

The Reach Evaluation Process

***Reach is a Laboratory for New Approaches
Evaluation & Documentation
are critical to success.***

THE LOGIC MODEL

THE EVALUATOR'S TOOL OF CHOICE

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EVALUATION & SYSTEMS DEVELOPMENT

Why use the Logic Model?

- Visual representation
- Ongoing assessment and review
- ▣ Program evaluation and strategic reporting
- ▣ Effective way to ensure program success

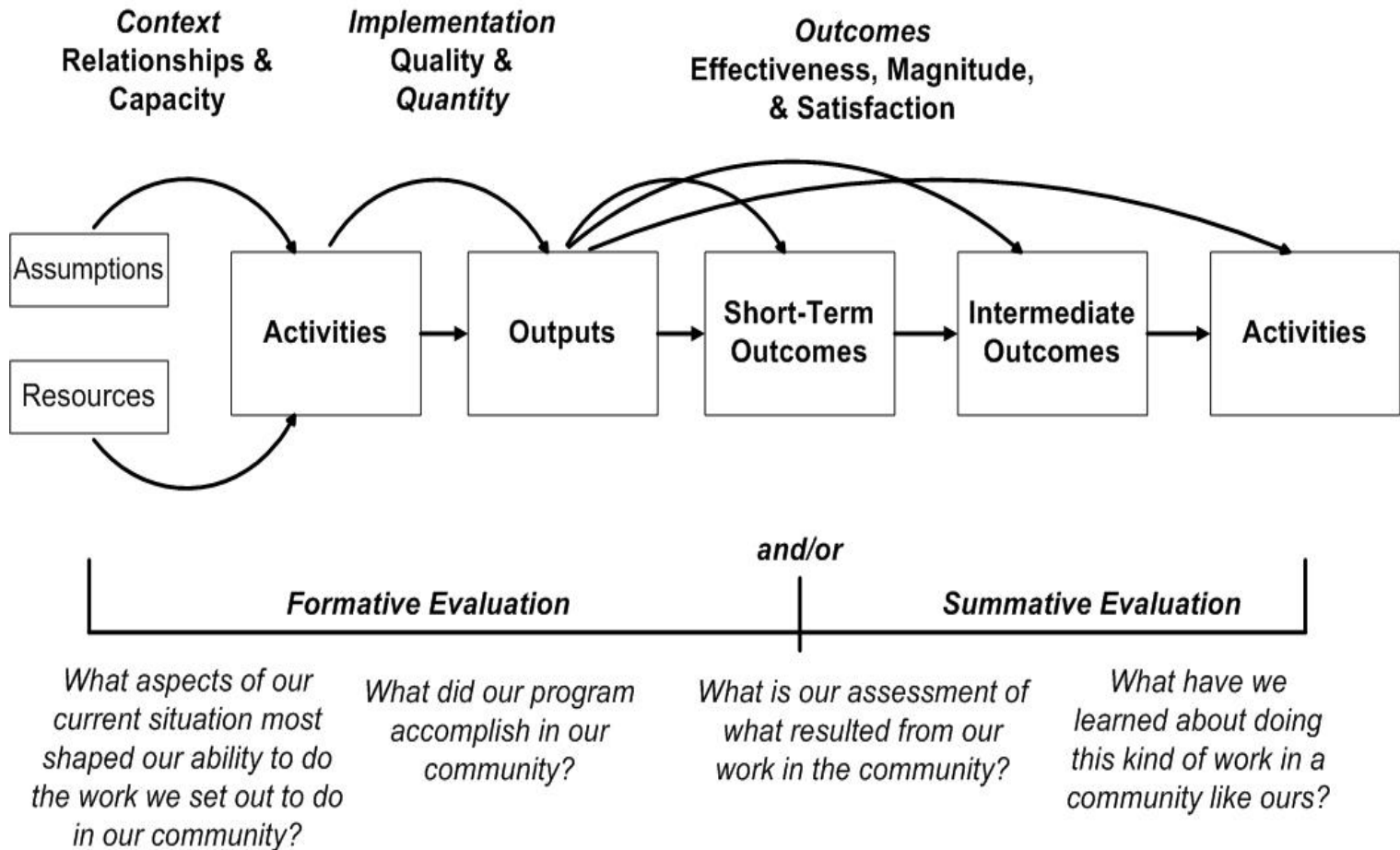
Evaluations Start with

The 5 Step Evaluation Plan

1. Identify Assumptions, Goals & Focus
2. Develop the Basic Logic Model
3. Formulate the Data Plan
