



LOGIC MODELS, PERFORMANCE MEASURES AND METRICS - AN INTERACTIVE WORKSHOP USING KEY EVALUATION TOOLS TO IMPROVE STRATEGIC PLANNING FOR EHDI

María Sánchez, MS and ThuyQuynh Do, PhD, MPH

2017 EHDI Annual Meeting

February 26, 2017

1:00 pm – 5:00 pm

Disclaimer:

The opinions expressed in this presentation are solely those of the presenter and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

Learning Objectives

By the end of the sessions, participants should:

- Understand the key concepts of evaluation and logic model development.
- Explain the purpose and value of different types of evaluation in the early hearing detection and intervention of infants and children with hearing loss or hard of hearing.
- Utilize metrics and evaluation to support improvement in the early identification and intervention services for infants and children with hearing loss or hard of hearing.

GENERAL
KNOWLEDGE
QUIZ



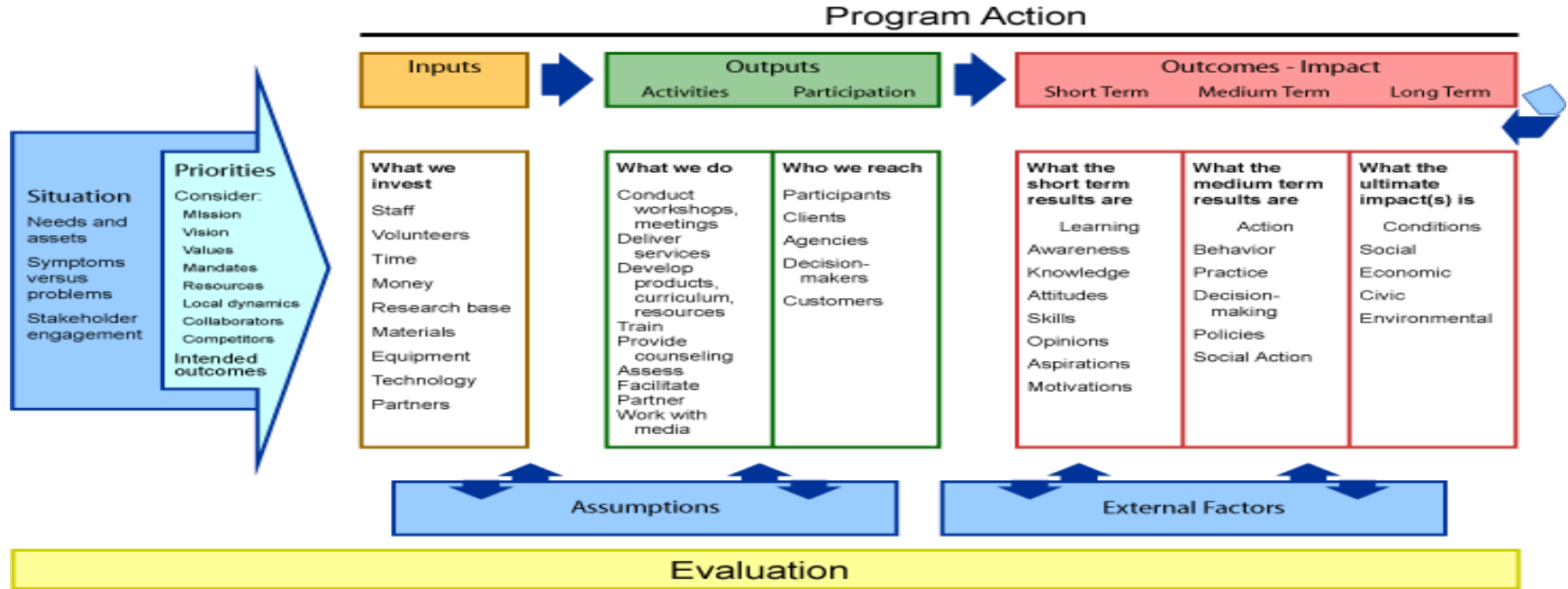
Session II: Using Logic Models to Describe the Program

ThuyQuynh Do, PhD, MPH

Session II Goals

- Introduce logic models as an effective tool for program and policy design, implementation, and evaluation
- Summarize and describe the elements of a logic model
- Provide guidance on the appropriate steps for building a logic model for a program or initiative

