Older Adult Falls Prevention Program Evaluation Guidance

NACCHO
National Association of County & City Health Officials

Contents

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Falls Prevention Evaluation Template

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Katherine Palm, MSW, MPM

Bailey McInnes, MPH

Sarah D. Matthews, MPH, MS, PhD

Lorraine Twohey-Jacobs, MS

Sandra Ruzycki, MA

Introduction

The purpose of an evaluation in public health is to determine the effectiveness of a specific program and understand areas for programmatic improvement. [1],[2] By consistently integrating program evaluation processes into day-to-day operations, local health departments (LHDs) can effectively gather data needed to make decisions about the programs they offer. [1]

This guidance provides insight into the evaluation process for LHD programs in general and includes specific examples for evaluating an older adult falls prevention program. This guidance is an overview and is not a replacement for more extensive evaluation training in critical thinking, problem-solving, data interpretation, and logical reasoning. There are many resources that can be used to understand the framework for program evaluation in public health programs.

Evaluation is a process of collecting and analyzing data to answer one or more questions. The type of evaluation is determined by the nature of the question. Below are some example questions that might be considered for older adult fall prevention.

- Do the elements in the older adult fall prevention program fit the needs of the target population? (Formative)
- How well is the older adult fall prevention program working as designed? (Process)
- How well do the older adult fall prevention program activities meet the objectives? (Outcome)
- How much change in outcomes can be attributed to the older adult fall prevention program? (Outcome & Impact)
- What decisions can be made based on the objective evidence found in our evaluation of the older adult fall prevention program?

All types of evaluation are important, and programs will often be designed with some form of both formative and summative evaluations. The question posed will determine the type of evaluation to undertake. These questions also help to identify the measurements needed.

- What is the definition of the thing being measured?
- How much do we (currently) know about the thing now?
- Where and how can we get this information?

Data Literacy: Before you Measure

Before you measure, it is important to understand the basics of measurement. Public health measurements can include a variety of variables from a number of data sources. Data is the result of some form of measurement, and different types of measurement result in different forms of data.

Types of Data

Quantitative: Expressed as a number. Usually has units. Used when you want to understand relationships between variables or to understand trends and patterns.

- Discrete: Counting (e.g., number of patients)
- Continuous: Measurement (e.g., weight, exact age)

- Nominal Data: Categorical or factor variables (e.g., marital status, insurance status, perceptions of services, beliefs about fall prevention activities, etc).
- Some Nominal Data are binary, only taking two possible values (e.g., married/not married, insured/not insured, etc).
- Ordinal Data: Value that is ordered (e.g., Likert or rating scale, Pain Scale, etc).

Qualitative: Information or concepts not represented by numbers and used to form hypotheses to test using quantitative data. Often gathered from interviews, focus groups, photographs, other printed materials or observations. Used to understand the population of focus, concepts, thoughts, experiences, etc.

- Open-Ended: Data that is free-form and provides more context (e.g., ways a person would like to receive fall prevention information or programming, barriers and facilitators to participation, program satisfaction, etc).

The table below compares qualitative and quantitative data in general.

Types of Data	Qualitative	Quantitative
Purpose	Answer "Why" question	Answer "How many/much" question
Data Type	Non-Numerical Observation, Symbol, Word	Number/Statistical results
Approach	Observe and interpret	Measure and test
Analysis	Grouping of common data/ non-statistical analysis	Statistical analysis
Strengths	In-depth insights, flexibility	Precision, Objectivity
Weakness	Time-consuming, subjective	May lack depth, rigid

When we look at older adult falls prevention programs, the data may look like this:

Qualitative	Quantitative
Barriers or facilitators to participating in fall prevention program	Age, BMI Number of patients by demographic (race, ethnicity, sex)
Types of services or assessments	Number of each type of service or assessments – Score or results from assessments completed
Satisfaction with program	Rate at which customer satisfaction survey is completed
Attitudes and beliefs about fall risk	Number of patients
Data entry workflow	Difference in dates between dates of services or assessments and date of data entry Number of minutes to complete data entry
Data extraction process	Number of minutes to extract data from electronic health record or other data systems
Program resources (data collection tools, assessments, staff, processes, products, etc.)	Number of falls before, during, or after program participation
Partnership development	Number of referral partners engaged in program

When possible, it is best to combine both types of data to form a more complete picture.

Now that we have a basic understanding of types of data, we move to the data science process sequence. Before you begin your evaluation, ensure that the components of the data science process sequence are in place.

