and may account for some (or all of the) observed change in the dependent variable—beyond what may be associated with the independent variable.^{15,22}
 - For WISEWOMAN, covariates to account for in your analysis may include participant attributes (e.g., age, race, ethnicity) as well as other variables that may be related to the dependent variable (e.g., number days since participants began the lifestyle program; number of minutes of moderate physical exercise participants report engaging in at screening).

Including covariates in data analysis models helps to determine the potential influence of these other variables on your dependent variable and may improve your ability to determine the potential influence of your independent variable on your dependent variable. 15,22

The next series of tables will walk you through examples of how you might approach quantitative analysis for inferential statistics. The first example presents a basic approach, and the second example illustrates a more advanced approach.

Keep in mind that this evaluation toolkit is not intended to provide detailed information on the various statistical tests that can be performed using quantitative method. Instead, it is intended to provide you with a framework for thinking through how you might approach quantitative analysis in your program evaluation. In the Resource Guide (Section 4), you will find a number of resources with more detailed statistics guidance. Your CDC Project Officer and Evaluation Specialist also can provide more detailed technical assistance.

Exhibit 4 illustrates a basic approach to addressing an evaluation question about outcomes for the evidence-based lifestyle program. From left to right, the table lays out the evaluation question, dependent variable, independent variable, statistical test, and expected results.

You may wonder why we have included a column for expected results. This is because different statistics will yield different types of information. It is important that you select an approach that will give you the type of information that will be useful to your stakeholders. Notice that for the same question in our example, we present two tests that yield somewhat different results.

Explore the Data

As an initial step, we advise that you take time to examine all of the descriptive statistics for the variables you might want to include in your data analysis. At times, evaluators rush past the step of examining these descriptive statistics—moving quickly to their ultimate data analysis without having a really good understanding of the data. We advise that you take the time to review frequency counts, means, and other descriptive statistics so that you have a sense of what your data may be able to tell you when you start using more advance statistics.

Exhibit 4. Quantitative Data Analysis Plan—Basic Approach

Evaluation Question	Dependent Variable(s)	Independent Variable(s)	Statistical Test	Expected Results
Does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity and sodium	Number of minutes per week spent in moderate physical activity 6 months after completing the lifestyle program	Number of lifestyle program sessions attended	Correlation	As the number of lifestyle sessions increases, the number of minutes per week spent in moderate physical activity increases/decreases (X, p-value = X.XX)
intake?	Number of minutes per week spent in moderate physical activity 6 months after completing the lifestyle program	Number of lifestyle program sessions attended	Simple linear regression	For each additional lifestyle session attended, the number of minutes per week spent in moderate physical activity increases/decreases by X (p-value = X.XX)

Exhibit 5 provides a more advanced approach for creating an analytic model to assess the potential effect of lifestyle program participation. You will see that an additional column is included because there will be several covariates to include in your regression model. These covariates may help explain any observed change in physical activity, beyond (perhaps instead of) participation in the lifestyle program.

Exhibit 5. Quantitative Data Analysis Plan—More Advanced Approach

Evaluation Question	Dependent Variable(s)	Independent Variable(s)	Potential Covariates	Data Analysis Method	Expected Results
Does participation in the evidence- based lifestyle program contribute to participant outcomes related to physical activity and sodium intake?	Number of minutes per week spent in moderate physical activity 6 months after completing the lifestyle program	Number of lifestyle program sessions attended	 Change in self-efficacy Readiness to change physical activity behavior Age Race/ethnicity 	Multiple regression	For each additional lifestyle session attend, the number of minutes per week spent in moderate physical activity increases/ decreases by X (p-value = X.XX) when you take into account a woman's age, race/ethnicity, change in self-efficacy, and readiness to change

Conduct Data Analysis

Once you have refined your quantitative analysis plan, it is time to actually execute it.

For analyzing quantitative data, you may want to follow the following general steps ¹⁰:

- 1. Tabulate the data to provide information for each indicator.
- 2. Analyze the data by demographic variables of interest (e.g., participants' age, geographic level, set).
- 3. Make comparisons, if appropriate, to describe the groups being studied by the evaluation.
- 4. Compare the analyzed data over time to see how the results change. If the results are not changing in the anticipated direction, this can serve as a prompt for you to improve your program approach (i.e., interventions).
- 5. Present and display quantitative findings in a way that is easily understood by the target audience.

Qualitative Data Analysis

Qualitative data are information in the form of text (e.g., notes from focus groups, observations from site visits). Qualitative data analysis involves reviewing the information and organizing it systematically so that you can identify themes (e.g., barriers, facilitators) that relate to your evaluation questions.

Qualitative Data Analysis Process²³

- Data reduction (coding)
- Data display (data matrix)
- Interpreting the data
- Presenting the findings

Data Reduction

The first step in qualitative data analysis is data reduction. This is generally accomplished by coding your data. A code is a label (word or short phrase) that is used to assign meaning to segments of qualitative data (e.g., interview transcripts). When codes are applied to qualitative data, you are codifying the data, which organizes it and prepares it for analysis. In other words, coding breaks down (reduces) data into more manageable "chunks" of information for analysis. There are different levels at which you can code data, such as line by line or comparing sections within a whole document.

For your program evaluation, we recommend coding by examining a whole sentence or paragraph. This should provide you with sufficient information and context to help you identify themes. In Step 4, you developed a qualitative data codebook. You will need to apply the codes you developed to the segments of text that align with your theme(s) of interest.

Data Display

Once you have coded your data, you should display it in a manner that will facilitate synthesizing and interpreting it. In Exhibit 6, we offer an example data matrix that will help you organize and display your data to facilitate qualitative analysis.

