Developing Outcome Measurement Plans

Sponsored by:
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Training Objectives

• Review basic components of a logic model.
• Apply criteria to assess which outcomes to measure.
• Identify outcome indicators
• Discuss issues with hard-to-measure outcomes
Training Objectives

- Identify data sources for the outcome indicators selected.
- Review the advantages and disadvantages of primary and secondary data.
- Identify differences between measurement cycles and improvement cycles.
What is a Logic Model?

- A depiction of a program showing what the program will do and what it is to accomplish
- A series of “if-then” relationships that, if implemented as intended, lead to the desired outcomes
- The core of program planning and evaluation
Logic Model Review
Traditional Service Delivery Model

INPUTS → ACTIVITIES → OUTPUTS
Logic Modeling is based on mapping and defining linkages between what we do and why we do it.

Series of “If-Then” Relationships

<table>
<thead>
<tr>
<th>If</th>
<th>Then</th>
<th>If</th>
<th>Then</th>
<th>If</th>
<th>Then</th>
<th>If</th>
<th>Then</th>
</tr>
</thead>
<tbody>
<tr>
<td>I work out each day</td>
<td>I will burn more calories than I consume</td>
<td>I will lose fat and build muscle</td>
<td>Improve my strength and CV health</td>
<td>I will feel better &amp; live longer</td>
<td></td>
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</tr>
</tbody>
</table>
Where can I apply a Logic Model?

- A small program
- A process (i.e. a team working together)
- A large, multi-component program
- An RFP
- A strategic plan
- Almost anything!
Why use them?

- Focus on and be accountable for what matters – OUTCOMES
- Provides common language
- Makes assumptions EXPLICIT
- Supports continuous improvement
- Promotes communications
Components of a Logic Model

Horizontal or Vertical…It doesn’t matter! Just create a visual depiction of your plan.
Assessments

- Document need for the program
- Information and data on current situation
- Evidence based approaches

Inputs

What we invest...

- Staff
- Volunteers
- Time
- $  
- Research
- Supplies
- Equipment
- Etc.

Activities

• What a program does to fulfill its mission
• Strategies, techniques, types of interventions
• The program’s “service methodology”
• What YOU do or what YOU provide participants

Outputs

- Products of a program’s activities
- Quantitative as well as qualitative
- Quantitative reflects volume of work
  - Number of classes conducted or participants served
- Qualitative reflects quality of activities
  - Satisfaction ratings, reduction in errors, etc.

Outcomes

• Benefits or changes for participants or community after program activities (IMPACT)
• Short term, Intermediate Term, and Long Term
• Relate to changes in behavior, skills, knowledge, attitudes, values, condition or other attributes

## Appreciating outputs vs. outcomes

### Outputs
- Number of participants in a health fair
- Number of persons served by an LHD program
- Number of people served by water and sewer projects
- Number of acres of land with conservation plans

### Outcomes
- *(Increase in)* knowledge, attitude skill regarding health topic
- *(Reduction in)* prevalence rate of disease entity addressed by the program
- *(Increased percent)* of people with access to clean drinking water
- *(Percent)* improvement in soil quality; dollars saved in flood mitigation
Assumptions

The beliefs we have about the program, the participants, and how the program will work. Includes ideas about:

the problem or existing situation
  – program operations
  – expected outcomes and benefits
  – the participants and how they learn, behave, their motivations
  – resources
  – staff
  – external environment: influences
  – the knowledge base
  – etc.
Why Measure Outcomes?

• To see if programs really work
• To help improve services
• Identify training needs
• Justify budgets
• Strategic planning
• Long term benefits
Strong Outcomes

- Must state a CHANGE or benefit as a result (knowledge, skills, attitudes, behavior, status, condition)
- Must be measurable and realistic
- Measurement Cycle Time & Improvement Cycle Time must fit
- Generally, “participant satisfaction” is not an outcome (It’s a quality output or a process indicator.)

Initial Outcomes

Changes in…

• Awareness
• Knowledge
• Skills
• Attitude
• Generally occur as a result of or or more activities
Intermediate Outcomes

Changes in…

- Behavior
- Practices
- Policies
- Procedures
- Occur as a result of one or more initial outcomes and generally take longer (1-3 years).
Long Term Outcomes

Organizational, environmental and/or system level changes which might lead to:

- Improved conditions
- Increased capacity
- Health status
- Quality of life improvements
- Changes in the policy arena
- Only occur after initial and intermediate outcomes are achieved.
## Outcomes vs. Outputs

<table>
<thead>
<tr>
<th>Sample Program</th>
<th>Outputs</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking cessation</td>
<td>• Number of participants</td>
<td>• Improved self efficacy regarding quitting during program</td>
</tr>
<tr>
<td></td>
<td>• Number of sessions</td>
<td>• Increase in % of participants not smoking at 6 months</td>
</tr>
</tbody>
</table>
Indicators