The process begins with the question where do we collect/intake the data? **Data intake** can be from a primary (collect it directly) or secondary (collected by someone else) source using structured (e.g., medical records, databases) or unstructured (e.g., text description from a medical record, online traffic) data.[3] Data intake for older adult falls prevention programs is usually collected using program assessments (e.g., fall risk assessment, patient intake form, home safety assessment, customer satisfaction survey). Once the data is collected, **data storage** becomes important so that it can be reliably and readily accessed while adhering to security, confidentiality and privacy considerations. Proper storage enables workflow and processes so that data is usable when and how it needs to be used. Data storage for an older adult falls prevention program may include the medical record or program database. Data stored in an electronic health record should be easily accessible. Storing data in a progress note or any data field that is not distinct will require additional time for data extraction and/or data entry methods. Some examples for data collection and storage used in older adult fall evaluation programs include the use of macro-enabled Excel worksheets, Smartsheet, Google forms, and/or Microsoft forms.

After the data is collected and stored, the data are then tested and manipulated using a scientific method, this is data analytics. Data analytics includes interpreting and visualizing the data. Finally, data communication is vital in presenting the data results and implications to empower decision-making and action.[3]

Data Science Process Sequence	Older Adult Falls Prevention Program Examples
Data Intake	Program assessments (e.g., fall risk assessment, patient intake form, home safety assessment, customer satisfaction survey).
Data storage	Medical records, program database
Data analytics	Analyzing and interpreting program assessments and qualitative feedback
Data communication	Leadership, community presentations, program partners, working collaborators

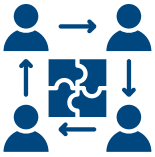
Types of Evaluation

Once a data science process sequence has been established the next step is creating an evaluation plan. The first step to a proper evaluation is determining appropriate evaluation design.

Determining the Appropriate Program Evaluation Design

Effective program evaluations are important aspects of public health program development that utilize a systematic way to improve and account for public health actions through a useful, feasible, ethical, and accurate process.[5] Evaluating older adult falls prevention programs allows LHDs to understand the feasibility, effectiveness, and sustainability of their falls prevention program.[5] An evaluation of older adult falls prevention programs is not solely focused on outcomes-based measures of program effectiveness, but can also investigate other data points to understand the program's effectiveness in helping reduce older adult falls.[5]

Determining the most appropriate evaluation purpose for a clinical older adult fall prevention program requires the collaboration of the clinical and community partners to create a feasible evaluation based on the available data or data that is possible to collect.[5] The CDC has created a framework for public health program evaluation which recommends the following practices and standards for an effective program evaluation.[6]



Step 1: Engage Partners

Identify, engage, and collaborate with integral partners within this work. Partners for clinical older adult falls prevention programs may include clinical staff, older adults, caregivers, funding agencies, and policy makers. [5]

Step 2: Describe the program

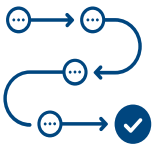
Describing and creating a shared understanding of the program goals and expectations is a vital step for clinical older adult falls prevention programs. The program description includes the need for the falls prevention program, how the program will identify older adults at risk for falls, and a logic model for the program.[5]

Step 3: Focus the evaluation design

Determine which type of evaluation design is the most appropriate for your program. [5]

Step 4: Gather credible evidence

Credible evidence should answer the evaluation question created by the programmatic partners. Evidence may include key metrics such as the number of older adults referred to the fall prevention program, the percentage of older adults assessed for fall risk factors, or the number of fall-related 911 calls after program implementation.[5]



Step 5: Justify conclusions

Conclusions are supported by analyses collected from evaluation methods mentioned in the previous step. Data analyses can support certain conclusions, such as there being a decrease of fall-related 911 calls and fall-related emergency department visits among program participants after their involvement in the clinical older adult fall prevention program.[5]

Step 6: Ensure use and share lessons learned

Evaluation findings and conclusions should be disseminated to program partners to improve the fall prevention program, justify the use of resources, share best practices, and show program effectiveness. [7]

After determining the purpose of the program evaluation, in collaboration with engaged partners, the next step is utilizing the purpose of the evaluation to decide what type of evaluation to conduct and identify the proper evaluation question(s).[5] There are several types of program evaluations, including the following:

Formative Evaluation

A formative evaluation can provide data to inform the feasibility, appropriateness, and acceptability of a program before the program is implemented.[5] This type of evaluation is typically conducted when a new program or program activity is being developed or when an existing program is being adapted or modified.[5] Formative evaluations provide information to guide program improvement and maximize the likelihood that the program will succeed. For programs that engage the community, the formative evaluation can also assess the process by which partnerships are created and maintained.[8]

Clinical Older Adult Fall Prevention Formative Evaluation Checklist

There are a few important initial steps and considerations to design an effective formative clinical older adult falls prevention program evaluation.

