Nine Reasons to Develop a Logic Model

1. A logic model helps structure an evaluation by providing a “roadmap” of key program activities and services and of the outcomes expected as a result of these activities and services.

2. A logic model helps ensure that there is a clear understanding of what services are being implemented, what goals program staff hope to achieve, and how the program’s success will be measured.

3. A logic model helps explain why various data are being collected in the evaluation and how the data will be used.

4. A logic model helps build consensus among grantees, evaluators, Federal Project Officers, and other stakeholders regarding the evaluation. Specifically, stakeholders can reach agreement on the intended goals of the program and the appropriate and meaningful program outcomes. A logic model provides an opportunity for stakeholders to jointly assess the feasibility and practicality of measuring change in selected program outcomes.

5. A logic model offers a concise, easy-to-understand visual summary of the program, which can serve as a handy reference that outlines key program features and expected outcomes. A logic model can be disseminated to interested third parties to provide a synopsis of program goals and activities.

6. A logic model can be used to identify gaps and inconsistencies in a program’s design and evaluation. A logic model can help identify areas in which planned services or interventions need to be articulated or clarified. It can be used to identify logical “gaps” or inconsistencies between program activities and expected outcomes and to assess the feasibility and practicality of measuring certain outcomes.
7. A logic model can serve as a “reference point” for proposed program modifications by comparing proposed changes with the original logic model to determine if changes are being made to core elements of the program. A logic model will allow you to assess whether the proposed changes affect linkages to anticipated program outcomes.

8. A logic model can serve as a program monitoring tool and help you identify key questions and answers: Have key program components been implemented? What are the program’s outputs to date? Are relevant data being collected? What outcomes have been achieved to date? Are relevant data being collected?

9. Logic models can facilitate comparisons across programs by identifying similarities and differences in program interventions. Logic models can identify common outcomes of interest as well as common indicators, measurement tools, and data sources.

### Basic Components of a Logic Model

#### Inputs
- The financial, material, and personnel resources needed to implement a program.
- Examples include:
  - Grant money
  - Office space
  - Trained staff
  - Computers/office equipment
- Identifying inputs upfront helps determine:
  - What resources are necessary and available to implement planned activities.
  - Whether these resources are adequate to ensure successful program implementation.
  - Whether expected outcomes are realistic and achievable in light of available resources.

#### Activities/Interventions
- The policies, practices, procedures, services, or activities that are implemented in response to identified problems or needs within the target population.
- Can also include products and materials (e.g., new training or educational curricula).
- Underlying assumption is that population can be “changed” or problem can be “improved” as a result of the intervention.

#### Outputs
- The immediate, concrete result(s) of providing a service or activity (e.g., clients participate in therapy, teachers attend training for the new curriculum).
- Success in achieving outputs (implementation fidelity) can be measured through process or output measures, which indicate numbers served, types of services provided, frequency of service, duration of service, etc.

#### Outcomes
- The changes expected to occur as a result of program services and activities.
- Behavior change is ultimately what a program is trying to achieve. Behavior change can occur at the client, worker, program, organizational, or community level (i.e., systemic change).
- Outcomes may be short-term, intermediate, or long-term:
  - **Short-term**: changes in knowledge or awareness (e.g., parents know the harmful effects of drug use).
  - **Intermediate**: changes in skills or attitudes (e.g., parents use coping strategies to avoid drug use).
  - **Long-term**: changes in behavior or status (e.g., parents achieve and maintain long-term sobriety).
- Depending on the nature of the intervention, your logic model may not always have all three types of outcomes.
Sample Logic Model: Pathways of Change and Key Phases of the Evaluation Process

Activity #1

Activity #2

Activity #3

Output #1

Output #2

Immediate Outcome

Intermediate Outcome

Immediate Outcome

Intermediate Outcome

Long Term Outcome

PROCESS EVALUATION

OUTCOME EVALUATION
Hypothetical Logic Model for a Program to Reduce Child Maltreatment

Inputs → Core Services → Outputs → Short-Term Outcomes → Intermediate Outcomes → Long-Term Outcomes

trained personnel → Intensive case management → Families participate in CM → Better access to support resources → Children’s physical, social needs are met → Reduced child maltreatment

Money to pay for services → Interactive parenting classes → Parents attend classes → Improved parenting knowledge → Better parenting practices → Increased permanency and family stability

Appropriate treatment space → Substance abuse treatment → Parents complete treatment → Parents use strategies to avoid drug use → Parents maintain sobriety → Grade-appropriate school achievement

Developmental and sensory integration therapy → Children attend therapy → Improved cognitive, motor skills → Increased school readiness → Grade-appropriate school achievement
Example of a Multi-Level Logic Model

- Logic models can incorporate multiple levels of change.
- Change at one level can affect outcomes on other levels (e.g., changes at the organizational level improve client-level outcomes).