4. Implement the Data Plan
5. Analyze Data and Report Results

1. Establish Evaluation Focus

Formative or Summative Evaluation

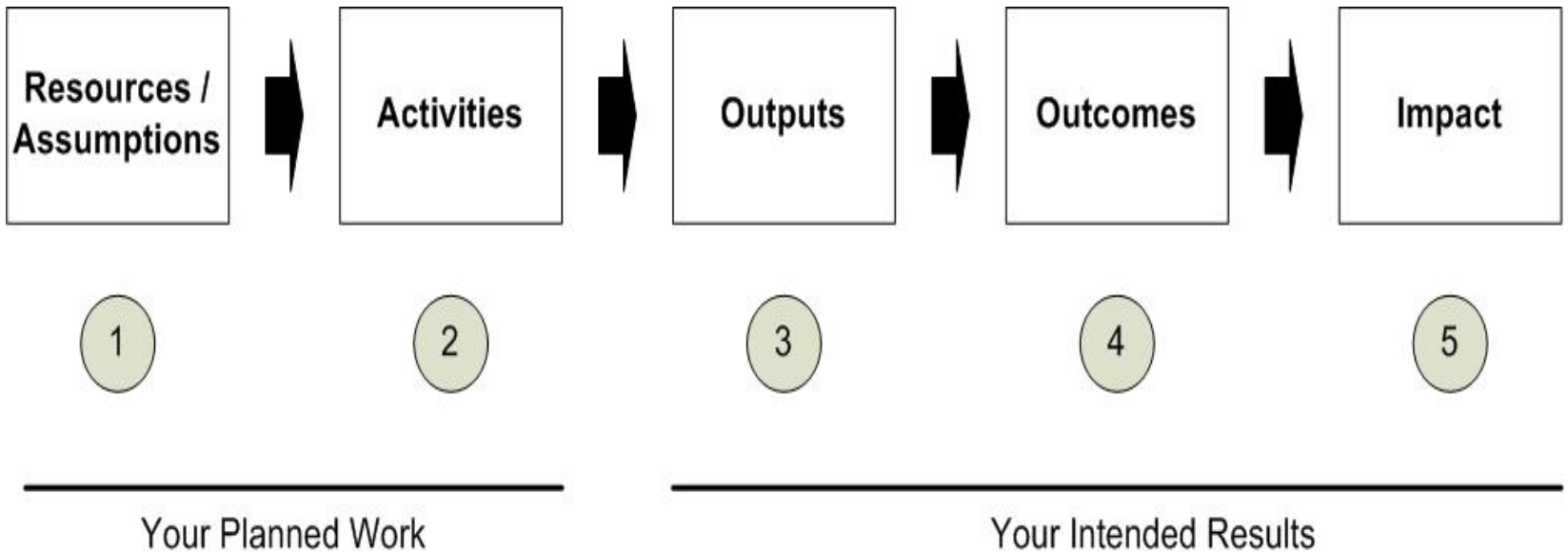


1. Examples of Assumptions

- Other energy-use influencing factors, such as family size and economic conditions, do not change.
- Homeowners will respond objectively to survey questions.
- Utilities supply all required data.
- Participants can, through self-reporting, indicate improvement in comfort.
- Homeowners will view monitoring equipment and report data on a regular basis.
- High electrical usage can indicate health and safety issues.