- ☐ **Create an implementation/evaluation team** – The implementation/evaluation team oversees the implementation of the formative evaluation for an older adult falls prevention program. [9]
  - This team is responsible for drafting the evaluation plan, analyzing the data, sustaining the program, and implementing the program or program activity. [9]
  - This team may evolve and shift over time depending on the stage of the program, but it is important to include members who participate in the implementation/evaluation of the older adult falls prevention program and can identify and address potential challenges.[9]
- ☐ **Engage appropriate partners** – An essential part of the formative evaluation is engagement with the appropriate partners to identify barriers to program implementation, collect appropriate data measures, and modify the intervention based on the evaluation.[10]
  - Partners to consider engaging in a clinical older adult falls prevention program include: agency leaders, clinicians, program staff, patients, caregivers, evaluators, external partners, or any other important and engaged partners. [10],[9]
- ☐ **Identify theory of change** – Clearly outline what activities will be implemented throughout this program to prevent older adult falls and how these activities will change the outcomes for older adults.
  - During this step, it may be helpful to create a logic model that includes all project components and specific resources, inputs, activities, outputs, and outcomes.

Process/ Implementation Evaluation

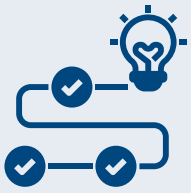
A process or implementation evaluation determines whether program activities have been implemented as intended.[12] A process evaluation is conducted throughout program implementation and focuses on the program inputs, activities, and outputs.[7] The results of a process evaluation can help improve program activities, understand the program outcomes, measure the efficiency of the program, and identify the challenges of the program.[7] Process/implementation evaluations also help programs understand if they are accessible and acceptable to their intended participants.[5]

Clinical Older Adult Fall Prevention Process Evaluation

Process evaluations are essential elements of clinical older adult fall prevention programs to help streamline the program and address the efficiency of specific processes. To create an effective process evaluation, it is important to consider the inputs, activities, and outputs of the program. Examples of input, activity and output questions related to older adult falls related programs that may guide an effective process evaluation are:

Inputs

- Does the program have the capacity to run the planned activities?
- How many clinicians and program staff were trained on the fall prevention workflow?



Activities

- Were activities implemented as planned?
- Did activities produce the intended outcomes?

Outputs

- Were activities implemented?
- Did activities produce the intended outcomes?

Clinical Older Adult Fall Prevention Outcome Evaluation – Examples:

An outcome evaluation measures program effects among intended participants by assessing the progress in the outcomes or outcome objectives that the program will achieve.[5] This type of evaluation focuses on the short-term, intermediate, and long-term health effects/ outcomes of the program. [7] Although an outcome evaluation is generally implemented later in the program's timeline it is crucial to begin planning and collecting baseline data at the beginning of the program.[7]

Short-term outcomes:

- Increase screening for fall risk among older adults
- Increase assessment of risk factors among at-risk patients
- Reduce fall risk factors

Intermediate outcomes:

- Older adults spoke with their healthcare provider about their fall risk[13], [14]
- Older adults saw a physical therapist[15]
- Older adults attended a Tai Chi class[16]
- Older adults followed through on all fall prevention recommendations

Long-term outcomes:

- Reduction in self-reported falls[17]
- Reduction in 911 calls for falls
- Reduction in ED visits for falls

Data Literacy: Data Requirements

To fully understand the data requirements, data literacy is essential. Data literacy is the ability to find meaning in data and involves five key concepts.[3] **Data quality** is knowing when data meets requirements for accuracy, completeness, validity, consistency, uniqueness, timeliness, and fitness for purpose/relevance.[4],[18] **Data logic** is essential to preventing false conclusions from being drawn or acted upon and occurs when data is interpreted incorrectly which may result in false assumptions or flawed decision making. The table below lists some common data fallacies and how to avoid them.