Logic Model Used in Program Evaluation

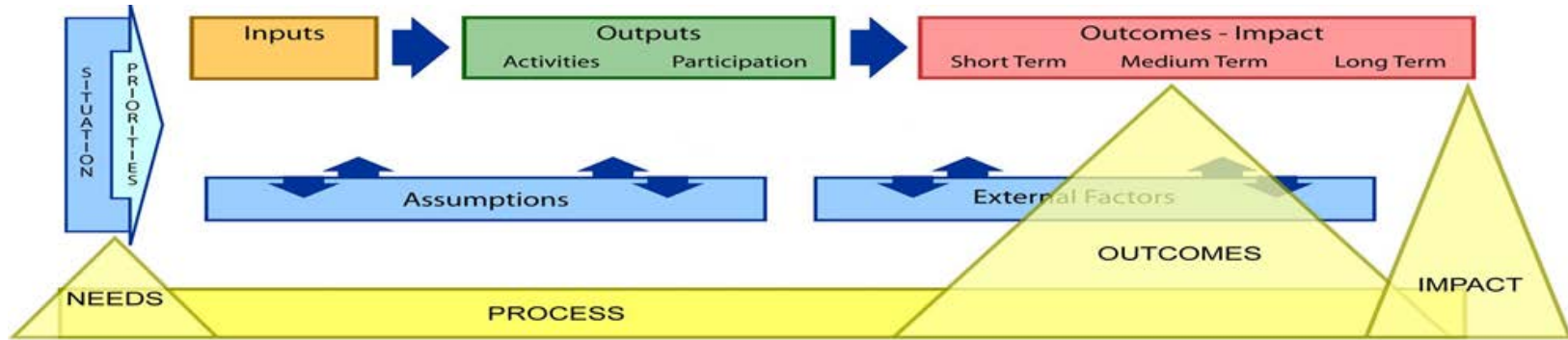


What do you want to know?

How will you know it?

EVALUATION: check and verify

Logic Model and Common Types of Evaluation



Types of evaluation

Needs/asset assessment:

What are the characteristics, needs, priorities of target population?

What are potential barriers/facilitators?

What is most appropriate to do?

Process evaluation:

How is program implemented?

Are activities delivered as intended? Fidelity of implementation?

Are participants being reached as intended?

What are participant reactions?

Outcome evaluation:

To what extent are desired changes occurring? Goals met?

Who is benefiting/not benefiting? How?

What seems to work? Not work?

What are unintended outcomes?

Impact evaluation:

To what extent can changes be attributed to the program?

What are the net effects?

What are final consequences?

Is program worth resources it costs?

What is a Logic Model?

- Provides a simplified picture of the relationships between the program inputs and the desired outcomes of the program or initiative
- Clarifies the strategy underlying the program or initiative
- Framework for planning, implementation, monitoring and evaluation
- Graphic and explicit representation of relationships, assumptions and rationale
- **Not** strategic plan or a fully developed plan for designing or managing a program or policy
- **Not** an evaluation design or an evaluation method

Logic Model

- Simplest Form:

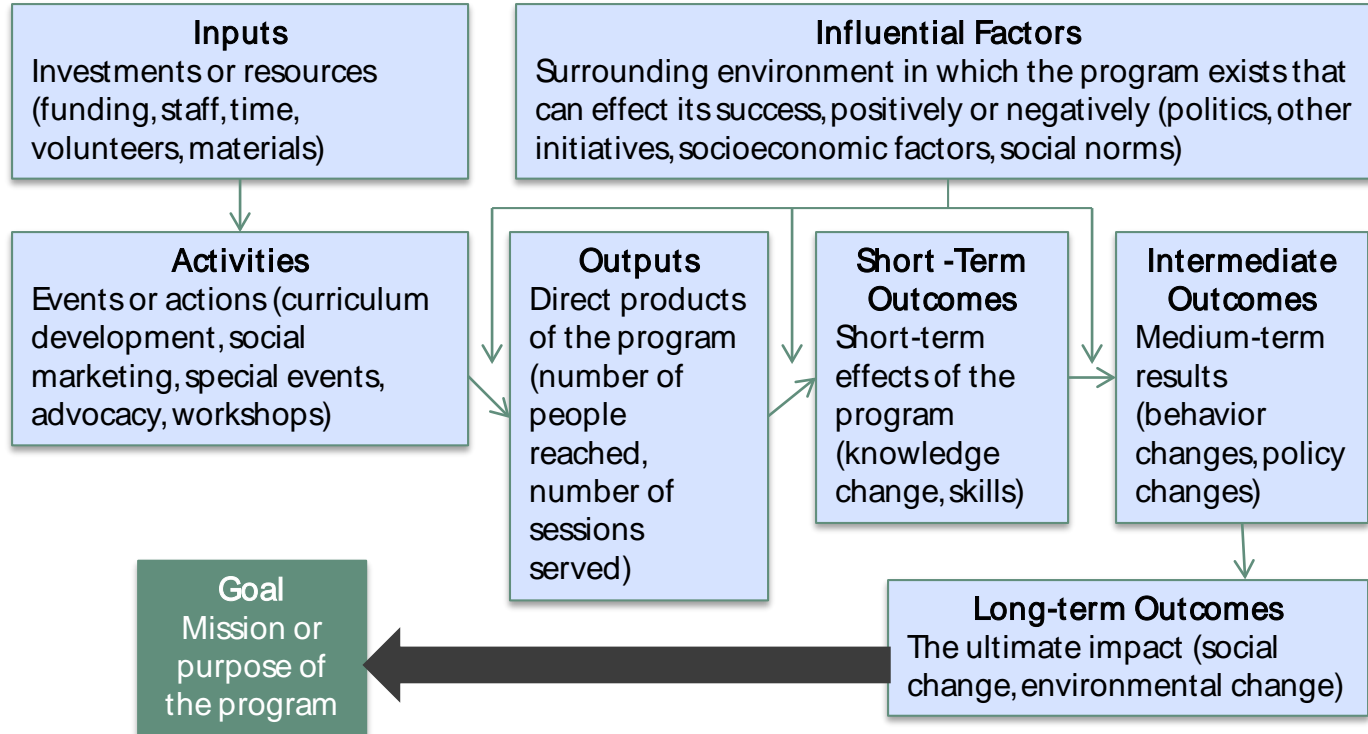


- **Inputs:** What is invested in the program (e.g., money, people, time, equipment, and space)
- **Outputs:** What is done in the program (e.g., program strategies and activities)
- **Outcomes:** What results from the program (i.e., short-term , intermediate and long-term outcomes)