Core Services → Outputs → Short-Term Outcomes → Intermediate Outcomes → Long-Term Outcomes

Systems-Level Change

- Inter-agency cross training
- Staff participate in training
- Improved inter-agency knowledge of substance abuse treatment resources
- Staff from multiple agencies make more frequent, and faster, referrals to a greater variety of treatment resources
- More caregivers enter treatment more quickly

Client-Level Change

- Intensive case management
- Families participate in CM
- Better access to support resources
- Children’s physical, social needs are met
- Reduced child maltreatment
## Basic Components of a Data Collection Plan

<table>
<thead>
<tr>
<th>Output/Outcome</th>
<th>Measure/Indicator</th>
<th>Data Source</th>
<th>Measurement Interval</th>
<th>Target/Benchmark</th>
<th>Person Responsible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outputs:</strong> the immediate, concrete result(s) of providing a service or activity (e.g., clients participate in therapy, teachers attend training for the new curriculum).</td>
<td>A concrete statement that shows how an output or outcome will be systematically measured. Is often expressed numerically (e.g., total numbers, averages, proportions), but does not have to be.</td>
<td>The tool or method used to collect information on a given measure/indicator. May include: Standardized instruments (e.g., Parenting Stress Index, the Addiction Severity Index) or non-standardized instruments (e.g., client satisfaction survey). Written documents or records (e.g., meeting notes, client case files). Qualitative research methods (e.g., focus groups, semi-structured interviews).</td>
<td>The frequency at which data on a given measure/indicator will be collected. Generally expressed using a calendar term (e.g., days, weeks, months, years). Some standardized instruments specify recommended data collection intervals up front (e.g., the PSI is administered every 6 months). A standard and consistent time interval is preferable for making valid comparisons across clients (e.g., measure change every 6 months for all clients instead of “pre” and “post” program). Sometimes an interval is based not on elapsed time but on completion of specific service modules, components, or activities (e.g., interval between entry into substance abuse treatment and completion of all treatment modules).</td>
<td>A standard or “yardstick” of achievement against which program success is measured. Generally expressed in numerical terms (e.g., 60 percent of clients will successfully complete a substance abuse treatment program within 12 months of enrollment). Is sometimes referenced against a known geographic or historical statistic (e.g., a national rate of substance abuse relapse, a 5-year average countywide child maltreatment rate).</td>
<td>Specify who will have responsibility for collecting data on each output or outcome. Data collection may be the responsibility of program staff (e.g., caseworkers, administrative support workers) or of evaluators. Make sure the data collector has the education, skills, and experience to do the job (e.g., your administrative assistant should not implement a complex observation instrument usually administered by a trained psychologist). Minimize risk of bias in data collection (e.g., the program director should not conduct focus groups with project clients).</td>
</tr>
<tr>
<td><strong>Outcomes:</strong> the changes expected to occur as a result of program services and activities (usually behavior change).</td>
<td>For each program output and outcome, a data collection plan should identify a measure, data source, measurement interval, target and person responsible for data collection.</td>
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### Hypothetical Data Collection Plan for a Program to Reduce Child Maltreatment

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<td><strong>Outputs</strong></td>
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<tr>
<td>Parents attend interactive parenting classes</td>
<td>Average # of classes attended per parent</td>
<td>Attendance logs</td>
<td>Ongoing</td>
<td>75% of all parents attend 5 or more classes during program</td>
<td>Class instructor</td>
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<tr>
<td><strong>Intermediate Outcomes</strong></td>
<td></td>
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<tr>
<td>Children exhibit improved cognitive and motor skills</td>
<td>Average change in score on standardized assessment tool</td>
<td>Bayley Scales of Infant Development</td>
<td>Program entry (birth), 1, 3, 6, 12, 24, 36, 48 months of age</td>
<td>80% of all children achieve developmentally appropriate scores by 48 mos. of age</td>
<td>Child psychologist</td>
</tr>
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<td><strong>Long-Term Outcomes</strong></td>
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<tr>
<td>Children are at reduced risk of maltreatment</td>
<td>% of families with a subsequent maltreatment referral within 12 months of program discharge</td>
<td>Child welfare database</td>
<td>Ongoing, within 12 months of program discharge</td>
<td>75% of families will have no maltreatment referrals within 12 months of discharge</td>
<td>Evaluation consultant</td>
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