Data fallacy	Description	How to avoid
Overgeneralization	A conclusion about a group is drawn from an unrepresentative sample or small subset. A conclusion about a group is applied to a larger population.	Recognize the limitations of your data and avoid drawing sweeping conclusions from limited responses.
Causation versus correlation	Causation is the effect one variable has on the other, while correlation is the relationship between variables. The variables can be correlated but it does not mean that one variable is causing the other.	Explain findings as associations rather than concluding that one variable caused another. If appropriate, gather longitudinal data and perform the appropriate statistical analysis.
Incomplete data	The data fields are missing a significant number of values.	Consider diverse sources of information and acknowledge limitations of missing information.
Cherry Picking	Highlighting evidence to support a theory while ignoring larger amounts of evidence that support a different conclusion.	Check that you are accounting for all the relevant evidence and challenge your assumptions and hypotheses.
Selection effect	The sample is not representative of the target population. This happens frequently when the sample is convenient (i.e., all the patients in the program).	Use random sampling techniques and ensure that the sample is representative of the population being evaluated. As with overgeneralization, avoid drawing sweeping conclusions. There may be biases in sample populations that are not representative of the general population.

Data fallacy	Description	How to avoid
Sample size	Sample size is the number of observations or individuals included in a study. It is the number of individuals, items, or data points selected from a larger population to represent it statistically.	Avoid drawing conclusions based on a sample that is too small to be representative of a larger population. In general, a larger sample size will provide more accurate results. For formative and process evaluations, a small sample size of 30 patients with less than 5% missing data in each field is sufficient to draw conclusions.
Confirmation Bias	Confirmation bias is the tendency to seek out and interpret data in a way that confirms our existing beliefs or preconceived notions rather than considering all available evidence. It is a cognitive bias that can lead to inaccurate conclusions.	Be objective and open-minded when analyzing data, be willing to change your mind and consider all the evidence available, rather than just the evidence confirming your views. Seek out different perspectives, especially from those who hold opposing views. Use multiple data sources and methods and challenge your assumptions and hypotheses.

Data communication is the ability to use the data in a manner that it can be received, understood, and acted upon. **Data reliability** is essential for building trust and credibility.[3] Valid data refers to data that is correctly formatted and stored. **Valid data** can be incomplete (e.g., missing entries). It is an important component of reliable data, but validity alone does not guarantee reliability.[4],[18]

To check if the data is reliable, we ask:

1. Is the data correctly formatted and stored in the right way? - Validity
2. Does the dataset include values for all the fields required? - Completeness
3. Is the data free from duplicates and dummy entries? - Uniqueness

Data quality checks ensure the validity and reliability of your results. These checks should be implemented throughout your data collection process. Only good quality data can power accurate analysis, which in turn can drive decisions, strategic planning, and identification of critical next steps. The Data Quality Checklist (see Appendix A) is provided to help with data quality checks.

Ultimately, we want to align the data that we are already collecting or plan to collect with the evaluation questions we posed.

1. Does the data we have align with the questions we posed?
2. If not, is there other validating data within the dataset that can be accessed?
3. If not, are we measuring the right thing? Do we need to collect additional data?
4. If the data is aligned, is the data complete, consistent, and timely?
5. If the data is aligned, is the data unique (e.g., each attribute is a separate data point rather than stored together)?
6. If the data is aligned, is the data formatted correctly (qualitative, quantitative, or both)?

This method is iterative. When reviewing your data, you should frequently go back to the purpose of your evaluation and the questions you are trying to answer. It is important to continually review your evaluation questions and make decisions regarding the alignment between the evaluation questions and the data that is being collected. Oftentimes, the data collection tools need to be adjusted to ensure that the data is relevant, reliable, and valid. Metrics may need to be separated into unique data points (e.g., separating name and age), yes/no responses may need to be further defined into specific categories (e.g., if yes, select the reason from the list provided), and/or new metrics developed.

It may be helpful to set up a table with your Formative, Process, and Outcome Evaluation questions in the left column and the specific data source in the right column. This will help you determine what data sources may be missing (and need to be developed) for each specific evaluation question. It also helps you answer the questions posed above regarding data quality. The table below provides some examples of questions you might ask in an evaluation and the data that may align with answering the question posed.

Specific Measures

The purpose of an evaluation in public health is to determine the effectiveness of a specific program and understand areas for programmatic improvement. [1],[2] By consistently integrating program evaluation processes into day-to-day operations, Local Health Departments (LHDs) can effectively gather data needed to make decisions about the programs they offer. [1]

This guidance provides insight into the evaluation process for LHD programs in general and includes specific examples for evaluating an older adult falls prevention program. This guidance is an overview and is not a replacement for more extensive evaluation training in critical thinking, problem-solving, data interpretation, and logical reasoning. There are many resources that can be used to understand the framework for program evaluation in public health programs.