Exhibit 6. Example Qualitative Data Matrix

Evaluation Question	Relevant Codes	Data	Themes	Illustrative Quotes
To what extent is the risk-reduction counseling component being implemented with fidelity among providers?	Components	 "We pretty much do everything. I have a booklet that I use that I write the woman's results in. I talk her through the results and the information on how she can get her numbers in control." (Interview Participant 1) "For the first couple of months, we didn't have a standard format for writing down the results and sharing it, but now we have our process ironed out." (Interview Participant 5) 		
	Challenges	 "It takes time to share results because we have to send the labs out for analysis. This can take a couple of days. So, we have to send her the information. I still talk with her based on the questionnaire and the blood pressure. I try to give them a call, but they aren't always there or the number is disconnected. I never know if she really understands the information we send in the mail—if she gets it at all." (Interview Participant 3) "Even though we have a lab onsite it can take a while, and sometimes the woman has to leave to get back to work or something. When that happens, I have to call her. I can't always reach them then." (Interview Participant 4) 		
	Facilitators	 "We're lucky. We have lab techs onsite, so we don't have to send the blood work out to be analyzed." (Interview Participant 4) "Now that we have moved to an electronic system I have reminders right in front of me when I talk to the woman to make sure that she gets all of the components." (Interview Participant 2) 		

Analyze the Data

Often people think that quantitative analysis stops with coding the data. However, coding is not qualitative analysis—you will need to identify themes in the data. ^{15,17} For general thematic

analysis, review your data matrix and systematically compare segments of text. As you do this, look for common elements or patterns (themes) in the responses. ^{15,17} In Exhibit 7, we add to the example data matrix possible themes that emerge from the coding of the sample qualitative data.

Exhibit 7. Example Qualitative Data Matrix with Themes

Evaluation Question	Relevant Codes	Data	Themes	Illustrative Quotes
To what extent is the risk-reduction counseling component being implemented with fidelity among providers?	Components	 "We pretty much do everything. I have a booklet that I use that I write the woman's results in. I talk her through the results and the information on how she can get her numbers in control." (Interview Participant 1) "For the first couple of months, we didn't have a standard format for writing down the results and sharing it, but now we have our process ironed out." (Interview participant 5) 	Generally, implement each of the components Standard processes facilitate implementation with fidelity	
	Challenges	"It takes time to share results because we have to send the labs out for analysis. This can take a couple of days. So, we have to send her the information. I still talk with her based on the questionnaire and the blood pressure. I try to give them a call, but they aren't always there or the number is disconnected. I never know if she really understands the information we send in the mail—if she gets it at all." (Interview Participant 3)	Follow-up challenging	
		"Even though we have a lab onsite it can take a while, and sometimes the woman has to leave to get back to work or something. When that happens, I have to call her. I can't always reach them then." (Interview Participant 4)		
	Facilitators	 "We're lucky, we have lab techs onsite so we don't have to send the blood work out to be analyzed." (Interview Participant 4) "Now that we have moved to an electronic system, I have reminders right in front of me when I talk to the woman to make sure that she gets all of the components." (Interview Participant 2) 		

Present the Findings

Once you have identified common themes, it is time to synthesize this information in a manner that can be used by your evaluation stakeholders. A simple way to organize your findings is by evaluation question and overarching theme (see Exhibit 8). In this stage, you should work to synthesize your findings and identify illustrative quotes to present with your findings. Illustrative quotes can help you show how you coded specific data and considered the influence of the quote in identifying themes that emerge from your data. This helps influence the credibility of your findings. If you use quotes, be sure to remove any identifying information (e.g., name of person, clinic, or provider) that can be used to identify a comment.

While quotes are a useful tool, please remember that your ability to use quotes must align with any assurances of confidentiality that you provided to participants before you collected your data. If you obtained informed consent from your participants before collecting data, you should have included specific details for how you would safeguard and share information they provided.

In Step 6, we discuss reporting evaluation findings in greater detail.

Exhibit 8. Example Qualitative Data Matrix with Themes and Quotes

Evaluation Question	Relevant Codes	Data	Themes	Illustrative Quotes	
To what extent is the risk reduction counseling component being implemented with fidelity among providers?	 "We pretty much do everything. I have a booklet that I use that I write the woman's results in. I talk her through the results and the information on how she can get her numbers in control." (Interview Participant 1) "For the first couple of months, we didn't have a standard format for writing down the results and sharing it, but now we have our process ironed out." (Interview Participant 5) Generally, implement each of the components Standard processes facilitate implementation with fidelity 	implement each of the components • Standard processes facilitate implementation	Generally, implement each of the components • "We pretty much do everything. I have a booklet that I use that I write the woman's results in. I talk her through the results and the information on how she can get her numbers in control." Standard processes facilitate implementation with fidelity.		
	Challenges	 "It takes time to share results because we have to send the labs out for analysis. This can take a couple of days. So, we have to send her the information. I still talk with her based on the questionnaire and the blood pressure. I try to give them a call, but they aren't always there or the number is disconnected. I never know if she really understands the information we send in the mail—if she gets it at all." (Interview Participant 3) "Even though we have a lab onsite it can take a while, and sometimes the woman has to leave to get back to work or something. When that happens, I have to call her. I can't always reach them then." (Interview Participant 4) 	• Follow-up challenging	 Standard processes facilitate implementation with fidelity "For the first couple of months, we didn't have a standard format for writing down the results and sharing it, but now we have our process ironed out." "Now that we have moved to an electronic system, I have reminders right in front of me when I talk to the woman to make sure that she gets all of the components." Follow-up challenging "Even though we have a lab onsite, it can take a while, and 	
	Facilitators	 "We're lucky, we have lab techs onsite so we don't have to send the blood work out to be analyzed." (Interview Participant 4) "Now that we have moved to an electronic system, I have reminders right in front of me when I talk to the woman to make sure that she gets all of the components." (Interview Participant 2) 		sometimes the woman has to leave to get back to work or something. When that happens, I have to call her. I can't always reach them then."	

Interpreting the Evaluation Data

At this point in the process, you have analyzed the evaluation data and now it is time to examine the evaluation results to interpret what they "say" about the program. Interpreting data involves making sense of the data you have collected. Making accurate interpretations can help you identify the factors that facilitate and inhibit the achievement of your program objectives. 10

Be sure to engage your group of evaluation stakeholders and allow plenty of time in this step to ensure the meaningfulness, credibility, and acceptance of evaluation findings and

conclusions.^{3,5} Additionally, it is helpful to meet with your stakeholders to gain additional insight regarding the evaluation findings.