Types of Logic Models

- **Theory approach model**
 - Conceptual, emphasizes theory of change (*program design*)
- **Activities approach model**
 - Activities and relationships, detailed steps (*program management and implementation*)
- **Outcomes approach model**
 - Connects resources and activities with results and outcomes, may break up outcomes and impacts over time segments (*program evaluation*)

Components of a Basic Logic Model



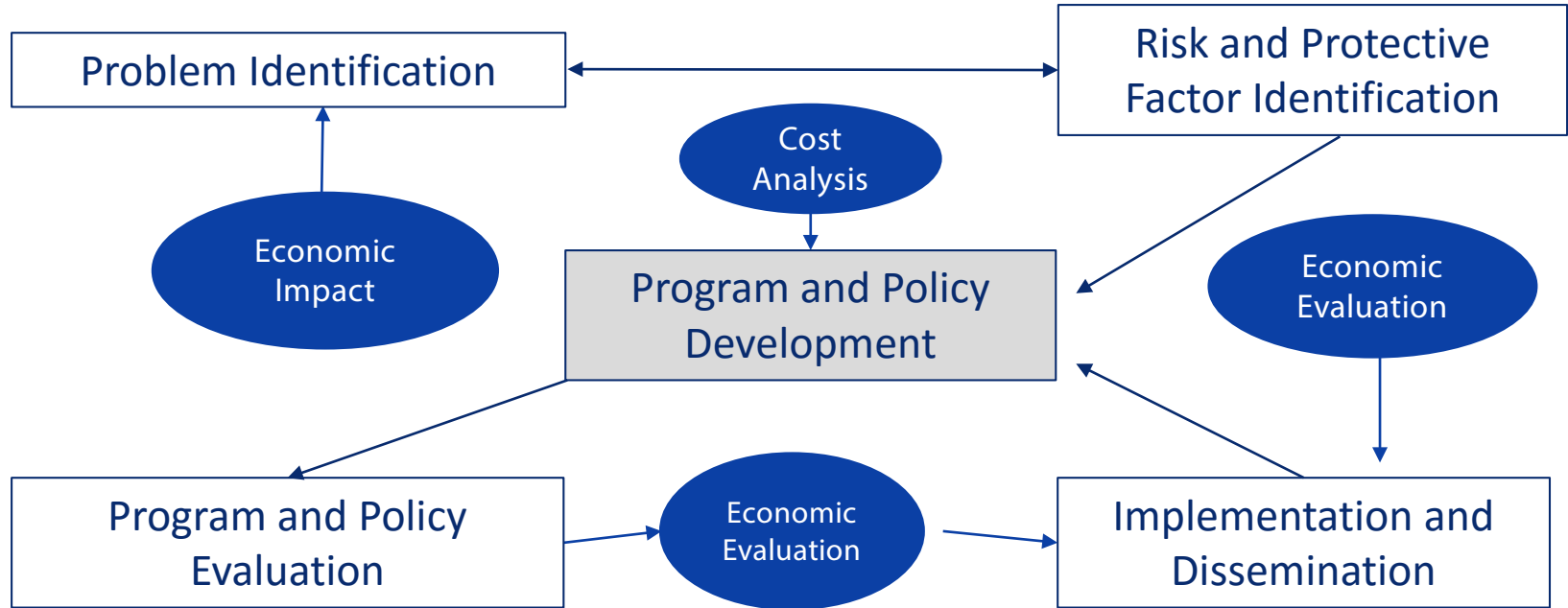


Knowledge Check

Which of the following statements are true about logic models (*select all that apply*)?

- ✓ A. Examining costs and benefits
- B. Providing funding for an intervention
- ✓ C. Evaluating allocation of health care resources
- ✓ D. Simplified picture of the relationships between the program inputs and the desired outcomes of the program

Using Economic Evaluation in Public Health Model for Prevention



* Diagram from CDC's Heart, Stroke and Prevention's Part V: Cost-Effectiveness Analysis Presentation (https://www.cdc.gov/dhdsp/programs/spha/economic_evaluation/docs/podcast_v.pdf).