Questions	Data-Measurement, Indicators
What do various stakeholders (e.g., participants, staff, administrator, funders, etc.) consider important to the program? (Formative evaluation)	Responses to questions on elements that are of importance on a stakeholder survey.
What monitoring system has been established to assess implementation on an ongoing basis? (Formative evaluation)	Description of the monitoring system and how it is being used. Successes of the monitoring system. Challenges or barriers of the monitoring system.
What does the target population think about the services? Are they satisfied? (Process evaluation)	Number of satisfied and dissatisfied responses on the Customer Satisfaction Survey questions that address services. Description of complaints or compliments received by the target population on the services provided.
Data communication	Number of program objectives met. Number of older adult falls risk assessments completed. Number of home safety checklists completed. Number of satisfied clients. Feedback from program staff. Facilitators and Barriers Successes and Challenges
Are the services beneficial to the target population? (Outcome evaluation)	Comparison of older adult falls risk assessment score prior and after program participation. The number, description, and type of corrective actions identified and corrected on the falls home safety checklist.
Is the problem (older adult falls) that the program intends to address alleviated? (Outcome evaluation)	The number of older adult falls prior to program implementation compared to number of older adult falls after program implementation.

Appendix A

Data Quality Checklist

Relevant - Is there relevant data available for this indicator?

Validity - Data should clearly and adequately represent the intended result.

1. Does the information collected measure what it is supposed to measure? (e.g., STEADI fall risk score is a valid measure for older adult falls risk, but it is not a valid measure for overall health.)
2. Does the data collected occur within a plausible range?
3. Is there reasonable assurance that the data collection methods being used do not produce systematically biased data (e.g., consistently over or under counting)?
4. Are sound research methods being used to collect the data?

Reliability - Data should reflect stable and consistent data collection processes and analysis methods over time.

1. When the same data collection method is used to measure/observe the same thing multiple times, is the same result produced each time? (e.g., A ruler used over and over always indicates the same length for an inch.)
2. Are data collection and analysis methods documented in writing and being used to ensure the same procedures are followed each time?

Timelines - Data should be available at a useful frequency, should be current, and should be timely enough to influence management decision making and strategic planning efforts.

1. Are data available frequently enough to inform program management decisions?
2. Are the data reported the most timely data available?
3. Are the data reported as soon as possible after collection?

Precision - Data have a sufficient level of detail to permit management decision making (e.g., the margin of error is less than the anticipated change.)

1. Is the margin of error less than the expected change being measured? (e.g., If a change of only 2% is expected and the margin of error in a survey used to collect the data is +/- 5%, then the tool is not precise enough to detect the change.)
2. Has the margin of error been reported along with the data? (Only applicable to results obtained through statistical samples.)
3. Is the data collection method/tool being used to collect the data fine-tuned or exact enough to register the expected change? (e.g., A yardstick may not be a precise enough tool to measure a change of a few millimeters.)

Integrity - Data collected should have safeguards to minimize the risk of transcription error or data manipulation.

1. Are the procedures or safeguards in place to minimize data transcription errors?
2. Is there independence in key data collection, management, and assessment procedures?
3. Are mechanisms in place to prevent unauthorized changes to the data?

(adopted from USAID)

Older Adults Fall Prevention Program Evaluation Plan Template

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The Evaluation Plan Template is created by Health Communications Consultants, Inc. (HCC, Inc.) to assist public health programs in creating an evaluation plan. An evaluation plan is a written document that:

1. Describes how to monitor and evaluate a program
2. Uses evaluation results for program improvement and decision making
3. Describes what the program did
4. Clarifies how the program worked, and
5. Explains why outcomes matter. HCC, Inc. utilized the Centers for Disease Control and Prevention's (CDC's) *TB Program Evaluation Guide* (CDC, 2013) and *Developing an Effective Evaluation Plan: Setting the Course for Effective Program Evaluation* as guides to create this template (CDC, 2011). The template was designed to be used in conjunction with facilitated consultation.

This template was created with 10 sections:

1. Introduction
2. Background & Description of Program
3. Program Logic Model
4. Action Plan
5. Focus of the Evaluation
6. Gathering Credible Evidence: Data Collection
7. Analysis and Interpretation
8. Report and Dissemination
9. References
10. Appendices

Each section is briefly described and contains sub-sections with prompt questions. The sections also contain editable figures, tables and templates.