Key Tips for Interpreting Evaluation Data³

- Stakeholder engagement is key at this step; they may have insight or perspective to guide interpretation.
- Analytical approaches should be driven by the specific evaluation questions, the type of data collected, and the audience for the evaluation findings.
- Results should be interpreted with the goals of your program in mind, the social/political context of the program, and the needs of the stakeholders.

Note that it is the responsibility of the evaluator(s) to recognize potential sources of bias and to ensure that the evaluation conclusions are drawn directly from the data.⁵ There can be pressure from stakeholders to reach beyond the evidence when making conclusions.^{3,5} These topics should be discussed with stakeholders during the initial stages of the evaluation and regularly throughout the process.

It may be helpful to consider the following steps when interpreting your evaluation results 10:

- 1. **Organize your evaluation findings** by aligning your data with the evaluation questions and indicators you developed while planning the evaluation.
- 2. Consider larger contextual or cultural issues when interpreting the results (e.g., variation in program implementation across sites, geographic differences).
- 3. **Determine the practical significance or utility of the findings** to ensure that results are used to modify the program if necessary, strengthen current interventions, or revise activities that are not working.
- 4. **Identify the strengths and challenges of the program.** Discuss with stakeholders what is working well and what is not working well regarding the program.
- 5. **Discuss the limitations of the evaluation** (e.g., evaluation design, time constraints, data collection method).
- 6. **Synthesize the findings** to tell the "story" of your program. These findings are the basis for developing recommendations for program improvement. Use quantitative data to describe the outcomes achieved and qualitative data to provide context.

Justifying Conclusions

Evaluation conclusions are justified when they are linked to the evidence that has been collected and when they are consistent with the agreed-upon values or standards set forth by your stakeholders.³ Justifying the conclusions is important because it relates to the utility and accuracy of the evaluation.

Justifying the evaluation conclusions involves the following³:

- Analyzing the data you collected.
- Interpreting what the data mean.
- Drawing conclusions.
- Making recommendations based on the data.

Case Study: Interpreting Evaluation Data

After working with her evaluation consultant to analyze the data, Betty S., the XYZ WISEWOMAN Program Manager, met with her evaluation stakeholder group to review and discuss the findings. The evaluation stakeholders engaged in an in-depth discussion regarding the results to the following question:

Evaluation question: To what extent is the risk-reduction counseling component being implemented with fidelity among providers?

Indicators:

- Number and percentage of women screened who receive each of the core components of the risk-reduction counseling sessions, both in written format and verbally
 - Screening results
 - Interpretation of the screening results
 - o Recommendations in accordance with national clinical care guidelines
- · Description of implementation as reported by providers

Findings:

- Based on a sample chart review of clinics, only 65% of women received risk-reduction counseling.
- Clinicians reported that they followed protocols for referring women with one or more risk
 factors to community-based resources; however, it was not done consistently due to staff
 changes within one of the referral sites.

Case Study: Interpreting Evaluation Data (Continued)

Discussion:

- Consider larger contextual issues when interpreting the results.
 - It was determined that some clinics were not using the updated/standardized form to document risk-reduction counseling. In addition, clinicians noted that staffing changes at one of the community-based organizations resulted in inconsistency in client referrals.
- · Determine the practical significance of the findings.
 - Failure to consistently or accurately document risk-reduction counseling resulted in inaccurate rates for the percentage of women who received risk-reduction counseling.
 Similarly, the lack of consistency in the referral process resulted in inaccurate rates for the number and percentage of women who were referred to community-based resources.
- · Identify the strengths and challenges of the program.
 - It was determined that the standardized form to document risk-reduction counseling is working well and will continue to be used. Going forward, it will be reviewed and revised annually as needed and sent to clinics with guidance on how to use it. It was determined that the referral process is also working well, and that once the new staff received training, the problem was resolved.
- Discuss the limitations of the evaluation (e.g., evaluation design, time constraints, data collection method).
 - It was not possible to review all charts at all clinics due to time and resource constraints, so only a sample was reviewed. There are also issues that may not have been identified.
- Synthesize the findings to tell the "story" of your program.

In summary, the findings show that overall the clinics that participate in the program closely follow the procedures and practices based on the defined indicators. Due to staff turnover and the introduction of a new form, there was some variation in the way the procedures were followed. After these barriers were identified, they were corrected.

Making Recommendations

After interpreting the evaluation findings, you may want to develop recommendations to improve, expand, or continue your program.^{3,10} Keep in mind that recommendations should be made within the larger context in which the program operates, such as budget constraints, staffing turnover, politics, competing interests, or shifts in organizational mission.⁶

Next: In Step 6 you will learn about organizing and presenting your evaluation findings to your stakeholders.

Step 6. Ensure Use and Share Lessons Learned



RECAP:

At this point in the evaluation, you have accomplished the following:

- Identified and engaged a group of evaluation stakeholders
- Created a foundation for communication with stakeholders
- Set initial expectations for how each stakeholder will be involved during the evaluation
- Developed a tailored logic model for your program
- Drafted a program narrative
- Defined the purpose of your evaluation and identified process and outcome evaluation questions
- Identified appropriate data collection methods and data sources
- Compiled a comprehensive evaluation plan
- Implemented procedures for data collection and management
- Refined and specified the data analysis plan
- Analyzed the evaluation data
- Worked with your evaluation stakeholders to interpret the evaluation findings
- Justified the conclusions you drew from your evaluation findings

In this step you will accomplish the following:

- Ensure use of the evaluation results.
- Share the evaluation findings with stakeholders.

Ensuring Use

The main purpose of program evaluation is to use the findings for program improvement or decision-making. Simply communicating evaluation findings is not enough—evaluators need to proactively take steps to encourage use. 3

There are many ways you can use the results from the evaluation^{6,10}:

- Understand how your program is implemented. The results from process evaluation can allow you to determine whether or not program activities are conducted as planned, and if not, the reasons why not. You can use these findings to modify your approach to providing services to WISEWOMAN participants.
- **Examine program effectiveness.** You can use the results from outcome evaluations to determine the changes produced in the target population (i.e., WISEWOMAN participants) resulting from your program activities.
- **Identify training and technical assistance needs.** Results from evaluations often provide insight into what is working well and what is not.
- Allocate program resources (or justify allocation of resources). Based on the findings from your evaluation, you may decide to increase or decrease funding for a particular program component.
- Promote your program. You can use the findings in communications and marketing materials to generate interest in the program.