2. Develop the Basic Logic Model

- Systematic and *visual* way to present and share your understanding of:



Outcome and Impacts Should be SMART:

- Specific
- Measurable
- Action-Oriented
- Realistic
- Timed

Focus on Activities and Outcomes

Activity	Immediate Outcomes	Intermediate Outcomes	Impact on Long Term Goals
In order to address our goal the following activities are required:	Once completed or under way the activities will produce the following evidence of service delivery.	If completed or ongoing these activities will lead to the following changes in 1-3 years.	If completed these activities will lead to the following changes in 4-10 years.

Basic Logic Model Example

EURM Activities and Outcomes

ACTIVITIES	IMMEDIATE Outcomes	INTERMEDIATE Outcomes
Agree on specific EURMs to be installed.	Specific technologies are identified (size, brands) and specifications are compiled.	Estimated economic savings to investment ratio and NPV's greater than one for all EURMs.
Develop client contracts and agreements for installation and maintenance of EURMs	Client contracts and agreements are created for each EURM technologies.	Contracts are to be signed by the clients and vendors.
Client signs agreements for EURMs to be installed	26 client contracts and agreements are signed.	26 clients are approved for EURM installation.
Develop vendor contracts and agreements for installation and maintenance of EURMs	Contracts and maintenance agreements are created for wind and solar EURM technologies.	Vendors schedule installations.
Authorize vendors to install and maintain small wind systems and establish time frames.	(1) 10KW wind turbine at one multi-family building (2) 1.8 KW wind turbines at 2 single family units.	The electricity cost savings will range from \$200 to \$300 per year for a 2 to 3 person households and up to \$400 to \$600 for a 4 to 5 person family
Authorize vendors to install and maintain solar hot water heating units and establish time frames.	23 solar 2 panel solar systems installed on 23 units.	Families are willing to alter lifestyles to accommodate energy efficient equipment.
Train household members in the proper use and m maintenance of the installed EURMs.	26 clients are trained in equipment use.	Reduction of household's energy burdens by 15% - 50%, over all for EURMs.

3. FORMULATE DATA PLAN

THE CRITICAL ELEMENT

- Maximum use existing data flow
- Create needed forms and provide training
- Develop agreements with sources of data
- Automate data collection cycle
- Provide organized system to store and retrieve data

3. Data Collection, Storage, and Retrieval

- Prepare a data dictionary
- Constantly evaluate data quality
- Establish a periodic data collection cycle
- Store data systematically, centered on the client

4. Implement Data Plan

Identify Indicators

Focus Area	Indicators	How to Evaluate
Activities	Description of planned activities from logs or reports of actual activities.	Compare actual planned activities provided against what was originally proposed.
Immediate Outcomes	Numbers and characteristics of units delivered, households served, units rejected from logs or reports of actual activities.	Compare the quality and quantity of actual delivery against expected.
Intermediate Outcomes	Estimates of cost savings based upon electrical billing data, kwh's and price per kwh. Billing data provided by Utilities.	Compare the measure before and after EURMs. Compare to expected savings and to average LIHEAP benefit.
Impact on Long-term Goals	Calculation of Paybacks, SIR, IRR for each ERUM and measurement of energy burden pre and post intervention.	Compare the measures to the expected SIR>1, IRR>4%, and a 15-50% reduction in energy burden.

4. Collect and Store Data



Example from Data Sources for Maine Reach

- LIHEAP data base
- MaineHousing and CBO accounting records
- Utilities and fuel vendors billing records
- Metering devices and data loggers
- Custom-designed Reach forms

5. Analyze Data & Report Results

- Measure impacts of specific interventions
- Provide quantitative results and stress benefits to clients
- Provide economic analysis of payback and rates of return
- Always provide and executive summary

Some Lessons Learned

- Clients are not a reliable source of data from meters or data loggers
- Projects with common solutions should be regionally clustered for efficient monitoring
- Make arrangements with vendors well in advance of data requests

Words of Experience

Quality data in a poorly done evaluation is preferable to poor data in a “well done” evaluation.

“Evaluation without good data is like swimming without water, very slow.”

Thank you for your attention.

Questions?

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