Economic evaluation can be used to



- Compare costs and benefits of an intervention with the costs and benefits of another intervention
- Demonstrate to decision makers that the benefits are worth the costs
- Enhance decision making and helps set health policy
- Prioritize resources
- Important component of program evaluation

Economic Evaluation

- Applied analytic methods to *identify, measure, value, and compare* the *costs and consequences* of alternative prevention strategies
- Use to analyze how efficiently resources were allocated, are allocated, and should be allocated to ultimately maximize health outcomes
 - What if questions
 - Policy questions
 - Production, consumption, distribution questions



Economic Costs

- Direct
- Indirect
- Intangible
- Opportunity Costs



Direct versus Indirect Costs



Direct Costs

- Medications and treatment
- Medical devices
- Computer software and equipment
- Research and development
- Inpatient care

Indirect Costs

- Change in productivity
- Lost productivity
- Costs of absenteeism
- Foregone leisure time
- Time spent caring for the patient

Intangible and Opportunity Costs

Intangible Costs

- Physical pain and suffering
- Emotional anxiety
- Social stigmatization



Opportunity Costs

- Monetary and nonmonetary
- Costs and charges



Knowledge Check

Match the data item with the appropriate cost variable

- | | |
|---------------------|----------------------|
| A. Direct costs | C. Indirect costs |
| B. Intangible costs | D. Opportunity costs |

- | | |
|-----------------------------|---------------------------------|
| <u>B. Indirect costs</u> | 1. Lost productivity |
| <u>D. Opportunity costs</u> | 2. Worker injuries |
| <u>C. Intangible costs</u> | 3. Physical pain and suffering |
| <u>A. Direct costs</u> | 4. Medications, medical devices |

Group Exercise I: Evaluation Jeopardy

Summary of Session II

- Logic models are tools for program design, implementation, monitoring and evaluation
 - Provides a simplified picture of the relationships between the program inputs and the desired outcomes of the program or initiative
 - Clarifies the strategy underlying the program or initiative

Session III: Logic Model Development

María Sánchez, MS

Session III Goals

- Identify the basic elements for building a logic model for a program or initiative
- Build a logic model for a program or initiative



Logic Models

- Tools for program design, implementation, and evaluation
 - Living documents and updated frequently
- Engage stakeholders in developing a logic model
- Useful for evaluation
- Best developed at the program design phase