Engaging Stakeholders to Ensure Use

Throughout the evaluation process you have engaged your stakeholders. Stakeholder involvement is critical throughout the evaluation process to ensure effective and useful reporting of evaluation results.^{3,5} Soliciting input and participation from your stakeholders at key points during the evaluation process can increase the likelihood that evaluation findings will be used.⁵ Keep in mind that the evaluation results may not meet the needs of all stakeholders, and that you may need to prioritize stakeholder needs.

To re-engage your stakeholders during Step 6, you may want to 18

- Revisit how the evaluation findings will be used.
- Reassess what the users or stakeholders want to learn.

Steps to Help Ensure that Evaluation Findings are Used^{3,18}

- Conduct regularly scheduled meetings with evaluation stakeholders as a forum for sharing evaluation findings on an ongoing basis and for developing recommendations for program improvement based on evaluation findings.
- Review evaluation findings and recommendations as they emerge in regularly scheduled staff meetings.
- Engage stakeholders in identifying ways they can apply evaluation findings to improve their programs. Encourage the use of an improvement plan.
- Coordinate, document, and monitor efforts program staff and partners are making to implement improvement recommendations.
- Develop multiple, tailored evaluation reports to address specific stakeholders information needs.

Revisit Your Dissemination Plan

Now that you have evaluation findings, it is a good time to revisit the dissemination plan you started to develop in Step 3. If you have not developed a dissemination plan, review the example in Exhibit 9 below. In this step, it may be helpful to revisit your dissemination plan to ensure that it adequately reflects the changes that may have occurred during the implementation of your evaluation.

Exhibit 9. Example Dissemination Plan (from Step 3)

Audience	Use	Format	Method/Medium	Timeframe	Responsibility
Julia R., CDC Project Officer	Inform technical assistance provided to the program	Full summary report	Attachment to progress report	April	Betty S., Program Manager
Partners	Identify opportunities to collaborate and enhance participant experience	Executive summary	Email blast	April (3 months prior to the start of the new program year)	Program manager
Program staff	Identify areas for program improvement	 Executive summary with link to download full summary report Presentation talking points 	Email Briefing during a staff meeting	April (3 months prior to the start of the new program year)	Program manager

Exhibit 9. Example Dissemination Plan (Continued)

Audience	Use	Format	Method/Medium	Timeframe	Responsibility
Providers	 Identify areas for program improvement Implement best practices 	PowerPoint presentation	 Webinar for existing providers New provider orientation 	July (at start of new program year and orientation for new providers)	 Jane D., clinical providers advisory group (Webinar) Program manager (new provider orientation)
Participants	 Encourage continued program participation Promote program to friends and family 	Storyboards/ poster series	Posted in waiting rooms of clinical sites	Starting July, throughout program year	Marketing and communications liaison

Sharing Lessons Learned

When implementing your dissemination plan, it is important that you communicate your evaluation findings to program stakeholders in a timely, unbiased, and consistent manner. ^{6,18} Your goal for dissemination should be to achieve full disclosure and impartial reporting of the evaluation findings, regardless of the methods used to communicate these findings. ¹⁸ Consider the following questions while you planning to share lessons learned ^{3,18}:

- How will the evaluation findings be used?
- Who will share the evaluation findings?
- At what stage will you share the evaluation findings (interim or final findings)?
- Which methods will you use to communicate to evaluation stakeholders (e.g., presentations, reports, meetings)?
- How will you tailor the method of communication to your various stakeholders?
- How you will present evaluation findings in connection with recommendations?
- How will you prioritize recommendations, overall and during your communication with specific stakeholders?

Methods for Sharing Evaluation Results

The methods you choose to communicate the evaluation findings should be tailored to meet the needs of your stakeholders. Frograms typically develop an evaluation report to share the results of their evaluation. You will need to provide a copy of your evaluation report to your CDC Project Officer. As you develop your evaluation report, keep your target audience in mind. For example, program staff or funders may require more detailed evaluation reports, while other stakeholders may prefer an abbreviated summary. We have also included some alternative approaches to communicating your evaluation findings to program stakeholders below.

Tips for Sharing Evaluation Results¹⁸

- Provide interim findings before final results are available (if appropriate)
- Use active voice
- Use graphics and illustrations
- Be selective in the information presented
- Create different summaries for different audience types
- Avoid jargon and technical language

Evaluation Report

While evaluation reports can vary in format, the main goal is to ensure that the findings are actually used by stakeholders. A comprehensive evaluation report is the most common method for disseminating evaluation findings. The report should clearly communicate all parts of the evaluation.

An evaluation report typically is composed of the sections listed in Exhibit 10.^{3,18}

Exhibit 10. Key Sections of an Evaluation Report

Section	Content
Executive Summary	The executive summary is a synopsis of the evaluation report and includes the most relevant highlights for the following items: Background Evaluation purpose Methods Findings Recommendations Lessons learned
Background	The background section presents the following: Baseline information Context for which the evaluation was undertaken Evaluation questions Purpose of evaluation Intended use of evaluation findings Stakeholders Description of the program/intervention that was evaluated
Methods	The methods section describes the approach used to answer the evaluation question, including information about the following: • Evaluation design • Data collection methods (e.g., interviews, observation, surveys) • Sample and target population • Procedures for data collection and management • Data analysis procedures • Limitations of the evaluation
Findings	 The findings section presents the evaluation results most relevant to your evaluation questions. Be sure to present the complete story of your program—prioritize your findings, but present your results with full disclosure and impartial reporting. Display and discuss your findings using graphs and charts, along with narrative descriptions. Include quantitative and qualitative information. Consider including quotations or brief case examples to add richer detail to your numbers.
Interpretation	Interpretation involves looking beyond the data and asking what the results mean in relation to your evaluation questions. You may wish to review the findings with selected stakeholders to assist with interpretation.