Introduction

To initiate an evidence-based, systems approach to evaluation, evaluators ask "What is the problem/goal we are trying to evaluate." Next, the evaluation team is identified. The prompt questions in the Evaluation Goal subsection are used to assist in writing the introduction of the evaluation plan. Tables 1 & 2 can be used to visualize the evaluation team and stakeholder assessment.

Evaluation Goal

- What does this evaluation strive to achieve?
- What is the purpose and use of this evaluation?

Evaluation Team

- Lead Evaluator
- Team Members
- Evaluation Advisory Group (optional)

Table 1: Roles and Responsibilities of the Evaluation Team Members		
Individual	Title or Role	Responsibilities

Stakeholder Assessment

Who are the stakeholders for the program?

- *Stakeholders are consumers of the evaluation results. As consumers, they will have a vested interest in the results of the evaluation. In general, stakeholders are those who are: 1. Interested in the program and would use evaluation results, such as clients, community groups, and elected officials; 2. Involved in running the program, such as program staff, partners, management, the funding source, and coalition members; and 3. Served by the program, their families, or the general public. Others may also be included as these categories are not exclusive.*

What role do they have in the evaluation?

How do you plan to engage the stakeholders (i.e., conduit for coalition, advisory board, project teams)?

Table 2: Stakeholder Assessment and Engagement Plan			
Stakeholder Category	Interest or Perspective	Role in the Evaluation	How and When to Engage

Background & Description of Program

A program description clarifies the program's purpose, stage of development, activities, capacity to improve health, and implementation context. A shared understanding of the program and what the evaluation can and cannot deliver is essential to the successful implementation of evaluation activities and use of evaluation results. The following questions can be used during the initial meeting to develop the background and description of the program.

Identifying the goals and needs of the project site in the Developing the Capacity to Support Older Adult Fall Prevention Project.

Background & Description

- Briefly describe your organization's Falls Prevention Program.
- What motivated your organization to participate in NACCHO's Developing the Capacity to Support Older Adult Fall Prevention Project?
- Why is the program needed (i.e., magnitude, cause(s), and trends of older adult falls)?

- What is the epidemiology, including the age adjusted incidence rate of fall related deaths and injury, for each jurisdiction within the project disaggregated by institutionalized verses non-institutionalized, age, sex and/or gender, race, ethnicity, neighborhood, and other sociodemographic characteristic when possible?
- Who is the target population of this program?

Objectives

Describe your goals/objectives for this project.

- What are the identified measurable outcomes?
- What are the identified activities to achieve those outcomes?
- What is the timeline for those outcomes?

Resources/Inputs

What resources are available to the program in terms of staff, money, space, time, partnerships, etc.?

Outputs

What products (i.e., materials, units of services delivered) are produced by your staff from the activities?

Outcomes

What are the program's intended outcomes (intended outcomes are short-term, mid-term, or long-term)?

Program Logic Model

Logic models are a visual display of the pathway from actions to results and assumes a relationship of three basic system components: Inputs, thruputs/outputs, and outcomes.

- Inputs are the resources used by the program and are identified by asking the question "What do we invest?" (e.g., money, supplies, staff, and ideas).
- Thruputs/outputs are the direct products of the program activities (i.e., number of clients served) which has the subcomponents of activities (the services the program provides or the work that is performed) and participation identified by asking "What will we do?" and "Who will we reach?", respectively.
- The outcomes are the benefits resulting from the program activities (e.g., improved health, new knowledge, better skills, etc.), which are identified by asking "What are the results or impacts?" Outcomes can occur at different levels and may be measured at the individual, group, organization, or community level.