Elements of a Logic Model

Problem Statement

**Resources
(inputs)**

**Strategies
and
Activities**

Outputs

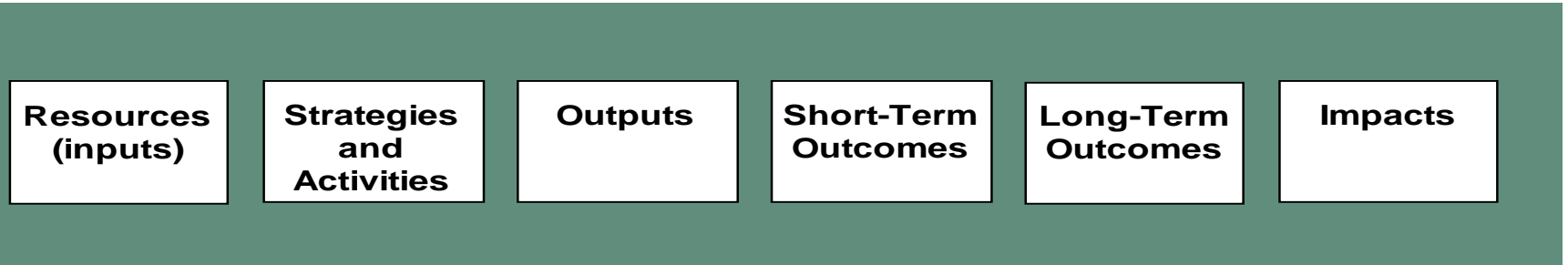
**Short-Term
Outcomes**

**Long-Term
Outcomes**

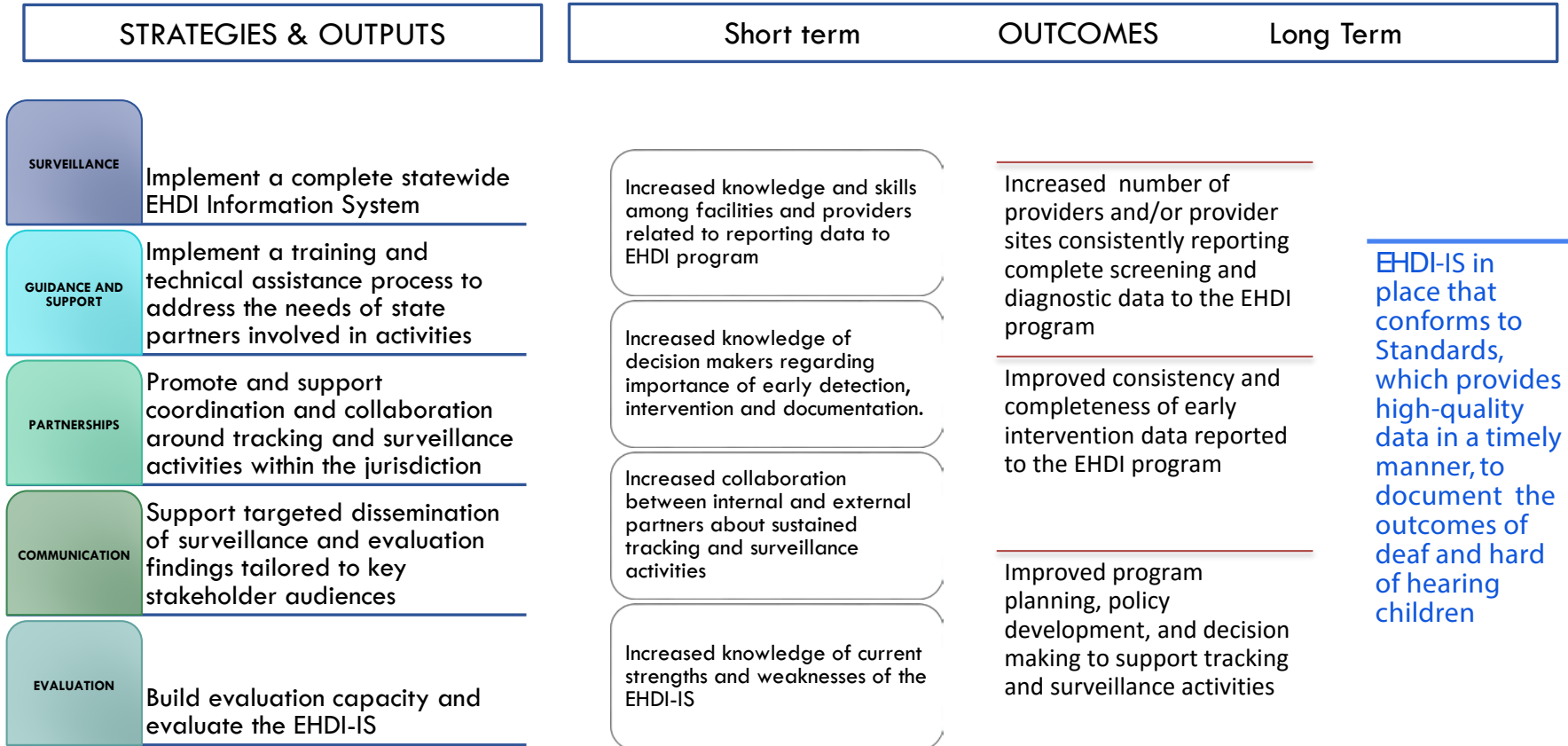
Impacts

Assumptions

Elements of a Logic Model



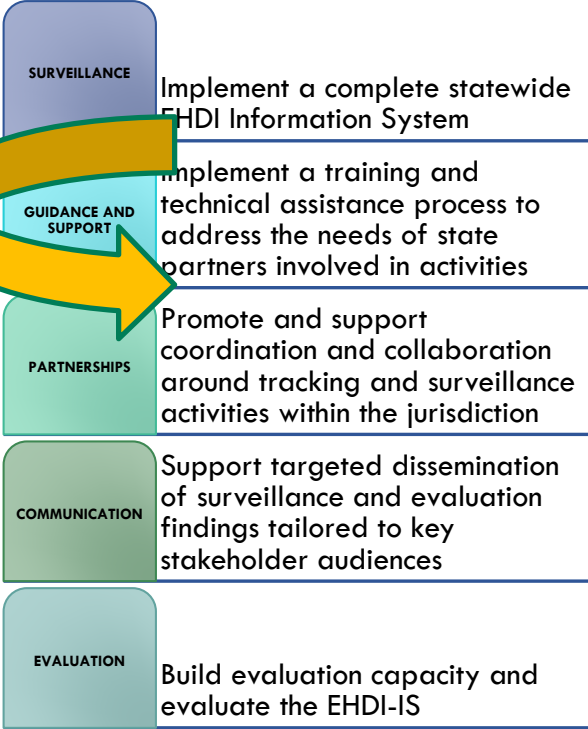
Enhancing the EHDI-IS performance with Logic Models



Enhancing the EHDI-IS performance with Logic Models

STRATEGIES & OUTPUTS

Short term OUTCOMES Long Term



Increased knowledge and skills among facilities and providers related to reporting data to EHDI program

Increased knowledge of decision makers regarding importance of early detection, intervention and documentation.

Increased collaboration between internal and external partners about sustained tracking and surveillance activities

Increased knowledge of current strengths and weaknesses of the EHDI-IS

Increased number of providers and/or provider sites consistently reporting complete screening and diagnostic data to the EHDI program

Improved consistency and completeness of early intervention data reported to the EHDI program

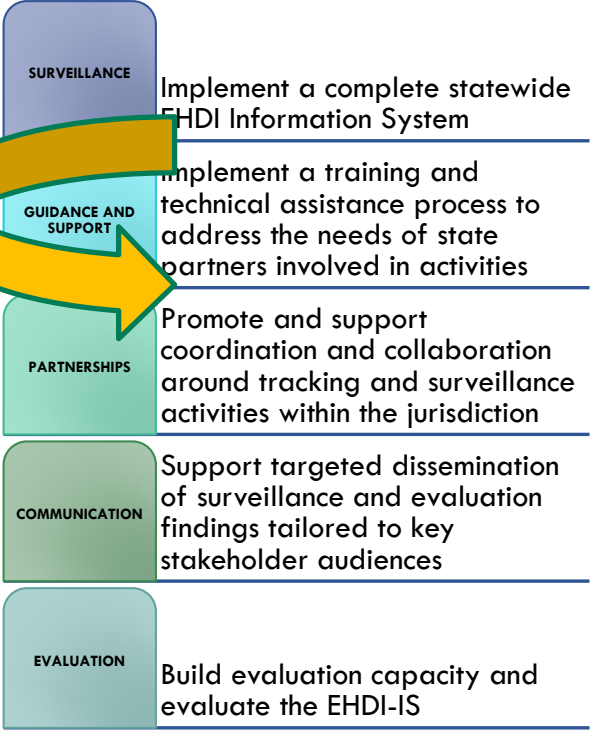
Improved program planning, policy development, and decision making to support tracking and surveillance activities