Exhibit 10. Key Sections of an Evaluation Report (Continued)

Section	Content
Conclusion	The conclusion section informs the next steps for the program. There are different approaches to framing the conclusion section of an evaluation report.
	You may wish to include the following in this section:
	 Recommendations. Ideally, the recommendations you make will be used to modify, strengthen, or improve the program. However, it is important to be mindful that recommendations are
	 tailored to specific findings (i.e., what is to be gained from putting recommendations into practice),
	 feasible, realistic, actionable, and tailored to intended users.
	 Lessons learned. Lessons learned are a retroactive account of a program's experiences, and can be useful in
	 contributing to public health practices,
	 reporting for accountability purposes.
Appendices	Additional sections of the report (e.g., tables, data collection instruments, your evaluation plan) can be placed in an appendix. This provides additional information for those who may be interested, while still keeping the main body of the report succinct.

As you develop your evaluation report, keep the audience in mind. Your evaluation report should be tailored to meet the needs and preferences of the target audience, including the format, tone, timing, and method.⁵ Also, consider the following factors^{3,18}:

- Think about the desired action you want the audience to take and what is within their sphere of influence.
- Consider the audience's level of technical expertise or comprehension.
 - Tailor the level of language.
 - Avoid jargon.
- Ensure that reports are culturally appropriate.
- Identify the audience's interest in or perceptions of the program.
- Present findings according to the preferences of the audience.
- Consider how your audience might interpret the findings based on their experiences.
 - Provide context if necessary.
 - Keep the language simple.

Other Communication Methods

Depending on your target audience, you may want to use additional methods of disseminating the results of your evaluation. Some alternative communication methods include the following 5,10 :

- Web pages
- Presentations
- Journal publications
- Fact sheets/briefs
- Newsletter articles
- Success stories
- Social media
- Posters
- Community meetings

Conclusion

This evaluation toolkit was developed to provide guidance, tools, and resources to WISEWOMAN programs to conduct effective and meaningful program evaluation activities. You now should have insight into how you can accomplish the following:

- Measure progress toward your program's specific goals.
- Identify opportunities for improvement.
- Demonstrate the effectiveness of your program to stakeholders.

After reviewing the toolkit sections, you should be familiar with the CDC Evaluation Framework¹ (Exhibit 11) and have the information, tools, and resources needed to accomplish key evaluation activities:

- Engage a group of evaluation stakeholders.
- Describe the program.
- Focus the evaluation design (including your preliminary dissemination plan).
- Develop a data collection plan.
- Implement procedures for data collection and management.
- Refine and specify the data analysis plan.
- Analyze the evaluation data.
- Work with your evaluation stakeholders to interpret the evaluation findings.
- Justify the conclusions you drew from your evaluation findings.
- Ensure use of the evaluation results.
- Share the evaluation findings with stakeholders.

Please review key sections of the toolkit as needed, and continue to communicate with your Project Officers and Evaluation Specialists. Remember that evaluation is an ongoing activity, so be sure to use your evaluation findings to inform your ongoing evaluation work, as well as your program implementation efforts.

Exhibit 11. CDC Framework for Evaluation in Public Health¹



Tools and Templates

Qualitative Data Analysis Plan Template

Tips for using template:

A simple way to present your findings is to list the evaluation question along with overarching themes and illustrative quotes. Illustrative quotes can help show how you coded specific data and considered the influence of the quote in identifying themes that emerge from your data. If you use quotes, be sure to remove any identifying information (e.g., person's name, name of clinic). Refer to Step 5 in the toolkit for more information.

Evaluation Question	Relevant Codes	Data	Themes	Illustrative Quotes
To what extent is the risk reduction counseling component being implemented with fidelity among providers?	Components	 "We pretty much do everything. I have a booklet that I use that I write the woman's results in. I talk her through the results and the information on how she can get her numbers in control." (Interview Participant 1) "For the first couple of months, we didn't have a standard format for writing down the results and sharing it, but now we have our process ironed out." (Interview Participant 5) 	 Generally, implement each of the components Standard processes facilitate implementation with fidelity Follow-up challenging 	Generally, implement each of the components • "We pretty much do everything. I have a booklet that I use that I write the woman's results in. I talk her through the results and the information on how she can get her numbers in control." Standard processes facilitate
	Challenges	"It takes time to share results because we have to send the labs out for analysis. This can take a couple of days. So, we have to send her the information. I still talk with her based on the questionnaire and the blood pressure. I try to give them a call, but they aren't always there or the number is disconnected. I never know if she really understands the information we send in the mail—if she gets it at all." (Interview Participant 3) "Even though we have a		 implementation with fidelity "For the first couple of months, we didn't have a standard format for writing down the results and sharing it, but now we have our process ironed out." "Now that we have moved to an electronic system, I have reminders right in front of me when I talk to the woman to make sure that she gets

	lab onsite it can take a while, and sometimes the woman has to leave to get back to work or something. When that happens, I have to call her. I can't always reach them then." (Interview Participant 4)	all of the components." Follow-up challenging • "Even though we have a lab onsite, it can take a while, and sometimes the woman has to
Facilitators	 We're lucky, we have lab techs onsite so we don't have to send the blood work out to be analyzed." (Interview Participant 4) "Now that we have moved to an electronic system, I have reminders right in front of me when I talk to the woman to make sure that she gets all of the components." (Interview Participant 2) 	leave to get back to work or something. When that happens, I have to call her. I can't always reach them then."

Quantitative Data Analysis Plan Template—Advanced Approach

Tips for using template:

This template is a more advanced approach to analyze quantitative data to assess the potential effect of lifestyle program participation on the change in the amount of moderate physical activity participants report from screening to a follow-up time point after participation in the lifestyle program. This template includes an additional column compared to the more simplistic approach because there will be several covariates to include in your regression model. These covariates may help explain any observed change in physical activity, beyond (perhaps instead of) participation in the lifestyle program. Refer to Step 5 in the toolkit for additional information.