- Specific information to be collected to track the status of success towards outcomes.
- Describe observable, measurable characteristics or changes that represent achievement of an outcome.
Break
Criteria to Determine Which Outcomes to Measure
Criteria for Choosing Outcomes

- Cost and burden of data collection
- Can program participants or others realistically provide the data?
- Can we track individuals through time?
- Are there any issues of confidentiality to take into account? How would we do it?
- Can we train data collectors and manage the data collection process for this type of data?
- Is the desired improvement cycle smaller or larger than the measurement cycle?
Criteria for Choosing Outcomes

• Is it reasonable to believe the program can influence the outcome in a non-trivial way, even though it can’t control it? (can you really impact community-wide change?)

• Would measurement of the outcome help identify program successes and help pinpoint and address problems or shortcomings?

• Will the program’s various stakeholders accept this as a valid outcome of the program?

Look at Your Set of Outcomes

- Do program outputs and initial, intermediate, and long-term outcomes relate to each other logically? (walk through and check “if-then” relationships)
- Do these relationships reflect the logic of the program—the sequence of influences and changes that program inputs, activities, and outputs are intended to set in motion?
- Do the longer-term outcomes represent meaningful benefits or changes in participants’ status, condition or quality of life?
- Have you identified potential negative outcomes of the program?

Get feedback on your logic model and the outcomes selected for measurement.
Identifying Outcome Indicators
Identifying Indicators

• Determine the specific observable, measurable characteristic or change that will represent achievement of the outcome.
• Determine the specific statistic(s) (e.g. number and percent attaining outcome) the program will calculate to summarize the level of achievement.
• You may need more than one indicator for an outcome.

<table>
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<tr>
<th>Program</th>
<th>Outcome</th>
<th>Indicators</th>
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</thead>
<tbody>
<tr>
<td>Smoking cessation</td>
<td>Participants stop smoking</td>
<td>• # and % who report quitting</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• # and % not relapsed at 6 months</td>
</tr>
<tr>
<td>Counseling for parents to reduce child abuse</td>
<td>Fewer cases of abuse</td>
<td>• # and % of families with no cases following program</td>
</tr>
<tr>
<td>6th grade tutorial program</td>
<td>Improved academic performance</td>
<td>• # and % of students who earn better grades after program</td>
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What factors could influence participant outcomes?

- Demographic characteristics of participants
- Level of difficulty presented by the participant
- Geographic location of participants
- Organizational unit (multiple sites/offices)
- Type or amount of procedure used to deliver the service

Addressing Special Problems with Hard to Measure Outcomes
Hard to Measure Outcomes

- Anonymous participants
- Very short term service
- Very long term outcomes
- Reliability of participants to give accurate response
- Intangible outcomes
- Long term outcomes dependent on influencing action of others (not target group)
- Community level outcomes
- Activities that support other agencies/programs
- Programs preventing negative events
Primary and Secondary Data Sources
Secondary Data

- Pre-existing data already collected
- Published statistics
- Program records
- Archival data
- Census data
- Local data
- State data
- Etc.
Primary Data

• Data your or your staff collect through:
  – Interviews
  – Surveys
  – Observations
  – Focus Groups
  – Photography
  – Tests
  – Etc.
Advantages

Secondary
• Inexpensive
• Accessible
• Quick

Primary
• Precise
• High control
• Flexible
Disadvantages

Secondary
• May not address your issue
• Not specific to your population

Primary
• Costly
• Time consuming
• Development of measurement tools
• Validity issues
• Sampling issues
Identifying Data Sources for Indicators
Identifying Data Sources for Indicators

- Program records (own or others)
- Participants, parents, teachers, employers
- General public
- Trained observers
- Mechanical measurements
Data Collection Methods

- See discussion on primary and secondary data
- Consider
  - Cost
  - Utility
  - Credibility to stakeholders
- Get help from evaluators, consultants, University faculty, students
Understanding Measurement Cycle and Improvement Cycle
Definitions of Cycle Time for Program Evaluation

• Improvement Cycle Time
  – The time needed to “realize” the outcome/benefits of the program

• Measurement Cycle Time
  – The amount of time it takes to accumulate, analyze and report a particular set of data regarding the outcome
## Outcome Measurement Plan

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Indicators</th>
<th>Data Collection</th>
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<tbody>
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<td>Sources</td>
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<td>Methods</td>
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<td>Sample</td>
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<td>Timing</td>
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Source: University of Wisconsin-Extension, Program Development and Evaluation.
Resources
Resources


Q and A
Please complete the training evaluation. Your feedback is very important to us.

If you have training or technical assistance follow-up needs, contact:
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