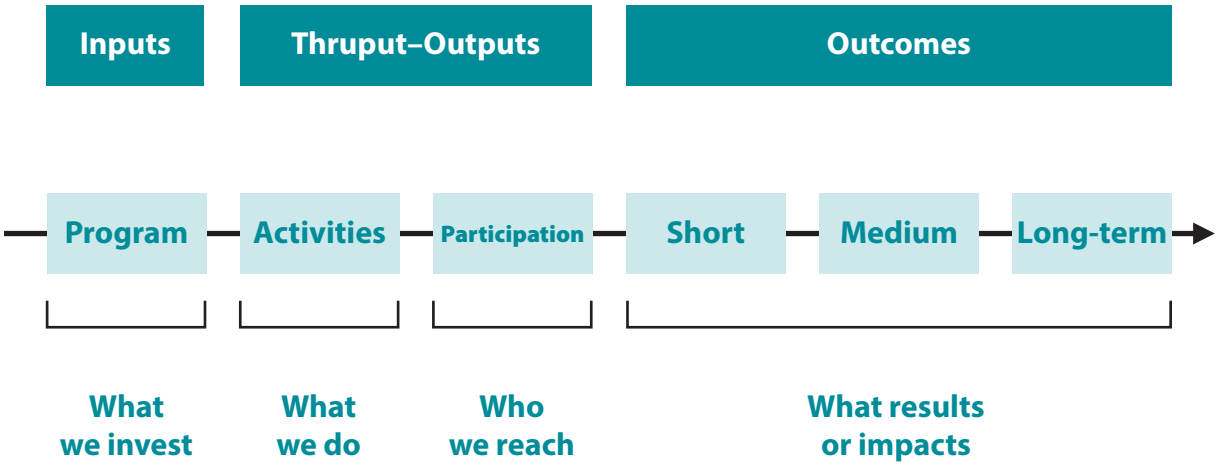

Figure 1: Evidence Based System Approach to Evaluation Logic Model (Matthews & Wan, 2022)

The table below helps visualize and guide the methodology for this project using the logic model guide. Complete each box with the appropriate problem statement, inputs, outputs and outcomes for the project. There is a separate box for assumptions.

Problem Statement				
Input	Outputs		Outcomes	
Activities		Outputs	Short/Mid	Long
•	•	•	•	•
Assumptions				
•				

Action Plan

The Action Plan template below may be used to visualize the information identified by the Logic Model by separating out each objective and strategy. To create an objective, use the SMARTIE acronym described below.

Priority Issue					
Goal (Aim):					
Objective #1:					
Strategy #1:					
Key Actions	**Lead Role & Community Resources**	**Target Date for Completion**	**Status of Progress**	**Evaluation Measure**	**Evaluation for Results**
Action #1:					
Action #2:					
Action #3:					
Action #4:					
Action #5:					

SMARTIE Objectives

- Specific: Concrete, detailed, and well-defined.
- Measurable: Numbers and quantities provide means of measurement and comparison.
- Achievable: Feasible and easy to put into action.
- Realistic: Considers constraints such as resources, personnel, cost, and time frame.
- Time-Bound: A time frame helps to set boundaries around the objective.
- Inclusive: Input considered and incorporated from the population of focus and community of partners where appropriate.
- Equitable: Addressing the unique needs and circumstances of different populations and disparities.

Focus of the Evaluation

The scope and depth of any program evaluation is dependent on program and stakeholder priorities and available resources, including financial resources; staff and contractor availability, and amount of time committed to the evaluation. Establishing the focus of the evaluation begins with the identification of the primary purposes and the primary intended users of the evaluation.

Stakeholder Needs

- Who will use the evaluation findings?
- How will the findings be used?
- What do they need to learn from the evaluation?

Evaluation Questions

What are your evaluation questions (include process driven or outcome driven evaluation questions)?

- ***Outcome evaluations** assess the effectiveness of a program in producing change. Outcome evaluations focus on difficult questions that ask what happened to program participants and how much of a difference the program made for them. Outcome evaluation, as the term implies, focuses on the last three outcome boxes of the logic model: short-term, intermediate, and long-term outcomes.*
- ***Process evaluations** help stakeholders see how a program outcome or impact was achieved. The focus of a process evaluation is on the types and quantities of services delivered, the beneficiaries of those services, the resources used to deliver the services, the practical problems encountered, and the ways such problems were resolved. In general, process evaluation focuses on the first three boxes of the logic model: inputs, activities, and outputs (CDC, 2008)*

What do you want to learn from the evaluation?

Evaluation Design

Which type of evaluation design is best suited for the data?

Resources Consideration

What resources are available to conduct the evaluation?

What data are you already collecting?

Evaluation Design

How will you address the standards for effective evaluation - utility, feasibility, propriety, and accuracy?