Evaluation Question	Dependent Variable(s)	Independent Variable(s)	Potential Covariates	Data Analysis Method	Outcomes
Does participation in the evidence- based lifestyle program contribute to participant outcomes related to physical activity and sodium intake?	Number of minutes per week spent in moderate physical activity 6 months after completing the lifestyle program	Number of lifestyle program sessions attended	 Change in self-efficacy Readiness to change physical activity behavior Age Race/ethnicity 	Multiple regression	For each additional lifestyle session attended, the number of minutes per week spent in moderate physical activity increases/ decreases by X (p-value = X.XX) when you take into account a woman's age, race/ethnicity, change in self-efficacy, and readiness to change

Quantitative Data Analysis Plan Template—Basic Approach

Tips for using template:

This template is a basic approach to quantitative analysis for inferential statistics. From left to right, the table presents the evaluation question, dependent variable, independent variable, statistical tests, and expected results. It is important to select an approach that will provide useful information to you and your stakeholders. Notice that for the same question in our example, we present two tests that yield somewhat different results. Refer to Step 5 in the toolkit for additional information.

Evaluation Question	Dependent Variable(s)	Independent Variable(s)	Statistical Test	Expected Results
Does participation in the evidence-based lifestyle program contribute to participant outcomes related to physical activity and sodium intake?	Number of minutes per week spent in moderate physical activity 6 months after completing the lifestyle program	Number of lifestyle program sessions attended	Correlation	As the number of lifestyle sessions increases, the number of minutes per week spent in moderate physical activity increases/decreases (X, p-value = X.XX)
	Number of minutes per week spent in moderate physical activity 6 months after completing the lifestyle program	Number of lifestyle program sessions attended	Simple linear regression	For each additional lifestyle session attended, the number of minutes per week spent in moderate physical activity increases/decreases by X (p-value = X.XX))

Dissemination Plan Template

Tips for using template:

Once you have your evaluation findings, you can revisit the dissemination plan developed in Step 3. If you have not yet developed one, the template below is an example that you can modify for your program. Refer to Step 3 and Step 6 in the toolkit for more information.

Audience	Use	Format	Method/Medium	Timeframe	Responsibility
Julia R., CDC project officer	Inform technical assistance provided to the program	Full summary report	Attachment to progress report	April	Betty S., Program Manager
Providers	 Identify areas for program improvement Implement best practices 	PowerPoint presentation	Webinar for existing providersNew provider orientation	July (at start of new program year and orientation for new providers)	 Jane D., clinical providers advisory group (Webinar) Program manager (new provider orientation)



Well-integrated Screening and Evaluation for Women Across the Nation

Evaluation Toolkit

Section 4: Resource Guide



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WISEWOMAN Evaluation Toolkit Resource Guide

This resource guide includes selected evaluation resources that may be helpful to you during the planning, implementation, and reporting stages of evaluation, as well as a glossary of key terms, and a list of references cited.

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Glossary of Key Terms

Accuracy standards

Accuracy standards ensure that an evaluation will reveal and convey technically adequate information about the features that determine worth or merit of the program being evaluated.²

Activities

Activities are the specific events or actions undertaken by program staff or partners to produce desired outcomes (i.e., what you do).^{5,7}

CDC Evaluation Framework

CDC's Framework for Program Evaluation in Public Health has provided a set of steps and standards for practical evaluation by programs and partners. While the focus is public health programs, the approach can be generalized to any evaluation effort.¹

Codebook

A codebook is a document with a list of "codes" that detail the instructions on how data elements should be defined in a standardized way. Quantitative data codes specify a name and description for each item, while qualitative codes are used to organize the data into themes. ¹⁰ In other words, your codebook should specify how your data will be used in the evaluation and transformed to align with the evaluation indicators you identified.

Contextual factors

Contextual factors are characteristics of the political, social, economic, and physical environment surrounding your program that may interact with or influence program participants. For example, contextual factors might be similar initiatives being implemented by other agencies, changes in health care or public health policies, and social norms and values held by program participants.

Covariate

A covariate is a variable that may be related to the dependent variable and may account for some (or all) of the observed change in the dependent variable—beyond what may be associated with the independent variable. ^{15,22} For WISEWOMAN, covariates to account for in your analysis may include participant attributes (e.g., age, race, ethnicity), as well as other variables that may be related to the dependent variable (e.g., number of days since participants began the lifestyle program, number of minutes of moderate physical exercise participants report engaging in at screening).

Data accuracy

Data accuracy (or measurement validity) means that the data measure what you intend them to measure. ^{6,10}

Data collection instrument

A data collection instrument is a tool or method used to collect data (e.g., survey, questionnaire). 10

Data collection plan

A data collection plan or protocol is a tool that can help you organize data collection activities, engage stakeholders involved in data collection, and ensure consistency and fidelity in data collection activities. It should specify who is responsible for collecting the data; timing of data collection; procedures for collecting the data; procedures for cleaning, submitting, and managing data; and data security measures. ¹⁰

Data reliability

Data reliability means that the data provide consistent measurements over time. ^{6,20}

Data sources

Data sources are the entities or individuals from which or whom you will obtain data. Data for your evaluation activities may come from existing sources or from new sources (e.g., database, electronic medical records).⁵

Descriptive statistics

Descriptive statistics include frequency counts, rates, percentages, measures of central tendency (means, medians, and modes), and measures of dispersion (range, standard deviation).^{15,16}

Dependent variable

A dependent variable is often synonymous with an effect or outcome. Typically, evaluators are interested in observing changes in dependent variables and determining whether a treatment or program intervention may be associated with or have had an influence on the observed change. For WISEWOMAN, a dependent variable could be the number of minutes of moderate physical exercise participants report at a follow-up point after completing a lifestyle program.