EHDI-IS in place that conforms to Standards, which provides high-quality data in a timely manner, to document the outcomes of deaf and hard of hearing children

Enhancing the EHDI-IS performance with Logic Models

STRATEGIES & OUTPUTS

Short term OUTCOMES Long Term

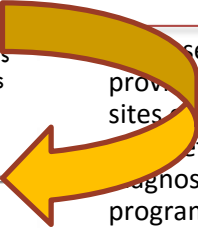


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Increased number of providers and/or provider sites consistently reporting complete screening and diagnostic data to the EHDI program

Improved consistency and completeness of early intervention data reported to the EHDI program

Improved program planning, policy development, and decision making to support tracking and surveillance activities

Surveillance System in place which provides high-quality data in a timely manner, to document the outcomes of deaf and hard of hearing children

Group Exercise II: Creating a Logic Model Hypothetical EHDI Partnerships

Session IV: Focusing the Evaluation to Gather “Evidence” and Make Conclusions

María Sánchez, MS and ThuyQuynh Do, PhD, MPH

Session IV Goals

- Understand the final steps from the Evaluation Framework and how to gather credible evidence
- Determine what to consider when interpreting the results
- Prepare to utilize your evaluation findings

How to Plan Your Evaluation

1. Engage stakeholders
2. Describe the program
3. Focus the evaluation
4. Gather “evidence”
5. Justify conclusions
6. Share lessons learned