- ***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.*
- ***Accuracy:** Evaluation is comprehensive and grounded in the data.*

Figure 2: Types of Evaluation (CDC, 2007)

Evaluation Types	When to use	What it shows	Why it is useful
Formative Evaluation Evaluability Assessment Needs Assessment	• During the development of a new program. • When an existing program is being modified or is being used in a new setting or with a new population.	• Whether the proposed elements are likely to be needed, understood, and accepted by the population you want to reach. • The extent to which an evaluation is possible, based on the goals and objectives.	• It allows for modifications to be made to plan before full implementation begins. • Maximizes the likelihood that the program will succeed.
Process Evaluation Program Monitoring	• As soon as program implementation begins. • During operation of an existing program.	• How well the program is working. • The extent to which the program is being. implemented as designed. • Whether the program is accessible and acceptable to its larger population.	• Provides an early warning for any problems that may occur. • Allows programs to monitor how well their program plans and activities are working.
Outcome Evaluation Objectives-Based Evaluation	• After the program has made contact with at least one person or group in the target population.	• The degree to which the program is having an effect on the target population's behaviors.	• Tells whether the program is being effective in meeting it's objectives.
Economic Evaluation: Cost Analysis, Cost-Effectiveness Evaluation Cost-Benefit Analysis Cost Utility Analysis	• At the beginning of the program. • During the operation of an existing program.	• What resources are being used in a program and their costs (direct and indirect) compared to outcomes.	• Provides program managers and funders a way to assess cost relative to effects. "How much bang for your buck".
Impact Evaluation	• During the operation of an existing program at appropriate intervals. • At the end of a program.	• The degree to which the program meets its ultimate goal on an overall rate of STD transmission (how much has program X decreased the morbidity of an STD beyond the study population).	• Provides evidence for use in policy and funding decisions.

Gathering Credible Evidence: Data Collection

The types of data needed should be reviewed and considered for credibility and feasibility. Based on the methods chosen, you may need a variety of inputs, such as case studies, interviews, naturalistic inquiry, focus groups, standardized indicators, and/or surveys. You will want to consider multiple data sources and the triangulation of data for reliability and validity of the information. Data may come from existing sources (e.g., Behavioral Risk Factor Surveillance System, Florida Shots, Electronic Medical Records (EMR), TRAH.org, NCOA.org, CDC, etc.) or gathered from program-specific sources (either existing or new). You may need to establish surveillance and evaluations systems to collect data on burden and specific outcomes. The form of the data (either quantitative or qualitative) and specifics of how these data will be collected must be defined, agreed upon as credible, and transparent.

Indicators

How will you measure success?

What are some of the measurable or observable elements that can tell you about your program and its effects or impacts?

Table 3: Indicators and Program Benchmark for Evaluation Questions		
Evaluation Question	**Process and Outcome Indicators**	**Program Benchmark**
1.		
2.		

Data Collection

What methods will you use to collect the data?

Where is the data?

How often will it be collected?

Who is responsible for collecting the data?

How will you manage and store the data (long-term storage; responsibility of privacy clauses)?

Are there data sharing agreements?

What specific software will be utilized?

Lesson Learned:

- Identify lessons learned at the conclusion of the data collection period.
- Identify facilitators and challenges to conducting evaluations.
- Identify recommendations around methods, indicators, and/or evaluation frameworks depending on program types or activities, evaluation-related goals, current program monitoring and evaluation efforts, and potential barriers or challenges for data collection and analysis.

Table 4: Data Collection Plan				
Indicator	**Data Sources**	**Collection**		
		Who	When	Where

Plan Timeline

When will evaluation activities occur?

Table 5: Illustrative Timeline for Evaluation Activities				
Evaluation Activities	**Timing of Activities for [YEAR]**			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter

Analysis and Interpretation

The analysis and interpretation section includes analyzing the information collected, interpreting, and drawing conclusions from the data. As part of the stakeholder driven process, there is often pressure for data interpretation to reach beyond the evidence when conclusions are drawn. It is the responsibility of the evaluation team to ensure conclusions are drawn directly from the evidence.

Analysis

What method will you use to analyze your data (quantitative or qualitative techniques)?

Table 6: Analysis Plan	
Data Analysis Technique	**Responsible Person**

Interpretation

Who will you involve in drawing, interpreting, and justifying conclusions?

What are your plans to involve them in this process?

Report & Dissemination

The communication and dissemination section is designed to support use of the evaluation results for program improvement and decision making. In order to achieve this outcome, a program must translate evaluation results into practical applications and then distribute the information to a variety of audience specific strategies.

Dissemination

Who is your audience?

What medium/method do you plan to use to disseminate the evaluation findings to your audience?

What are your communication goals and objectives?

Table 8: Dissemination Plan

Target Audience (Priority)	Dissemination Medium	Responsible Person	Date/Timetable

Interpretation

Who will you involve in drawing, interpreting, and justifying conclusions?

What are your plans to involve them in this process?

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