Dissemination plan

A dissemination plan describes who you will share your evaluation findings with, how you will share the findings, and when you will share your evaluation findings.⁴

Evaluation

CDC defines evaluation as a systematic approach to collecting, analyzing, and using data in order to determine the effectiveness and efficiency of programs and to inform continuous program improvement.¹⁰

Evaluation plan

An evaluation plan is a detailed description of how the evaluation will be implemented and includes the program description, evaluation goals and questions, evaluation methods, analysis and interpretation plan, and dissemination plan.⁵

Evaluation stakeholder(s)

Evaluation stakeholders are individuals and organizations with a stake or vested interest in the evaluation process or findings from the evaluation.^{5,7,8,9}

Evaluation stakeholder group

The members of the evaluation stakeholder group are the primary users of the evaluation results and generally act as a consultative group throughout the entire planning process as well as the implementation of the evaluation. ^{5,10}

Evaluation questions

Evaluation questions define the issues that will be explored during the evaluation. The evaluation questions should be developed and prioritized in tandem with your evaluation stakeholders.⁵

Feasibility standards

Feasibility standards ensure that an evaluation will be realistic, prudent, diplomatic, and frugal.²

Focus group

A focus group is a type of qualitative research in which a group of people are asked their perceptions or opinions about a service or program.²⁴

Formative evaluation

Formative evaluation is usually conducted in the planning stages of a new program (or when a program is being revised) to help ensure that the program is feasible to implement, appropriate for the priority audience(s), and acceptable to program stakeholders (including program participants). Formative evaluation activities include needs assessments, pilot studies, concept testing, and message or materials testing (e.g., in WISEWOMAN, this could include testing a risk-reduction counseling protocol and materials). ¹⁰

Impact

An impact is the ultimate effect you expect to see from the program. Sometimes this is referred to as a program "aim." Impacts in public health programs are usually presented in terms of an effect on the population. Generally, it takes many years or decades before you may expect to see impacts of chronic disease prevention and control programs. 12,13

Impact evaluation

Impact evaluation refers to an assessment of the program in achieving its ultimate goals (e.g., in WISEWOMAN, this might refer to an assessment of the program's contribution to reduced morbidity and mortality due to cardiovascular disease or the economic impact of the program). ^{12,13}

Independent variable

An independent variable is a variable that is believed to have an influence over another variable (or variables). An independent variable may be a treatment or program intervention. ^{15,21} For WISEWOMAN, an independent variable could be participation in a lifestyle program.

Indicator

An indicator is a specific, observable, and measurable marker of change or accomplishment. An indicator should be something that is observed (e.g., a change in behavior), heard or reported (e.g., shared by program participants), or read (e.g., program records). This is somewhat similar to how you might identify SMART objectives for your program.

Inferential statistics

Inferential statistics are used to test for relationships between variables. These include correlational procedures (e.g., Spearman, Pearson, biserial), chi-square, analysis of variance, t tests, and regression). ^{15,16}

Inputs

Program inputs are resources that are invested into the program (e.g., funding sources, partners, staff, program materials).^{5,7}

Intermediate outcomes

Intermediate outcomes are effects of the program that take longer than short-term outcomes before a change is observed.^{5,7} Logically, you would expect your intermediate outcomes to take place sometime after you observe changes in short-term outcomes—the specific timeframe will be dependent on the nature of your intervention (e.g., duration and number of intervention points) and the specific intermediate outcomes to be assessed. Typically, you will find changes in behaviors among the intermediate outcomes of a program.

Interviews

Interviews are a form of data collection in qualitative research and usually involve semistructured interview guides. ¹⁵

Logic model

A program logic model visually illustrates the linkages between program activities and outcomes. Logic models can help in guiding evaluation activities and in interpreting the findings.^{5,7}

Long-term outcomes

Long-term outcomes reflect more distal effects of a program that can take months or years to accomplish (depending on the nature of your intervention and specific long-term outcomes to be assessed).^{5,7} These changes likely would be observed after you observe changes in short-term and intermediate outcomes.

Outcomes

The desired results of the program or what you expect to achieve. Program outcomes may be observed at an organization, system, or participant level.^{5,7}

Outcome evaluation

Outcome evaluation focuses on the short-term, intermediate, and sometimes long-term outcomes of the program.^{3,5,7,8} Outcome evaluation is used to determine the effectiveness of the program on your expected outcomes (e.g., in WISEWOMAN, outcome evaluation could involve assessing whether WISEWOMAN program participation was associated with change in physical activity behavior).

Outputs

Outputs are the direct and tangible results or products of program activities—often things that can be counted.^{5,7} These are often represented by documentation of progress on implementing program activities (e.g., program materials developed, partnerships formed, number of providers trained, women screened).

Pretest

A pretest is an assessment administered to program participants to determine their baseline upon entry into the program.⁸ For WISEWOMAN, the program pretest assesses participants' readiness to change.

Posttest

A posttest is an assessment administered to program participants after they have participated in the program to make comparisons against the baseline (e.g., readiness to change) over time.⁸

Process evaluation

Process evaluation is used to determine whether a program is being implemented as intended (e.g., in WISEWOMAN, process evaluation could include assessing whether evidence-based lifestyle interventions are implemented as designed). 3,5,8,15

Propriety standards

Propriety standards ensure that an evaluation will be conducted legally, ethically, and with due regard for the welfare of those involved in and affected by the evaluation.²

Protected health information

Protected health information (PHI) is information, including demographic information, which relates to a person's health condition or provision of health care. Protected health information includes many common identifiers (e.g., name, address, birth date, Social Security number) when they are associated with health information.²⁵

Qualitative methods

Qualitative methods are used to gather data in the form of notes, verbal responses, transcripts, and written responses. These methods generally allow you to capture thoughts, feelings, and perspectives. 4,15

Quantitative methods

Quantitative methods are methods used to gather numerical data to make calculations and draw conclusions. 10,16

Short-term outcomes

Short-term outcomes are expected to occur within a relatively short timeframe following the intervention. Short-term outcomes should logically lead to intermediate and long-term outcomes.^{5,7}

SMART objectives

SMART objectives are specific, measureable, achievable, relevant, and time-bound.⁴

Stakeholder engagement

Stakeholder engagement is the process by which a program or organization involves stakeholders who may be affected by the evaluation or findings from the evaluation.^{5,7,8,10}

Survey

A survey is a data collection generally through the use of a questionnaire. Surveys or questionnaires are useful for gathering different kinds of information in a consistent fashion from many participants.²⁶