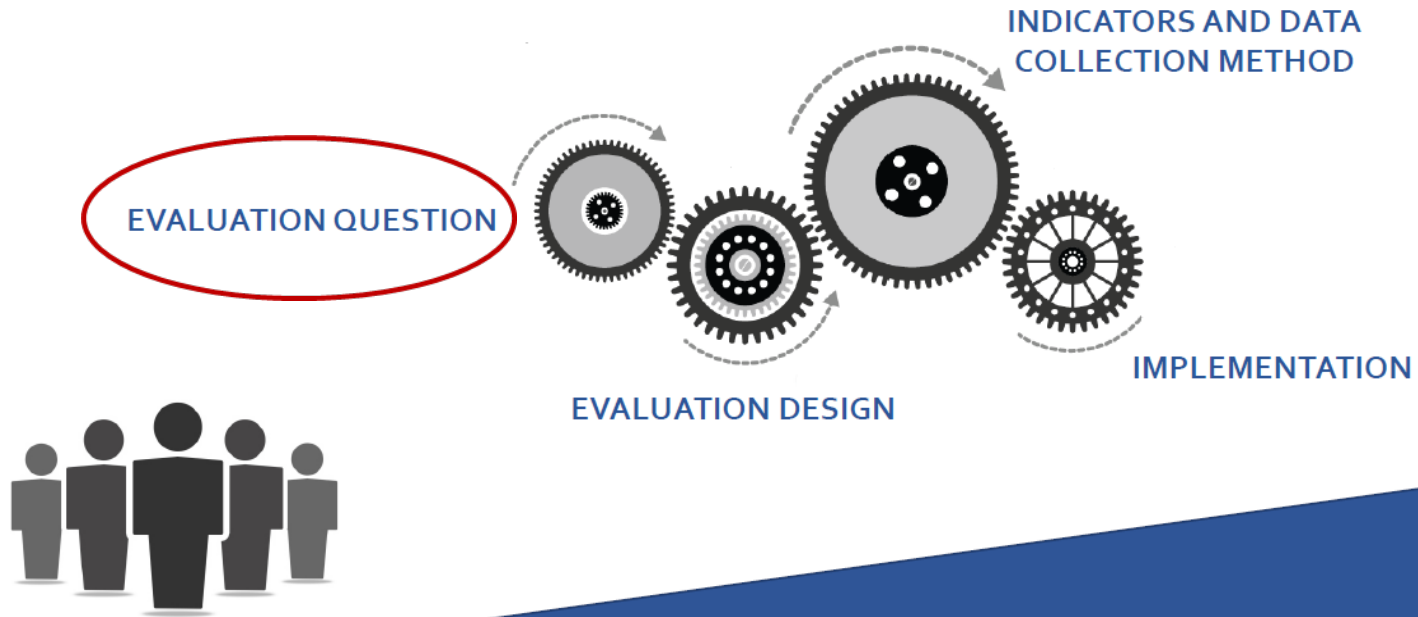
CDC EVALUATION FRAMEWORK

Gathering Evidence

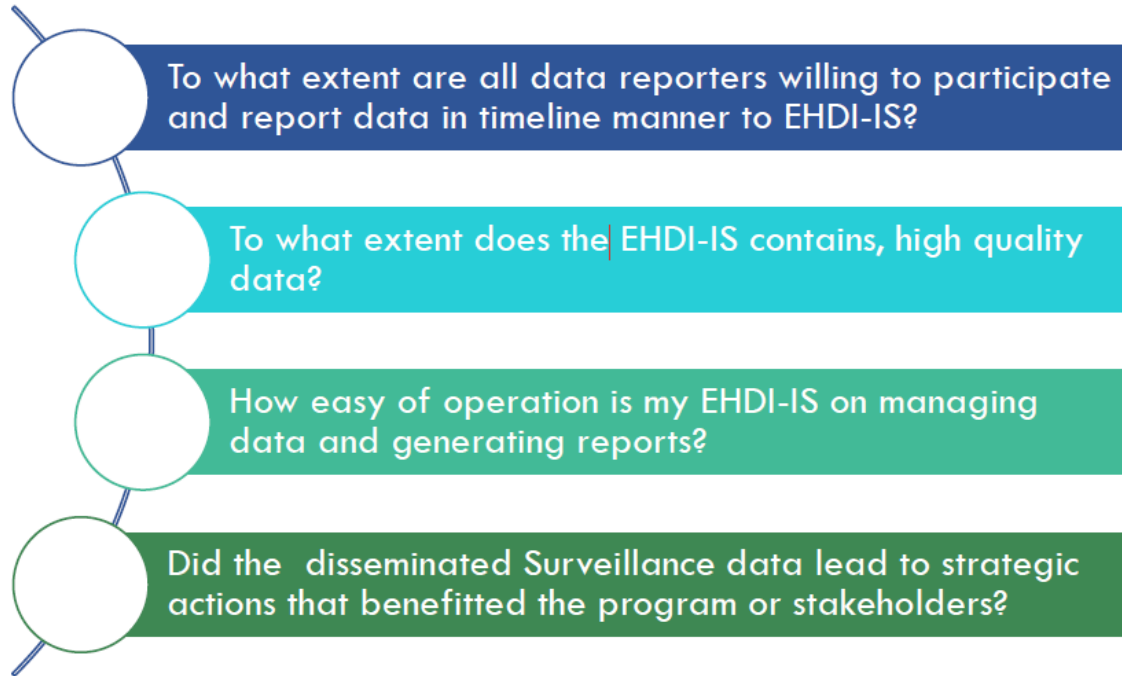
- Develop a data collection plan to answer the evaluation questions
 - Evaluation design
 - Indicators
 - Who will answer the questions
 - Method used to answer the questions
 - Data source
 - Logistics

Overview - Planning the Evaluation

Planning in advance where the evaluation is headed and what steps will be taken



Evaluation is Driven by a Question



Generating Indicators



Evaluation Question	Indicators

Gathering Evidence: Determining Indicators of Success

- What are your “indicators of success”? – A characteristic or change you expect to make towards a specific outcome
 - i.e., Meeting participation rates, number of volunteers, etc.
- Performance indicators – Sets the bar for success
 - i.e., 15% increase in physical activity, 25 total volunteers

Focus the Evaluation Design



Evaluation Question	Indicators
To what extent are hospitals screening staff complying with the established protocols	<ul style="list-style-type: none">• # of steps in the protocol adhered to (checklist)• # of best practices implemented

Gathering Credible Evidence

The information you gather in your evaluation must be reliable and credible. Information must be perceived as trustworthy and relevant by the evaluation primary users.

Why Evaluation Design and Data Collection Matters?

- Surveys to Hospital staff?
- Review reports?
- Interviews to audiologist?
- Case Study?
- Baseline data?