Utility standards

Utility standards ensure that an evaluation will serve the information needs of intended users.²

Resources

Centers for Disease Control and Prevention

CDC Framework for Program Evaluation

The CDC Framework for Program Evaluation summarizes and organizes the steps and standards for effective program evaluation.

www.cdc.gov/eval/framework/index.htm

The Guide to Community Preventive Services (The Community Guide)

The Guide to Community Preventive Services is a credible resource for evidence-based recommendations and findings on interventions and policies that improve health and prevent disease in communities. A user can conduct a search on various topics, such as nutrition, obesity, physical activity, tobacco, and diabetes. Also, the Community Guide provides information on policies, programs or services, funding, research, and education.

www.thecommunityguide.org/index.html#topics

Division for Heart Disease and Stroke Prevention (DHDSP) Evaluation Resources

DHDSP has developed evaluation tools and resources to assist State health departments, tribal organizations, communities, and partners in their programmatic and evaluation efforts.

- Field notes
- Program evaluation guides
- Evaluation tip sheets
- Indicators spotlights
- Podcasts/Webinars
- Program/project evaluations

www.cdc.gov/dhdsp/evaluation resources.htm

Division of Adolescent and School Health (DASH) Evaluation Resources

DASH provides a number of evaluation resources and a series of evaluation briefs, including the following:

- Data Collection Methods for Program Evaluation: Focus Groups (No. 13, July 2008)
- Data Collection Methods for Program Evaluation: Questionnaires (No. 14, November 2008)
- Checklist to Evaluate the Quality of Questions (No. 15, November 2008):

- Data Collection Methods for Program Evaluation: Observation (No. 16, December 2008)
- Data Collection Methods for Program Evaluation: Interviews (No. 17, January 2009)
- Data Collection Methods for Program Evaluation: Document Review (No. 18, January 2009)
- Analyzing Qualitative Data for Evaluation (No. 19, April 2009)
- Analyzing Quantitative Data for Evaluation (No. 20, July 2009)
- Increasing Questionnaire Response Rates (No. 21, July 2010)
- Using Incentives to Boost Response Rates (No. 22, July 2010)
- Using Ordered Response Options To Collect Evaluation Data (No. 23, July 2011)

www.cdc.gov/healthyyouth/evaluation

Impact and Value: Telling Your Program's Story

www.cdc.gov/OralHealth/publications/library/pdf/success story workbook.pdf

- Introduction to Program Evaluation for Public Health Programs: A Self-Study Guide www.cdc.gov/eval/guide/CDCEvalManual.pdf
- Practical Use of Program Evaluation Among Sexually Transmitted Disease (STD)
 Program

This manual from the Division of STD Prevention provides step-by-step guidance on how to design and implement a program evaluation according to the six steps of the CDC Program Evaluation Framework.

www.cdc.gov/std/program/pupestd.htm

Program Evaluation Web Site

This Web site contains documents and resources specific to the CDC Evaluation Framework, as well as links to other general resources on program evaluation:

- Step-by-step manuals
- Logic models
- Data collection methods and sources
- Evaluation of specific types of programs or interventions
- Web sites offering comprehensive evaluation resources and assistance
- Key professional associations
- Key journals

www.cdc.gov/eval/resources/index.htm

Selecting an Evaluation Consultant

www.cdc.gov/healthyyouth/evaluation/pdf/brief1.pdf

American Evaluation Association (AEA)

The American Evaluation Association is an international professional association of evaluators devoted to the application and exploration of program evaluation, personnel evaluation, technology, and many other forms of evaluation. AEA's goal is to be the preeminent source for online resources of interest to evaluators.

www.eval.org

• Coffee Break Demonstration Series, List of Past Webinars (public)

AEA's Coffee Break Demonstrations (CBD) are short, 20-minute Webinars by and for evaluators on a wide variety of evaluation topics, including data analysis and reporting. http://comm.eval.org/coffee_break_webinars/Resources/ListofPastWebinarsPublic1

Find an Evaluator

If you are interested in finding an evaluation consultant and you are not sure where to look, consider the American Evaluation Association's Find an Evaluator tool to find an evaluation consultant near you.

www.eval.org/p/cm/ld/fid=108

The Evaluation Center (Western Michigan University)

The Evaluation Center is committed to advancing the theory, practice, and utilization of evaluation through research, education, service, and leadership.

www.wmich.edu/evalctr

Wilder Research

Wilder Research works with organizations of all sizes at the local, State, and national level to help them bring about needed change, increase their effectiveness, and demonstrate the value of what they do. Here, we highlight a few key resources, including resources that may be especially helpful to WISEWOMAN programs conducting evaluation on a tight budget.

Analyzing and Interpreting Data

www.evaluatod.org/resources/evaluation-guides/Analyzing InterpretingData 8-09.pdf

Data Entry and Analysis Guide

www.evaluatod.org/resources/evaluation-guides/DataEntryAnalysis 2-09.pdf

Effectively Using Qualitative Data

http://bit.ly/1utC70p

Evaluation on a Shoestring Budget

http://bit.ly/1yX6FNz

Finding Funds: Sources and Tips

http://bit.ly/1vWCvsP

Glossary of Key Data Analysis Terms

http://bit.ly/1BBNye5

Making Sense of Your Data

http://bit.ly/1lGlz05

Organizing and Analyzing Your Data

http://bit.ly/1whERIU

University of Wisconsin-Extension

The University of Wisconsin-Extension provides a number of practical, easy-to-use guides that may be useful to agencies or funders who are seeking assistance with realistic evaluation strategies:

- Questionnaire design: Asking questions with a purpose
- Sampling
- Collecting evaluation data: An overview of sources and methods
- Collecting evaluation data: Direct observation
- Analyzing quantitative data
- Analyzing qualitative data
- Using graphics to report evaluation results
- Using Excel for analyzing survey questionnaires

www.uwex.edu/ces/pdande/evaluation/evaldocs.html

Books

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- Dillman DA, Smith JD, Christian LM. Internet, mail, and mixed-mode surveys: The tailored design method. 3d ed. Hoboken (NJ): Wiley & Sons; 2009.
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