Focus the Evaluation Design

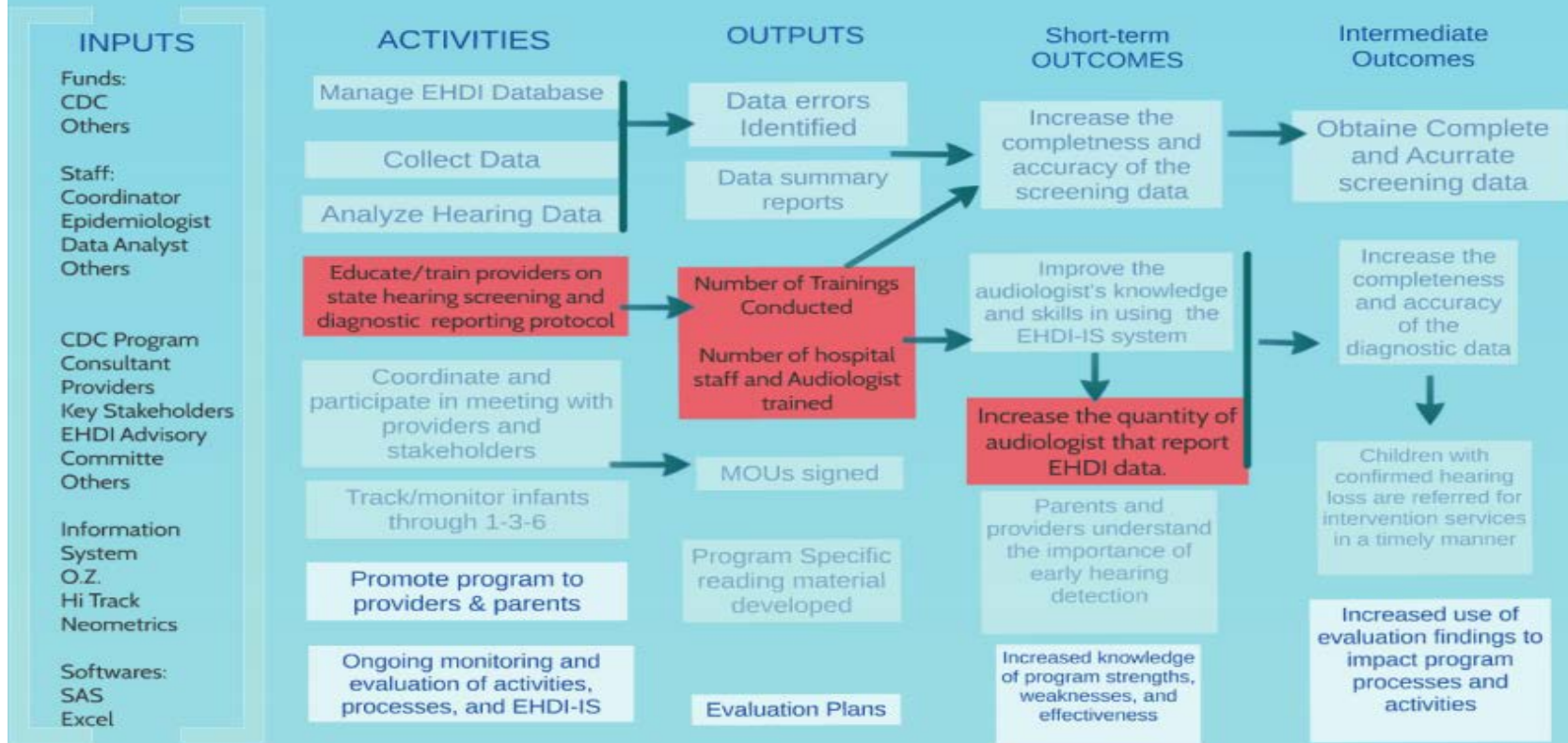


Evaluation Question	Evaluation Design	Indicators	Data Collection Methods	Data Source
	Descriptive			
	Case Study			
	Time Series			
	Comparison Group			
	Posttest Only			

Are your results similar to what you expected?



State EHDI Logic Model



Why planned activities may not lead to the expected outcome or results?

Determine the Practical Significance of What Has Been Learned



SO WHAT?



Implementation of Recommendations

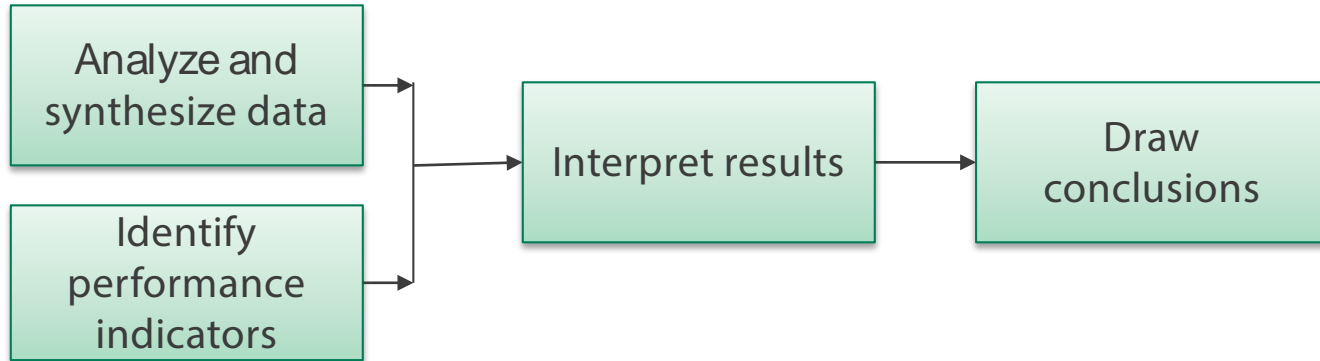
Discuss in detail how the program plans to apply the recommendations

Include stakeholders involved for each recommendation and potential timeframe for completion



Justifying Conclusions

- Analyze data and interpret results
- Compare your results to your performance indicators
- Is the program running successfully?



Communicate with Stakeholders and Share Findings

- The ultimate purpose is to use the information
- Ensure use of evaluation findings by involving stakeholders in the evaluation process



Group Exercise III: Creating an Evaluation Plan to Evaluate Hypothetical EHDI Partnerships

Summary of Session IV

- Evaluation is an ongoing process
- Communication is key
- Important to gather evidence, select performance indicators, and share and interpret findings
- Utilize and share your evaluation findings with stakeholders



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The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

